

INTERNATIONAL RELATION**No US Sanctions on Chabahar Port**

Recently, the External Minister of India replied in the Parliament that the US sanctions on Iran have no bearing on India's Chabahar port project and the port is functioning well. The US has given separate exceptions for the strategic Chabahar port project.

Key Points**About Chabahar Port:**

- It is located in the Indian Ocean in the Sistan province of Iran.
- The Chabahar port is considered a gateway to golden opportunities for trade by India, Iran and Afghanistan with central Asian countries.
- The port, which is easily accessible from India's western coast, is increasingly seen as a counter to Pakistan's Gwadar Port which is being developed with Chinese investment.

Importance of Chabahar Port for India:

- **Alternate Route:** Chabahar Port provides an option of alternate supply route to everyone, thus reducing the importance of Pakistan with respect to trade.
- **Strategic Requirements:** It is located on the Gulf of Oman and is only 72 km away from the Gwadar port in Pakistan which has been developed by China. China is aggressively pursuing its own Belt and Road Initiative (BRI) under the One Belt One Road (OBOR) project.
- **Connectivity:** In future, the Chabahar project and the International North South Transport Corridor (INSTC) will complement each other by optimising Indian connectivity with Russia and Eurasia. Also, it gives India direct access to Afghanistan and other Central Asian Republics

Reasons for Exception in US Sanctions:

- **In Interest of Afghanistan:** The US acknowledges that the Chabahar port project is not just only in India's or Iran's strategic interest but also in Afghanistan's strategic interest.
 1. Afghanistan is a landlocked country which depends on Pakistan for trade. All its trade goes largely through the Pakistani ports.
 2. Pakistan denies transit to India for trade with Afghanistan and Central Asia.
 3. This project provides Afghanistan a strategic alternative and helps it to escape being landlocked in a sense.
- **Bypassing Pakistan:** If in future, issues between America and Iran get resolved, then Chabahar Port will enable America to bypass Pakistan.
 1. Pakistan still controls all the administrative routes by which Afghanistan can be supplied.
 2. US has always remained hesitant to act on terrorists, specifically Afghan Taliban, due to that. Chabahar Port gives an option to America to take action against such terrorists.

2. First Democracy Summit

Recently, the Summit for Democracy was hosted by the United States "to renew democracy at home and confront autocracies abroad". The US President also announced the establishment of the Presidential Initiative for Democratic Renewal that will provide foreign assistance initiatives.

The initiative will be powered by \$424.4 million and will be aimed to support free media, fight corruption, strengthen democratic reforms, for use of technology for democracy and for defence of free and fair elections.

Key Points**About:**

- It aims to show how open, rights-respecting societies can work together to effectively tackle the challenges of present time, such as the Covid-19 pandemic, the climate crisis, and inequality.
- The Summit was centered around three principal themes:
 1. Defending against authoritarianism
 2. Addressing and fighting corruption
 3. Advancing respect for human rights

India's Stand:

- Democracies should jointly deal with social media and crypto currencies, so that they are used to empower democracy, not to undermine it.

- India is the largest democracy in the world which has 2,500-year-old democratic traditions and proposes to share India's democratic experience through digital solutions. Referred to the civilisational tradition of democracy in India citing the ancient city states under the Lichhavis and other people that flourished in India during the late Vedic and Buddhist period and continued to the early medieval period.
- Democracy has taken various shapes across the world and there is a need to work on the democratic practices and symptoms.
- It is needed to constantly improve the democratic practices and systems and to continuously enhance inclusion, transparency, human dignity, responsive grievance redressal and decentralisation of power.

Democracy

About:

- Democracy is a system of government in which the citizens exercise power directly or elect representatives from among themselves to form a governing body, such as a parliament.
- It is also referred to as “rule of the majority”. Here the power can't be inherited. People elect their leaders.
- Representatives stand in an election and the citizens vote for their representative. The representative with the most number of votes gets the power.

Brief History:

- India is the world's largest democracy. India became a democratic nation post its independence in the year 1947. Thereafter, the citizens of India were given the right to vote and elect their leaders.

India's Role in Strengthening Democracy:

- **Around the World:**
 1. **Capacity Building:** Beyond demonstrating the Election Commission (EC)'s enviable record in conducting free and fair elections, India has given training to the thousands of electoral officials from Asia, Africa, and other regions of the world in election management and parliamentary affairs for several decades.
 2. **Developmental Partnership Administration (DPA):** India has created a Developmental Partnership Administration (DPA) within the Ministry of External Affairs (MEA) to offer critical development assistance projects for many developing and new democracies across geographies. Examples: The building of the Afghan Parliament, providing support to Myanmar for upgrading its administrative and judicial capabilities, amongst others.
 3. **Funding to Democracy Watch Dogs:** Together with the US, India was instrumental in the creation of the UN Democracy Fund (UNDEF) and the Community of Democracies to support democracy at international levels. Incidentally, India is one of the largest contributors to UNDEF that supports 66 NGO-led projects in South Asia.
 4. **United Nations Democracy Caucus:** India also helped to form the United Nations Democracy Caucus, the only body within the UN system to convene democratic states based on shared values.
- **In India:**
 1. **Breaking Racial Discrimination:** India has given representation to a Dalit woman to rise to the highest office (as Chief Minister).
 2. **Right to Information Act, 2005:** The act, a totally civil society driven grassroots movement has truly democratised information spaces for ordinary citizens.
 3. **Democratic Decentralisation:** Twin constitutional amendments (73rd and 74th) in 1992 to create third-tier governments (rural and urban local bodies), has taken deep ground in the last three decades. With 3 million representatives at various levels (Gram Sabha, Panchayat Samiti, and Zilla Parishad), this is by far the largest democratic exercise anywhere in the world.

Concerns Related to Democracy:

World:

- **Decline in Political Rights and Civil Liberties:**

1. Democracies across the world—rich and established, developing and newly established ones—are grappling with serious crises on many key parameters.
 2. According to the reports of leading democracy watchdogs, democracy is witnessing an alarming decline.
 3. According to Democracy Index 2020, as low as 9% of the world population live in a “full” democracy. The recent military coups in Myanmar, Tunisia, and Sudan are testimonies to the steady rise of anti-democratic forces and the failure of the global democracy collective to do anything meaningful to stem the rot.
- **Rising Authoritarian:**
 1. Rising threats stemming from the steady rise of authoritarian powers, particularly China is a major concern.
 2. At a time when the West, particularly the US and rich European countries, have considerably ceded their global commitment to democratic values, China has set its eyes on re-defining global human rights and democracy norms.
 3. **Examples:** China has marshalled the military and diplomatic means to threaten Taiwan, forced territorial claims in the disputed South China Sea, thrown millions of Uyghur Muslims in internment camps, curbed political freedoms in Hong Kong, and launched influence operations across many geographies.

India's:

- The Freedom House 2021 report put India as only “partly free”, the V-Dem report went a step ahead to call it an “electoral autocracy”.
- According to the Global State of Democracy 2021 report, India was amongst the 10 most backsliding democracies—a more severe and deliberate kind of democratic erosion.

Way Forward

- The institutionalization of constitutional democracy has helped the people of India realize the importance of democracy and inculcate democratic sensibilities among them.
- At the same time, it is important that all the government organs work in harmony to uphold the trust people of the country have held in them and ensure objectives of true democracy.
- The Government should hear criticism rather than rejecting it outrightly. Suggestions on eroding democratic values need a thoughtful, and respectful response.
- The press and the judiciary, which are considered the pillars of India's Democracy, require it to be independent of any executive interference to enable auditing of the work of the executive.

ENVIRONMENT

Radioactive Pollution in Water

Recently, radioactive pollution in water and associated health impacts have been reported in many parts of the globe.

Key Points

About:

- Radioactivity is the phenomenon of spontaneous emission of particles or waves from the unstable nuclei of some elements. There are three types of radioactive emissions: Alpha, Beta and Gamma. Alpha particles are positively charged He (Helium) atoms, beta particles are negatively charged electrons and gamma rays are neutral electromagnetic radiations.
- Radioactive elements are naturally found in the earth's crust. Uranium, thorium and actinium are three NORM (Naturally Occurring Radioactive Materials) series that contaminate water resources.
- A small amount of radiation is found in all types of water but the extended amount of radiation is harmful to human health. Radioactivity in drinking water can be determined by a gross alpha test.
- Radioactivity is measured in Becquerel (SI unit) or in Curie. The unit Sievert measures the quantity of radiation absorbed by human tissues.

Sources:

- **Natural:**

1. Radiotoxic Elements in Aquatic System: Radium, a descendant of the NORM series, is one of the radiotoxic elements found in aquatic systems and can be penetrated into groundwater via (i) aquifer rock dissolution (ii) decaying of ^{238}U and ^{232}Th , or (iii) desorption processes. Radium is a radionuclide formed by the decay of uranium (U) and thorium (Th) in the environment.
2. Magma: Sometimes, magma also releases radioactive gases into the environment.
3. Soil Sediments: Percolation of NORM from the soil sediments to the aquifer causes groundwater contamination.

• **Anthropogenic:**

1. **Atmospheric Deposition of Cosmogenic Radionuclides:** Atmospheric deposition (both dry and wet) of cosmogenic radionuclides add radioactive nuclei in the surface water. Cosmogenic radionuclides are radioactive isotopes which are produced by natural processes and distributed within the Earth system.
2. **Nuclear Reactors and Warheads:** Nuclear reactors and nuclear warhead experiments are the key sources of human-induced radionuclides discharge. Nuclear reactors produce radioisotopes (Cobalt-60, Iridium-192, etc) that hand out as sources of gamma radiation in radiotherapy and numerous industrial appliances. Nuclear power plants placed at the coastal regions add to the radiological contaminants in the marine water by releasing atomic wastes. Water is also used as coolants in these powerhouses, which also get contaminated.
3. **Dumping of Radioactive Waste:** The application of radioactive elements in nuclear weapons, X-rays, MRI and other medical equipment causes their exposure to human beings. Dumping of these radioactive wastes in surface water bodies causes water pollution.
4. **Mining:** Mining activities of radioactive elements like uranium and thorium also pollute surface and groundwater.
5. **Nuclear Accidents:** Radioactive pollution due to nuclear submarine accidents and sinking have been reported. The Rocky Flats plant in Colorado, Fukushima and the Chernobyl nuclear disaster are some examples of such nuclear accidents.

Health Impacts:

- **Radiation Syndrome:** Human tissues absorb radiation through polluted water and foodstuff, which can cause serious health risks. High doses of radiation can cause acute radiation syndrome or dermal radiation injury.
- **Disorders in Human Physiology:** Exposure to radiation causes various disorders in human physiology, including cancer, leukaemia, genetic mutations, cataracts, etc.
- **Mutation and Structural Alteration:** Genetic effects ionizing radiation induces mutations in germ cells (male sperm cells and female egg cells), resulting in structural alteration in germ cell DNA that are passed on to offsprings. Hereditary disorders can lead to premature death and severe mental illness.

Way Forward

- Nowadays, proper analysis and monitoring of radioactive pollutants are also required for a safe water supply. Prevention and precaution measures can check the anthropogenic sources of radioactive contamination in water resources.
- Various treatment methods like aeration, reverse osmosis, ion exchange and granule carbon adsorption are effective remedial measures for treating the radioactive contaminated water.

SCIENCE & TECHNOLOGY

James Webb Space Telescope

The James Webb Space Telescope (JWST) is scheduled to be rocketed into orbit later this year (2021).

Key Points

About:

- It is the most powerful infrared telescope of National Aeronautics and Space Administration (NASA).
- It is also considered a successor of the Hubble Telescope and will extend and complement its discoveries.

1. Launched into low Earth orbit in 1990, the Hubble Space Telescope has made more than 1.4 million observations, including tracking interstellar objects, capturing a comet colliding with Jupiter, and discovering moons around Pluto.
 2. Hubble has captured galaxies merging, probed supermassive black holes and has helped us understand the history of our universe.
- The telescope is the result of an international collaboration between NASA, the European Space Agency (ESA) and the Canadian Space Agency.
 - Webb will reveal new and unexpected discoveries, and help humanity understand the origins of the universe and our place in it.
 - The telescope will study the atmospheres of a wide diversity of exoplanets.
 - It will also search for atmospheres similar to Earth's, and for the signatures of key substances such as methane, water, oxygen, carbon dioxide, and complex organic molecules, in hopes of finding the building blocks of life.

Launch:

- It will be launched on an Ariane 5 ECA rocket from French Guiana in South America. The Ariane 5 is believed to be one of the most reliable launch vehicles.

Goal:

- To search for the first galaxies that formed after the Big Bang.
- To determine how galaxies evolved from their earlier formation until now.
- To observe the formation of stars from the first stages to the formation of planetary systems.
- To measure the physical and chemical properties of planetary systems and investigate the potential for life in such systems.

Webb Vs Hubble Telescope:

• **Wavelength:**

1. The JWST will observe primarily in the infrared range and provide coverage from 0.6 to 28 microns.
2. The instruments on Hubble see mainly in the ultraviolet and visible part of the spectrum. It could observe only a small range in the infrared from 0.8 to 2.5 microns. The infrared region of the electromagnetic spectrum covers the wavelength range from approximately 0.7 to a few 100 microns.

• **Size:**

1. Webb's primary mirror has a diameter of 6.5 metres while Hubble's mirror was much smaller – 2.4 metres in diameter. So, Webb will have a larger field of view compared to the camera on Hubble.
2. Webb also carries a large sun shield.

• **Distance:**

1. Webb's near- and mid-infrared instruments will help study the first formed galaxies, exoplanets and birth of stars. Hubble can see the equivalent of "toddler galaxies" while Webb Telescope will be able to see "baby galaxies".

Other Major Infrared Telescope:

- **Herschel Space Observatory Telescope:** It is an infrared telescope, launched in 2009 by the European Space Agency.
 1. It also orbits the Sun similar to how Webb would. The primary difference between Webb and Herschel is the wavelength range: Webb goes from 0.6 to 28 microns, while Herschel covers 60 to 500 microns.
 2. Herschel's mirror is smaller than Webb's. It is 3.5 metres in diameter, while Webb's primary mirror has a diameter of 6.5 metres.

PRELIMS FACT

Kashi Vishwanath Corridor

Recently, the Prime Minister has inaugurated Phase 1 of the Kashi Vishwanath Corridor Project in Uttar Pradesh's Varanasi. 23 buildings – tourist facilitation centre, Vedic Kendra, Mumukshu Bhavan, Bhogshala, city museum, viewing gallery, food court among others — have been inaugurated as part of the project.

Key Points**About:**

- It is the massive makeover and the first after the 1780 AD when the Maratha queen Ahilyabai Holkar of Indore renovated the Kashi Vishwanath temple and the area surrounding it.
- The foundation was laid in March, 2019. The project was conceptualised to create an easily accessible pathway for the pilgrims, who had to meander through congested streets to take a dip in the Ganga and offering the water of the holy river at the temple.
- More than 40 ancient temples were rediscovered during the work on the project. They were restored while ensuring there is no change in the original structure.

Significance:

- It connects the iconic Kashi Vishwanath temple and the ghats along the river Ganga.
- 1. Kashi Vishwanath Temple is one of the most famous Hindu temples dedicated to Lord Shiva.
- 2. The temple stands on the western bank of the holy river Ganga, and is one of the twelve Jyotirlingas, the holiest of Shiva temples.
- It will help boost tourism by providing the pilgrims and travellers with amenities such as wider and cleaner roads and lanes, better lighting with bright street lights, and clean drinking water.

2.Hunar Haats

Recently, the Ministry of Minority Affairs has organised the 34th Edition of Hunar Haat in Gujarat where Artisans from 30 states and union territories have participated.

Key Points**About:**

- First launched in 2016, it is an exhibition of handicrafts and traditional products made by artisans from the minority communities.
- Hunar Haat has been conceptualized to protect and promote the country's ancestral legacy of arts and crafts in the current global competition and to support the traditional artisans and craftsmen.
- The artisans selected in the Hunar Haat exhibition are those whose forefathers were involved in such traditional handmade work and are still continuing the profession.

Theme: "Vocal for Local".

Organizer:

- These are organised by the Ministry of Minority Affairs under USTTAD (Upgrading the Skills & Training in Traditional Arts/Crafts for Development) scheme. The USTTAD scheme aims to promote and preserve the rich heritage of the traditional arts & crafts of the minority communities.

Aim:

- To provide market exposure and employment opportunities to artisans, craftsmen and traditional culinary experts.
- Boosting the skills of craftsmen, weavers and artisans who are already engaged in the traditional ancestral work.

Significance:

- 'Hunar Haat' has proved to be an "Empowerment Exchange" for master artisans and craftsmen.
- It has proved to be immensely beneficial and encouraging for artisans and craftsmen as lakhs of people visit the "Hunar Haat" and purchase indigenous handmade products of artisans on a large scale.
- It is also providing employment opportunities to lakhs of artisans and craftsmen from across the country. Presently around 7 lakh people across the country are directly and indirectly associated with Hunar Haat, About 40 % of them are women artisans, and in the next couple of years, around 17 lakh families are expected to join Hunar Haat.

DAILY ANSWER WRITING PRACTICE

Qns. National Education Policy (NEP), if properly implemented, has the potential to offset enormous learning losses wreaked upon by the pandemic. Comment. (250 words)

Ans:

Introduction

The National Education Policy (NEP) is aimed at transforming the Indian education system to meet the needs of the 21st Century. The new policy seeks rectification of poor literacy and numeracy outcomes associated with primary schools, reduction in dropout levels in middle and secondary schools and adoption of the multi-disciplinary approach in the higher education system. It also focuses on early childhood care, restructuring curriculum and pedagogy; reforming assessments and exams, and investing in teacher training and broad-basing their appraisal

Body**Background****Learning losses due to pandemic**

- School closure due to the COVID-19 pandemic has led to complete disconnect from education for the vast majority of children or inadequate alternatives like community based classes or poor alternatives in the form of online education, including mobile phone-based learning.
- Our school education faces an unprecedented crisis, one of enormous learning losses for about 220 million children because schools were shut for over 18 months.
- Covid-19 hit the poor and marginalised the most.
- On average, 92% of children have lost at least one specific language ability from the previous year across all classes.
- On average, 82% of children on an average have lost at least one specific mathematical ability from the previous year across all classes.
- Only a handful of private schools, universities and IITs could adopt online teaching methods. Their low-income private and government counterparts, on the other hand, have completely shut down for not having access to e-learning solutions.
- Issues of rural students, tribal children are not same. Not everyone can be onboarded to digital learning. Needs of these children must be thought of and a comprehensive learning policy must be made.

Potential of NEP to offset enormous learning losses wreaked upon by the pandemic

- The NEP's comprehensive and systematic response to tackle problems of basic literacy and numeracy in Indian schools that existed even before the pandemic offers us exactly the platform we require to address the covid-triggered learning crisis.
- The real on-the-ground measures that the policy envisions would greatly strengthen efforts at recovering deep losses on foundational literacy and numeracy.
- The bold vision of a new National Curricular Framework (NCF), intended to develop real capacities, nurture the dispositions of good and engaged citizens, and develop constitutional values in our children, while being less burdensome and moving away from rote learning, is exactly what is needed in this time of a learning crisis.
- The complete redesign of the very approach to education in classes 9 to 12 that the policy has could be placed at the core of enabling children who are in higher classes to graduate from school without any learning deficit.
- 'School complexes' are the NEP's centrepiece of how school organization and governance should be restructured for better outcomes.

Way forward

- Combined with the policy's large commitment to transforming the care and education of the youngest children, not only could we emerge from today's learning crisis, but perhaps come out ahead if the investments envisioned by the NEP are made in the 'Foundational Stage'(ages 3 to 8).
- We must reconfigure and cut down the syllabus to the essentials that enable those curricular goals.

- NEP's overall thrust to empower and trust teachers, and to grant academic autonomy to institutions, is just the kind of effort that is required on the ground for us to respond with adaptiveness and flexibility, given the nature of learning losses, which vary not only across classes, but importantly across children in the same class.

DAILY QUIZ

Q1. Consider the following statements:

1. Norovirus is a very contagious virus that causes vomiting and diarrhea.
2. People of all ages can get infected and sick with norovirus.

Which of the statements given above is/are correct?

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

Q2. Consider the following statements about the Iran Nuclear Deal:

1. It is also known as the Joint Comprehensive Plan of Action (JCPOA).
2. Under the deal, Iran agreed to significantly cut its stores of enriched uranium and all key components for nuclear weapons.

Which of the statements given above is/are correct?

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

Q3. Consider the following statements about the Bharat Gaurav Scheme:

1. Under this Scheme, theme-based tourist circuit trains can be run either by private or State-owned operators.
2. The service providers will be allowed to design/furnish the interior of the coaches based on the theme and put advertising inside and outside of the train.

Which of the statement given above is/are correct?

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

Q4. Consider the following statements:

1. The National Green Tribunal has been established under the National Green Tribunal Act 2010.
2. The Tribunal shall not be bound by the procedure laid down under the Code of Civil Procedure, 1908.
3. The Tribunal is mandated to make and endeavour for disposal of applications or appeals finally within 9 months of filing of the same.

Which of the statements given above is/are correct?

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

Q5. Gulf Of Aden forms a natural sea link between the

- a. Mediterranean and Red Sea
- b. Red Sea and the Arabian Sea**
- c. Mediterranean and Black Seas
- d. Persian Gulf and Caspian Sea