

News Analysis (30 Mar, 2020)

drishtiias.com/current-affairs-news-analysis-editorials/news-analysis/30-03-2020/print

COVID-19 and Medical Solutions

Why in News

According to the World Health Organization (WHO) the virus SARS-CoV-2, has caused the world's largest pandemic infecting nearly six lakh people globally.

- Considering the grave scenario the discovery of vaccine and the licensed use of a drug has been ruled out as an immediate solution noting that even if the process is fast-tracked, a process would take over 18 months to be ready for use.
- Hence, WHO and other health agencies are re-looking the efficacy of known therapies such as convalescent plasma therapy and drugs to treat **COVID-19**. The known drugs include a combination of two HIV drugs- lopinavir and ritonavir, anti-malaria medications- chloroquine and hydroxychloroquine, and antiviral compound namely, remdesivir.

Efficacy of Known Drugs

- Anti-Malaria Medications : Chloroquine and Hydroxychloroquine
 - The Indian Council of Medical Research (ICMR), has suggested the use of hydroxy-chloroquine to contain the spread of SARS-CoV-2 (Coronavirus) for restricted populations.
 - Also, the small study conducted in **France** found that it led to a **significant** reduction in viral load in COVID-19 patients.
 - However, Hydroxychloroquine is known to have a variety of side-effects, and can in some cases damage the organs like the heart.

• HIV Drugs- Lopinavir and Ritonavir

- The combination drug, ritonavir/lopinavir was introduced to treat HIV infections.
- It was experimented in China with COVID-19 patients but there was no significant difference observed among them.
- Although the drug is generally safe, it **may interact with other drugs** usually given to severely ill patients with other diseases.
- The drug could cause significant **liver damage.**

• Antiviral Compound-Remdesivir

- The drug, remdesivir is developed to treat Ebola and related viruses, is being tested to find out whether it can be used on COVID-19 patients.
- According to WHO, the drug helps to prevent COVID-19 viral replication.
- It has the best potential and can be used in high doses without causing toxicities.

Convalescent Plasma Therapy

Basis of the Therapy:

- The convalescent plasma therapy seeks to make use of the antibodies developed in the recovered patient against the coronavirus.
- The **whole blood or plasma** from such people is taken, and the plasma is then injected in critically ill patients so that the **antibodies are transferred** and boost their fight against the virus.

• Time Period for Infusion:

- A study in The Lancet Infectious Diseases stated that a COVID-19 patient usually develops primary immunity against the virus in 10-14 days.
- Therefore, if the plasma is **injected at an early stage**, it can possibly help fight the virus and prevent severe illness.

• Infusion into COVID-19 Patients:

- The plasma can be infused into two kinds of COVID-19 patients— those with a severe illness, or individuals at a higher risk of getting the virus.
- However, while plasma transfers immunity from one person to another, it is not known if it can save lives in COVID-19 infection.
- The treatment could be **effective for patients in the age group 40-60,** but may be **less effective for people aged beyond 60 years.**

• Previous Application of the Convalescent Plasma Therapy:

- The United States used plasma of recovered patients to treat patients of Spanish flu (1918-1920).
- Hong Kong used it to treat <u>SARS (Severe Acute Respiratory Syndrome)</u>
 patients in 2005.
- In **2009, the <u>swine flu (H1N1)</u>** patients were treated with plasma.

A study in Oxford University's journal Clinical Infectious Diseases found that "convalescent plasma reduced respiratory tract viral load, serum cytokine response, and mortality" in H1N1 patients.

• WHO Guidelines (2014):

- WHO guidelines in 2014 mandate a donor's permission before extracting plasma.
- Plasma from **only recovered patients must be taken**, and donation must be done from people not infected with HIV, hepatitis, syphilis, or any infectious disease.
- If whole blood is collected, the plasma is separated by sedimentation or centrifugation, then injected in the patient.
- If plasma needs to be collected again from the same person, it must be done after 12 weeks of the first donation for males and 16 weeks for females.

• Application in India:

- Currently, India has facilities for removing 500 ml of plasma from a donor.
- For this experimental therapy, the Drug Controller General of India will first have to grant blood banks approval for removal of plasma from recovered COVID-19 patients.
- In India, the **special care of the risk of infection during transfusion** needs to be taken care of.

Relapse in Patients Recovered from COVID-19

Patients who test positive for COVID-19 develop protective antibodies. Theoretically, **there can be a relapse even in patients who have antibodies.** There are various reasons for such relapsing of COVID-19, some of them are:

Mutation of the Virus:

The **probable mutations**, is one of the major reasons for making an individual vulnerable to reacquire the COVID-19 infection.

- Unknown Behaviour of the Virus:
 - Since the exact behaviour of the novel coronavirus is still being studied,
 immunity against it is not fully understood.
 - At this stage, it is not fully understood as to how long the antibodies provide protection against the viral infection.
 - Also, in the absence of any vaccination, it is not known whether the immunity acquired by the persons is permanent.
- False RT-PCR test (Reverse Transcription Polymerase Chain Reaction) Test:
 It has been observed that a "false negative" <u>RTPCR test</u> the RNA test being conducted to diagnose COVID-19 infection can lead to a patient testing positive a second time after testing negative in between.

Source:TH

Covid-19 Lockdown & Improved Air Quality

Why in News

The nationwide **lockdown**, to prevent **COVID-19**, has led to minimal air pollution in over 90 cities including Delhi.

Environmentalists have welcomed the reduction in pollution and have urged the government to treat it as a wake-up call and stop the development at the cost of the environment.

Key Points

- During the lockdown, the government has asked the people to avoid unnecessary travel which has significantly reduced the traffic movement.
- Other factors which have contributed to the improved air quality are **shutting down** of industries and construction sites and rains.

 According to the centre-run System of Air Quality and Weather Forecasting and Research (SAFAR), the measures against COVID-19 have led to a drop in:

PM2.5

- It is an atmospheric <u>Particulate Matter</u> of diameter of less than 2.5 micrometres, which is around 3% of the diameter of a human hair.
- It causes respiratory problems and also reduces visibility. It is an endocrine disruptor that can affect insulin secretion and insulin sensitivity thus contributing to diabetes.

Nitrogen Oxide (NOx)

NOx pollution is mainly caused due to a high motor vehicle traffic and can increase the risk of respiratory conditions.

• Generally in March, pollution is in the moderate category in the Air Quality Index while currently, it is in the satisfactory or good category.

Under the **good category**, **pollution** is considered to be at the **lowest** and the **air** is believed to be the **healthiest to breathe**.

- According to the **Central Pollution Control Board** (CPCB) data:
 - Air quality in the National Capital Territory of **Delhi** is presently in the **good** category.
 - **Kanpur**, which has high pollution levels normally, is in the **satisfactory** category.
 - 92 other cities with CPCB monitoring centres have recorded minimal air pollution, with the air quality ranging between good and satisfactory.

AQI	Remark	Color Code	Possible Health Impacts	
0-50	Good		Minimal impact	
51-100	Satisfactory		Minor breathing discomfort to sensitive people	
101-200	Moderate		Breathing discomfort to the people with lungs, asthma and heart diseases	
201-300	Poor		Breathing discomfort to most people on prolonged exposure	
301-400	Very Poor		Respiratory illness on prolonged exposure	
401-500	Severe		Affects healthy people and seriously impacts those with existing diseases	

Observations and Suggestions:

- The low AQI and the blue skies prove that air pollution was mostly anthropomorphic (man-made), which can be reduced by conscious efforts.
- Reducing air pollution by rapidly slowing down the economy is not an ideal way so mindful use of technologies and low-emission alternatives can be opted to minimise the pollution.
- It was also emphasised that air pollution weakens the lungs so countries like
 India with higher pollution and lower nutrition levels will be more affected
 by COVID-19 leading to higher morbidity and deaths.

Air Quality Index

- The AQI is an index for reporting daily air quality.
- It focuses on health effects one might experience within a few hours or days after breathing polluted air.
- AQI is calculated for eight major air pollutants:
 - Ground-level ozone
 - It is also found in the stratosphere and protects from ultraviolet (UV) rays, while in the troposphere (ground level) it acts as a pollutant.
 - It is not a primary pollutant but a secondary one.
 - Ground-level ozone is not emitted directly into the air but is created by chemical reactions between oxides of nitrogen (NOx) and volatile organic compounds (VOC) in the presence of sunlight.
 - PM10
 - PM2.5
 - Carbon monoxide
 - Sulfur dioxide
 - Nitrogen dioxide
 - o Ammonia
 - Lead
- **Ground-level ozone and airborne particles** are the two pollutants that pose the **greatest threat to human health** in India.

Source: TH		
PM - CARES Fund		
Why in News		

The government has set up the **Prime Minister's Citizen Assistance and Relief in Emergency Situations Fund (PM-CARES Fund)** to **deal with any kind of emergency or distress situation like posed by the COVID-19 pandemic.**

This Fund has been set up owing to a number of requests made by the people to support the government in the wake of the COVID-19 emergency.

Key Points

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.

• Contribution to PM - CARES Fund will Qualify as CSR Expenditure

- The Ministry of Corporate Affairs has clarified that contributions by companies towards the PM-CARES Fund will count towards mandatory <u>Corporate Social</u> <u>Responsibility (CSR)</u> 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.
- The term "Corporate Social Responsibility" in general can be referred to as a corporate initiative to assess and take responsibility for the company's effects on the environment and impact on social welfare.

- Existing Similar Fund: Prime Minister's National Relief Fund (PMNRF)
 - This fund was instituted in 1948 by then Prime Minister Jawaharlal Nehru, to
 assist displaced persons from Pakistan. The fund is currently used primarily to
 tackle natural calamities like floods, cyclones and earthquakes. The fund is
 also used to help with medical treatment like kidney transplantation, cancer
 treatment and acid attack.
 - The fund consists entirely of public contributions and does not get any budgetary support. It accepts voluntary contributions from Individuals, Organizations, Trusts, Companies and Institutions etc.
 - The corpus of the fund is also invested in various forms with scheduled commercial banks and other agencies. **Disbursements are made with the approval of the Prime Minister.**
 - The fund is recognized as a Trust under the Income Tax Act and the same is managed by the Prime Minister or multiple delegates for national causes.
 - Contributions towards PMNRF are notified for **100% deduction from taxable** income under section **80(G)** of the Income Tax Act, 1961.

Source: TH

Flexibility Under the FRBM Act

Why in News

Recently, the State government of **Kerala has sought flexibility under the Fiscal Responsibility and Budget Management** (FRBM) Act.

This is to ensure that fiscal stimulus in the wake of COVID-19 does not get deterred by FRBM considerations.

Reasons for Seeking Flexibility

- According to Kerala's current fiscal position, Kerala can borrow about ₹25,000 crore during the financial year 2020-21.
- Kerala has announced an emergency relief package of worth Rs. 20,000 crore to mitigate the impact on livelihoods and overall economic activity from the sweeping steps taken to battle the COVID-19 pandemic, including the latest 21-day nationwide lockdown.
- The State has proposed to borrow as much as ₹12,500 crore from the market at the start of the financial year (April -March).

• The government is concerned that the stringent **borrowing cap under the fiscal responsibility laws should not constrain its borrowing and spending ability** over the remaining 11 months.

During the 11 months, the government will have to take not only COVID-19 mitigation measures but would also have to meet other expenditure for routine affairs related to the running of the State's socio-economic programmes as well as the post pandemic recovery.

FRBM Act

- It was enacted in **August 2003.**
- It aims to make the Central government responsible for ensuring inter-generational equity in fiscal management and long-term macro-economic stability.
- The Act envisages the **setting of limits on the Central government's debt and deficits.**

It limited the fiscal deficit to 3% of the GDP.

• To ensure that the States too are financially prudent, the 12th Finance Commission's recommendations in 2004 linked debt relief to States with their enactment of similar laws.

The States have since enacted their own respective **Financial Responsibility Legislation**, which sets the same **3% of Gross State Domestic Product (GSDP) cap on their annual budget deficits.**

• It also mandates **greater transparency in fiscal operations** of the Central government and **the conduct of fiscal policy in a medium-term framework.**

The Budget of the Union government includes a **Medium Term Fiscal Policy Statement** that specifies the annual revenue and fiscal deficit goals over a three-year horizon.

- The rules for implementing the Act were notified in July 2004. The rules were amended in 2018, and most recently to the setting of a target of 3.1% for March 2023.
- **The NK Singh committee** (set up in 2016) recommended that the government should target a fiscal deficit of 3% of the GDP in years up to March 31, 2020 cut it to 2.8% in 2020-21 and to 2.5% by 2023.

Relaxation under the FRBM Act

• Escape Clause:

- Under Section 4(2) of the Act, the Centre can exceed the annual fiscal deficit target citing certain grounds.
- The grounds include
 - National security, war
 - National calamity
 - Collapse of agriculture
 - Structural reforms
 - Decline in real output growth of a quarter by at least three percentage points below the average of the previous four quarters.
- The lockdown could cause severe contraction in economic output and the COVID-19 pandemic could be considered as a national calamity.
- Also, the government has already made the use of escape clause this year.

Instances of the FRBM Norms been Relaxed in the Past

- During the **Budget 2020-21** presentation:
 - The reductions in corporate tax were cited as structural reforms that triggered the escape clause. This implies that this year the government has already made use of the escape clause
 - This enabled the government to adjust the fiscal deficit target for 2019-20 to 3.8%, from the budgeted 3.3%.
 - It was also cited that the impact of the reforms would also necessitate a reset for 2020-21: from the earlier deficit target of 3% to 3.5%.
- During the global financial crisis in 2008-09:
 - The Centre resorted to a focused fiscal stimulus: tax relief to boost demand and increased expenditure on public projects to create employment and public assets, to counter the fallout of the global slowdown.
 - This led to the fiscal deficit climbing to 6.2%, from a budgeted goal of 2.7%.
 - Simultaneously, the deficit goals for the States too were relaxed to 3.5% of Gross State Domestic Product(GSDP) for 2008-09 and 4% of GSDP for fiscal 2009-10.

Source: TH

Himalayan Ibex a Distinct Species

Why in News

A recent study by scientists of the **Zoological Survey of India (ZSI)** has proved that **Himalayan Ibex is a distinct species from the Siberian Ibex.**

- The study was funded through the **National Mission on Himalayan Studies.**
 - The National Mission on Himalayan Studies is implemented by the Ministry of Environment, Forest and Climate Change.
 - It targets to provide much needed focus, through holistic understanding of system's components and their linkages, in addressing the key issues relating to conservation and sustainable management of natural resources in Indian Himalayan Region (IHR).
- The study was based on **genetic analysis** conducted with the inclusion of the sequences available from all across the distribution ranges of Siberian Ibex.
- The study revealed that **Siberian Ibex was estimated to have diverged from Alpine Ibex during the Pleistocene epoch** (2.4 million years ago) rather than during the Miocene-Pliocene boundary (6.6 million years ago).
- Scientists presume that the 'montane systems', formed by a series of climatic oscillations and temporal topographic metamorphosis, have broken up the contiguous distribution of the species and accelerated allopatric speciation.

Allopatric speciation means speciation because of geographic and reproductive isolation.

• The study also reveals that Siberian ibex is a **polytypic species**, plausibly formed by lumping of at least 2 species and or 3 to 4 sub-species.

Polytypic species are species that contain two or more subspecies.



Siberian Ibex (Capra sibirica)

- Siberian Ibex is a species of wild goat.
- It is distributed in diverse habitats, ranging from cold deserts, rocky outcrops, steep terrain, high-land flats and mountain ridges to low mountains and foothills.
- From Mongolia, its distribution extends towards Altai, Hangai, Gobi-Altai, the Hurukh mountain ranges as well as Sayan Mountains near Russia and scattered populations in the small mountains of Trans-Altai Gobi.
- In Asia, Ibex is distributed in the **Montane habitats**, ranging in elevations from 500 m to 6,700 m in countries like India, Kazakhstan, Tajikistan, Mongolia, Pakistan, Southern Siberia and China.
- Its IUCN status is least concerned.

Himalayan Ibex (Capra sibirica hemalayanus)

- Earlier the **Himalayan Ibex** was regarded as a subspecies of the Siberian Ibex *(Capra sibirica)*
- The Himalyan Ibex is distributed mainly in the **trans-Himalayan ranges** of the **Union Territories of Ladakh and Jammu and Kashmir and Himachal Pradesh.**

Zoological Survey of India (ZSI)

- The ZSI was established on 1st July, 1916. It has its genesis in the establishment of the **Zoological Section of the Indian Museum at Calcutta** in 1875.
- It is headquartered at Kolkata.
- It functions under the Ministry of Environment, Forest and Climate Change.
- It acts as the premier Indian organisation in zoological research and studies to promote the survey, exploration and research of the fauna in the country.

Source: TH

COVID-19 National Teleconsultation Centre (CoNTeC)

Why in News

Recently, the Union Minister of Health & Family Welfare launched the **COVID-19 National Teleconsultation Centre (CoNTeC).**

Key Points

• The CoNTeC is a **Telemedicine Hub** established by AIIMS, New Delhi, wherein **expert doctors from various clinical domains will be available 24x7** to answer the multifaceted questions from specialists from all over the country.

Doctors worldwide are using different protocols to treat COVID-19 patients. The goal of the facility is to **at least connect the doctors in the country** together to discuss amongst themselves the protocols undertaken and provide the best treatment accordingly.

- It is a **multi-modal telecommunications hub** through which 2 way audio-video and text communications can be undertaken from any part of the country as well as the world at large.
- The CoNTeC is also fully integrated with the National Medical College Network
 (NMCN) to conduct a full fledged Video Conference (VC) between the 50 Medical
 Colleges connected through the NMCN with its National Resource Centre located at
 Sanjay Gandhi Post Graduate Institute of Medical Sciences (SGPGI), Lucknow.
- Under CoNTeC, the **patient management advice** offered will be standardized as per the national guidelines supplemented protocols developed by the team at AIIMS.

National Medical College Network (NMCN) Scheme

- Under the NMCN scheme, 50 Govt. Medical Colleges are being inter-linked with the purpose of tele-education, e-Learning and online medical consultation by utilising the connectivity provided by <u>National Knowledge Network (NKN)</u>.
- Under this initiative a virtual layer of specialty/super specialty doctors from these medical colleges is created for providing online medical consultation facilities to citizens similar to OPD facilities through a web/portal.

Source: PIB

Export Promotion Council for Handicrafts Cancels IHGF

Why in News

The Export Promotion Council for Handicrafts (EPCH) has cancelled the **49th edition of the Indian Handicrafts & Gifts (IHGF) Delhi Fair Spring-2020** in view of present status of **COVID-19 in India** and abroad.

Indian Handicrafts & Gifts Fair (IHGF) is **Asia's largest gifts & handicrafts trade fair.**

Export Promotion Council for Handicrafts

 The Export Promotion Council for Handicrafts (EPCH) was established under Companies Act in the year 1986-87.

- It is a non-profit organisation, with an object to promote, support, protect, maintain and increase the export of handicrafts.
- It is an **apex body of handicrafts exporters** for promotion of exports of Handicrafts from the country and projecting India's image abroad as a reliable supplier of high quality of handicrafts.
- The Council has created necessary infrastructure as well as marketing and information facilities, which are availed both by the members exporters and importers.

Source:PIB

VIX: Measure of Market Volatility

 VIX (Volatility index) is an index used to measure the near term volatility expectations of the markets.

Volatility signifies the rate and magnitude of change in the stock price or index value.

- The movement in the VIX index reflects the overall market volatility expectations **over** the next 30 days.
- Given the nature of the index, it is also known as 'fear gauge' or 'fear index'.
- The VIX index was first created by the **Chicago Board Options Exchange (CBOE)** and introduced in **1993** based on the prices of S&P 500 index.

India VIX

- The India VIX was **launched by National Stock Exchange (NSE)** in 2010 and is **based on the computation methodology of CBOE** though amended to align with the Indian markets.
- India VIX indicates the **Indian market's volatility from the investor's perception.**
- **Volatility** and the value of **India VIX move parallel.** i.e a spike in the VIX value means the market is expecting higher volatility in the near future and vice versa.
- India VIX also has a strong **negative correlation** with **Nifty.** i.e every time India VIX falls, Nifty rises and when India VIX rises, Nifty falls.
- VIX value is among the important parameters that are taken into account for pricing of options contracts, which are one of the most popular derivative instruments.

National Stock Exchange of India Ltd. (NSE)

- NSE is the leading stock exchange of India, located in Mumbai.
- The NSE was **established in 1992** as the first dematerialized electronic exchange in the country.

Source: TH

US Cancels Red Flag

Why in News

Recently, the **U.S. Air Force** has cancelled the **Phase-I of Red Flag** due to the **COVID-19** outbreak.

- It is a **Pacific Air Forces-sponsored exercise** meant to provide realistic training in a simulated combat environment over the **Joint Pacific Alaska range complex.**
- It is USA's **flagship multilateral air exercise.**

Key Points

• The **Red Flag Alaska 20-1** was scheduled to be held in Alaska from 30th April to 15th May, 2020.

It has been cancelled owing to the **travel restrictions** imposed by the U.S. Department of Defence.

- The <u>Indian Air Force</u> (IAF) was also to take part in the exercise with its Sukhoi Su-30 fighter jets.
 - The IAF joined Red Flag for the first time in **2008 in Nevada.**
 - It has deployed <u>Su-30MKI</u>, Jaguar strike aircraft, the II-78 tankers and the C-17 strategic airlift aircraft in the exercise.
 - However, it had said it would not take part in every edition of the biennial exercise because of the high cost involved.

Source: TH

Gond Tribals & Covid-19

Why in News

- While people are struggling for masks and sanitizers in the urban areas, **Gond tribal** people living in **Panna**, **Madhya Pradesh** have devised **their own way to make** masks to fight coronavirus.
- Tribal people are making masks with medicinal leaves and following traditional ways to prevent the spread of the coronavirus.

Gond Tribe

- Gonds are one of the largest tribal groups in the world.
- They mostly live in Madhya Pradesh, Chhattisgarh, Maharashtra, Andhra Pradesh,
 Gujarat, Jharkhand, Karnataka, Telangana, Uttar Pradesh, West Bengal and
 Odisha.
- Gonds are subdivided into four tribes:
 - Raj Gonds
 - Madia Gonds
 - Dhurve Gonds
 - Khatulwar Gonds
- Their staple food is two kinds of millet: kodo and kutki.

Rice is mostly consumed during festival feasts.

- Gonds believe that earth, water and air are ruled by Gods.
- They majorly speak **Gondi** which is an unwritten language of the **Dravidian family.**
- It has been notified as a **Scheduled Tribe**.

Source: TH

Corona Studies Series: NBT

Why in News

The National Book Trust (NBT) is going to launch a publishing series titled 'Corona Studies Series'.

Key Points

- The Corona Studies Series is being launched to prepare and engage readers with the various aspects of the Corona.
- It will bring out **affordable books in various Indian languages in the identified subject areas** such as Psycho-Social Impact of Corona Pandemic.
- The series will **document and provide relevant reading materials** for all age-groups for the post-Corona readership needs.
- Books focused on art, literature, folklore, economic and sociological aspects,
 science/health awareness emerging out of the Corona pandemic, and the lockdown,
 are also being prepared.
- #StayHomeIndiaWithBooks initiative was also started by the NBT.

The pdfs of some of the select and bestselling books have been provided for free download. This is to encourage people to stay in/home to contain the spread of **COVID-19.**

National Book Trust

- NBT, India is an apex body established by the Government of India (**Department of Higher Education**, **Ministry of Human Resource Development**) in the year 1957.
- The **objectives** of the NBT are
 - to produce and encourage the production of **good literature in English**, **Hindi** and other Indian languages.
 - to make such literature available at **moderate prices to the public.**
 - to bring out **book catalogues**, **arrange book fairs/exhibitions and seminars** and take all necessary steps to make the people book minded.

Source: PIB