

PERFECT 7

Weekly Current Affairs

An Initiative of Dhyeya IAS



1 | India's COVID-19 Vaccination Drive

A Signature of Atmanirbhar Bharat

- | | |
|--|--|
| 2 Japan's 'Broader Asia' and India | 5 Seaweed Cultivation : The Fastest Growing Sector of Food |
| 3 Investing in Social Sector : Essential for Post-Covid Recovery | 6 Infrastructure Sector of India : Needs Competitive Edge |
| 4 Dedicated Freight Corridor : Game Changer for Indian Economy | 7 Green Buildings for Environmental Sustainability |

DHYEYA IAS : AN INTRODUCTION



Vinay Kumar Singh
Founder & CEO

The guiding philosophy of the institute, throughout, has been creation of knowledge base. Dhyeya IAS inculcates human values and professional ethics in the students, which help them make decisions and create path that are good not only for them, but also for the society, for the nation, and for the world as whole. To fulfill its mission in new and powerful ways, each student is motivated to strive towards achieving excellence in every endeavor. It is done by making continuous improvements in curricula and pedagogical tools.

The rigorous syllabi not only instills in them, a passion for knowledge but also attempts to teach them how to apply that knowledge in real-life situations. The programmes lay emphasis on well-rounded personality development of the students and also in inculcating the values of honesty and integrity in them.



Q.H. Khan
Managing Director

Dhyeya IAS is an institution that aims at the complete development of the student. Our faculty are hand-picked and highly qualified to ensure that the students are given every possible support in all their academic endeavors. It is a multi-disciplinary institution which ensures that the students have ready access to a wide range of academic material. Our brand of education has broad horizons as we believe in exposure. Our students are encouraged to widen their knowledge base and study beyond the confinements of the syllabus. We aim to lend a gentle guiding hand to make our students recognize their inner potential and grow on their own accord into stalwarts of tomorrow's society.

PERFECT 7 : AN INTRODUCTION



Kurban Ali
Chief Editor

With immense pleasure I would like to inform you that the new version of 'Perfect 7', from the Dhyeya IAS, is coming with more information in a very attractive manner. Heartily congratulations to the editorial team. The 'Perfect 7' invites a wider readership in the Institute. The name and fame of an institute depends on the caliber and achievements of the students and teachers. The role of the teacher is to nurture the skills and talents of the students as a facilitator. This magazine is going to showcase the strength of our Institute. Let this be a forum to exhibit the potential of faculties, eminent writers, authors and students with their literary skills and innovative ideas.

Please do visit our website www.dhyeyaias.com and our youtube channel for regular and updated information on current affairs.



Ashutosh Singh
Managing Editor

We have not only given the name 'Perfect 7' to our magazine, but also left no stone unturned to keep it 'near to perfect'. We all know that beginning of a task is most vital and full of challenges. So we met the same fate.

Publishing 'Perfect 7' provided us various challenges because from the beginning itself we kept our bar too high to ensure the quality. Right from the very first issue we had a daunting task to save aspirants from the 'misinformation' or 'overdose of information'. Focussing on civil services examination 'Perfect 7' embodies in itself perfect friend and guide in your preparation. This weapon is built to be precise yet comprehensive. It is not about bombardment of mindless facts, rather an analysis of various facets of the issues, selected in a systematic manner. We adopted the 'Multi Filter' and 'Six Sigma' approach, in which a subject or an issue is selected after diligent discussion on various levels so that the questions in the examination could be covered with high probability.

Being a weekly magazine there is a constant challenge to provide qualitative study material in a time bound approach. It is our humble achievement that we feel proud to make delivered our promise of quality consistently without missing any issue since its inception.

Your suggestions and popular demands always motivate us and keep our morale high.

May this version of 'Perfect 7' instill a new energy and a new spirit in you. We wish that the bond of affection between you and Dhyeya IAS reaches at a new height.



Send us your suggestions, comment, views and feedback for guiding us on

 9990772422

PREFACE



Dhyeya family has decided to bring a new colourful and vibrant version of '**Perfect 7**' – a panacea for current affairs, which will add positive and dynamic energy in your preparation.

'**Perfect7**' is an outstanding compilation of current affairs topics as per the new pattern of Civil Services Examination (CSE). It presents weekly analysis of information and issues (national and international) in the form of Articles, News Analysis, Brain Boosters, PIB Highlights and Graphical Information, which helps to understand and retain the information comprehensively. Hence, '**Perfect 7**' will build in-depth understanding of various issues in different facets.

'**Perfect7**' is our genuine effort to provide correct, concise and concrete information, which helps students to crack the CSE. This magazine is the result of the efforts of the eminent scholars and the experts from different fields. '**Perfect 7**' is surely a force multiplier in your effort and plugs the loopholes in the preparation.

We believe in environment of continuous improvement and learning. Your constructive suggestions and comments are always welcome, which could guide us in further revision of this magazine.

Omveer Singh Chaudhary

Editor
Dhyeya IAS

As a proud jewel of Dhyeya IAS, '**Perfect 7**' now comes in a new coloured avatar. '**Perfect 7**' is a quintessential part of your preparation strategy for Civil Services Examination. A regular and manageable dose of current affairs will now reach you in new format, making it more reader friendly. Our humble attempt to serve you is surely rewarded by your appreciations. It encourages us to innovate and provide the best as per our ability.

A dedicated team of experts at Dhyeya IAS toils night and day to make your dream of Civil Services come true. I heartily thank and express my gratitude to the esteemed readers and all the people involved in making this magazine a shining star in the galaxy of Dhyeya IAS.

Rajat Jhingan

Editor
Dhyeya IAS

PERFECT 7

Weekly Current Affairs

An Initiative of Dhyeya IAS

January 2021 | ISSUE 03

OUR TEAM

Founder & CEO	➤ Vinay Kumar Singh
Managing Director	➤ Q. H. Khan
Chief Editor	➤ Qurban Ali
Managing Editor	➤ Ashutosh Singh
Editors	➤ Omveer Singh Chaudhary ➤ Rajat Jhingan ➤ Jeet Singh ➤ Avaneesh Pandey
Editorial Support	➤ Prof. R. Kumar
Lead Authors	➤ Swati Yadav ➤ Anshuman Tiwari ➤ Ajay Singh ➤ Ahamad Ali
Authors	➤ Ashraf Ali ➤ Girraj Singh ➤ Hariom Singh ➤ Sneha Tiwari
Reviewers	➤ Ranjeet Singh ➤ Ramyash Agnihotri
Design & Development	➤ Sanjeev Kumar Jha ➤ Punish Jain
Promotion & Advertisement	➤ Gufran Khan ➤ Rahul Kumar
Graphics	➤ Krishna Kumar ➤ Krishna Kant Mandal ➤ Mukund Patel
Office Assistants	➤ Hari Ram ➤ Raju Yadav

Content Office

DHYEYA IAS
302, A-10/11, Bhandari House,
Near Chawla Restaurants,
Dr. Mukherjee Nagar,
Delhi-110009



Contents

➤ 7 Important Issues & Subjective Questions Based on Them	01-15
➤ India's COVID-19 Vaccination Drive : A Signature of Atmanirbhar Bharat	
➤ Japan's 'Broader Asia' and India	
➤ Investing in Social Sector : Essential for Post-Covid Recovery	
➤ Dedicated Freight Corridor : Game Changer for Indian Economy	
➤ Seaweed Cultivation : The Fastest Growing Sector of Food	
➤ Infrastructure Sector of India : Needs Competitive Edge	
➤ Green Buildings for Environmental Sustainability	
➤ 7 Important Brain Boosters	16-22
➤ 7 Important MCQs (based on Brain Boosters)	23-25
➤ 7 Important News	26-29
➤ 7 Important Practice Questions (for Mains)	30
➤ 7 Important Facts (for Prelims)	31
➤ 7 Important Quotes (for Essay and Answer Writing)	32

OUR OTHER INITIATIVES



Hindi & English
Current Affairs
Monthly
News Paper



DHYEYA TV
Current Affairs Programmes hosted
by Mr. Qurban Ali
(Ex. Editor Rajya Sabha, TV) & by Team Dhyeya IAS
(Broadcasted on YouTube & Dhyeya-TV)

7 IMPORTANT ISSUES

01

India's COVID-19 Vaccination Drive : A Signature of Atmanirbhar Bharat

Why in News?

- ◆ On January 16, 2021, Prime Minister Narendra Modi has launched India's COVID-19 vaccination drive, the world's largest inoculation exercise against the novel coronavirus.
- ◆ India will administer shots to three crore frontline workers in phase one. There are 3,006 session sites across the country, where 100 beneficiaries each will be given either of India's two indigenous vaccines, Bharat Biotech's 'Covaxin' and Serum Institute's 'Covishield'. Every beneficiary will need to receive two doses of the same vaccine, 28 days apart.

Background

- ◆ Both Covishield and Covaxin are proven to be relatively safe vaccines without major adverse reactions.
- ◆ The former, a double-dose vaccine currently under clinical trials in India, has demonstrated an efficacy of 62 percent from its global trials. The company has recently said that if a three-month gap between doses is maintained, the vaccine's efficacy shoots up to 90 percent. However, there is no data as of yet to support this. Bharat Biotech has also made similar claims about Covaxin's efficacy being at least 60 percent.

- ◆ A survey by YouGov has revealed that a large majority (68%) of urban Indians are likely to take the vaccine once it's available. However, a quarter (24%) is unsure of their decision and only 8% are unwilling to take the jab.
- ◆ More than half (55%) of the urban population say they trust the Indian-origin vaccines more than those from developed nations like the US, UK and Russia.
- ◆ Even among the ones willing to take the coronavirus vaccine, safety concern reigns supreme and two in five (41%) have said they will wait a few months before taking the shot. A third (33%), however, will get vaccinated as soon as it is available. A few would do so if vaccination is made compulsory by the government (13%) or by the employer/educational institutes (11%).
- ◆ Around 30 countries had begun vaccination programmes by 4 January, 2021, but none of them are from Asia or Africa, barring a handful of rich Middle-Eastern countries (Israel, Bahrain, Oman and Kuwait). India, the largest producer of vaccines for middle- and low-income countries, is the world's insurance against the threats posed by 'vaccine nationalism'.

Vaccine Procurement

- ◆ The procurement patterns also suggest that the two vaccines will be used side by side. The government has procured 11 million (110 lakh) doses of Covishield and 5.5 million (55 lakh) doses of Covaxin.
- ◆ The government paid Rs 200 per dose of Covishield. As for Covaxin, the government bought 3.85 million doses at Rs 295 per dose. Bharat Biotech has offered the rest of the 1.65 million doses for free as "special gesture" to the government.
- ◆ Top officials at the National Expert Group on Vaccine Administration for COVID-19 which is overseeing the drive did not respond to email queries seeking more details about the exact pattern of division of the two vaccines among the targeted beneficiaries.

Concerns

Surrounding Controversy

- ◆ Many scientists and doctors believe India's drug regulator rushed into clearing Covaxin – it has no large-scale efficacy and safety data so far. There are concerns being expressed by the scientific community about the integrity of the regulatory processes which have simultaneously offered conditional approval for restricted

use of two vaccines. However, government authorities have strenuously tried to allay concerns about the safety of Covaxin.

- ◆ A member of the national task force on Covid-19 management, Randeep Guleria, initially said the vaccine will only be used as a “back-up” in case of a surge in cases. He added it will be given in the “clinical trial mode” – which means the consent of the recipients will be sought and they will be monitored for side-effects like they are in a trial.
- ◆ While the Oxford-AstraZeneca vaccine has shown favourable results in large scale trials in Brazil and the United Kingdom, data from Serum Institute’s India trials are yet to be fully examined. That, some activists and researchers think, is problematic as some vaccines tend to produce different levels of protection in different ethnicities.
- ◆ Even medical practitioners have also expressed doubts about the difficulties they may have to face in convincing the public if a vaccine with no scientific data on efficacy is being administered as part of a national vaccination drive.

Other Vaccine Candidates in India

- ◆ Following vaccines are being developed in India and are on different stages of
 - ◆ Covishield by Serum Institute of India and AstraZeneca; Covaxin by Bharat Biotech and ICMR;
 - ◆ ZyCoV-D by Zydus Cadila and Department of Biotechnology;
 - ◆ Sputnik V by Dr Reddy’s Lab and Gamaleya National Centre, Russia;

- ◆ a vaccine by Biological E Ltd Hyderabad and MIT;
- ◆ a vaccine by Gennova Biopharmaceuticals, Pune, and HDT Biotech Corporation, USA; and
- ◆ Novavax and other vaccine candidates from the Serum Institute.
- ◆ Most of these trials are conducted by manufacturers, and others have manufacturing contracts with Indian companies. In addition, Bharat Biotech is testing intranasal COVID-19 vaccine candidates and the Serum Institute is conducting overseas trials with international partners.

IMA Endorses Vaccine Safety

- ◆ The Indian Medical Association (IMA) has requested all its 3.5 lakh members in 1,800 local branches to voluntarily get vaccinated first to show that the vaccines approved in India are safe and efficacious.
- ◆ “We stand with the scientists to endorse the safety and efficacy of both the vaccines cleared by India. Public awareness and countering myths on vaccine percolating in social media shall be our priority. Our modern medicine doctors will vouch for the safety, quality and professionalism in this difficult time and support the emergency approval for the usage of vaccines,” said the Association.
- ◆ Stating that getting vaccination is not only to protect individuals but also to usher in herd immunity thereby raising the hope to control the pandemic, the IMA in its letter noted that after extensive review of scientific data, indexed articles, expert panel reports and discussion with the ICMR and WHO experts.

- ◆ The Association has appealed to the public that they should adhere to appropriate behaviour like masks, physical distancing, hand and respiratory hygiene even after vaccination.
- ◆ The Association has also constituted a Pharmacovigilance Centre in Delhi for monitoring post vaccination reactions and rendering appropriate support.

Way Forward

- ◆ Even countries with acclaimed health systems have been through a nightmare that is yet to end. In this gloomy, dismal scenario, as the world enters 2021, the multiple COVID-19 vaccines that have secured regulatory approvals across the world and are being rolled out to much fanfare, offer a glimmer of hope that the pandemic will at last be brought under control in the coming months. That hope is tinged with fear as a new mutant of the virus, which is far more infectious, is spreading in countries across continents, prompting its description as a ticking time bomb. 

General Studies Paper- II

Topic:

- Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes; mechanisms, laws, institutions and Bodies constituted for the protection and betterment of these vulnerable sections.

Topic:

- Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.

Q. The vaccine against the Corona virus which is being administered in India should be only on emergency basis and not on mass-basis until the complete trial data is released and analysed. Discuss.

02

Japan's 'Broader Asia' and India

Why in News?

- On November 15 2020, fifteen nations in the Indo-Pacific signed the world's largest trade agreement known as the Regional Comprehensive Economic Partnership (RCEP).
- The new trading bloc will cover 2.2 billion people and its member states' combined Gross Domestic Product (GDP) of \$26.2 trillion accounts for around 30 percent of total global GDP. The deal's finalization comes about a year after India announced its decision to not join the grouping, based on its perception that the terms of the agreement were skewed in China's favour.
- Japan maintains good relations with India, and Japanese negotiators worked hard to include language in the final version of the RCEP which would allow India to join the agreement at any time, without having to wait the 18 months stipulated for new members. Japan has been always in the forefront to envision Asia as a major economic block within its 'Broader Asia' ideology.

Introduction

- Japan's embrace of India may not have begun under former Japanese Prime Minister Shinzo Abe, but his term as prime minister not only accelerated the move for closer ties with India through a strategic

Main Infrastructure Projects with Japanese Involvement



prism of keeping a rising China at a distance, but also pulled New Delhi into the club of democratic major powers in Indo-Pacific.

- In September 2020, Japanese Prime Minister Shinzo Abe stepped down from the post, due to persistent ill health. During his nine years as Japan's prime minister, he has visited India four times, including as chief guest for Republic Day parade on Rajpath.
- Former Prime Minister Shinzo Abe was a friend of India. Abe realised early on the importance of a democratic India in the future power balance across Asia. He saw the potential of a rising India much before other Japanese leaders and was singularly responsible for transforming ties with New Delhi from what foreign minister S. Jaishankar described as a "relatively narrow bilateral level" to a significant strategic partnership.
- Suga Yoshihide who has now taken over has promised to follow

through the policy goals of his predecessor. A close confidante of Abe, he served as his Cabinet Secretary from 2012 till he stepped down to take over the reins as Prime Minister.

Abe's 'Broader Asia' and Other Legacies

- Shinzo Abe made a strong contribution globally with his active role in not only traditional bilateral diplomacy, but also in policies and negotiations meant to deepen multilateral coordination and cooperation. Examples include his efforts to strengthen the liberal international economic order through the Trans-Pacific Partnership (TPP) and Regional Comprehensive Economic Partnership (RCEP) negotiations as well as the advocacy of a free and open Indo-Pacific (FOIP).
- From the time of his first administration, Abe spoke of "a broader Asia" and presented a

foreign policy based on the “Indo-Pacific” concept, which essentially includes the area from the Indian to the Pacific Ocean. More or less at the time he took office again in late 2012, an Abe article was published on the website of the international NPO Project Syndicate. The “Asia’s Democratic Security Diamond” concept that he advocated in his piece was an argument for the formation of a “diamond” to safeguard the “common good” in a maritime area from the Indian Ocean to the Western Pacific through cooperation between Japan, Australia, India, and the United States.

- ◆ In the 2012 article, Abe had explicitly warned South China Sea increasingly becoming a “Lake Beijing”, comparing it to Soviet Union’s Sea of Okhotsk.
- ◆ While Japan had not publicly painted a target on China’s back, Japanese foreign minister Taro Aso’s promotion of an ‘arc of freedom and prosperity’ in Asia which listed all the major democracies in the region, including the Quad members, but omitted China.
- ◆ It was under Abe’s leadership that one of the last irritants in this bilateral relationship, Japan’s resistance to recognising India as a nuclear power, could be tackled when the two nations finally decided to sign the civil nuclear pact in 2016.
- ◆ Another feather in hat is Asia-Africa Growth Corridor (AAGC)- an economic cooperation agreement

between India, Japan, and multiple African countries.

- ◆ But the Japanese prime minister also embarked on an engagement with China late in his term. He sent a senior official to the 2017 flagship summit of the Belt and Road initiative, which was boycotted by India.
- ◆ The broad contours in Japanese foreign policy about a cautious engagement with China, while improving close ties with Asian countries and Beijing’s neighbours through economic ties and infrastructure development, as laid down by Abe, would certainly be taken forward by his successor.

Japan Balancing China

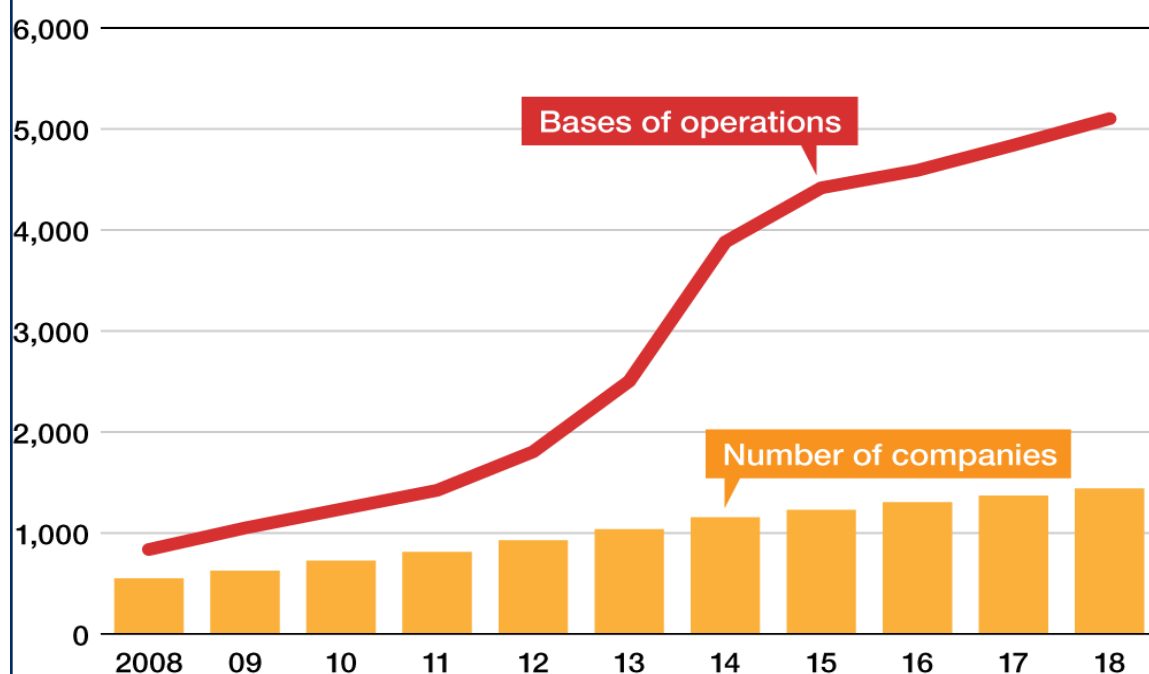
- ◆ Growing concerns about Chinese aggression has resulted in Tokyo and New Delhi reconfiguring their bilateral ties to make them more ambitious from undertaking joint projects in India’s Northeast and wider South Asia to the revival of Quad in 2017 and joint connectivity projects such as the Asia Africa Growth Corridor.
- ◆ As India expanded its footprint in East and Southeast Asia, it has found support from Japan which has also been steadfast in its support for New Delhi’s position on its border disputes with China. It was Abe’s leadership which allowed Tokyo to expand the ambit of its ties with New Delhi.
- ◆ Japan has remained a steadfast partner to India. For instance, after the Galwan Valley clash in mid-June, the Japanese ambassador

to India strongly supported India, tweeting that “Japan opposes any unilateral attempts to change the status quo.”

India-Japan and ACSA

- ◆ On 9th September 2020, India and Japan have signed Acquisition and Cross-Servicing Agreement (ACSA).
- ◆ This agreement will facilitate the smooth provision of supplies and services between the Self-Defence Forces of Japan and the Indian Armed Forces. It will also promote closer cooperation between the forces on the ground, thereby contributing further to global peace and security.
- ◆ It is similar to Logistics Exchange Memorandum of Agreement (LEMOA) with the United States but more broader.
- ◆ The India-Japan ACSA would provide the two militaries with access to each other’s military facilities for repair and replenishment of provisions as well as overall improve the scope and sophistication of military-to-military cooperation. In fact, the India-Japan ACSA is reported to be broader in scope, encompassing overall defence cooperation between the two countries, with logistics as one important leg in the expanding defence partnership. Japan could get access to India’s key naval bases, including in the Andaman and Nicobar islands, close to the Malacca Straits, a key international sea lane. The agreement will also enhance India’s own operational reach, most

Japanese Companies Establishing a Presence in India



Source: Embassy of Japan in India.

nippon.com

specifically for the Indian Navy. India could gain access to Japanese bases such as in Djibouti.

- ♦ India has, so far, signed military logistics agreements with United States, France, Australia, South Korea and Singapore. With the signing of the pact with Japan, India has a military logistics agreement with all the other 'Quad' countries.

Cooperation on Other Fronts

- ♦ Japan is regarded as a key partner in India's economic transformation. Japan's bilateral trade with India, totalled US\$ 17.63 billion in FY 2018-19.
- ♦ Cumulatively, since 2000 till September 2019 the investments

to India have been around US\$ 32.058 billion (Japan ranks third now among the major investors). Japanese Foreign Direct Investment (FDI) into India has mainly been in automobile, electrical equipment, telecommunications, chemical, financial (insurance) and pharmaceutical sectors.

- ♦ In view of synergies and complementarities between the two nations, "India-Japan Digital Partnership" (I-JDP) was launched during the visit of PM Modi to Japan in October 2018 furthering existing areas of cooperation as well as new initiatives within the scope of cooperation in S&T/ICT, focusing more on "Digital ICT Technologies".

Way Forward

♦ The friendship between India and Japan has a long history rooted in spiritual affinity and strong cultural and civilization ties dating back to the visit of Indian monk Bodhisena in 752 AD. Modern India made diplomatic relations with Japan on 28th April 1952. Both nations have a long history of cooperation and time-tested friendship. Amid rising global complexities

from Corona virus and slowing down of global economies to rising Chinese aggression, Indo-Japan relations are dynamically responding to the threats. With rising investments, trade partnerships and defence ties, Indo-Japan relations can be an axis to balance Chinese hegemony in Asia.



General Studies Paper- II

Topic

- Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.

Q. Indo-Japan relations have seen a growth from being trade and technology oriented to now evolving strategic partnership in the form of Quad and Acquisition and Cross-Servicing Agreement (ACSA). Discuss.

03

Investing in Social Sector : Essential for Post-Covid Recovery

Why in News?

- ◆ As part of the Union Budget 2021, the Centre is planning to strengthen the health infrastructure.
- ◆ In this regard the government may create a special separate fund for health sector, which may be called the Pradhan Mantri Swastha Samwardhan Nidhi. An initial proposal has been drafted by the Ministry of Health and Finance Minister Nirmala Sitharaman is likely to announce this in the upcoming Budget on February 1.
- ◆ COVID-19 has shifted the economic spotlight towards health and education as one of the major building blocks of the economy in addition to manufacturing and trade.

Background

- ◆ Healthcare and education are some of the important sectors that are usually not given the attention they deserve in India's Union Budgets. It has been so for many years. But the situation this time is different.
- ◆ The Government has announced Rs. 69,000 crore (US\$ 9.87 billion) outlay for the health sector that is inclusive of Rs. 6,400 crores (US\$ 915.72 million) for Pradhan Mantri Jan Arogya Yojana (PMJAY) in Union Budget 2020–21. As per the targets under the National Health Policy, 2017, government aims to increase healthcare spending to be 2.5% of Gross Domestic Product (GDP) by 2025.
- ◆ The share of education as a percentage of GDP has been stagnant around 2.8-3 per cent during 2014-15 to 2019-20. In the case of health, the expenditure as a percentage of GDP increased from 1.2 per cent to 1.5 per cent.

This is lower than the required 2-3 per cent of GDP.

- ◆ Given the stress exerted by the pandemic on public healthcare systems in the country, there is expected to be a stronger focus on 'public expenditure on healthcare'.
- ◆ The pandemic has enhanced inequalities in education and has revealed the widening digital gap. Equality of opportunity in terms of quality education is the key for raising human development and for reducing inequalities in the labour market. Several committees have recommended that public expenditure on education should be at 6 per cent of GDP.

Covid Battered Education Sector

- ◆ From shifting to an online mode to the New Education Policy, 2020 (NEP, 2020) brought with it many changes for the education sector. However, the sector still needs governmental support as several schools have faced severe hardships during the pandemic, struggling to sustain amidst parents' refusal to pay fees and paying teachers' salaries.
- ◆ An Oxfam study reveals that school closures owing to COVID-19 may exacerbate student drop-out tendencies in this year.
- ◆ The Education sector is bleeding at the moment with many schools are on the brink of collapse or already collapsed.
- ◆ There has been a promise in the New Education Policy to increase the percentage of GDP allocated to Education. The situation of foundational literacy and numeracy is a big spotlight in the NEP for which financial support will be needed in particular for adult literacy and children out of school.

Urgent Attention to Healthcare Sector Needed

- ◆ According to the Centre for Disease, Dynamics, Economics and Policy, Washington, there is currently a shortage of 600,000 doctors and over two million nurses in India, with just a single doctor for every 10,189 people.
- ◆ A shortage of hospital beds also sees dire conditions in hospitals, where patients are often forced to lie on the ground. What's more, approximately 65 per cent of healthcare costs come out of the pocket of the average Indian, reportedly, plunging around 58 million into poverty every year. Despite public hospitals providing treatment at no cost, Indians still have to spend exorbitantly on medicine.
- ◆ In 2018, Prime Minister Narendra Modi unveiled the Ayushman Bharat Yojana, the largest healthcare scheme in the world, to assist India's most vulnerable citizens to secure cheap and affordable healthcare. Although an ambitious effort, the scheme, now called PMJAY, is still, insufficiently backed by monetary support, according to some experts.

Healthcare and Education Can Benefit Economy

- ◆ International Monetary Fund (IMF) has said in its annual Article IV reports that India can boost its human capital's productivity by investing in education and healthcare.
- ◆ In 2018, it identified poor public health as the 12th most important hurdle for ease of doing business, ahead of crime, tax regulations and policy instability.

- ◆ Health and working conditions are a key recommendation in its suggestions for labour market reforms. The health sector creates both high- and low-skill jobs and can be used for pump-priming the service and manufacturing sectors.
- ◆ India can raise its supply—8.5 hospital beds and 8 physicians per 10,000 people—to the standards of Japan and South Korea: over 100 beds per 10,000 people.
- ◆ For this, a specially designed fiscal stimulus can be funnelled into public health and policy bottlenecks removed so that the sector becomes the engine of GDP growth.
- ◆ Subsidized loans, earmarked land, single-window approvals, tax holidays, etc. can be used for making medical devices and drugs and setting up hospitals.

Silver Linings

- ◆ In the last few years, the government has done well in providing cooking gas (Ujjwala Yojana) and electricity (Saubhagya Yojana), introducing programmes such as Swachh Bharat Abhiyan and initiatives for housing, financial inclusion and providing loans to the self-employed.
- ◆ These programmes have helped the vulnerable sections, particularly women. Another initiative of the government was to facilitate direct benefit transfers (DBT) for welfare schemes.

Technology Innovation for Healthcare and Education

- ◆ The 15th Finance Commission also seems to have mentioned

that health expenditure should be increased to 2.1 per cent of GDP. The Commission may also suggest some incentives for states to increase health expenditure. Both Centre and states should have a five-year vision on the social sector with bold measures.

- ◆ Healthcare providers have embraced technology with virtual consultations, robot-assisted procedures, wearables (AI in medical equipment), and many more innovations that aid smooth delivery of healthcare.
- ◆ This pandemic has been a wake-up call for the healthcare sector in India, where the authorities came face to face with issues plaguing the medical technology industry. The key solution to addressing this gap in accessibility and affordability of healthcare is making homegrown technology-driven innovations that facilitate production and delivery of medical devices within the country, provided the policymakers use this opportunity to align the resources/budgets to ensure accessible, equitable, and quality healthcare for the citizens of India.
- ◆ It is evident that this pandemic has fast-tracked the need and adoption of technology-driven solutions in healthcare and this trend is here to stay.
- ◆ For education to reach every nook and corner, Covid has proved that technology can play a greater role. E-learning has enabled many advantages as students can access study materials at anytime as per their convenience.
- ◆ The need of the hour is to address the issue of digital divide. It is

practically not possible for nation wide distribution of devices, but town or locality-wise digital classrooms can be opened.

- ◆ Another requirement is to extend certification and affiliation by national universities to various digital courses. A national register of students is needed to better policy formulation.

Way Forward

- ◆ India is committed to achieving the Sustainable Development Goals (SDGs) by 2030, and social sector development is important in reaching them. Progress in this sector has intrinsic and instrumental (for higher growth) value. It is needed even to build a \$5 trillion economy faster. Inequalities in India have been increasing over time. COVID-19 has further widened them. In this context, focus on social sector spending and efficiency in delivery systems is essential. 

General Studies Paper- II

Topic:

- Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes; mechanisms, laws, institutions and Bodies constituted for the protection and betterment of these vulnerable sections.

General Studies Paper- III

Topic:

- Indian Economy and issues relating to planning, mobilization of resources, growth, development and employment.

Q. 'COVID-19 has severely impacted various sectors of Indian economy amongst which healthcare and education are particularly related to the vulnerable sections of the country. In the post-Covid economy, these sectors will be needing priority in public expenditure. Discuss.

04 Dedicated Freight Corridor : Game Changer for Indian Economy

Why in News?

- On 7th Jan 2021, Prime Minister Narendra Modi has dedicated to the nation Rewari - Madar section of the Western Dedicated Freight Corridor (WDFC) which is expected to be the game changer in economic development of the country.

Background

- The largest infrastructure of the Railways in independent India, the Dedicated Freight Corridor (DFC) is an ambitious project approved back in 2006, with the aim of decongesting the railway network by laying special tracks made exclusively for goods trains.
- The project, which was facing several roadblocks over land acquisition and loan approvals for over a decade, will triple the movement of goods (from approximately 25 kmph to 65-70 kmph), double the railways' freight capacity (from 5,400 to 13,000 tonnes), and also double the length of the trains being used currently to up to 1,300 metres from the current 700 m.
- At the same time, the DFC would reduce the high logistics cost in India,

which averages from 13-15 per cent of the product cost as compared to the global average of 6 per cent.

- As the total 2,843-km project is finally set to take off, here's a look at why it was languishing for years, its significance for the railways, and for goods movement in the country.
- The DFC was approved under the United Progressive Alliance-I (UPA-I) in 2006, but the first major civil contract for track construction for a stretch on the DFC was awarded only in 2013.

Delay in Projects

- This delay was primarily on account of two reasons. First, since the DFC passes through eight states, land acquisition remained slow and difficult, with state governments often not being very forthcoming.
 - However, a senior official of the Dedicated Freight Corridor Corporation of India (DFCCI), the nodal body for the DFC, said 88 per cent of the land for the project had been acquired by 2014. Yet, the capital expenditure remained very low.
- Second, was loan approvals to fund

the approximately Rs 87,600 crore project was also difficult. Eventually, after extensive negotiation, the World Bank gave a loan of around Rs 13,578 crore for the project, and the Japan International Cooperation Agency (JICA) agreed to provide a loan worth Rs 37,960 crore.

- Moreover, there were other issues which are encountered at the level of states.

Significance of DFC

- The project will immensely benefit ports, exporters, and importers, shipping lines and container operators and other consumers of Rail transport.
- The project will act as a catalyst for the development of industry and areas along the corridor.
- The project will provide the much-needed Rail infrastructure for growth of Indian economy and EXIM trade.
- The project will also generate indirect employment during construction phase.
- DFCCIL is constructing freight corridors for movement of freight trains only. However Multimodal Logistics Parks/Freight terminals and theme park alongside DFC will also be developed.
- Such commercial hubs will definitely generate lot of employment opportunities to local public.
- Also by building of freight corridors, existing lines of Indian Railways will be able to reduce congestion and run more number of passengers trains efficiently.
- The implementation of the DFC is expected to generate two major impacts on the freight movement;

DFCCIL

- DFCCIL is wholly owned company of Ministry of Railways registered under Company Act, 1956 and was incorporated on 30th October, 2006. The Ministry of Railway has embarked upon a long term strategic plan to construct high capacity, high speed, dedicated freight corridors along the golden quadrilateral and its diagonals. In the first phase of this plan DFCCIL has been entrusted with the responsibility of construction, maintenance and operation of two corridors – Eastern Corridor from Ludhiana to Dankuni with Dadri-Khurja link and Western Corridor from Dadri to Jawaharlal Nehru Port - along with all attached infrastructure, to enable Indian Railways & other qualified operators to run their freight trains. DFCCIL's role will primarily be that of the infrastructure provider with responsibility of construction, operation and maintenance. The DFCCIL will accept freight trains on its system operate them on the DFC and then hand them back to Indian Railways and other qualified operators at the other end.

shift of freight from road to the low carbon intensive mode rail transport and inherent improvement in energy efficiency of freight rail through adoption of improved technologies.

DFC Project Implementation

- ◆ Design-Build Lump-sum Contract strategy is being used for construction of two corridors.
- ◆ Being a design build contract bidder is supposed to quote lump-sum contract price for the total work including design, construction, testing, commissioning and liability during defect liability period.
- ◆ This project is quite different from existing rail network. As only freight trains will be operated on these corridors. Trains will run on higher speed with 25 tonne axle load upgradable to 32.5 tonne heavy axle load.
- ◆ The telecommunication and signaling system will be state of the art. Western corridor will cater double stack containers on electrified traction, which is first in the world. DFC will run trains with wider rolling stock and long haul trains to further increase the line capacity.

On Going Projects

- ◆ Presently, Ministry of Railways is implementing two Dedicated Freight Corridors namely, Eastern Dedicated Freight Corridor from Ludhiana to Dankuni (1856 km.) and Western Dedicated Freight Corridor from Dadri to Jawaharlal Nehru Port Trust (1504 km.).
- ◆ These corridors are targeted to be completed in phases by December 2021.

◆ In addition, Ministry of Railways has decided to undertake Detailed Project Reports (DPR) for new Dedicated Freight corridors on the following routes:

- ◆ East Coast corridor- Kharagpur to Vijayawada
- ◆ East-West Sub-corridor (I) -Bhusaval-Wardha-Nagpur-Rajkharswan-Kharagpur-Uluberia-Dankuni
- ◆ East-West Sub-corridor (II)-Rajkharswan-Kalipahari-Andal
- ◆ North – South sub-corridor - Vijayawada- Nagpur-Itarsi

Khurja and Bhaupur Section

- ◆ Freight trains plying on this section from now on will help decongest the existing Kanpur-Delhi main line of Indian Railways, which currently handles trains at 150% of its line capacity.
- ◆ This section currently has over 50 passenger trains and around 60 goods trains jostling for paths daily. The new section means on the Indian Railway main line, more passenger trains can be pumped in and those trains can, in turn, achieve better punctuality.
- ◆ Food grain and fertilisers from the northern region are transported to the eastern and Northeast regions.
- ◆ From East and Northeast, coal, iron ore, jute and petroleum products are transported North and West.
- ◆ This section will also catch the freight traffic originating from key centres such as Kanpur Dehat, Aurayia, Etawah, Firozabad, Hathras, Aligarh and Bulandshahr. The existing industrial areas of

Aligarh, Khurja, Firozabad, Agra and Bhaupur will become major growth centres of the area, the Dedicated Freight Corridor Corporation projects in its business development plan.

- ◆ These areas are agriculture hubs producing potato, paddy and maize.

Way Forward

- ◆ DFC is surely a game changer for Indian economy. With better time and cost saving logistics, India's produce will be more competitive in both domestic and international markets. The scale of operations can be leveraged to produce a synergetic effect by linking production centers with distribution centers. Logistics are essential to provide trade competitiveness and better living. Seems, India has chosen to move on right path to a robust economy.



General Studies Paper- III

Topic:

- Indian Economy and issues relating to planning, mobilization of resources, growth, development and employment.

Topic:

- Infrastructure: Energy, Ports, Roads, Airports, Railways etc.

Q. What is a 'Dedicated Freight Corridor'? What is the national significance of such pan-India project and explain the causes behind its delay in implementation?

05

Seaweed Cultivation : The Fastest Growing Sector of Food

Why in News?

- ◆ The Fisheries Department is exploring the potential of seaweed farming along the Kerala coast as a source of income and employment for coastal communities.
- ◆ For carrying out a feasibility study along the coastal stretches, the Department has formed a committee headed by the Director, Fisheries. The panel includes representatives from the Fisheries Department, Central Marine Fisheries Research Institute (CMFRI), Kerala State Coastal Area Development Corporation (KSCADC) and the Agency for Development of Aquaculture Kerala (ADAK).

Introduction

- ◆ Seaweeds are fast-growing algae. They utilise energy from sunlight, and take up nutrients and carbon dioxide from the seawater. Scientists suggest seaweed could help fight climate change and offset carbon emissions
- ◆ Researchers in India have long been proposing seaweed cultivation as a form of sustainable agriculture. Much of India's coast is ideal for seaweed cultivation with suitable tropical weather, shallow waters and a rich supply of nutrients.
- ◆ The regions of Gujarat and Tamil Nadu harbour the highest seaweed biodiversity in the country, with around 282 species being reported along Tamil Nadu's 1,000km (621 miles) coastline alone. In total, as many as 841 species of seaweed thrive along the Indian coast, though only a few are cultivated.
- ◆ The benefits could be significant. India's economy is an agrarian

one, with 60% of its land used for agriculture. But close to 47% of the country's cultivable land is being lost to soil degradation. Water erosion is responsible for more than a third of this loss – but, through seaweed, water could also be part of the solution.

- ◆ Seaweed has an innate ability to combat malnutrition being a perfect source of iodine, vitamins, and proteins.
- ◆ Indian government has allocated Rs. 637 crore for the cultivation of these nutrition-rich marine plants in 2020, as part of the Rs. 20,050-crore Pradhan Mantri Matsya Sampada Yojana—to be spent over the next five years, mainly as subsidy support.

Seaweeds: Profile

- ◆ The Seaweeds are macrophytic algae, a primitive type of plants lacking true roots, stems and leaves.
- ◆ Seaweeds grow in the shallow waters. Root system and conducting tissues like land plants are absent in seaweeds. Most of them have hold-fast for attachment and some drift loose in the sea.
- ◆ Four groups of seaweeds are recognized according to their pigments that absorb light of particular wave lengths and give them their colours of green, blue, brown and red. Most seaweed belongs to one of three divisions - the Chlorophyta (green algae), the Phaeophyta (brown algae) and the Rhodophyta (red algae).
- ◆ The greatest variety of red seaweeds is found in subtropical and tropical waters, while brown seaweeds are more common in cooler, temperate waters.

- ◆ Seaweeds are renewable source of food, energy, chemicals and medicines. Provides valuable source of raw material for industries like health food, medicines, pharmaceuticals, textiles, fertilizers, animal feed etc.
- ◆ Seaweeds have been a staple food in Japan and China for a very long time. The green seaweeds are utilized exclusively as source of food. These are often eaten as fresh salads or cooked as vegetables along with rice.
- ◆ Seaweeds were rich in minerals, vitamins, trace elements and bioactive substances, seaweeds are called medical food of the 21st century.

India Taking Up Seaweed Farming

- ◆ China holds first rank in seaweed production followed by North Korea, South Korea, Japan, Philippines, Chile, Norway, Indonesia, USA and India. These top ten countries contribute about 95% of the world's commercial seaweed volume.
- ◆ In recent years in India, the central government has been encouraging maritime States to enhance seaweed production as a means of income and employment generation for coastal communities.
- ◆ Seaweed cultivation found mention in the Union Budget 2020-21 with the Centre stating its intention to promote cage culture and the growing of algae and seaweed.
- ◆ In August 2020, the Department of Fisheries, Government of India, had urged maritime States to explore the possibilities lying hidden in seaweed farming.
- ◆ Shallow coastal waters featuring reefs, such as the ones found

in south-east Tamil Nadu, are considered ideal for seaweed farming. The potential of coastal waters in Kerala needs to be studied.

- ◆ First efforts in seaweed farming were made in 1987, when the species *Kappaphycus alvarezii*, native to the Philippines, was acquired by the Central Salt and Marine Chemicals Research Institute (CSMCRI), a laboratory part of India's Council of Scientific and Industrial Research.
- ◆ The intention was to meet the increasing demand for seaweed used in the industrial manufacture of agar—a jelly with many uses, including in food, cosmetics and in laboratories for growing microorganisms. After a decade of lab and field trials at Port Okha in Gujarat, the seaweed was introduced at Mandapam, Tamil Nadu, in 1997 with just 5g of seed material.
- ◆ This 5g of seed material propagated over the years and has resulted in the successful seaweed cultivation farms along a 100km (62-mile) coastline near Palk Bay.

Challenges to Seaweed Farming

- ◆ That the seaweed farming industry is centuries behind agriculture in the scale of its farming operations and level of mechanization makes it much less efficient than it might be, with less infrastructure to support it.
- ◆ Arguably, this means it also has more potential to improve, but the work and the investment to do it is still needed.

- ◆ Also, the high-water content of seaweeds demands that most farmed seaweed is dried after harvest, which can be expensive, especially if sun drying is not an option.
- ◆ Seaweed farmers have barely begun to develop improved, domesticated strains of seaweed that grow better than wild genotypes and/or yield more nutrients of value.
- ◆ Unchecked wild growth of seaweed has been shown to damage coral reefs in the Caribbean, while some coral-dwelling fish appear to prefer corals unfettered by seaweed.
- ◆ In India's Gulf of Mannar, concerns have been raised that the coral reefs around the island of Kurusadai were suffering from a seaweed invasion that had drifted in from nearby cultivations, though a study by the CSMCRI suggested that only a small area of 77 sq m (828 sq ft) had been affected.

Benefits for India

- ◆ According to the United Nations' Food and Agriculture Organization's latest report on the seaweed trade, the fast-growing global seaweed market is already more than \$6bn (£4.5bn) a year.
- ◆ India's present seaweed value is estimated to be around \$500m (£370m).
- ◆ Due to El Nino and global warming there is increase in the temperature of oceans. That's resulted in lower yield. Due to this there is also a dearth of quality seed material.
- ◆ For a food historically much neglected in Indian cuisine,

seaweed is set to have a remarkable influence on the nation's coasts. And as this algae can help lock up carbon and save agricultural land, perhaps it deserves a more prominent place on the nation's plates.

- ◆ The seaweed is not only destined to be a food source, but also a source of biofuels, bio-fertilisers and other products.

Way Forward

- ◆ The surge in seaweed cultivation has had a positive socio-economic impact on the coastal communities in India, particularly among women seaweed farmers, helping them increase their economic independence. Seaweed cultivation could be another economic venue which can provide environmental, dietary and medical benefits.
- ◆ In some communities, seaweed farming has emerged as the most relevant livelihood strategy. Given the rising global demand for seaweed-derived products, seaweed farming has the potential to generate further socio-economic benefits to coastal communities in tropical regions.



General Studies Paper- III

Topic:

- Food processing and related industries in India- scope and significant; location, upstream and downstream requirements, supply chain management.

Q. Seaweed farming has huge potential in India. It has economic, environmental and health benefits but also has some challenges when it comes to India's environment. Discuss.

06

Infrastructure Sector of India : Needs Competitive Edge

Why in News?

- ◆ Finance Minister Nirmala Sitharaman 6th January 2021 reviewed the progress of projects worth Rs 3.6 lakh crore under the National Infrastructure Pipeline (NIP). The projects are being implemented by the Ministry of Health and Family Welfare, and the Department of Water Resources, River Development and Ganga Rejuvenation.
- ◆ Investment in infrastructure is needed to give the boost to the recovery of the economy and is also needed to provide a robust backbone to the economy.

Background

- ◆ Infrastructure is a key driver of the Indian economy and offers better prospects to strengthen India's global competitiveness. In the next decade, India will require huge private investments and overseas funding in this particular sector as cities become highly connected, districts located within cities become accessible and the urban-rural interconnectedness improves. Thus, government's policies need to be swiftly implemented for this purpose further.
- ◆ With the economy battered by the pandemic, a government task force had in April 2020, firmed up a road map for capital investments of Rs 111 lakh crore in infrastructure under the NIP over six years through FY25, pledging 71 per cent of the expenditure for energy, roads, urban development and railways, and envisaging a key role for private investors.
- ◆ Many ministries and departments have shown substantial progress in project implementation and expenditure, especially in the second quarter.

- ◆ Apart from NIP, government has also brought to focus on Dedicated Freight Corridor. It is meant to bring railway connectivity to the forefront of business and logistics. It will reduce the transportation cost of products which will lead to better lifestyle and affordability of the citizens.

NIP Approach

- ◆ The National Infrastructure Pipeline (NIP) for FY 2019-25 is a first-of-its-kind, whole-of-government exercise to provide world-class infrastructure to citizens and improving their quality of life.
- ◆ It aims to improve project preparation and attract investments into infrastructure. To draw up the NIP, a High-Level Task Force was constituted under the chairmanship of the Secretary, Department of Economic Affairs (DEA), Ministry of Finance.
- ◆ The Final Report on National Infrastructure Pipeline for FY 20-25 of the Task Force was released on 29th April, 2020.
- ◆ NIP consists of a range of projects spanning across sectors such as energy, social and commercial infrastructure, communication, water and sanitation. In his latest (2020) independence day address, Prime Minister Modi had said that the mega scheme to connect the country through a multi-modal connectivity infrastructure would end the tradition of working in silos in the infra space.
- ◆ A break-up shows energy projects account for 24 per cent of NIP, roads 18 per cent, urban projects 17 per cent and railway projects another 12 per cent. The share of the Central government and the states in the projects would be 39 per cent and 40 per cent

respectively, while private sector would contribute 21 per cent.

India's Infrastructure Sector in 2020

- ◆ In April 2020, the Government set a target of constructing roads worth Rs. 15 lakh crore (US\$ 212.80 billion) in the next two years.
- ◆ In May 2020, Border Roads Organisation (BRO) achieved major milestone by digging up a 440-metre long tunnel below the busy Chamba town on Rishikesh-Dharasu road Highway (NH 94).
- ◆ Indian energy sector is expected to offer investment opportunities worth US\$ 300 billion over the next 10 years.
- ◆ NHAI will be able to generate revenue of Rs. one lakh crore (US\$ 14.31 billion) from toll and wayside amenities over the next five years.
- ◆ In the Union Budget 2020-21, the Government has given a massive push to the infrastructure sector by allocating Rs. 1,69,637 crore (US\$ 24.27 billion) to develop the transport infrastructure.
- ◆ Communication sector has been allocated Rs. 38,637.46 crore (US\$ 5.36 billion) to develop post and telecommunications departments.
- ◆ Indian Railways has received an allocation of Rs. 72,216 crore (US\$ 10.33 billion) under Union Budget 2020-21.
- ◆ Ministry of Housing and Urban Affairs received an allocation of Rs. 50,040 crore (US\$ 6.85 billion) under the Union Budget 2020-21.
- ◆ In October 2020, the Government of India invited proposals to install charging infrastructure on major highways and expressways in the country
- ◆ In October 2020, The Central Government awarded a total of

322 projects to construct 12,413 km roads under the 'Bharatmala Pariyojana'.

- ◆ In October 2020, NITI Aayog and Quality Council of India (QCI) launched the 'National Program and Project Management Policy Framework' (NPMPPF), envisaged to bring radical reforms in the way infrastructure projects are executed in India.
- ◆ In October 2020, the government announced a plan to set up an inter-ministerial committee under NITI Aayog to forefront research and study on energy modelling. This, along with a steering committee, will serve the India Energy Modelling Forum (IEMF) jointly launched by NITI Aayog and the United States Agency for International Development (USAID).
- ◆ In October 2020, the Ministry of Housing and Urban Affairs (MoHUA) launched an affordable rental housing complex portal.

Big Focus on Infrastructure

- ◆ The infrastructure sector has become the biggest focus area for the Government of India. India is planning to spend US\$ 1.4 trillion on infrastructure during 2019-23 to have a sustainable development of the country. The government has suggested investment of Rs. 5,00,000 crore (US\$ 750 billion) for railways infrastructure from 2018-30.
- ◆ India and Japan have joined hands for infrastructure development in India's Northeast states and are also setting up an India-Japan Coordination Forum for Development of Northeast to undertake strategic infrastructure projects for the region.

Further Add-Ons

- ◆ Infrastructure is a demanding sector. Government financing and projects are the major drivers behind national infrastructure, below are some of the suggestions which can lend a newer approach to nation building:
- ◆ Inject Private Investment: The completion of pending projects will take huge amounts of private investment. This can be achieved in two ways: firstly, reviving DBFOT or design, build, finance, operate and transfer mode of any project execution, and secondly, raising investment resources via aggressive asset monetisation. The former can be revived by rearranging the framework for risk allocation of various projects – with government taking over land acquisition and environmental risks entirely. Asset monetisation has gained immense traction of late, and can be spread to more central and state infrastructural entities to attract a new class of investors within the sector.
- ◆ Overhaul the Credit Ecosystem: Traditionally, the infrastructure sector has heavily relied upon bank credit for meeting its debt and finance needs. However, recently, and especially owing to Covid-19, banks have developed cold feet with regard to financing various projects due to high asset liability mismatches and related execution risks. Therefore, in such a scenario, the government needs to either come up with a bond guarantee or enhance credit funds for the projects so that the bond market is rejuvenated to fulfil the financing requirements of the sector.

- ◆ Harness Latest Technologies: It is quite surprising how majority large-scale construction projects in India do not employ cutting-edge project management software and tools even now, which are allowing other countries to finish their projects at a much quicker pace. Technologies such as augmented reality (AR), UAV and drones, 3D printing, Internet of Things (IoT) and Building Information Modelling (BIM) come in handy when fast-tracking construction projects. For instance, the 5D BIM assists project stakeholders to visualise an in-depth planned structure, much before a single brick is laid.

Way Forward

- ◆ The COVID-19 pandemic has caused a major slowdown in India, but its inherent resilience and capabilities will help it transform into a new India with an accelerated growth path fuelled by infrastructure.
- ◆ With National Infrastructure Pipeline, Dedicated Freight Corridor and Inter-linking of Rivers, India has been in the right track to build national level infrastructure. The need of the hour is the spirit of cooperative federalism where states and union work in tandem for public welfare.



General Studies Paper- III

Topic:

- Infrastructure: Energy, Ports, Roads, Airports, Railways etc.

Q. Discuss the importance of infrastructure in nation building. Highlight major projects the government which are mean to be the backbone of the economy.

07

Green Buildings for Environmental Sustainability

Why in News?

- ♦ At the virtual inauguration of the 12th Green Rating for Integrated Habitat Assessment (GRIHA) Summit, organised by the GRIHA Council from Hyderabad, Vice President Venkaiah Naidu appealed to the Finance Commissions and local bodies to encourage green buildings through various measures including tax incentives.
- ♦ He asked all States to create online portals to provide single window clearance for green buildings. Observing that the implementation of Bureau of Energy Efficiency's Energy Conservation Building Code (ECBC) has not been uniform across the nation.

Introduction

- ♦ Given the pandemic and its aftershocks, the appeal of green buildings has increased for the occupants of residential houses as well as workspaces. Post-Covid, individuals are expected to become all the more cautious about their health, well-being and comfort, and would want to live in buildings that have a better ventilation system, ample daylight and fresh water availability.
- ♦ Green building (also known as green construction or sustainable building) refers to both a structure and the application of processes that are environmentally responsible and resource-efficient throughout a building's life-cycle: from planning to design, construction, operation, maintenance, renovation, and demolition. Green buildings preserve precious natural resources and improve our quality of life.

- ♦ There are a number of features which can make a building 'green'. These include:

- ♦ Efficient use of energy, water and other resources
- ♦ Use of renewable energy, such as solar energy
- ♦ Pollution and waste reduction measures, and the enabling of re-use and recycling
- ♦ Good indoor environmental air quality
- ♦ Use of materials that are non-toxic, ethical and sustainable
- ♦ Consideration of the environment in design, construction and operation
- ♦ Consideration of the quality of life of occupants in design, construction and operation
- ♦ A design that enables adaptation to a changing environment
- ♦ Any building can be a green building, whether it's a home, an office, a school, a hospital, a community centre, or any other type of structure, provided it includes features listed above.
- ♦ However, it is worth noting that not all green buildings are – and need to be – the same. Different countries and regions have a variety of characteristics such as distinctive climatic conditions, unique cultures and traditions, diverse building types and ages, or wide-ranging environmental, economic and social priorities – all of which shape their approach to green building.

Bureau of Energy Efficiency (BEE)

- ♦ The Bureau of Energy Efficiency is an agency of the Government of

India, under the Ministry of Power created in March 2002 under the provisions of the nation's 2001 Energy Conservation Act.

- ♦ BEE co-ordinates with designated consumers, designated agencies and other organizations and recognize, identify and utilize the existing resources and infrastructure, in performing the functions assigned to it under the Energy Conservation Act. The Energy Conservation Act provides for regulatory and promotional functions.

Need for Green Buildings

- ♦ According to the World Health Organisation (WHO), respiratory and lung diseases associated with poor indoor environment quality are three of the top five causes of death.
- ♦ The features of green buildings have proven to have a positive impact on health and well-being.
- ♦ Green homes and offices optimise natural light in the construction design and limit the usage of artificial lighting. Research shows that natural daylight helps in reduction of stress levels, provides psychological comfort and increases employees' productivity by approximately 15 percent in an office environment. Therefore, by investing in green designing and development, companies can ensure better returns on their most valued assets — employees.
- ♦ Another critical reason strengthening the case for green buildings in India is its role in catalysing India's green economic recovery.

Efforts Underway

- ◆ As per the Economic Survey of 2019-20, India requires an investment of US\$ 1.4 trillion in the infrastructure space by 2024-25. In addition to government support, the banks can play a crucial role in facilitating investment for green buildings. Financing is a huge impediment in building green projects, as their initial cost of construction and design is high.
- ◆ Government has also provided for numerous initiatives like the Green Rating for Integrated Habitat Assessment (GRIHA) to promote green buildings. This system restricts the use of resources by 30 percent as the ultimate goal. Government has mandated for all central government and PSU buildings to get at least 3-star ratings under GRIHA.
- ◆ At the state level, several state governments have promised an increased floor-to area ratio (FAR) for GRIHA projects, incentivising the developer to earn a greater profit by building green.

Emerging Market

- ◆ The evolution and expansion of India's building stock has a critical role to play in its battle against climate change. Accounting for more than 40 percent of the country's total energy consumption, energy use from buildings is increasing at 8 percent annually. If conventional inefficient building practices continue, buildings would account for over 70 percent of emissions by

2050, thus posing a major threat to India's green ambitions.

- ◆ According to the International Finance Corporation (IFC), 70 percent of the buildings required by 2030 are yet to be constructed in India. If India were to embrace the concept of green buildings to meet this huge demand, it would be a win-win for the environment and the economy. The green buildings market in India is currently at a nascent stage of development, with only 5% buildings being classified as green. While this might come across as a challenge at the outset, it does open up a wide array of opportunities for the development of green buildings.

Financing Issues

- ◆ There is a need for massive involvement of the private sector in environment and sustainability issues. The public sector can't do it alone. Green real estate has not received the warranted attention by investors. This is due to several market barriers which include: (i) information asymmetry (degree assurance of the green component), and (ii) limited financial products and instruments. In terms of financing green buildings, limited products (green home loans offered by a few banks) and programs (IFC's EDGE program) operate in India.
- ◆ It has to be a combination of incentives at the local government level and individual level such as building energy efficient houses wherein the government can offer

tax credits, e-mobility and traffic management. States including Andhra Pradesh, Bihar, Haryana, Maharashtra, Punjab and Uttar Pradesh provide incentives such as increased Floor Area Ratio (FAR), subsidy on fixed capital (excluding cost of land, land development, preliminary and preoperative expenses and consultancy fees) and discounts on municipal taxes for buildings which classify as green.

Way Forward

- ◆ Given the ongoing recession, green buildings can become a strong driver of economic growth and the prerogative to "build back better," by providing nine million skilled jobs in both the renewable and construction sector by 2030. The government, in collaboration with the banking sector, can together provide fuel to the green construction sector and help India achieve its potential in this regard.



General Studies Paper- III

Topic:

- Infrastructure: Energy, Ports, Roads, Airports, Railways etc.

Topic:

- Conservation, environmental pollution and degradation, environmental impact assessment.

Q. There is an urgent requirement for the government to focus on the promotion of Green Buildings. Not just policy and regulatory inputs but financial incentives are also needed. Discuss.

7

IMPORTANT BRAIN BOOSTERS

01

Prevention of Cruelty to Animals

1. Why in News?

- The Supreme Court has asked the Centre to either withdraw or amend rules notified in 2017 for confiscating animals of traders and transporters during the pendency of trial in cases under the Prevention of Cruelty to Animals Act, saying they are contrary to the law.
- The top court said the rules will be stayed if not withdrawn or amended by the Centre as the law provides that animals can be confiscated only if a person is convicted under the Act.



2. Background

- A Bench led by Chief Justice of India Sharad A. Bobde has warned the government that it would “stay” the implementation of a 2017 law which allowed authorities to seize cattle on a mere suspicion that they suffered cruel treatment at the hands of their owners or were being primed for slaughter. New rules are plainly contrary to Section 29 of Prevention of Cruelty to Animals Act, under which only a person convicted of cruelty can lose his animal.
- These animals, the law prescribes, would then be lodged in ‘gaushalas’ as “case property” to await the court’s verdict. In short, a farmer, a livestock owner or a cattle trader loses his animals before being found guilty of the charge of cruelty.

3. Confiscation before Conviction

- The 2017 Rules allow a Magistrate to forfeit the cattle of an owner facing trial under the Prevention of Cruelty to Animals Act.
- The animals are then sent to infirmaries, ‘gaushalas’, ‘pinjarapole’, etc.
- These authorities can further give such animals for “adoption”.

4. Opposition

- The Buffalo Traders Welfare Association, represented by advocate Sanobar Ali Qureshi, said the Rules were being used as a tool to seize and forfeit their cattle.
- The association said the law’s existence had emboldened “anti-social elements” to take matters into their own hands and loot cattle traders.
- It had become a cause for polarisation in society.

6. Magisterial Order

- The order of interim custody of the seized animals in shelters was passed by the magistrate who, in his judicial wisdom, thought that returning the animals to the winter would only further the sufferings of the animals.
- The objective of such custody was to keep the animals safe and alive during the trial. It was like any other secure protocols followed under the Criminal Procedure Code. The expenses for the care of the animals while in the custody of shelters were met by the owners or transporters, the government contended.
- The Rules confirmed with Sections 29 and 35 of the 1960 Act. Sections 29 and 35 dealt with the confiscation of animals, both after conviction and during the pendency of the case, respectively.
- The penalties under the 1960 Act were low. This was the only provision which allowed for the victim animals to be removed from a traumatic situation.

5. Government’s Response

- The Central government has defended law to deprive owner’s possession of their animals, including cattle, on the suspicion that they are being subject to cruelty or illegally transported for slaughter.
- The Centre dismissed the argument that taking the animals from their owners divested them of their livelihood even before they were found guilty of cruelty by a court of law.
- The argument that owners are deprived of their right to livelihood is not sustainable. They have no right to do their business illegally. They have to transport the animals as per the requirements of the Transport of Animals Rules of 1978.
- Rules were in consonance with the Prevention of Cruelty to Animals Act of 1960.
- Police seized the cattle and vehicles of only those who intentionally violated the Animal Transport Rules.
- Animals were stuffed into the back of trucks, up to 50 at a time when only six were allowed, to decrease the cost of transportation. Some of the cattle were found dead, many injured and traumatised. Such journeys were to illegal slaughterhouses.

02 India and Vaccine Diplomacy

1. Why in News?

- India has well earned the reputation of “pharmacy of the world”. With six vaccine candidates in different stages of the trial, India is set to roll out its vaccine diplomacy even with the second largest number of COVID-19 cases.



2. India – A Vaccine Powerhouse

- Being a supplier of almost 60% of the vaccine around the world, India is also a global powerhouse for generic pharmaceutical drugs.
- Among the six vaccines under trial in India are the homegrown Covaxin, developed by Hyderabad-based Bharat Biotech in collaboration with the state-run Indian Council of Medical Research, and Covishield jointly developed by the Oxford University and British drug-maker AstraZeneca.
- India is also conducting trials for Russian Sputnik V in partnership with Dr. Reddy's Laboratories.
- Prime Minister Narendra Modi during his UN General Assembly address had assured that India's vaccine production and delivery capacity would be used to help “all humanity” fight off the crisis.
- Luxembourg-based B Medical Systems, a global supplier of medical-grade refrigerators, freezers, and transport boxes, has plans to set up a production line in India as it looks forward to bolstering its cold chains.
- Adarsh Poonawalla's Serum Institute is mass-producing AstraZeneca's vaccine.

3. India's Humanitarian Outreach

- Despite the burden of COVID-19 cases at home, India managed to send medical teams to the Maldives, Mauritius, Madagascar, Comoros, and Seychelles.
- India has already been providing not only medicines but other essential supplies not only in the neighbourhood but globally. It has also organized training sessions for experts from the neighbouring countries including Nepal, Bangladesh, Myanmar, and the Maldives on vaccine-related issues.
- As part of Mission Sagar-II, Indian Naval Ship Airavat delivered food aid to Sudan, South Sudan, Djibouti and Eritrea during the pandemic.
- Mission Sagar-II, followed the first 'Mission Sagar' undertaken in May-June 2020, wherein India (INS Kesari) reached out to Maldives, Mauritius, Seychelles, Madagascar and Comoros, and provided food aid and medicines.

4. India Bringing Vaccine to the World

- It is believed that India will gift about 10 million doses to all the countries in South Asia — Afghanistan, Bhutan, Bangladesh, Nepal, Sri Lanka, Maldives — as well as key countries in the extended neighbourhood such as Myanmar, Mauritius and Seychelles.
- India has agreed to give Sri Lanka priority when supplying Covid vaccine to other countries.
- Besides the neighbouring countries, Brazil and South Africa too have reached out to India seeking vaccines to deal with the COVID-19 crisis in their countries.
- Ecuador's ambassador to India Hector Cueva Jacome (First diplomat to participate in medical trials) along with his spouse participated in the medical trials for Bharat Biotech's COVID-19 vaccine.
- Brazil is all set to become the first country in the world to receive two million doses of Covishield from India flown directly from Mumbai to Rio de Janeiro via a special flight, procured at a “special rate”.

5. Competition from Chinese Vaccine Diplomacy

- In South East Asia, China has promised vaccines to Malaysia and the Philippines – although Cambodia, a close ally, has said it will opt for the international Covax programme.
- In Dubai, UAE ruler Sheikh Mohammed bin Rashid Al Maktoum himself volunteered to be part of the trials being conducted by China's National Biotec Group.
- Turkey, Brazil and Mexico have been separately promised millions of doses by the Chinese.
- For the time being, at least in terms of pre-orders, Chinese vaccines like Sinovac and Sinopharm (together 500 million doses) are losing the race to Western vaccines like Pfizer (500 million doses) and AstraZeneca (2.5 billion doses).
- As demand for the India-made COVID-19 vaccines gathers pace in foreign countries, even China seems to have grudgingly conceded that India's COVID-19 vaccines are good.
- In a report in the China Communist Party's mouthpiece, experts note that India's plans to export the vaccine “could be good news for the global market given India's competitive vaccine research and production capacity” and that “India's vaccines are no less competitive than Chinese COVID-19 vaccines in both research and production capacity, considering that India has the world's largest vaccine manufacturer and lower costs in labour and facilities.”

03

Science Technology and Innovation Policy

1. Why in News?

- Department of Science and Technology (DST) recently released a draft of the fifth Science, Technology and Innovation Policy (STIP) for public feedback.



2. Background

- The DST, along with the Office of Principal Scientific Adviser, started the process of formulating the STIP 2020 last year. The policy was to be out by the year-end but has been slightly delayed due to the coronavirus pandemic.
- The draft STIP has been uploaded by the DST on its website. The DST has also invited suggestions, inputs and comments for making changes by January 25.
- The new policy, STIP, revolves around the core principles of being decentralized, evidence-informed, bottom-up, experts-driven, and inclusive.
- Also, it aims to bring in the concept of dynamic policy with a robust policy governance mechanism incorporating features such as implementation strategy, periodic review, policy evaluation, feedback, and adaptation, and most importantly, a timely exit strategy for various policy instruments.
- For the first time, the states as well the diaspora were consulted in making the science policy

3. Vision Guiding the Policy

- To achieve technological self-reliance and position India among the top three scientific superpowers in the decade to come.
- To attract, nurture, strengthen and retain critical human capital through a 'people centric' science, technology and innovation (STI) ecosystem.
- To double the number of Full-Time Equivalent (FTE) researchers, Gross Domestic Expenditure on R&D (GERD) and private sector contribution to the GERD every 5 years.
- To build individual and institutional excellence in STI with the aspiration to achieve the highest level of global recognitions and awards in the coming decade.

5. Significance of STIP

- The new Science, Technology, and Innovation Policy aims to bring about profound changes through short-term, medium-term, and long-term mission mode projects by building a nurtured ecosystem that promotes research and innovation on the part of both individuals and organizations.
- It aims to foster, develop, and nurture a robust system for evidence and stakeholder-driven STI planning, information, evaluation, and policy research in India.
- The objective of the policy is to identify and address strengths and weaknesses of the Indian STI ecosystem to catalyse socio-economic development of the country and also make the Indian STI ecosystem globally competitive.

4. Major Proposals

- Establishment of a National STI Observatory that will act as a central repository for all kinds of data related to and generated from the STI ecosystem.
- Strategies to improve STI education making it inclusive at all levels and more connected with the economy and society will be developed through processes of skill building, training and infrastructure development.
- Open Science Framework will be built to provide access to scientific data, information, knowledge, and resources to everyone in the country and all who are engaging with the Indian STI ecosystem on an equal partnership basis.
- The policy will promote technology self-reliance and indigenization to achieve the larger goal of "Atmanirbhar Bharat".
- An India-centric Equity & Inclusion (E&I) charter will be developed for tackling all forms of discrimination, exclusions and inequalities in STI leading to the development of an institutional mechanism. The Lesbian, Gay, Bisexual, Transgender, Queer (LGBTQ+) community will be included in gender equity conversations with special provisions to safeguard their rights and promote their representation and retention in STI.
- Differently-abled individuals, including Divyangjans, will be given special attention.
- The policy also talks about ageism-related issues while minimisation of career breaks are to be addressed for effective retention of trained women into the STI workforce.
- STIP charts pathways to a dynamic, evidence-informed and proactive international S&T engagement strategy. Engagement with the Diaspora will be intensified through attracting the best talent back home through fellowships, internships schemes and research opportunities expanded and widely promoted across different ministries.

04

India's Equalisation Levy

1. Why in News?

- The United States Trade Representative (USTR) has termed India's Equalisation Levy (also known as Google Tax) on e-commerce companies as 'discriminatory'. India, however, has said that it is not discriminatory and it would take appropriate action in the matter keeping in view the overall interests of the nation.



2. US Objections

- The office of the USTR said that its investigation has led it to conclude that the tax was discriminatory because it exempts Indian companies and targets non-Indian firms. This hits US firms which dominate the technology industry.
- The USTR pointed out that of the 119 companies that it identified as likely liable under the digital services tax, 86, or 72%, were American.
- India promised "appropriate action" after a USTR investigation report said New Delhi's 2% tax on the digital economy is "unreasonable or discriminatory", potentially attracting withdrawal of US trade concessions or duties on Indian exports.

3. Genesis of the Levy

- The concept of the equalisation levy in India emerged as a result of the deliberations of the OECD Base Erosion & Profit Shifting (BEPS) Project, which crystallized in the Report on Action 1 of BEPS Project.
- It formed the basis of the detailed consultations by a Committee on Taxation of E-Commerce constituted by the Indian government, which had submitted its report in February 2016.
- This committee analysed in detail the BEPS report on Action 1, which had highlighted the need for modifying existing international taxation rules, and laid out three options for the consideration of countries, that is, (a) a new nexus based on significant economic presence, (b) a withholding tax on digital transactions, and (c) equalisation levy.
- The Indian government panel accordingly analysed each of the three options presented by the BEPS Report and recommended the application of the equalisation levy on specified digital services.
- Apart from India, the others that are being investigated are the EU, the UK, Austria, Brazil, the Czech Republic, Indonesia, Italy, Spain and Turkey.

5. Countries opting for GAFA Tax

- Columbia University economics professor Joseph Stiglitz, a Nobel laureate has highlighted that the pandemic ironically has helped the very companies that have been the tax avoiders i.e. the internet companies.
- The France and many Latin American nations have imposed such taxes. European Union is also mulling to introduce a series of such taxes on digital companies.

4. Roadmap in India

- Realising the fact that India was losing out on revenue from digital firms billed overseas, the government in June 2016 introduced a 6% tax in the form of an equalisation levy or known as Google tax on the amount paid to internet companies by advertisers.
- In the Union Budget 2018-19, the government also proposed to amend the Income Tax Act to tax digital entities with a large user base or significant economic presence in the country.
- In fiscal 2018, Google India reported a 30% increase in revenues to Rs 9,337.7 crore with profit after tax rising 33% to Rs 407.2 crore. The amount transferred for "purchase of advertising space", increased by 36% to Rs 4,949.6 crore, according to regulatory filings.
- The government's push for internet companies to host data of Indian users in local servers is due to data security and privacy and also due to concerns that they deliver services mostly from overseas, outside India's tax jurisdiction.
- The latest impost was introduced in the Finance Act, 2020 by widening the scope of the equalisation levy to include e-commerce players and intermediaries. It's a sort of digital tax on non-resident e-commerce operators at 2% on the revenue they generate in India from e-commerce supply or services. This levy has to be deposited by the e-commerce operator and not by the buyer of the goods or service.

05 Bird Flue Threat in India

1. Why in News?

- During the first week of January, reports of unusual deaths of a large number of birds, including wild ones, started coming in from many States, indicating that cases of bird avian influenza or bird flu is being actively transmitted among various bird groups.



2. Bird Flu: Background

- Avian influenza, commonly known as bird flu, is a highly contagious viral disease affecting a variety of birds.
- The first recorded bird flu outbreak among humans was in 1996-97 in Hong Kong and China. The mortality rate has been high, however, in all human outbreaks. Six of 18 cases in Hong Kong had led to death.
- According to the World Health Organisation (WHO) data, 862 cases of bird flu among humans have been recorded in 17 countries since 2003. Of these, 455 persons died.
- The last instance of human case bird flu infection was reported from China in October 2020. The patient was a three-year-old girl, who displayed mild flu-like symptoms.

3. Bird Flu Outbreak in India

- It was found to be a case of infection caused by Influenza Type-A virus, primarily H5N1, which is considered a Highly Pathogenic Avian Influenza (HPAI) variant.
- Other strains such as H7N1, H8N1 or H5N8 also cause bird flu and belong to the same HPAI category.
- While bird flu outbreak in Himachal Pradesh has been caused by H5N1, the samples from Kerala, Madhya Pradesh and Rajasthan have shown the presence of H5N8 variant.
- Wild birds are considered the natural reservoirs of the bird flu viruses and it is typical of an outbreak to coincide with the season of arrival of migratory birds, which also take the virus to poultry.

4. Cases in Other Countries

- According to the early warning system of the World Organisation for Animal Health (WOAH), bird flu outbreaks were reported in several countries including Taiwan and Japan to a number of European countries and more than 48 lakh birds died or were culled in December 2020.

5. Government Measures

- In India, the Centre has asked state governments to follow the National Action Plan for Prevention, Control and Containment of Avian Influenza 2021.
- State governments have started culling the birds in affected areas. For example, Kerala has planned to cull around 70,000 birds in the worst-affected Alappuzha district.

8. Safety Measures

- India has adopted a practice of building bio safety bubble around poultry farms to mitigate the chances of wild birds coming in close contact with reared birds.
- About the safety concerns over eating eggs and chickens, scientists say it is safe to consume poultry products that are properly cooked at over 60-70 degree Celsius. Any temperature above this kills viruses.

6. WHO on Bird Flu

- According to World Health Organisation (WHO), human cases of bird flu occur "occasionally" but when it happens, the mortality rate is about 60 per cent. This is often seen with diseases caused by pathogens new or unknown to human bodies.
- The human-to-human transmission is "difficult", according to the WHO, which, however, says there is a possibility of the H5N1 mutating and posing a pandemic threat among humans.

7. Economic Impact of Bird Flu

- Every month, India consumes around 30 crore eggs and 900 crore chickens sourced from poultry farms. The poultry sector of India is worth Rs 80,000 crore, of which more than three-fourths is from the organised sector.
- Around 3 crore farmers are engaged in the unorganised sector of poultry engaging in backyard bird-keeping and supplying products to aggregators.
- India exports processed poultry products such as egg powder, yolk powder, chicken products and also pharmaceutical ingredients from the poultry sector worth hundreds of crores every year.
- The government had paid over Rs 26 crore to farmers between 2006 and 2018 on account of culling to contain spread of bird flu in India.

06

Longitudinal Aging Study in India

1. Why in News?

- The Longitudinal Aging Study in India (LASI) is a ground breaking nationally-representative, longitudinal survey to examine aging and retirement among India's 45+ population. It is a joint undertaking of the Harvard T.H. Chan School of Public Health, the International Institute for Population Sciences (IIPS) in Mumbai, India, and the University of Southern California (USC).
- Longitudinal Ageing Study in India (LASI) released by the Union Ministry of Family and Health Welfare on January 6 2020.



2. LASI Survey Methodology

- The first LASI, which reported these findings, encapsulated data from more than 42,000 households, covering over 72,000 older adults across all states and union territories (UT) of India, except Sikkim.
- The LASI has embraced state-of-the-art large-scale survey protocols and field implementation strategies including representative sample of India and its States, socioeconomic spectrum, an expansive topical focus, a longitudinal design, and the use of Computer Assisted Personal Interviewing (CAPI) technology for data collection, quality control, and Geographic Information System (GIS).
- A unique feature of LASI is the coverage of comprehensive biomarkers.

3. Earnings by Indians

- The average annual per capita income of households interviewed in the LASI survey conducted in 2017-18 is Rs. 44,901. This is just about 39% of the per capita income in the same year according to the National Account Statistics (NAS).
- While per capita incomes from LASI and NAS diverge widely, the former is not off the mark if one looks at average earnings from the 2017-18 Periodic Labour Force Survey (PLFS). Annual per capita income from wages of households which had a person aged 45 years or older in the PLFS is Rs. 29,896.
- 6% of India's central budget was spent on subsidies according to the 2020-21 Budget. Even at such low income levels, almost half of Indians think of themselves as being at par with their peers. What is even more surprising is the fact that this feeling hardly changes whether one looks at the poorest or the richest households.
- On average, perceived destitution (financial condition being well below average) is 3.4 times more widespread than perceived opulence (financial condition being well above average) in India. This divide is greater in rural areas compared to urban areas.

4. State of Elderly

- Around 23 per cent of the elderly population (age 60 years and above) have multi-morbidities; elderly women are more likely to have multi-morbidity conditions.
- The percentage of people without morbidity consistently declined with age. About 73 per cent of the population below age 45 are found to be having no morbid conditions and this share is reduced to 44 per cent in the age group 75 and above. The decline, however, is slower from age 60 onward.
- Cardiovascular diseases (CVD) are the most prominent among those above 45. The prevalence of diagnosed CVD in age group 45-49 is 19 per cent and is 37 per cent for the population above 75.
- By 2030, 45 per cent of the total burden of diseases, majorly non-communicable, is expected to be borne by the old-age population.

5. Significance of the Survey

- It is India's first and the world's largest ever survey that provides a longitudinal database for designing policies and programmes for the older population in the broad domains of social, health, and economic well-being.
- The evidence from LASI will be used to further strengthen and broaden the scope of National Programme for Health Care of the Elderly and also help in establishing a range of preventive and health care programmes for older population and most vulnerable among them.
- In 2011 census, the 60+ population accounted for 8.6% of India's population, accounting for 103 million elderly people. Growing at around 3% annually, the number of elderly age population will rise to 319 million in 2050.

07

State of the Climate Report 2020

1. Why in News?

- 2020 was the eighth warmest year India recorded in the last 121 years, according to the India Meteorological Department (IMD).
- The Climate Research and Services (CRS) of the India Meteorological Department (IMD) has issued a Statement on Climate of India during 2020.
- World Meteorological Organisation (WMO), too, in its State of the Global Climate 2020, report had said that 2020 was on the way to becoming one of the warmest years recorded in the last 15 years.



6. ENSO

- El Nino and the Southern Oscillation (ENSO) is a periodic fluctuation in sea surface temperature and the air pressure of the overlying atmosphere across the equatorial Pacific Ocean according to the National Oceanic and Atmospheric Administration (NOAA).
- ENSO has a major influence on weather and climate patterns such as heavy rains, floods and drought.
- El Nino has a warming influence on global temperatures, whilst La Nina has the opposite effect.
- In India, El Nino is associated with drought or weak monsoon while La Nina is associated with strong monsoon, above-average rains and colder winters.

2. Key Points

- In 2020, the annual mean land surface air temperature average was +0.29 degrees Celsius above normal, for the period average considered between 1981 and 2010.
- However, it was much lower than 2016 (+0.71 degrees Celsius), which remains the warmest ever year the country has recorded since 1901.
- The other warm years over India, all of them post 2005, have been — 2009 (+0.55 degrees Celsius), 2017 (+0.54 degrees Celsius), 2010 (+0.53 degrees Celsius) and 2015 (+0.42 Celsius).
- The global mean surface temperature (till October 2020) was 1.2 degrees Celsius above normal, making it the warmest ever decade (2011 – 2020) recorded, globally.
- The annual rainfall over the country as a whole was 109 per cent of its Long Period Average (LPA) calculated for the period of 1961-2010.
- 12 out of 15 warmest years were during the recent fifteen years (2006-2020). The past decade (2011-2020) was also the warmest decade on record.

3. Main Reasons

- The monsoon (+0.43 degrees Celsius) and the post-monsoon (+0.53 degrees Celsius) seasons contributed towards this warming.
- 2020 was one of the warmest years despite La Nina with cool waters in the east Pacific. La Ninas typically has a cooling effect on global temperatures, but this is now offset by global warming due to greenhouse gas emissions. As a result, La Nina years now are warmer than years with El Nino events of the past.

4. Impact of Extreme Weather

- Rainfall during the June to September period over the country remained 9 per cent above normal, but several high-impact events like extremely heavy rain, floods, cold wave and thunderstorms led to significant loss of lives and properties.
- Over 600 people lost their lives due to heavy rain and related incidents.
- Uttar Pradesh and Bihar reported the highest casualties due to cold waves, lightning and thunder last year.
- Thunderstorms and lightning also claimed over 815 lives from different parts of the country.
- Cold wave conditions also killed 150 people mainly in central India in January.
- As for India, data shows that the increasing trend in temperatures is the largest during the post-monsoon season and this is reflected in the 2020 post-monsoon temperatures over India, despite a full-fledged La Nina.

5. Tropical Storms

- Globally, the Atlantic Ocean experienced one of the most active years, with over 30 tropical storms originating here.
- The Indian Ocean region — the Arabian Sea and the Bay of Bengal, together reported five cyclones — three of which were of either severe or above in intensity category.
- Five cyclones — Amphan, Nisarga, Gati, Nivar and Burevi — were reported in 2020.
- Super cyclone Amphan remained the strongest, which hit the West Bengal coast, killing 90 people and causing massive destruction in May 2020.
- Maharashtra, too, had braved cyclone Nisarga in early June.

7 MCQ's WITH EXPLANATORY ANSWERS

(Based on Brain Boosters)

01 Prevention of Cruelty to Animals

Q. Consider the following statements with respect of Prevention of cruelty to animals (Care and Maintenance of Case Property Animals) Rules, 2017 :

1. It is the duty of the police in-charge of the station to confiscate the animals from the custody of the alleged offenders causing cruelty to the animals.
2. The opposition to Prevention of cruelty to animals (Care and Maintenance of Case Property Animals) Rules, 2017 is due to the fact that it confiscates animals before the conviction.
3. As per the government's defence, animals are confiscated only when they are being taken to illegal slaughter houses or are transported either illegally or flouting the transportation norms.

Which of the statements given above is/are correct?

- a) 1 and 2 only b) 2 and 3 only
c) 1 and 3 only d) All of the above

Answer: (b)

Explanation: Statement 1 is incorrect. The order of interim custody of the seized animals in shelters was passed by the magistrate who, in his judicial wisdom, thought that returning the animals to the winter would only further the sufferings of the animals.

Statement 2 and 3 are correct. The Supreme Court has asked the Centre to either withdraw or amend rules notified in 2017 for confiscating animals of traders and transporters during the pendency of trial in cases under the Prevention of Cruelty to Animals Act, saying they are contrary to the law. The top court said the rules will be stayed if not withdrawn or amended by the Centre as the law provides that animals can be confiscated only if a person is convicted under the Act.

Police seized the cattle and vehicles of only those who intentionally violated the Animal Transport Rules, as per government's affidavit. Animals were stuffed into the back of trucks, up to 50 at a time when only six were allowed, to decrease the cost of transportation.



02 India and Vaccine Diplomacy

Q. With reference to the India's vaccine development capacity, consider the following statements:

1. India is the major supplier of pharma products to the world and is now being the global health insurance when it comes to vaccine procurement and development.
2. India will be supplying the vaccine to its neighboring countries and also to Ecuador, Brazil and South Africa.
3. India is the only country which is able to conduct its vaccine diplomacy due to the sheer size of its manufacturing capacity.

Which of the statements given above is/are correct?

- a) 1 and 2 only b) 2 and 3 only
c) 1 and 3 only d) All of the above

Answer: (a)

Explanation: Statement 1 and 2 are correct. India has well earned the reputation of "pharmacy of the world". With six vaccine candidates in different stages of the trial, India is set to roll out its vaccine diplomacy even with the second largest number of COVID-19 cases.

It is believed that India will gift about 10 million doses to all the countries in South Asia — Afghanistan, Bhutan, Bangladesh, Nepal, Sri Lanka, Maldives — as well as key countries in the extended neighbourhood such as Myanmar, Mauritius and Seychelles. Besides the neighbouring countries, Brazil and South Africa too have reached out to India seeking vaccines to deal with the COVID-19 crisis in their countries.

Statement 3 is incorrect. In South East Asia, China has promised vaccines to Malaysia and the Philippines – although Cambodia, a close ally, has said it will opt for the international Covax programme. Turkey, Brazil and Mexico have been separately promised millions of doses by the Chinese.



03 Science Technology and Innovation Policy

Q. Consider the following statements with reference to the Science Technology and Innovation Policy (STIP) 2020:

1. Draft STI 2020 is released by the Department of Science and Technology (DST).
2. The STIP is focused on domestic scientific environment and has no policy initiatives for Indian diaspora.
3. The policy is also aimed towards the inclusion of vulnerable sections of the society and also to retain women in scientific programmed of the country.

Which of the statements given above is/are correct?

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

Answer: (C)

Explanation: Statement 1 is correct. Department of Science and Technology (DST) recently released a draft of the fifth Science, Technology and Innovation Policy (STIP) for public feedback. The DST, along with the Office of Principal Scientific Adviser, started the process of formulating the STIP 2020 last year.

Statement 2 is incorrect. The new policy, STIP, revolves around the core principles of being decentralized, evidence-informed, bottom-up, experts-driven, and inclusive. For the first time, the states as well the diaspora were consulted in making the science policy. Engagement with the Diaspora will be intensified through attracting the best talent back home through fellowships, internships schemes and research opportunities expanded and widely promoted across different ministries.

Statement 3 is correct. An India-centric Equity & Inclusion (E&I) charter will be developed for tackling all forms of discrimination, exclusions and inequalities in STI leading to the development of an institutional mechanism. The Lesbian, Gay, Bisexual, Transgender, Queer (LGBTQ+) community will be included in gender equity conversations with special provisions to safeguard their rights and promote their representation and retention in STI.



04 India's Equalisation Levy

Q. Consider the following statements:

1. In India, the Digital Tax which is officially called as 'Equalization Levy', generally known as Google Tax' covers internet companies, internet advertisers and e-commerce players.
2. US consider this digital tax by India 'discriminatory' because most of the companies dominating India's digital marketplace are of US origin.

3. India is the first and only country to levy such taxes on digital companies.

Which of the statements given above is/are correct?

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) None of the above

Answer: (a)

Explanation: Statement 1 and 2 are correct. The government in June 2016 introduced a 6% tax in the form of an equalization levy or known as Google tax on the amount paid to internet companies by advertisers. The latest impost was introduced in the Finance Act, 2020 by widening the scope of the equalization levy to include e-commerce players and intermediaries.

The United States Trade Representative (USTR) has termed India's equalization levy on e-commerce companies as 'discriminatory'. This hits US firms which dominate the technology industry. The USTR pointed out that of the 119 companies that it identified as likely liable under the digital services tax, 86, or 72%, were American.

Statement 3 is incorrect. The French and many Latin American nations have imposed such taxes. European Union is also mulling to introduce a series of such taxes on digital companies. Apart from India, the others that are being investigated by US for alleged discriminatory taxes are the EU, the UK, Austria, Brazil, the Czech Republic, Indonesia, Italy, Spain and Turkey.



05 Bird Flue Threat in India

Q. With reference to the Bird Flue threat in India, consider the following statements:

1. Bird Flu is a caused by an Influenza Type-A virus, primarily H5N1.
2. Apart from H5N1, the other strains of Bird Flu virus are H7N1, H8N1 and H5N8.
3. Bird Flu strain is limited to birds only and cannot be passed to humans, though it can lead to certain allergies on coming in contact with the infected bird.

Which of the statements given above is/are correct?

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

Answer: (a)

Explanation:

Statement 1 and 2 are correct. It was found to be a case of infection caused by Influenza Type-A virus, primarily

H5N1, which is considered a Highly Pathogenic Avian Influenza (HPAI) variant. Other strains such as H7N1, H8N1 or H5N8 also cause bird flu and belong to the same HPAI category. While bird flu outbreak in Himachal Pradesh has been caused by H5N1, the samples from Kerala, Madhya Pradesh and Rajasthan have shown the presence of H5N8 variant.

Statement 3 is incorrect. According to World Health Organisation (WHO), human cases of bird flu occur "occasionally" but when it happens, the mortality rate is about 60 per cent. This is often seen with diseases caused by pathogens new or unknown to human bodies.



06 Longitudinal Aging Study in India

Q. Consider the following statements:

1. Longitudinal Aging Study is conducted for population above 45 years of age is the first such study to be ever conducted in India.
2. The results of the study will help in the better formulation of policies and programmes for the fast rising elderly population in India.

Which of the following statements given above is/are correct?

- | | |
|-----------------|--------------------|
| a) 1 Only | b) 2 Only |
| c) Both 1 and 2 | d) Neither 1 nor 2 |

Answer: (c)

Explanation: Both the statements are correct. The Longitudinal Aging Study in India (LASI) is a groundbreaking nationally-representative, longitudinal survey to examine aging and retirement among India's 45+ population.

The first LASI, which reported these findings, encapsulated data from more than 42,000 households, covering over 72,000 older adults across all states and union territories (UT) of India, except Sikkim.

In 2011 census, the 60+ population accounted for 8.6% of India's population, accounting for 103 million elderly people. Growing at around 3% annually, the number of elderly age population will rise to 319 million in 2050. The evidence from LASI will be used to further strengthen and broaden the scope of National Programme for Health Care of the Elderly and also help in establishing a range of preventive and health care programmes for older population and most vulnerable among them.



07 State of the Climate Report 2020

Q. Consider the following statements:

1. According to the State of the Climate report, the year 2020 was the eighth warmest year India recorded.
2. Extreme weather conditions killed more than 1000 people in India during 2020.

Which of the following statements given above is/are correct?

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

Answer: (c)

Explanation: Both the statements are correct. 2020 was the eighth warmest year India recorded in the last 121 years, according to the India Meteorological Department (IMD). World Meteorological Organisation (WMO), too, in its State of the Global Climate 2020, report had said that 2020 was on the way to becoming one of the warmest years recorded in the last 15 years.

Over 600 people lost their lives due to heavy rain and related incidents. Uttar Pradesh and Bihar reported the highest casualties due to cold waves, lightning and thunder last year. Thunderstorms and lightning also claimed over 815 lives from different parts of the country. Cold wave conditions also killed 150 people mainly in central India in January. Super cyclone Amphan remained the strongest, which hit the West Bengal coast, killing 90 people and causing massive destruction in May 2020.

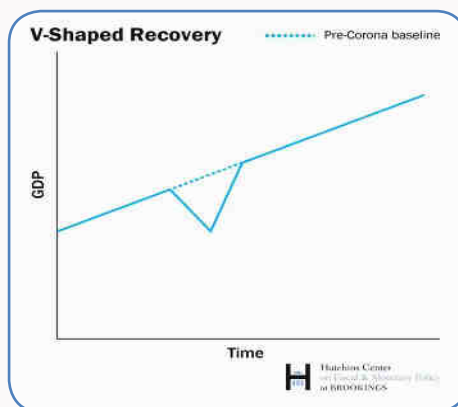


7 IMPORTANT NEWS

01

V-shaped Recovery for Indian Economy: Assocham

- ◆ According to the Associated Chambers of Commerce and Industry of India (ASSOCHAM), India's economy is showing decisive signs of a 'V-shaped' recovery in 2021 with the return of consumer confidence, robust financial markets, an uptick in manufacturing and exporters braving it out in the global market with never-say-die spirit.



the Goods and Services Tax (GST) during December.

- ◆ The state-wise collection showed the fightback spirit in consumer confidence. Illustratively, the largest consumption state of Maharashtra, which was amongst the severely affected by the COVID-19 pandemic, has posted a healthy growth of seven per cent in GST collection; even as the total

GST mop-up was up 12 per cent year-on-year.

- ◆ The entire healthcare value chain from hospitals to medical education, primary health centres, scientific laboratories and further to the pharmaceutical industry along with the logistics is most likely to receive a booster shot of support from the forthcoming Budget.

Key Highlights

- ◆ India's GDP is estimated to contract by a record 7.7 per cent during 2020-21 as the COVID-19 pandemic severely hit the key manufacturing and services segments.
- ◆ According to Assocham, the most definitive of the data is the record collection of Rs 1.15 lakh crore in

What is V-shaped Recovery?

- ◆ In such a scenario, and assuming incomes and jobs are not permanently lost, the economic growth recovers sharply and returns to the path it was following before the disruption. This is called a "V"-shaped recovery.

02

Neptune Balls

- ◆ According to the researchers, underwater seagrass coastal areas appear to trap bits of plastic in natural bundles of fibre known as "Neptune balls". This accidental cleanup "represents a continuous purge of plastic debris out of the sea.

Role of Grass

- ◆ There are some 70 species of marine seagrass, grouped in several families of flowering plants that -- originally on land - recolonised the ocean some 80 to 100 million years ago. Growing from the Arctic to the

tropics, most species have long, grass-like leaves that can form vast underwater meadows.

- ◆ They play a vital role in improving water quality, absorb CO2 and exude oxygen, and are a natural nursery and refuge for hundreds



of species of fish. They are also the foundation of coastal food webs.

- ◆ By anchoring shallow waters, they help prevent beach erosion, and dampen the impact of destructive storm surges.
- ◆ However, it is unclear if collecting the plastic damages the seagrass. 📌📌📌

03

Fixed Base Prices for Variants of Recyclable, Non-biodegradable Waste

- ◆ In a first such initiative in the country, Clean Kerala Company Limited (CKCL) under the Kerala government has fixed base prices for variants of recyclable, non-biodegradable waste.
- ◆ Kerala produces 1808 tonnes of non-biodegradable waste a day, of which plastic accounts for over 400 tonnes.



Key Highlights

- ◆ The CKCL has announced both baled and unbaled rates for 20 variants of recyclable, non-biodegradable waste, including newspapers, plastic liquor bottles, milk packets, glass bottles, aluminum cans and cardboard.
- ◆ The base prices for baled versions are Rs 12/kg for milk packets, Rs 15/kg for pet plastic bottles, Rs 12/

kg for plastic liquor bottles, Rs 40/kg for aluminum cans, Rs 8/kg for newspapers, Rs 20/kg for steel and Rs 4/kg for cardboard.

Significance

- ◆ The move is seen as an attempt to provide additional income support to volunteers of the Haritha Karma Sena (HKS), a "green army" that

collects both biodegradable and non-biodegradable waste from households and offices across the state.

- ◆ Right now, the user fee that HKS volunteers charge from households and offices is their only income source. With the base price coming into effect, they will get an additional source of income 📌📌📌

04

Sea Vigil-21

- ◆ Indian Navy has conducted the 2nd edition of the biennial pan-India coastal defence exercise 'Sea Vigil-21' in January 12 and 13.

Key Highlights

- ◆ The exercise was coordinated by the Indian Navy. The entire coastal

security set up was reorganised after the 26/11 Terror attack at Mumbai which was launched via the sea route.

- ◆ The exercise, inaugural edition of which was conducted in January 2019; was undertaken along the

entire 7516 km coastline and Exclusive Economic Zone of India.

- ◆ It also involved all the 13 coastal States and Union Territories along with other maritime stakeholders, including the fishing and coastal communities.

- ♦ The exercise was built up towards the major Theatre level exercise Theatre-level Readiness Operational Exercise (TROPEX) which Indian Navy conducts every two years. SEA VIGIL and TROPEX together will cover the entire spectrum of maritime security challenges, including transition from peace to conflict.
- ♦ Assets of the Indian Navy, Coast Guard, Customs and other maritime agencies have

participated in Sea Vigil-21. The exercise is also being facilitated by the Ministries of Defence, Home Affairs, Shipping, Petroleum and Natural Gas, Fisheries, Customs, State Governments and other agencies of Centre/ State.

Significance

- ♦ While smaller scale exercises are conducted in coastal states regularly, including combined exercises amongst adjoining states,

the conduct of a security exercise at national-level is aimed to serve a larger purpose.

- ♦ It has provided an opportunity, at the apex level, to assess our preparedness in the domain of maritime security and coastal defence. It also provided a realistic assessment of our strengths and weaknesses and thus will help in further strengthening maritime and national security. <>>

05 Development of Antibody Fragments against the SARS-CoV-2 Virus

- ♦ An international research team led by the University of Bonn (Germany) has developed novel antibody fragments against the SARS-CoV-2 virus. They stated that these “nanobodies” are significantly smaller than the classic antibodies.
- ♦ Due to their nano size, these nanobodies can dig deeper into the tissues and be produced easily in large quantities, the authors of the study noted.



Working of Antibodies

- ♦ Antibodies are an important weapon in the immune system's defence against infections.
- ♦ They bind to the surface structures of bacteria or viruses and prevent their replication. One strategy in the fight against disease is therefore to produce effective antibodies in large quantities and inject them into the patients. However, the immune system produces an almost infinite

number of different antibodies, and they all recognise different target structures.

- ♦ The researchers combined the nanobodies into potentially particularly effective molecules. These attack different parts of the virus simultaneously. The approach could prevent the pathogen from evading the active agent through mutations.

- ♦ Nanobodies are antibody fragments that are so simple that they can be produced by bacteria or yeast, which is less expensive.
- ♦ Nanobodies also appear to trigger structural change before the virus encounters its target cell - an unexpected and novel mode of action. The change is likely to be irreversible; the virus is therefore no longer able to bind to host cells and infect them. <>>

06

Jallikattu Festival

- ◆ With Assembly polls round the corner in Tamil Nadu, the Pongal festival and Jallikattu, the traditional bull-taming sport, have caught the attention of the political parties. In the past, political parties have faced public anger for their stands on Jallikattu, a controversial sport which has faced long legal battles over cruelty to animals, and which at the same time is a symbol of Tamil culture.
- ◆ Jallikattu is considered a traditional way for the peasant community to preserve their pure-breed native bulls. At a time when cattle breeding is often an artificial process, conservationists and peasants argue that Jallikattu is a way to protect these male animals which are otherwise used only for meat if not for ploughing.
- ◆ In January 2017, massive protests erupted across Tamil Nadu against the ban, with Chennai city witnessing a 15-day-long Jallikattu uprising. The same year, the Tamil Nadu government released an ordinance amending the central Act and allowing Jallikattu in the state; this was later ratified by the President. PETA challenged the state move, arguing it was unconstitutional.
- ◆ Kangayam, Pulikulam, Umbalachery, Barugur and MalaiMaadu are among the popular native cattle breeds used for Jallikattu.
- ◆ In 2018, the Supreme Court referred the Jallikattu case to a Constitution Bench, where it is pending now. The main question to be resolved is whether the Jallikattu tradition can be protected as a cultural right of the people of Tamil Nadu which is a fundamental right.

About Jallikattu

- ◆ Jallikattu is celebrated in the second week of January, during the Tamil harvest festival, Pongal. A tradition over 2,000 years old, Jallikattu is a competitive sport as well as an event to honour bull owners who rear them for mating. It is a violent sport in which contestants try to tame a bull for a prize; if they fail, the bull owner wins the prize.

Legal Status

- ◆ That is the subject of a case pending in the Supreme Court. The state government has legalised these events, which has been challenged in the court.



07

Java Sea

- ◆ Indonesian divers have located parts of the wreckage of a Boeing 737-500 at a depth of 23 meters (75 feet) in the Java Sea, a day after the aircraft with 62 people onboard crashed shortly after takeoff from Jakarta.



and Sulawesi to the east.

◆ Karimata Strait to its northwest links it to the South China Sea. It is a part of the western Pacific Ocean.

Background

- ◆ Sriwijaya Air jet flight, SJ 182 was headed on a domestic flight to Pontianak on Borneo Island, about 740 km from Jakarta recently, before it disappeared from radar screens four minutes after take-off and crashed into the Java sea.
- ◆ The Java Sea is an extensive shallow sea on the Sunda Shelf. It lies between the Indonesian islands of Borneo to the north, Java to the south, Sumatra to the west,
- ◆ Karimunjawa, the Java Sea underwater garden is a rich pool of all the marine life diversity that can be flaunted by a single water body.



7

IMPORTANT PRACTICE QUESTIONS (For Mains)



01



03



05

World Health Organization

01

Indian higher education requires reforms. Justify.

02

Why forest fires are common in India. Give reasons.

03

The process of desertification does not have climate boundaries. Justify with examples.

04

COVID-19 pandemic accelerated class inequalities and poverty in India. Comment.

05

Critically examine the role of WHO in providing global health security during the COVID-19 pandemic.

06

National Education Policy 2020 is in conformity with the Sustainable Development Goal-4 (2030). It intends to restructure and reorient education system in India. Critically examine the statement.

07

What are the salient features of the Jal Shakti Abhiyan launched by the Government of India for water conservation and water security?

7

IMPORTANT FACTS (For Prelims)



01



03



05

Vanadium

01

Which hills have been identified as a butterfly super-hotspot by The Nature and Butterfly Society (TNBS)?

Siruvani hills, Tamil Nadu

02

What is the rank of India in Henley Passport Index 2021?

85th

03

Which country has been re-designated as 'state sponsor of terrorism' by the United States?

Cuba

04

Which country has joined the International Monetary Fund (IMF) as 190th member?

Andorra

05

Which state could be India's prime producer of Vanadium?

Arunachal Pradesh

06

Which state has inaugurated a first-of-its-kind 'Fire Park' to educate citizens on the safety measures?

Odisha

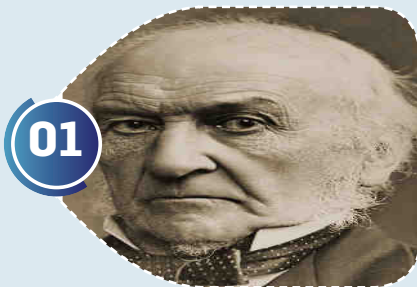
07

Which central Asian country has recently abolished the capital punishment?

Kazakhstan

7

IMPORTANT QUOTES (For Essay and Answer Writing)



01



03



05

01

"When the power of love overcomes the love of power, the world will know peace"

William Gladstone

02

"I understand democracy as something that gives the weak the same chance as the strong"

Mahatma Gandhi

03

"Our scientific power has outrun our spiritual power. We have guided missiles and misguided men"

Martin Luther King

04

"It is the mark of an educated mind to be able to entertain a thought without accepting it"

Aristotle

05

"Rarest of all human quality is consistency"

Jeremy Bentham

06

"Longing for love, the search for knowledge and unbearable pity for the suffering of mankind"

Bertrand Russell

07

"Early to bed and early to rise makes a man healthy, wealthy and wise"

Benjamin Franklin

AN INTRODUCTION

Dhyeya IAS, a decade old Institution, was founded by Mr. Vinay Singh and Mr. Q.H. Khan. Ever since its emergence it has unparalleled track record of success. Today, it stands tall among the reputed institutes providing coaching for Civil Services Examination (CSE). The institute has been very successful in making potential realize their dreams which is evident from success stories of the previous years.

Quite a large number of students desirous of building a career for themselves are absolutely less equipped for the fairly tough competitive tests they have to appear in. Several others, who have a brilliant academic career, do not know that competitive exams are vastly different from academic examination and call for a systematic and scientifically planned guidance by a team of experts. Here one single move invariably put one ahead of many others who lag behind. Dhyeya IAS is manned with qualified & experienced faculties besides especially designed study material that helps the students in achieving the desired goal.

Civil Services Exam requires knowledge base of specified subjects. These subjects though taught in schools and colleges are not necessarily oriented towards the exam approach. Coaching classes at Dhyeya IAS are different from classes conducted in schools and colleges with respect to their orientation. Classes are targeted towards the particular exam. Classroom guidance at Dhyeya IAS is about improving the individual's capacity to focus, learn and innovate as we are comfortably aware of the fact that you can't teach a person anything you can only help him find it within himself.

DSDL Prepare yourself from distance

Distance learning Programme, DSDL, primarily caters the need for those who are unable to come to metros for economic or family reason but have ardent desire to become a civil servant. Simultaneously, it also suits to the need of working professionals, who are unable to join regular classes due to increase in work load or places of their posting. The principal characteristic of our distance learning is that the student does not need to be present in a classroom in order to participate in the instruction. It aims to create and provide access to learning when the source of information and the learners are separated by time and distance. Realizing the difficulties faced by aspirants of distant areas, especially working candidates, in making use of the institute's classroom guidance programme, distance learning system is being provided in General Studies. The distance learning material is comprehensive, concise and exam-oriented in nature. Its aim is to make available almost all the relevant material on a subject at one place. Materials on all topics of General Studies have been prepared in such a way that, not even a single point will be missing. In other words, you will get all points, which are otherwise to be taken from 6-10 books available in the market / library. That means, DSDL study material is undoubtedly the most comprehensive and that will definitely give you added advantage in your Preliminary as well as Main Examination. These materials are not available in any book store or library. These materials have been prepared exclusively for the use of our students. We believe in our quality and commitment towards making these notes indispensable for any student preparing for Civil Services Examination. We adhere all pillars of Distance education.

Face to Face Centres

DELHI (MUKHERJEE NAGAR) : 011-49274400 | 9205274741, **DELHI (RAJENDRA NAGAR)** : 011-41251555 | 9205274743, **DELHI (LAXMI NAGAR)** : 011-43012556 | 9205212500, **ALLAHABAD** : 0532-2260189 | 8853467068, **LUCKNOW (ALIGANJ)** 9506256789 | 7570009014, **LUCKNOW (GOMTI NAGAR)** 7234000501 | 7234000502, **GREATER NOIDA RESIDENTIAL ACADEMY** : 9205336037 | 9205336038, **BHUBANESWAR** : 8599071555, **SRINAGAR (J&K)** : 9205962002 | 9988085811

Live Streaming Centres

BIHAR: PATNA – 6204373873, 9334100961 | **CHANDIGARH** – 9216776076, 8591818500 | **DELHI & NCR** : FARIDABAD – 9711394350, 1294054621 | **GUJARAT**: AHMEDABAD - 9879113469 | **HARYANA**: HISAR – 9996887708, 9991887708, KURUKSHETRA – 8950728524, 8607221300 | **MADHYA PRADESH**: GWALIOR -9993135886, 9893481642, JABALPUR- 8982082023, 8982082030, REWA –9926207755, 7662408099 | **MAHARASHTRA**: MUMBAI -9324012585 | **PUNJAB**: PATIALA - 9041030070, LUDHIANA – 9876218943, 9888178344 | **RAJASTHAN**: JODHPUR - 9928965998 | **UTTARAKHAND**: HALDWANI-7060172525 | **UTTAR PRADESH**: ALIGARH – 9837877879, 9412175550, AZAMGARH - 7617077051, BAHRAICH - 7275758422, BAREILLY - 9917500098, GORAKHPUR - 7080847474, 7704884118, KANPUR - 7275613962, LUCKNOW (ALAMBAGH) - 7518573333, 7518373333, MORADABAD - 9927622221, VARANASI - 7408098888



dhyeyaias.com



STUDENT PORTAL

Dhyeya IAS Now on Telegram

We're Now on Telegram



Join Dhyeya IAS Telegram

Channel from the link given below

"https://t.me/dhyeya_ias_study_material"

You can also join Telegram Channel through
Search on Telegram

"Dhyeya IAS Study Material"

Join Dhyeya IAS Telegram Channel from link the given below

https://t.me/dhyeya_ias_study_material

नोट : पहले अपने फ़ोन में टेलीग्राम App Play Store से Install कर ले उसके बाद लिंक में
क्लिक करें जिससे सीधे आप हमारे चैनल में पहुँच जायेंगे।

You can also join Telegram Channel through our website

www.dhyeyaias.com

www.dhyeyaias.com/hindi



Address: 635, Ground Floor, Main Road, Dr. Mukherjee Nagar, Delhi 110009
Phone No: 011-47354625/ 26 , 9205274741/42, 011-49274400

Subscribe Dhyeya IAS Email Newsletter

(ध्येय IAS ई-मेल न्यूजलेटर सब्सक्राइब करें)

जो विद्यार्थी ध्येय IAS के व्हाट्सएप ग्रुप (Whatsapp Group) से जुड़े हुये हैं और उनको दैनिक अध्ययन सामग्री प्राप्त होने में समस्या हो रही है | तो आप हमारे ईमेल लिंक Subscribe कर ले इससे आपको प्रतिदिन अध्ययन सामग्री का लिंक मेल में प्राप्त होता रहेगा | **ईमेल से Subscribe करने के बाद मेल में प्राप्त लिंक को क्लिक करके पुष्टि (Verify) जरूर करें** अन्यथा आपको प्रतिदिन मेल में अध्ययन सामग्री प्राप्त नहीं होगी |

नोट (Note): अगर आपको हिंदी और अंग्रेजी दोनों माध्यम में अध्ययन सामग्री प्राप्त करनी है, तो आपको दोनों में अपनी ईमेल से **Subscribe** करना पड़ेगा | आप दोनों माध्यम के लिए एक ही ईमेल से जुड़ सकते हैं |

Join Dhyeya IAS Whatsapp Group by Sending "Hi Dhyeya IAS" Message on 9205336039.

Subscribe Dhyeya IAS Email Newsletter

Step by Step guidance for Subscription:

- **1st Step:** Fill Your Email address in form below. you will get a confirmation email within 2 min.
- **2nd Step:** Verify your email by clicking on the link in the email. (Check Inbox and Spam folders)
- **3rd Step:** Done! you will receive alerts & Daily Free Study Material regularly on your email.

Subscribe



Address: 635, Ground Floor, Main Road, Dr. Mukherjee Nagar, Delhi 110009
Phone No: 011-47354625/ 26 , 9205274741/42, 011-49274400



ADMISSIONS OPEN

FOR NEW ONLINE BATCH

IAS PRE-CUM-MAINS

PCS

OPTIONAL

HINDI & ENGLISH MEDIUM

Call: **9205962002**
9506256789

Whatsapp:
9205274741

Visit:
dhyeyaiaas.com