

SOCIAL ISSUE

Medical Termination of Pregnancy (MTP) Amendment Act, 2021

Recently, the Delhi High Court has allowed the medical termination of pregnancy of a woman who had completed 22 weeks of gestation as the foetus was suffering from multiple abnormalities. Gestation is the foetal development period from the time of conception until birth. In India, the Medical Termination of Pregnancy (MTP) Act stipulates a ceiling of 20 weeks, for termination of pregnancy, beyond which abortion of a foetus is statutorily impermissible.

Key Points

About MTP Act:

- The Medical Termination of Pregnancy Act, 1971 ("MTP Act") was passed due to the progress made in the field of medical science with respect to safer abortions.
- In a historic move to provide universal access reproductive health services, India amended the MTP Act 1971 to further empower women by providing comprehensive abortion care to all.
- The new Medical Termination of Pregnancy (Amendment) Act 2021 expands the access to safe and legal abortion services on therapeutic, eugenic, humanitarian and social grounds to ensure universal access to comprehensive care.

Key Provisions of the MTP Amendment Act, 2021:

- **Termination due to Failure of Contraceptive Method or Device :** Under the Act, a pregnancy may be terminated up to 20 weeks by a married woman in the case of failure of contraceptive method or device. It allows unmarried women to also terminate a pregnancy for this reason.
- **Opinion Needed for Termination of Pregnancy:**
 1. Opinion of one Registered Medical Practitioner (RMP) for termination of pregnancy up to 20 weeks of gestation.
 2. Opinion of two RMPs for termination of pregnancy of 20-24 weeks of gestation.
 3. Opinion of the State-level medical board is essential for a pregnancy to be terminated after 24 weeks in case of substantial foetal abnormalities.
- **Upper Gestation Limit for Special Categories:** Increases the upper gestation limit from 20 to 24 weeks for special categories of women, including survivors of rape, victims of incest and other vulnerable women (differently abled women, minors, among others).
- **Confidentiality:** The "name and other particulars of a woman whose pregnancy has been terminated shall not be revealed", except to a person authorised in any law that is currently in force.

Significance:

- The new law will contribute towards ending preventable maternal mortality to help meet the Sustainable Development Goals (SDGs) 3.1, 3.7 and 5.6. SDG 3.1 pertains to reducing maternal mortality ratio whereas SDGs 3.7 and 5.6 pertain to universal access to sexual and reproductive health and rights.
- The amendments will increase the ambit and access of women to safe abortion services and will ensure dignity, autonomy, confidentiality and justice for women who need to terminate pregnancy.

Issues:

- **Different opinions on Termination:**
 1. One opinion is that terminating a pregnancy is the choice of the pregnant woman and a part of her reproductive rights while the other is that the state has an obligation to protect life, and hence should provide for the protection of the foetus.
 2. Across the world, countries set varying conditions and time limits for allowing abortions, based on foetal health, and risk to the pregnant woman.
- **Not allowed beyond 24-weeks:**
 1. The Act allows abortion after 24 weeks only in cases where a Medical Board diagnoses substantial foetal abnormalities.
 2. This implies that for a case requiring abortion due to rape, that exceeds 24-weeks, the only recourse remains through a Writ Petition.
- **Abortion to be performed by doctors:**
 1. The Act require abortion to be performed only by doctors with specialisation in gynaecology or obstetrics.
 2. As there is a 75% shortage of such doctors in community health centers in rural areas, pregnant women may continue to find it difficult to access facilities for safe abortions.

Way Forward

- It is commendable that the Central Government has taken such a bold stand while balancing the diverse cultures, traditions and schools of thought that our country maintains, however the amendment still leaves women with various conditionalities, which in many cases become an impediment in access to safe abortion. In Justice K.S. Puttaswamy (Retd.) vs. the Union Of India And Others (2017), the court recognized the constitutional right of women to make reproductive choices, as a part of personal liberty under Article 21 of the Indian Constitution, which, despite laying a robust jurisprudence on reproductive rights and the privacy of a woman, does not translate into a fundamental shift in power from the doctor to the woman seeking an abortion.
- The government needs to ensure that all norms and standardised protocols in clinical practice to facilitate abortions are followed in health care institutions across the country.
- Along with that, the question of abortion needs to be decided on the basis of human rights, the principles of solid science, and in step with advancements in technology.
- Since it has now become an act, one can be assured that the country is on the road to advancement, addressing women issues more fiercely than ever.

POLITY**Governor's Power to Pardon Overrides Section 433A: SC**

Recently, the Supreme Court (SC) held that the Governor's power to pardon overrides Section 433A of Code of Criminal Procedure (CrPC). Earlier in January 2021, in a case of mercy petition, the SC noted that the Governor cannot reject the state's recommendation but there is no time prescribed to take a decision.

Key Points**Pardoning Power Overrides 433A:**

- SC held that the Governor of a State can pardon prisoners, even before they have served a minimum 14 years of prison sentence.
- The Governor's power to pardon overrides a provision in the CrPC Section 433A which mandates that a prisoner's sentence can be remitted only after 14 years of jail. Section 433A states that where a sentence of imprisonment for life is imposed on conviction of a person for an offence for which death is one of the punishments provided by law, or where a sentence of death imposed on a person has been commuted under section 433 into one of imprisonment for life, such person shall not be released from prison unless he had served at least fourteen years of imprisonment.
- Section 433-A cannot and does not in any way affect the constitutional power conferred on the President/Governor to grant pardon under Articles 72 or 161 of the Constitution.

Power Exercised by State Government:

- The court noted that the sovereign power of a Governor to pardon a prisoner under Article 161 is actually exercised by the State government and not the Governor on his own.
- The advice of the appropriate government binds the Head of the State.

Order of Commutation:

- The action of commutation and release can thus be pursuant to a governmental decision and the order may be issued even without the Governor's approval. However, under the Rules of Business and as a matter of constitutional courtesy, it may seek approval of the Governor, if such release is under Article 161 of the Constitution.
1. The state government can frame a policy of grant of remissions either under Section 432 of the CrPC or under Article 161 of the Constitution.
 2. If a prisoner has undergone more than 14 years of actual imprisonment, the state government, as an appropriate Government, is competent to pass an order of premature release.
 3. Section 432 of the Code of Criminal Procedure empowers the Government to remit sentence.

Pardoning Power**Pardoning Power of the President in India:**

- **About:** Under Article 72 of the Constitution, the President shall have the power to grant pardons, reprieves, respites or remissions of punishment or to suspend, remit or commute the sentence of any person convicted of any offence where the sentence is a sentence of death.
- **Limitation:**
 1. The President cannot exercise his power of pardon independent of the government.
 2. In several cases, the SC has ruled that the President has to act on the advice of the Council of Ministers while deciding mercy pleas. These include Maru Ram vs Union of India in 1980, and Dhananjoy Chatterjee vs State of West Bengal in 1994.

- **Reconsideration:** Although the President is bound by the Cabinet's advice, Article 74(1) empowers him to return it for reconsideration once. If the Council of Ministers decides against any change, the President has no option but to accept it.

Governor's Pardoning Power:

- **Article 161:** The Governor of a State shall have the power to grant pardons, reprieves, respites or remissions of punishment or to suspend, remit or commute the sentence of any person convicted of any offence against any law relating to a matter to which the executive power of the State extends.

Difference Between Pardoning Powers of President and Governor:

- The scope of the pardoning power of the President under Article 72 is wider than the pardoning power of the Governor under Article 161 which differs in the following two ways:
 1. Court Martial: The power of the President to grant pardon extends in cases where the punishment or sentence is by a Court Martial but Article 161 does not provide any such power to the Governor.
 2. Death sentence: The President can grant pardon in all cases where the sentence given is the sentence of death but the pardoning power of the Governor does not extend to death sentence cases.

GOVERNOR

Panchayat Extension to Scheduled Areas (PESA) Act, 1996

The Adivasi self-governance system has disappeared from most of the areas in Jharkhand. During most of the time in history, most of the Adivasis (India's tribal communities) had their own federal governance system. However, the administrative systems during the colonial period and after independence affected the Adivasi governance system to a great extent.

The Panchayat Extension to Scheduled Areas (PESA) Act, 1996 was supposed to uphold the traditional decision-making process.

Key Points

Case Study - Tribal Governance System of Jharkhand:

- Jharkhand was carved out as the 28th state of India from the Southern part of Bihar in 2000. This part was distinctively different from the northern part of Bihar in terms of geography and social composition.
- It has 32 different tribes, including the nine Particularly Vulnerable Tribal Groups (PVTG). According to Census 2001, Santhal (34%), Oraon (19.6%), Munda (14.8%) and Ho (10.5%) are among the major tribes in terms of numbers.
- The entire social system was organised into three functional levels across major tribal communities in the state. The first one is at the village level; the second at the cluster of five-six village levels and the third at community levels.
- These decision-making processes were considered people-centric and democratic, although women were mostly not allowed to participate in such processes.
- They had their own system of governance, which was, unlike the caste system, non-hierarchical. Every tribal village had a village council as the basic unit for self-governance.
- These forums used to act as the decision-making bodies for all matters related to administration, the Parliament and judiciary.
 1. The administrative matters were related to maintenance of village commons (such as lands, forests and water bodies), labour sharing, agriculture activities, religious events and festivals, etc.
 2. The parliamentary matters were related to upholding and interpreting norms and unwritten laws and traditional values.
 3. The judiciary matters were related to managing conflict, disciplinary actions, etc guided by unwritten norms and values.
- **Gradual Collapse of the System:** After the introduction of the Bihar Panchayat Raj System (BPRS) in 1947, these Adivasi traditional governance systems became weak.

BPRS was formed keeping the non-Adivasi areas in view.

- As a result, due to the non-priority and neglect, the process of the traditional governance system was affected.
- This was aggravated by industrialisation, displacement of Adivasis and urbanisation.
- About Panchayat Extension to Scheduled Areas (PESA) Act, 1996:
 - To promote local self-governance in rural India, the 73rd constitutional amendment was made in 1992.
 - Through this amendment, a three-tier Panchayati Raj Institution was made into a law. However, its application to the scheduled and tribal areas under Article 243(M) was restricted.

- After the Bhuria Committee recommendations in 1995, Panchayat Extension to Scheduled Areas (PESA) Act 1996 came into existence for ensuring tribal self-rule for people living in scheduled areas of India.
- The PESA conferred the absolute powers to Gram Sabha, whereas state legislature has given an advisory role to ensure the proper functioning of Panchayats and Gram Sabhas. The power delegated to Gram Sabha cannot be curtailed by a higher level, and there shall be independence throughout.
- The PESA is considered to be the backbone of tribal legislation in India.
- PESA recognises the traditional system of the decision-making process and stands for the peoples' self-governance.
- Following powers and functions have been provided to the Gram Sabhas:
 1. Right to mandatory consultation in land acquisition, resettlement and rehabilitation of displaced persons.
 2. Protection of traditional belief, the culture of the tribal communities
 3. Ownership of minor forest products
 4. Resolution of the local disputes
 5. Prevention of land alienation
 6. Management of village markets
 7. Right to control production, distillation, and prohibition of liquor
 8. Exercise of control over money-lending
 9. Any other rights involving the Scheduled Tribes.

Issues Related to PESA:

- The state governments are supposed to enact state laws for their Scheduled Areas in consonance with this national law.
 1. This has resulted in the partially implemented PESA.
 2. The partial implementation has worsened self-governance in Adivasi areas, like in Jharkhand.
- Many experts have asserted that PESA did not deliver due to the lack of clarity, legal infirmity, bureaucratic apathy, absence of a political will, resistance to change in the hierarchy of power, and so on.
- Social audits conducted across the state have also pointed out that in reality different developmental schemes were being approved on paper by Gram Sabha, without actually having any meeting for discussion and decision making.

India's Tribal Policy

- In India, most of the tribes are collectively identified under Article 342 (1&2) as "Scheduled Tribes".
- Their right to self-determination is guaranteed by Part X: The Scheduled and Tribal Areas – Article 244; Administration of Scheduled Areas and Tribal Areas.
- That is, Fifth and Sixth Schedules of the Indian Constitution.
- The Provisions of the Panchayats (Extension to Scheduled Areas) Act, 1996 or PESA.
- The Tribal Panchsheel Policy
- Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 concerns the rights of forest-dwelling communities to land and other resources.

Way Forward

- PESA, if it is implemented in letter and spirit, will rejuvenate the dying self-governance system in the tribal area.
- This will also give an opportunity to correct the loopholes in the traditional governance system and make it a more gender-inclusive and democratic space.

ECONOMY

Social Security Measures for Informal Workers

Recently, the Parliamentary Standing Committee on Labour has released a report on the impact of the Covid-19 pandemic on rising unemployment and job loss. The panel called on the government to improve social security measures and take measures like Direct transfer of money and urban employment guarantee scheme for informal sector workers.

Key Points

Need for Social Security Measures:

- Citing the Periodic Labour Force Survey (PLFS), the report said 90% of workers were in the informal sector, which is 419 million of the 465 million workers. Informal workers in rural and urban areas have been hit the most due to the pandemic, because of the seasonality of their employment and lack of formal employee-employer relationship.

- No survey data are available as yet on the impact of the second wave which has undisputedly been more severe than the first.
- 1. However, anecdotal evidence suggests that there would have been significant income losses particularly in the informal sector, pushing the vulnerables deeper into crisis.
- 2. Moreover, the Covid-19 crisis in India has come in the backdrop of pre-existing high and rising unemployment.
- The consequential effects on loss of jobs, rising unemployment, indebtedness, nutrition, health and education of unorganised workers and their family members have the potential to cast a long shadow and irreparable damage.

Highlights of the Report:

- The Ministry of Labour delayed responding to the migrant crisis when Covid-19 struck.
- The pandemic has devastated the labour market, denting the employment scenario and threatening the survival of millions of workers and their families.
- **In this scenario, the committee recommended:**
- **Direct Benefit Transfer:** Putting money in the bank accounts of the informal workers during adverse conditions like Covid-19. It also suggests converting loans granted to street vendors under the PM-SVANidhi Scheme to direct cash grants.
- **Universal Healthcare:** Universal healthcare should be made a legal obligation of the government. This can be provided by mandatory health insurance to informal workers.
- **MGNREGA Reforms:** The budgetary allocation for MGNREGA should be increased and an urban jobs guarantee scheme on the lines of the MGNREGA should be implemented. It suggests increasing maximum days of work guaranteed under MGNREGA from 100 days to 200.
- **Enhancing Employment Opportunities:** Leveraging investments into the traditional sectors, strengthening the 'Make in India' mission and intensifying further infusion of technology into various sectors would provide enhanced local and pan-India employment opportunities.

Initiatives Already Taken to Support Informal Sector:

1. Pradhan Mantri Shram Yogi Maan-dhan (PM-SYM)
2. Labour Reforms
3. Pradhan Mantri Rojgar Protsahan Yojana (PMRPY)
4. PM SVANidhi: Micro Credit Scheme for Street Vendors
5. Atmanirbhar Bharat Abhiyan
6. Deendayal Antyodaya Yojana National Urban Livelihoods Mission
7. PM Garib Kalyan Ann Yojana (PMGKAY)
8. One Nation One Ration Card
9. Atmanirbhar Bharat Rozgar Yojana
10. Pradhan Mantri Kisan Samman Nidhi
11. World Bank Support to India's Informal Working Class

Supreme Court Judgement in Welfare of Informal Sector Workers:

- **Registration of Migrant Workers:** The SC has directed the Central Government and the State Governments to complete the registration process of unorganized workers so that they can avail the welfare benefits given under various government schemes.
- **Ruling on ONORC System:** The SC directed all states and Union Territories (UT) to implement the One Nation, One Ration Card (ONORC) system by 31st July 2021. The scheme allows migrant labourers covered under the National Food Security Act (NFSA) to access food at any fair price shop with his or her ration card in any part of the country.

Way Forward

- The Labour Ministry should take up the issue of timely completion of the PLFS with the Statistics and Programme Implementation Ministry.
- A comprehensive plan and roadmap is required to address the deteriorating condition of employment much aggravated by the pandemic, and widening disparities in the job market in the organised sector.
- There is a need to develop a national database of unorganised workers.

Further, formalising the sector, increasing its productivity, strengthening existing livelihoods, creating new opportunities and fortifying social security measures are major thrust areas to mitigate the impact of Covid-19.

ENVIRONMENT & BIODIVERSITY

Net Zero Carbon Targets and Climate Change: Oxfam Report

Recently, a report (Tightening the Net) published by Oxfam International has said that announcing Net Zero Carbon Targets may be a dangerous distraction from the priority of cutting carbon emissions. Many countries like New Zealand, UK, US, China and the European Union have set net-zero targets on greenhouse gas emissions to tackle climate change. The report emphasises that reducing emissions cannot be considered a substitute for cutting emissions. Oxfam International is a group of independent non-governmental organisations formed in 1995.

Key Point

Net-zero:

- Net-zero, also means carbon neutrality, is a state in which a country's emissions are compensated by absorption and removal of greenhouse gases from the atmosphere. It does not mean that a country would bring down its emissions to zero. That would be gross-zero, which means reaching a state where there are no emissions at all, a scenario hard to comprehend.
- One way by which carbon can be absorbed is by creating carbon sinks. This way, it is even possible for a country to have negative emissions, if the absorption and removal exceed the actual emissions.
- 1. Until recently, the Amazon rainforests in South America, which are the largest tropical forests in the world, were carbon sinks. But eastern parts of these forests have started emitting CO₂ instead of absorbing carbon emissions as a result of significant deforestation.
- 2. Bhutan has negative emissions, because it absorbs more than it emits.

Countries that have announced net-zero Targets (Some Examples):

- The European Union has a plan, called "Fit for 55", to deliver the carbon neutrality goal.
- China also announced that it would become net-zero by the year 2060 and that it would not allow its emissions to peak beyond what they are in 2030.
- The International Energy Agency's (IEA) has released its Net Zero Emissions (NZE) Roadmap - named 'Net Zero by 2050'.

Findings of the Report:

- **A very big area is needed to control energy sector emissions:** If the entire energy sector-whose emissions continue to soar- were to set similar 'net-zero' targets, it would require an area of land nearly the size of the Amazon rainforest, equivalent to a third of all farmland worldwide.
- **More Forests required:** If the challenge of change is tackled only by way of planting more trees, then about 1.6 billion hectares of new forests would be required to remove the world's excess carbon emissions by the year 2050.
- **Land- Based Methods can raise food crises:**
 1. Currently, countries' plans to cut emissions will only lead to a 1% reduction by the year 2030.
 2. Significantly, if only land-based methods (Forestation) to deal with climate change are used, food crises are expected to rise even more. Oxfam estimates that they could rise by 80% by the year 2050.
- **Need to cut emissions significantly:** To limit global warming below 1.5°C and to prevent irreversible damage from climate change, the world needs to collectively be on track and should aim to cut emissions by 45% by 2030 from 2010 levels, "with the sharpest being made by the biggest emitters."

Analysis (Net-Zero vs Climate Change):

- **'Net-Zero' Reduces the Responsibility of 'Biggest Emitters':**
 1. Many governments and companies are adopting net zero climate targets as they recognize the urgency of the climate crisis.
 2. Without clear definition, however, these targets risk being reliant on using vast swathes of land in low-income countries to capture carbon emissions, allowing the biggest emitters to avoid making significant cuts in their own emissions.

May Increase the Demand for Land: It could also lead to an explosion in demand for land which, if not subject to careful safeguards, might risk increasing hunger and fueling land inequality.

Way Forward

Net zero should be a pathway to real and transformative climate action and not greenwash. Carbon emissions need to be reduced now, and land-based climate solutions must center 'food-first' approaches that help achieve both zero emissions and zero hunger.

2.Red Tide

Florida has been battling outbreaks of red tide, caused by the algae *Karenia brevis*, for several years. This year's bloom may have been aggravated due to the release of contaminated water into Tampa Bay earlier. Tampa Bay, arm of the Gulf of Mexico, indenting the west coast of Florida, US.

Key Points

About:

- Harmful Algal Blooms, or HABs, occur when colonies of algae grow out of control and produce toxic or harmful effects on people, fish, shellfish, marine mammals and birds.
- While many people call these blooms 'red tides,' scientists prefer the term harmful algal bloom.
- One of the best known HABs in the US occurs nearly every summer along Florida's Gulf Coast. This type of bloom is caused by a species of dinoflagellate known as *Karenia brevis*.
- On the other hand, blooms in freshwater lakes and reservoirs are most commonly caused by blue-green algae (also known as cyanobacteria). Blue-green algae blooms have a direct relation to agricultural and urban runoff. Nutrient pollution encourages the growth of cyanobacteria.

Causes of Algal Blooms:

- **Eutrophication:** Nutrients promote and support the growth of algae and Cyanobacteria. The Eutrophication (nutrient enrichment) of waterways is considered as a major factor.
- **Temperature:** Blooms are more likely to happen in summer or fall but can occur any time of year.
- **Turbidity:** Turbidity is caused by the presence of suspended particles and organic matter in the water column. When turbidity is low, more light can penetrate through the water column. This creates optimal conditions for algal growth.

Implications of Algal Bloom:

- Produce extremely dangerous toxins that can sicken or kill people and animals.
- 1. Fish contaminated with the algae and eaten by other organisms, including humans, can be harmful to them.
- 2. Algal blooms can also impact aquaculture, or the farming of marine life.
- There have also been complaints of respiratory distress in humans due to red tide.
- Algal Blooms deprive aquatic organisms of Sunlight and oxygen and negatively impact a variety of species that live below the water surface.
- Create Dead Zones in the water. "Dead zone" is a more common term for hypoxia, which refers to a reduced level of oxygen in the water.
- Raise treatment costs for drinking water. Hurt industries that depend on clean water.

Mitigating Risks from HAB:

- **Multiple treatment of effluent:** Simple treatment options are not effective; multiple treatment steps are typically needed to remove algae toxins. Using tertiary sewage treatment methods to remove phosphate and nitrate before discharging the effluent into rivers and lakes.
- **Nitrogen testing & modelling:** N-Testing is a technique to find the optimum amount of fertilizer required for crop plants. It will reduce the amount of nitrogen lost to the surrounding area.
- **Encouraging organic farming:** Reducing the overuse of fertilizers in agriculture and encouraging organic farming can reduce the bulk flow of runoff and can be effective for reducing severe algal blooms. Reduction in nitrogen emission from vehicles and power plants. Reducing the use of phosphates as builders in detergents.

Measures to cope with Algal Bloom in India:

- Algal Bloom Information Service: ABIS provides timely information on harmful algal blooms, which are detrimental to coastal fisheries, water quality and also tend to induce respiratory problems within the coastal population from time to time.
- ISRO's Oceansat-2 satellite launched in 2009 can cover larger areas and provide global ocean colour.

IMPORTANT FACTS FOR PRELIM

NASA's Boeing Starliner Spacecraft

Recently, the launch of Boeing's uncrewed Starliner Orbital Flight Test-2 (OFT-2) has been postponed once again. The spacecraft, which is called the Crew Space Transportation-100 (CST-100), is part of an uncrewed test flight to the International Space Station (ISS). The mission is part of NASA's Commercial Crew Program.

Key Points

About CST-100:

- The spacecraft has been designed to accommodate seven passengers or a mix of crew and cargo for missions to low-Earth orbit.
- For NASA service missions to the ISS, it will carry up to four NASA-sponsored crew members and time-critical scientific research. The Starliner is supposed to carry more than 400 pounds of NASA cargo and crew supplies.
- The Starliner has an innovative, weldless structure and is reusable up to 10 times with a six-month turnaround time.

Purpose:

- When this test flight takes off, it will check the capabilities of the spacecraft from launch, docking, atmospheric re-entry and a landing at a desert in the US.
- The spaceflight will also help NASA to ascertain and certify the transportation system to carry astronauts to and from the space station in the future.

NASA's Commercial Crew Program:

- Its main objective is to make access to space easier in terms of its cost, so that cargo and crew can be easily transported to and from the ISS, enabling greater scientific research.
- Through this program, NASA plans to lower its costs by sharing them with commercial partners such as Boeing and SpaceX.
- It is also planning to give the companies incentive to design and build the Commercial Orbital Transportation Services (COTS). COTS was a NASA program, announced in 2006 to coordinate the delivery of crew and cargo to the International Space Station (ISS) by private companies.
- By encouraging private companies such as Boeing and SpaceX to provide crew transportation services to and from low-Earth orbit, NASA can focus on building spacecraft and rockets meant for deep space exploration missions.
- Crew-2 mission is the second crew rotation of the SpaceX Crew Dragon and the first with international partners. Crew-2 astronauts joined the members of Expedition 65 (65th long duration expedition to the ISS).
- In May 2020, NASA's SpaceX Demo-2 test flight lifted off for the ISS carrying two astronauts. The aim of this test flight was to see if SpaceX capsules could be used on a regular basis to ferry astronauts to and from the ISS.

International Space Station (ISS)

- It is a habitable artificial satellite - the single largest man-made structure in low earth orbit. Its first component was launched into orbit in 1998.
- It circles the Earth in roughly 92 minutes and completes 15.5 orbits per day.
- The ISS programme is a joint project between five participating space agencies: NASA (United States), Roscosmos (Russia), JAXA (Japan), ESA (Europe), and CSA (Canada) but its ownership and use has been established by intergovernmental treaties and agreements.
- It serves as a microgravity and space environment research laboratory in which crew members conduct experiments in biology, human biology, physics, astronomy, meteorology, and other fields.
- Continuous presence at ISS has resulted in the longest continuous human presence in low earth orbit.
- It is expected to operate until 2030.

Recently, the Russian Space Agency Roscosmos launched its biggest space laboratory named Nauka to the International Space Station (ISS).

DAILY ANSWER WRITING PRACTICE

Qns. Explain the concept of Silver economy. Do you think it can prove to be a source of opportunities? Discuss the challenges and the benefits of it. (250 words)

Ans:

Introduction

Silver economy is the system of production, distribution and consumption of goods and services aimed at using the purchasing potential of older and ageing people and satisfying their consumption, living and health needs.

The silver economy is analysed in the field of social gerontology not as existing economic system but as an instrument of ageing policy and the political idea of forming a potential, needs-oriented economic system

for aging population. Its main element is gerontechnology as a new scientific, research and implementation paradigm.

Body

Silver Economy:

- This concept, derived from the so-called silver market that emerged in Japan, — the country with the highest percentage of people over 65 — during the 1970s.
- The sectors include, among others, structures for the elderly, personal services, home help, housing, communication, transport, safety, leisure, hygiene, travel, Mutual insurances, provident institutions and insurers.

Importance of Silver Economy for India:

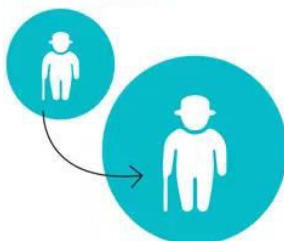
- According to the State of World Population 2019 report by the United Nations Population Fund (UNFPA), released. India's population in 2019 stood at 1.36 billion, growing from 942.2 million in 1994 and six per cent of India's population was of the age 65 and above.
- Thus, the government is exploring ways to promote the idea of 'Silver Economy'.
- The demographic changes in the country call for appropriate economic and social innovation underpinned by adequate policy reform and profound cultural transformation.
- This can be developed by providing residential and infrastructure facilities of different grades for senior citizens through public-private partnership for a dignified and safe aging experience.

Prospects of Silver Economy:

- The Silver Economy is multisectoral and does not focus on a single market. In this broad filed, bringing actors together can seem like a tough challenge.
- This is why it is important to set up endeavors in order to "organize and structure, so as to federate and unite all companies acting for or with older people."
- New products and services will emerge on the market adapted to the needs of older people. To achieve this, it will be important to rely on gerontechnology, which is the area of technology that studies human ageing.
- The ageing of the population will lead to the creation of jobs and the emergence of careers related to the silver economy, for example in the area of care for the elderly.
- The rise of the senior economy will encourage governments to invest in solutions that improve health care and the independence of the elderly.
- Being a consumption driven economy, India will benefit immensely from increased consumption of goods and services by the senior segment.
- There will be enormous opportunities for those investing in the silver economy such as social upkeep, health, recreation, and asset management. The new-age economy will also ensure a large supply of skilled and experienced workforce.

300M ELDERLY BY 2050

30 years from now, the elderly population in India is expected to triple from **104 million** in 2011 to **300 million** in 2050



Elderly population in **India (134m)** in 2020) is fast reaching the current size of population of **Mexico (130m)** or **Russia (143m)**

The 2050 population of elderly will be close to the population of the US (**326m** in 2018) today

India's **12 million** population of 80+ is equal to the total population of countries such as Belgium, Greece, or Cuba

Challenges:

- The lack of dedicated service and product outlets
- The isolation of seniors in a changing society
- Expensive Healthcare costs

- Mental health issues are rarely discussed
- Lack of financial support
- Most of the elderly population resides in rural areas which are infrastructure deficit areas
- In addition, most of the aged are not accorded the dignity of care they deserve in later life.

Measures needed:

• **Recognizing Senior Care as a Sector:**

1. Senior Care needs to be recognized as a sector with appropriate regulations, policy support, tax structures, availability of subsidized financing, and appropriate governance mechanisms.
2. This would attract greater investments and encourage private sector participation.

• **Tax incentives:**

1. Expenses on senior care solutions (like home care, care homes etc.) should be exempted of any taxes to enable faster penetration of such products and services.
2. This will increase private sector participation and enhance the overall quality of service.

• **Providing access to low cost funding:**

1. Currently the senior living players find it difficult to raise funds for development of senior living communities.
2. Developers either have to rely on advances from customers or infuse equity. Higher input costs lead to higher price for seniors. It therefore allows only a small segment to buy or lease senior communities.
3. Lower financing costs would allow for more affordable senior living and senior care projects.

• **Preferred status for land allocation and payments:**

1. Availability of land at lower prices than market prices and the option of staggered payments at lower interest, would also help in keeping the cost of living arrangements, especially in metros, at an affordable level.
2. This will further help in removing entry barriers and bolster growth of the silver economy.

Way forward:

- Policy reforms are necessary to address twenty-first century demographic change, but their success rest in large part on correcting long-held prejudices about ageing and addressing inequalities in healthy life expectancy.
- Technology solutions empower the ageing by helping build new markets, delivering new products and services, supporting new work practices and creating connected communities that respond to their needs.
- Innovative new models of finance are needed to drive the silver market. Incentivizing private investment can drive innovation and market growth in coordination with philanthropy and public funding.
- New, flexible models for careers and pensions can encourage people to work longer and plan better for the future. If coupled with life-long reskilling and adoption of smart work practices, these labour force changes can lead to greater productivity in the workplace, increased jobs and economic growth.
- Social entrepreneurship is an important component to achieve the silver economy, and public policy should build enabling frameworks to help these efforts flourish.
- It is noteworthy that the government of India has taken proactive steps to address the concerns arising out of the increase in ageing populations. One such step is the Draft National Policy for Senior Citizens 2020, which seeks to create a strong silver economy that caters to the new and evolving needs of seniors in the country.
- Besides, the government recently launched the Decade of Healthy Ageing (2020-2030) campaign to offer support to seniors and ensure easy access to age-specific products and services for them.

Conclusion

Healthy elderly citizens can share their wealth of knowledge with younger generations, help with childcare, and volunteer or hold jobs in their communities. A critical step in this direction will be allowing people to work longer and helping them plan better for their retirements, while offering critical support to the senior care industry to provide necessary services at affordable rates. This will not only create a win-win model for the consumers and the industry but will also create a national ecosystem that manages the population ageing smoothly.

DAILY QUIZ

Q1. Consider the following pairs:

1. Remission: Reducing the period of sentence
2. Respite: Awarding a lesser sentence in place of originally awarded due to some special facts
3. Reprieve: Stay of the execution of sentence

Which of the given above pairs is/are correctly matched?

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

Q2. Consider the following statements with reference to Administrative Tribunals in India:

1. They are a part of traditional judicial system and derives their power from the state.
2. They only have the power to try cases which are specially conferred upon them through some statute.
3. They can decide the vires of a legislation.

Which of the given above statements is/are correct?

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

Q3. Consider the following statements regarding the 'Deep Ocean Mission':

1. It is an Indian initiative to undertake the deep ocean exploration.
2. It consists of manned and unmanned submersibles exploring the sea bed.
3. Its primary aim is to explore and extract polymetallic nodules.

Which of the given above statements is/are correct?

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

Q4. The phrase 'Fit for 55' package was in news recently, is related to:

- a. Public health
- b. New climate proposal**
- c. Ageing population
- d. New insurance policy

Q5. Consider the following statements about 'Minervarya Pentali':

1. It is endemic to the southern Western Ghats.
2. It is one of the basic ingredients used in South Indian Cuisine.

Which of the given above statements is/are correct?

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