

14 Jun 2020: UPSC Exam Comprehensive News Analysis

TABLE OF CONTENTS

A. GS 1 Related

B. GS 2 Related

INTERNATIONAL RELATIONS

- 1. Nepal passes amendment on new map
- 2. India-China: the line of actual contest

C. GS 3 Related

SCIENCE AND TECHNOLOGY

- 1. Hydroxychloroquine does not reduce mortality, RECOVERY trial finds
- 2. Persistent global transmission of chikungunya from India

ENVIRONMENT AND ECOLOGY

1. NGT gives Kerala 1 month to report on forest fire prevention steps

D. GS 4 Related

E. Editorials

SCIENCE AND TECHNOLOGY

1. Can a COVID-19 vaccine be developed soon?

HEALTH

1. WHO, on the virus

F. <u>Tidbits</u>

- 1. Vital volcanoes
- 2. Protecting the Earth

G. Prelims Facts

- 1. Stimulus package can be fine-tuned, says EAC-PM's Goyal
- 2. Returning labourers may be deployed for Jal Jeevan Mission
- 3. Scientists find ancient mammal 'stepping stone'

H. UPSC Prelims Practice Questions

I. UPSC Mains Practice Questions



A. GS 1 Related

Nothing here for today!!!

B. GS 2 Related

Category: INTERNATIONAL RELATIONS

1. Nepal passes amendment on new map

Context:

• The Lower House of Nepal's Parliament has unanimously voted for the **Second Constitution Amendment Bill**, which guarantees legal status for the new political map of the country that includes part of Indian territory in Uttarakhand.

Background:

- The territorial dispute stems from the fact that Nepal claims the land to the east of **river Kali**, which forms the country's western border.
- As per Kathmandu's understanding, the river originates from Limpiyadhura in the higher Himalayas, giving it access to a triangular-shaped land defined by Limpiyadhura-Lipulekh and Kalapani. India opposes the notion and says the origin of the river is much further down, which reduces Nepal's territorial demand.
- Nepal unveiled the new map after India inaugurated **Darchula-Lipulekh link road** Nepal had also earlier strongly protested when the updated Indian map published in November 2019, showing the region as part of Uttarakhand.
- Nepal claims right to the region and says India was allowed to station troops there in the 1950s and that India has refused to remove forces from the region ever since.

For more information on this issue refer: <u>CNA 24th May 2020</u>.

India's reaction:

- Responding to the development, the Indian Ministry of External Affairs (MEA) has stated the current development as being violative of the current understanding between the two countries to hold talks on outstanding boundary issues.
- It also argued that the artificial enlargement of claims is not based on historical fact or evidence and is not tenable.

Concerns:

• The current development will lead to further **complicating the Indo-Nepal border negotiations** as Foreign Secretaries or senior envoys have no right to negotiate on the provisions of Nepal's Constitution.



• The diplomatic fallout of the territorial dispute is likely to be serious, which could lead to **difficult days** ahead for <u>Nepal-India Relations</u> as well as for the South Asian region.

2. India-China: the Line of Actual Contest

Context:

• The ongoing military standoffs between <u>India and China</u> at multiple points along the Line of Actual Control (LAC).

Details:

• The article discusses the various aspects of the Line of Actual Control (LAC) which seems to be complicating the border disputes between the two Asian neighbours.

Undemarcated borders:

- The alignment of the LAC has never been agreed upon, and it has neither been delineated nor demarcated.
- There is no official map in the public domain that depicts the LAC. The current understanding of the LAC reflects the territories that are, at present, under the control of each side, pending a resolution of the boundary dispute.

Difference in claims:

- For the most part, in the western sector, the LAC broadly corresponds with the border as China sees it. However, India and China do not agree on the alignment of the LAC everywhere.
- **Differences in perception**, particularly in 13 spots in the western, middle and eastern sectors of the border, often lead to what are called "face offs", when patrols encounter each other in these grey zones that lie in between the different alignments. Some of these areas are Chumar, Demchok and the north bank of the Pangong lake in the western sector, Barahoti in the middle sector, and Sumdorong Chu in the east.

Failure of protocols and agreements:

- Both India and China have agreed to **protocols in 2005 and 2013** that describe the rules of engagement to handle border stand-offs, but as the current stand-off at Pangong Tso reminds us, they haven't always been followed.
- India and China signed the landmark **Border Peace and Tranquility Agreement (BPTA) in 1993**, the first legal agreement that recognised the LAC. However, this landmark agreement too did not precisely demarcate the LAC.
- Both the 1993 BPTA agreement and the subsequent agreement on **confidence-building measures in 1996** acknowledged that both sides would ultimately clarify the LAC. That process has, however, stalled since 2002, when China walked away from exchanging maps in the western sector.

Unintended consequences:



• The **unqualified reference to the LAC** created the unintended side effect of further **incentivising the forward creep to the line** by the Chinese military, a consequence that both sides are currently dealing with at multiple points on the LAC.

Chinese tactics:

- China has in several territorial disputes, intentionally left its claims ambiguous.
- The Chinese haven't stuck to their previously agreed positions. China's alignments of the LAC have kept changing.
- The border skirmishes along the Line of Actual Control seem to be indicative of the **Chinese approach** to use the border problem to pressurize India on other issues.

Way forward:

• Given the current circumstances, India should strategize an action plan aimed towards protecting its sovereign interests.

Prepare militarily:

• India needs to be prepared, continue to build **roads and improve the infrastructure along the border**, to keep itself ready to deal with any contingency.

Shifting focus:

- To counter China India must look for options beyond LAC.
- The **South China Sea/Indian Ocean Region** maritime domain presents India with the best options where the regional geopolitical context is favourable.
 - India should demonstrate that it is willing and capable of influencing the maritime balance in East Asia, where China faces off a combination of the United States, Vietnam, Australia, Indonesia and sometimes Malaysia and the Philippines as well.
 - China perceives a vulnerability in the **Malacca strait** given its marked dependence on the sea lines of communication for its vast trade and energy imports.

Going global:

- India should **go global to defend against China**. India's counter to Chinese power in the Himalayas should be to assume a more global role of its own.
- In Asia and Africa, debt-traps induced by the BRI are gradually stoking discontent. If India focuses on leveraging its advantages as **a development partner**, particularly in the post-COVID-19 era, it can use its newfound influence as a bargaining chip against Chinese interests in these countries.

Building alliances:

- India must build power-balancing alliances.
- Many countries are seeking leadership from other quarters to counter-balance Chinese influence. In Southeast Asia, countries are pushing back against Chinese aggression in the South China Sea.



- This provides an opportunity to build partnerships with such countries to balance China's growing influence.
- India can give itself leverage against China by improving its bilateral relationships with other countries that are similarly worried about China's growing influence such as Australia, Vietnam, Japan, and even the U.K.

Aligning with the United States:

- A closer alignment with the U.S. represents India's opportunity to counter China, while efforts to foster regional partnerships and cultivate domestic military capabilities, although insufficient by themselves, could play a complementary role.
- Moving into a closer partnership with the US would allow India an opportunity to rebalance the Indo-Pacific region.

Pressure points:

- India could choose to leverage the sensitivity of the Chinese to the **one-China policy** and other vulnerabilities like **Tibet issue and Hongkong protests**, to force a change in China's attitude.
- This would allow India to signal to China that it has options, and that China would be wise not to escalate these situations too far.

Conclusion:

- India cannot continue to remain in a "reactive mode" to Chinese provocations and it is time to take an active stand. Since India's choices vis-à-vis China are circumscribed by the asymmetry in military power, resort must be sought in
- This would force China to reconsider its tactics and force it towards negotiations with India.

C. GS 3 Related

Category: SCIENCE AND TECHNOLOGY

1. Hydroxychloroquine does not reduce mortality, RECOVERY trial finds

Context:

- The **RECOVERY trial**, being conducted in the U.K.
 - The RECOVERY trial is a **large randomised controlled trial** to test five drugs, including hydroxychloroquine and convalescent plasma therapy for treating COVID-19 in patients in U.K. hospitals.

Details:

• The RECOVERY trial has found **no clinical benefit from the use of hydroxychloroquine** in hospitalised patients with COVID-19.



- The trial investigators found that there was **no significant benefit in mortality reduction** in the intervention group, which was the primary objective.
- There was no evidence of beneficial effects in the hospital stay duration and need for and duration of ventilator usage.

Post-exposure prophylaxis:

• Another trial found that hydroxychloroquine drug was not effective even as **post-exposure prophylaxis** in asymptomatic participants who have had high-risk exposure with a confirmed COVID-19 case.

2. Persistent global transmission of chikungunya from India

Context:

• The study conducted by the **ICMR-National Institute of Virology, Pune** on the geographic distribution and evolution of the chikungunya virus over the period from 2005-2018

Background:

- Chikungunya is a viral disease transmitted to humans by infected mosquitoes. The virus is transmitted from by the bites of **infected female mosquitoes**. Most commonly, the mosquitoes involved are **Aedes aegyptiand Aedes albopictus**, two species which can also transmit other mosquito-borne viruses, including dengue.
- It causes fever and severe joint pain. There is **no cure for the disease**. Treatment is focused on relieving the symptoms.
- The disease mostly occurs in Africa, Asia and the Indian subcontinent.

Details:

- The study notes **India as an endemic reservoir for the chikungunya virus** with persistent global transmissions from the country.
 - Observations from the phylogeography study based on the genome sequences of the strains found in different countries over the period from 2005 to 2018, showed **persistent global transmissions from India**.
 - The study claims the dispersal of the strains from India to neighbouring as well as distant countries.

Concerns:

• There is a **possibility of further diversification of the chikungunya virus** as this is an RNA virus and continues to acquire mutations.

Way forward:

• **Continuous surveillance** is necessary to monitor the changes in the viral strains.



• Sustainable efforts towards vector control might help in reducing the transmission of the chikungunya virus.

Category: ENVIRONMENT AND ECOLOGY

1. NGT gives Kerala 1 month to report on forest fire prevention steps

Context:

• Directions are given by the Southern Bench of the National Green Tribunal.

Background:

- Forest is part of the concurrent list of the seventh schedule of the Indian constitution.
- Area covering 93,273 hectares was affected by forest fires in 2019.

National Action Plan on Forest Fire:

- Launched in 2018, the plan intends to reduce the vulnerability of forests against fire hazards.
- It aims to minimize forest fires by informing, enabling and **empowering forest fringe communities** and incentivizing them to work with the state forest departments.
- It aims to enhance the capabilities of forest personnel and institutions in fighting fires and swift recovery subsequent to fire incidents.

Details:

• The **Southern Bench of the National Green Tribunal** has given one month to the Kerala Forest Department for submitting its report on the steps taken to prevent forest fires and implement the National Action Plan on Forest Fire in the State.

D. GS 4 Related

Nothing here for today!!!

E. Editorials

Category: SCIENCE AND TECHNOLOGY

1. Can a COVID-19 vaccine be developed soon?

Context:

• Vaccine development for COVID-19.

Background:

Vaccines:



- A vaccine could be a **weakened biological or synthetic agent** administered to humans that will protect them from contracting infectious diseases by supplying specific **antibodies to neutralise the disease-causing pathogen**, while not making a person actually sick from it.
- Vaccines have played an important role in the reduction of communicable diseases from the second half of the 20th century.

Process of vaccine development:

- The general stages of the development cycle of a vaccine are: exploratory stage, pre-clinical stage, clinical development, regulatory review and approval, manufacturing and quality control.
- Two important steps that are typically needed before bringing a vaccine into clinical trials, involve the testing of the vaccine in appropriate animal models to see whether it is protective and testing the vaccines for toxicity in animals, e.g., in rabbits.
- Clinical development is a three-phase process.
 - During Phase I, small groups of people receive the trial vaccine.
 - In Phase II, the clinical study is expanded and the vaccine is given to people who have characteristics (such as age and physical health) similar to those for whom the new vaccine is intended.
 - In Phase III, the vaccine is given to thousands of people and **tested for efficacy and safety**.
- If a vaccine is approved by a licensing agency, then it can move into the manufacturing stage, but constant monitoring of the process and quality control measures must be put in place.

Vaccine development:

- With new infectious diseases emerging, particularly post the H1N1 influenza, global vaccine development activity has been happening at a comparatively fast pace.
- Vaccine technology has significantly evolved in the last decade, including the development of several **RNA** (ribonucleic acid) and <u>DNA</u> vaccine candidates, licensed vectored vaccines, recombinant protein vaccines and cell-culture-based vaccines.

Details:

- Current projections indicate that the Coronavirus is likely to become endemic and cause recurrent seasonal epidemics. In such a scenario, a vaccine will be the most effective tool to battle a virus the world is yet to fully understand.
- The COVID-19 pandemic has seen renewed efforts at a rapid vaccine development, and multiple candidates are at various levels of processing and in the trial stages.
 - Currently, the **World Health Organization (WHO)** site lists 10 vaccine candidates in clinical evaluation and 126 candidate vaccines in pre-clinical evaluation.
 - The 10 candidates in clinical evaluation, as per WHO's list, are based on five platforms non-replicating coral vector, RNA, inactivated, protein sub-unit, and DNA.

Challenges:



Time consuming process:

- Despite the advances, including using artificial intelligence to determine potential vaccine candidates, the core principles of **ensuring safety and efficacy of the vaccine for use in humans** remain unchanged.
- While technology might have quickened some of the processes, the **trials for the vaccine are time consuming.**
- The development of vaccines for human use takes years normally. Many additional steps are needed before these vaccine candidates that have shown promise can be used in the population, and this process might take months, if not years.

Novel virus:

- The "SARS-CoV-2 Vaccines: Status Report" article notes the concerns in the development of a vaccine for the coronavirus. There are **no existing vaccines or production processes for coronavirus vaccines.**
- Because no coronavirus vaccines are on the market and no large-scale manufacturing capacity for these vaccines exists as yet, there is the need to build these processes and capacities. Doing this for the first time can be tedious and time-consuming.

Mutation:

• One of the major concerns for the development of an effective vaccine is the prospect of the virus mutating. This would render the vaccine under development ineffective against the mutated coronavirus.

Efficacy of vaccines:

• Infection with human coronaviruses **does not always produce long-lived antibody responses**, and reinfection, likely to be mild [symptoms] in a fraction of individuals, is possible after an extended period of time.

Category: HEALTH

1. WHO, on the virus

Context:

• World Health Organization's controversial statements on the role of asymptomatics in spreading SARS-CoV-2.

<u>Details:</u>

World Health Organization's (WHO) statement:

• The technical lead on the COVID-19 pandemic, had stated that the current evidence seemed to suggest that many countries monitoring asymptomatic cases and their contacts were not finding enough evidence to suggest that they were actually transmitting the disease.



• Asymptomatics are those people who never show symptoms of the disease but test positive for the virus. WHO and infectious disease specialists assert that asymptomatic patients exist but it is not known how many there are and in what proportion.

Concerns:

- The comments from the WHO provoked opposition from infectious disease experts and doctors arguing that this statement from the WHO may have **downplayed the significance of the asymptomatic mode of transmission.**
- A recommendation to "focus on symptomatic" would mean **ignoring infections by a category called** "**presymptomatic**". These are people who carry the virus and are asymptomatic, but over time show few or mild symptoms.
- The current understanding of the disease is that people are most infectious when symptoms start to manifest or are "presymptomatic". It is not clear if asymptomatics are much less likely than presymptomatics and symptomatics to transmit the disease.
- WHO's emphasis on symptomatics could imply that asymptomatics are "safe" and this **undermines the** widespread adoption of face masks and social distancing.

Additional Information:

Role of genetic factors:

- Researchers across the world are comparing the genes of those with the disease and trying to find correlations with the severity of illness.
- Being a novel coronavirus, by definition, a large population is susceptible and no natural immunity prevails anywhere.
- Genetic factors are known to play a role in some diseases.
 - A recent study links severe respiratory failure to genes that determine blood type. Blood type A was found to be more susceptible to respiratory disease than O.
 - There are also other **genes that influence how the immune system responded to the virus.** The role of certain genes in the **Human Leukocyte Antigen complex**, which is an important part of the immune system needs to be investigated.

F. Tidbits

1. Vital volcanoes

- A recent study notes the importance of volcanic activity as a key factor behind the increased concentration of oxygen in the atmosphere through the **degassing process.**
 - Degassing is the **liberation of gases** from within a planet, and it may occur directly during volcanism or indirectly by the weathering of igneous rocks on a planetary surface. For the Earth, volcanism appears to be most important both in terms of current degassing rates and calculated past rates.



- The study claims that the mantle's evolution could have possibly controlled the evolution of life with its contribution to the oxygen concentration in the atmosphere.
- This observation is based on the fact that despite the existence of bacteria, the levels of oxygen in Earth's atmosphere rose to a high only 2.4 billion years ago, known as the **Great Oxidation Event.**

2. Protecting the Earth

- A recent study notes that approximately half the Earth's ice-free land is without significant human influence, including the **boreal forests, tundra and vast deserts**.
- The study advocates that protecting these ecosystems would be beneficial in **climate change mitigation**.

G. Prelims Facts

1. Stimulus package can be fine-tuned, says EAC-PM's Goyal

- The COVID-19 outbreak and subsequent lockdowns have severely disrupted economic activities.
 - S&P Global Ratings and Fitch Ratings have said India's economy will shrink by 5% in the current fiscal, while Moody's has projected a contraction of 4%.
- The government announced a ₹20.97 lakh crore rescue package for the economy
 - The package was announced in five tranches, which included Rs. 3.7 lakh crore support for MSMEs, Rs. 75,000 crore for <u>NBFCs</u> and Rs. 90,000 crore for power distribution companies, free foodgrains to migrant workers, increased allocation for <u>MGNREGS</u>, tax relief to certain sections and Rs. 15,000 crore allocated to the healthcare sector.
- Much of the stimulus package pertains to the financial sector and relieving the liquidity crisis and **addresses the supply constraints**. There is a need for demand side measures as well to stimulate the economy.
- The **PM's economic advisory council** (**EAC-PM**) member Ashima Goyal has stated that the stimulus package is not cast in iron and there is scope to fine-tune it further. There is a need to kick-start demand to stimulate the economy.
 - Economic Advisory Council to the Prime Minister is a **non-constitutional**, **non-permanent and independent body** constituted to give economic advice to the Government of India, specifically the Prime Minister.

2. Returning labourers may be deployed for Jal Jeevan Mission

- The Jal Jeevan Mission envisages providing piped drinking water to all rural households by 2024.
 - As of now out of 19.04 crore rural households in the country, 3.23 crore households had tap connections and 15.81 crore households had to be provided functional tap connections.
- The **Jal Shakti Ministry**, the nodal ministry for the implementation of the scheme, has written to various States that returning labour, especially those working in the construction sector (skilled, unskilled and semi-skilled), may be deployed to expedite the completion of works under the scheme, as an arrangement that could provide employment to the currently unemployed workers.
- 3. Scientists find ancient mammal 'stepping stone'



- Chilean and Argentine researchers have unearthed teeth belonging to a species called Magallanodon baikashkenke.
 - This small sized mammal is believed to have lived in southern Patagonia during the late Cretaceous era, alongside dinosaurs, crocodiles, turtles and birds.
- It is the southernmost record of **Gondwanatheria**, a group of long-extinct early mammals that co-existed with dinosaurs.
- This was found near **Torres del Paine National Park**, a remote area of Patagonia famous for its glaciercapped Andean spires and frigid ocean waters.
- The mammal has been described as an evolutionary stepping stone between egg-laying mammals, like the platypus and marsupial mammals.

H. UPSC Prelims Practice Questions

Q1. Which of the following statement/s is/are correct about Sant Dnyaneshwar?

- 1. He was a 13th-century saint philosopher from the Matura region.
- 2. He authored Dnyaneshwari which is a commentary on the Bhagavad Gita.
- 3. He is regarded as one of the founders of the Varkari Bhakthi movement.

Options:

- a. 1 and 2
- b. 2 and 3
- c. 1 and 3
- d. 1,2 and 3

Answer:

Option b

Explanation:

- Sant Dnyaneshwar also referred to as Jnaneshwar was a 13th-century Indian Marathi saint, poet, philosopher and yogi of the Nath Vaishnava tradition.
- He authored Dnyaneshwari (a commentary on the Bhagavad Gita) and Amrutanubhav. These are the oldest surviving literary works in the Marathi language, under the patronage of the Yadava dynasty of Devagiri, and these are considered to be milestones in Marathi literature.
- Dnyaneshwar's ideas reflect the non-dualistic Advaita Vedanta philosophy. He was an ardent devotee of Lord Vitthala (a form of Lord Vishnu) of Pandharpur.
- His legacy inspired saint-poets such as Eknath and Tukaram, and he has been regarded as one of the founders of the Varkari (Vithoba-Krishna) Bhakti movement tradition of Hinduism in Maharashtra.



Q2. Which of the following statement/s is/are correct with respect to the Attorney General?

- 1. He/she is appointed by the President of India on the advice of Union Cabinet and holds office during the pleasure of the President.
- 2. He/she must be a person qualified to be appointed as a Judge of the Supreme Court.
- 3. The Attorney General has the right of audience in all Courts in India as well as the right to participate in the proceedings of the Parliament, though not to vote

Options:

- a. 1 and 2
- b. 2 and 3
- c. 1 and 3
- d. 1,2 and 3

Answer:

Option d

Explanation:

- The Attorney General for India is the Indian government's chief legal advisor and is a primary lawyer in the Supreme Court of India.
- They are appointed by the President of India on the advice of Union Cabinet under Article 76(1) of the Constitution and holds office during the pleasure of the President.
- They must be a person qualified to be appointed as a Judge of the Supreme Court. (They must have been a judge of some high court for five years or an advocate of some high court for ten years or an eminent jurist, in the opinion of the President and must be a citizen of India.)
- The Attorney General has the right of audience in all Courts in India as well as the right to participate in the proceedings of the Parliament, though not to vote.

Q3. The RECOVERY trial is associated with which of the following?

- a. It is the experiment conducted by ISRO to test the efficacy of its pad abort system.
- b. It is the experiment involving the study of novel bacteria in absorbing oil spill in the Russian Arctic region.
- c. It is a large randomised controlled trial to test the efficacy of potential drugs for treating COVID-19 patients.
- d. It is a mock drill conducted by the NDRF to check its preparedness to the landfall of severe cyclones

Answer:

Option c



Explanation:

- • The RECOVERY trial is a large randomised controlled trial to test five drugs, including hydroxychloroquine and convalescent plasma therapy for treating COVID-19 in patients in U.K. hospitals.
- □ Q4. Which of the following correctly describes the goal of the Jal Jeevan Mission?
 - a. It envisages providing piped drinking water to all rural households by 2024.
 - b. The scheme aims to provide piped water to every household within the next 5 years
 - c. It is envisaged as a demand-driven and community centred program to provide sustainable access to drinking water to people in rural areas.
 - d. It envisages providing piped drinking water to all BPL households by 2022.

Answer:

Option a

Explanation:

• The Jal Jeevan Mission envisages providing piped drinking water to all rural households by 2024.

I. UPSC Mains Practice Questions

- 1. The COVID-19 pandemic has seen renewed efforts at rapid vaccine development. In this light discuss the major challenges in the development of the vaccine and its usage. (10 marks, 150 words)
- 2. Analyze the threat of forest fires in the Indian context. Discuss the major provisions of the National action plan on forest fire. (10 marks, 150 words)