

HEALTH ISSUES**Mental Health Care and Its Management**

In context: The Standing Committee on Health and Family Welfare, recently tabled its report on 'Mental Health Care and Its Management in Contemporary Times' in the Parliament.

Major Highlights of the Report

- ✓ **Definition:** The report defines mental health as a state of well-being that enables people to cope with the stress of life.
- ✓ **State of Mental Health:** It highlighted that the mental health-related issues are rising in India and the country lags with inadequate staff, medical infrastructure and budgetary allocation.
 - The Committee stated that India currently has 0.75 psychiatrists per lakh people, which is significantly low.
 - The Committee observed that if India targets having three psychiatrists per lakh people, it will need 27,000 more psychiatrists.
- ✓ **Global Scenario:** In 2010, global economic losses of around \$2.5 trillion annually were attributed to poor mental health, stemming from diminished well-being and productivity. This will surge to \$6 trillion by 2030.
- ✓ **Budgetary Allocation:** Out of the total Budget Estimate (BE) for the Ministry of Health & Family Welfare (₹, 1,89,155 crore), allocations for mental health were as follows -
 - National Institute of Mental Health and Neuro-Sciences, (NIMHANS), Bengaluru (₹, 1,721 crore);
 - Lokpriya Gopinath Bordoloi Regional Institute of Mental Health, Tezpur (₹, 1,64 crore) and
 - the National Tele-Mental Health Programme (₹, 134 crore).
- ✓ **Inadequate Funding:** The report highlights inadequate funding for care and research.
 - It requires not only increased financial support and expanded psychiatry residency programmes, but also establishment of positions for trained psychiatrists and ensuring an ample number of working psychologists.

Recommendations As per the Report

- ✓ The Committee suggested increasing the number of seats for MD Psychiatry courses.
- ✓ Highlighting the adverse impact of the COVID-19 pandemic, it noted the need for evidence-based interventions for developing infrastructure and other policies around mental health.
- ✓ Quoting the Ministry of Health and Welfare commissioned mental health survey in 2015-16, the Committee said there is considerable scope to improve the treatment gap. Reasons for the gap include lack of mental health professionals, weak infrastructure and stigma.
- ✓ The Committee also recommended that the Ministry should ensure essential medicines are available concerning mental health issues and suggested that the government further leverage the network of wellness clinics and tele-medicine to benefit patients.

Causes of Mental Illness

- ✓ Exposure to unfavorable social, economic, geopolitical and environmental circumstances – including poverty, violence, inequality and environmental deprivation – also increases people's risk of experiencing mental health conditions.
- ✓ Over the past two years, the pandemic-led lockdowns and the uncertainties associated with them have had a detrimental effect on mental well-being
- ✓ Early adverse life experiences, such as trauma or a history of abuse (for example, child abuse, sexual assault, witnessing violence, etc.)
- ✓ Use of alcohol or drugs, having feelings of loneliness or isolation, etc.

Issues and Concerns

- ✓ Mental health problems have been growing rapidly over the last few decades.
- ✓ National Mental Health Survey, 2015-16, showed mental disorders at 10.6 percent among above 18-year-olds, 16 percent among the productive age group of 30-49-year-olds and lifetime morbidity affecting 150 million people with one percent reporting high suicidal risk.
- ✓ The human resources and treatment facilities are woefully low.
- ✓ For policymakers, mental health is a low priority.

Government of India Initiatives

- ✓ National Mental Health Programme (NMHP) in 1982: To ensure the availability and accessibility of minimum mental healthcare for all in the foreseeable future.
- ✓ Mental Healthcare Act, 2017: The act decriminalised suicide attempts in India and also included WHO guidelines in the categorisation of mental illnesses. The most significant provision in the act was "advanced directives", which allowed individuals with mental illnesses to decide the course of their treatment. It also restricted the use of electro-convulsive therapy (ECT), and banned its use on minors, finally introducing measures to tackle stigma in Indian society.

- ✓ Rights of Persons with Disabilities Act, 2017: The Act acknowledges mental illness as a disability and seeks to enhance the Rights and Entitlements of the Disabled.
- ✓ Manodarpan Initiative: An initiative under Atmanirbhar Bharat Abhiyan, aims to provide psycho-social support to students for their mental health and well-being.
- ✓ Kiran Helpline: The helpline is a step towards suicide prevention, and can help with support and crisis management.

Way Forward: There is a need for an urgent and well-resourced whole-of-society approach to protect, promote and care for the mental health of people. Killing the deep stigma surrounding mental health issues which prevents patients from seeking timely treatment. Making mental health an integral part of the public health programme: to help screen and identify high-risk groups and strengthen mental health interventions like counselling services. Special emphasis on schools: Pay special attention to groups that are highly vulnerable to mental health issues such as children facing domestic or sexual violence.

INTERNAL SECURITY

Artificial Intelligence Assisted Terrorism

In Context: The utilisation and possession of AI-based technologies by terrorist organisations pose a significant and concerning threat to the stability of States.

About Artificial Intelligence (AI)

➤ **About:**

- ✓ It is the **science and engineering** of making **intelligent machines**, especially intelligent computer programs.
- ✓ AI encompasses developing computer systems capable of performing tasks that traditionally require human intelligence.
- ✓ Breakthroughs in Machine Learning (ML), Natural Language Processing (NLP), computer vision, and robotics have propelled AI to unprecedented heights.

➤ **Significance:**

- ✓ The convergence of enhanced computational power, vast amounts of data, and sophisticated algorithms has unlocked AI's potential to revolutionise healthcare, finance, transportation, and security.
- ✓ AI would not replace people but create new opportunities in various fields.
- ✓ AI is creating new opportunities which could not be achieved by traditional technology.

AI-assisted Terrorism

✓ **About:**

- As AI technologies continue to advance, terrorist organisations are increasingly utilising these tools to **enhance their capabilities**, adapt their **tactics, techniques, and procedures (TTPs)**, and **propagate their ideologies**.
- The ability of terrorist organisations to employ AI algorithms to evaluate enormous volumes of data and derive essential insights is the most critical feature of AI-assisted terrorism.

✓ **Potential challenges:**

- These insights can **help conspire and execute a terrorist attack** by identifying possible targets, vulnerabilities, and security force patterns.
- Terrorist groups may make more **accurate judgements, alter their methods** in real time, and **optimise their operations** for maximum impact by leveraging the potential of AI.
- Moreover, **emerging advanced and disruptive technologies** will provide more additional capabilities to terrorists for inflicting damage.

✓ **Implications:**

- This convergence of AI and terrorism has far-reaching implications for security agencies and necessitates a proactive and comprehensive approach to counter this emerging threat.
- The emergence of AI-assisted terrorism poses a significant and evolving challenge to national security.

AI Tools Assisting Terrorist Organisations

✓ **Deep Fakes:**

• **About:**

- **Deepfakes (Deep Learning + Fake)** are synthetic media in which a person in an existing image or video is replaced with someone else's likeness.
- Deepfakes leverage powerful techniques from machine learning (ML) and artificial intelligence (AI) to manipulate or generate **visual and audio content** with a **high potential to deceive**.

• **Challenges:**

- As with any technological advancement, deep fakes also bear a darker side that raises concerns regarding their potential exploitation by criminal syndicates, including terrorist organisations.
 - In India, terror groups like **The Resistance Front (TRF)** and the **Tehreeki-Milat-i-Islami (TMI)** have already leveraged fake videos and photos to provoke specific groups, especially targeting young individuals more susceptible to manipulation.
 - ✓ **AI-enabled Chat Platforms:**
 - **About:**
 - AI-enabled communication platforms, mainly chat applications, have the potential to be powerful tools for terrorists aiming to radicalise and recruit individuals.
 - **Challenges:**
 - Using AI algorithms, these platforms may send a tailored and customised message that caters to potential recruits' interests and vulnerabilities.
 - In recent years, "**Rocket.Chat**" has emerged as a highly reliable online communication platform, adopted by the Islamic State (IS) in December 2018 and later by al-Qaeda.
 - Its Slack-like interface facilitates seamless and encrypted conversations **between jihadist groups** and their supporters, enabling the dissemination of official and unofficial propaganda through privately-operated servers.
 - ✓ **Weaponization of Unmanned Aerial Systems (UASs):**
 - **About:**
 - **Unmanned Aerial Systems (UASs)**, commonly called **drones**, have experienced significant growth and utilisation across various industries.
 - With technological advancements, drones have become more **affordable, accessible, and sophisticated**, offering numerous benefits and applications in **agriculture, photography, and courier services**.
 - **Challenges:**
 - Alongside their legal applications, there remains a growing concern regarding the potential misuse of drones by terrorist organisations.
 - In 2021, **twin explosions assisted by drones occurred in the Indian Air Force's base in Jammu**, which pointed to the involvement of the Pakistan-based terror outfit **Lashkar-e-Taiba**.
- Suggestions**

 - ✓ **Implementing partial bans:**
 - A total ban on AI proliferation is impossible as AI is developed primarily by the commercial sector rather than the governments. AI applications, such as writing-digital assistants for commercial use, cannot be banned altogether.
 - However, bans on technologies that threaten people's livelihood are possible and likely.
 - ✓ **Deep Fakes to counter deep fakes:**
 - Developing and deploying automated algorithms for detecting deepfakes is a significant step towards mitigating the rise of deepfakes.
 - Several countries, like India and China have recently criminalised using deepfakes for malicious purposes.
 - **India** has also introduced **draft legislation to amend its Information Technology Act**, aiming to criminalise the creation and distribution of harmful deepfake content.
 - ✓ **Geofencing:**
 - When it comes to countering the hostile use of drones by terrorist organisations, there are no single countermeasures. One of the countermeasures would be geofencing critical infrastructure and military bases.
 - Geofencing is a system that creates virtual boundaries around a physical location using GPS or Radio Frequency Identification (RFID).
 - This measure prevents GPS-enabled drones from entering such areas.
 - ✓ **Deployment of Anti-Drone System (ADS):**
 - ADS can quickly identify and jam micro drones and use a laser-based kill mechanism to destroy the target.
 - ✓ **High-power microwave counter-drone systems:**
 - Technologies like high-power microwave counter-drone systems are being developed, demonstrating taking down multiple drones.
 - It uses electromagnetic radiation to destroy the internal electronics of drones within seconds.

Way Ahead: While the possibility of exploitation of AI-enabled capabilities by terrorist groups is still in its infancy, it is critical to be aware of developments in this field. To prevent a dystopian future and ensure a collaborative approach, it is essential to have international agreements and standards for AI development and use. As AI continues to evolve rapidly, it is imperative to strike a balance between fostering innovation and ensuring ethical use.

PRELIM FACTS

1. Aditya-L1 mission:

In context: ISRO launches Aditya-L1 solar mission.

About: Aditya-L1 will neither land on the Sun nor approach the Sun any closer. It will stay approximately 1.5 million km away from Earth, directed towards the Sun, which is about 1% of the Earth-Sun distance. India's first solar mission, Aditya L1 is off. After a four month journey, it will study solar activity and its effect on Earth, other planets and space weather.

- ✓ It is the first space-based Indian mission to study the Sun.
- ✓ It will be launched by the PSLV-XL launch vehicle.
- ✓ The spacecraft shall be placed in a halo orbit around the Lagrange point 1 (L1) of the Sun-Earth system, which is about 1.5 million km from the Earth.
- ✓ A satellite placed in the halo orbit around the L1 point has the major advantage of continuously viewing the Sun without any occultation/eclipses.
- ✓ This will provide a greater advantage in observing solar activities and their effect on space weather in real-time.
- ✓ The spacecraft carries seven payloads to observe the photosphere, chromosphere and the outermost layers of the Sun (the corona) using electromagnetic particle and magnetic field detectors.

About Liquid Apogee Motor:

- ✓ It is a small but powerful engine going by the acronym 'LAM' will have a critical role to play in the Indian Space Research Organisation's (ISRO) upcoming Aditya-L1 mission meant to study the sun.
- ✓ The successful operation of LAM is vital to ISRO's plans to place the Aditya spacecraft in a halo orbit at Lagrangian point L1.
- ✓ Such engines are used for orbital adjustment manoeuvres of satellites/spacecraft in orbit.
- ✓ It is developed by the Liquid Propulsion Systems Centre (LPSC), the ISRO Centre for Liquid and Cryogenic Propulsion in Thiruvananthapuram.

2. First Woman Railway Board Chairperson

In Context: Jaya Verma Sinha is appointed as Chairperson and CEO, Railway Board (Ministry of Railways).

About:

- The Union Government appointed Jaya Verma Sinha as the first ever woman Chairperson and CEO, in the 118 year history of the Railway Board. Railway Board is the apex decision-making body of the Indian Railways.
- She was also the first woman to be appointed as the Principal Chief Operations Manager of South Eastern Railway.
- The Indian Railways registered an all time high growth of over 20% in the freight segment and broke the mark of 1.5 billion tonnes annually in freight in the last two years when she was Additional Member, Traffic Transportation, Railway Board.

3. Sagar Parikrama IV

In Context: Indian Navy Steps Up Preparations For Sagar Parikrama IV

Key details:

- ✓ The Indian Navy signalled the formal commencement of its preparations for Sagar Parikrama IV at Goa.
- ✓ Sagar Parikrama IV will be a **never-attempted-before venture** and a significant step in India's **ocean sailing enterprise**.
- ✓ Sagar Parikrama is an initiative to **organize a sea voyage** across **all coastal states and union territories**.
- ✓ It **aims to support fishermen** and **address their concerns** and facilitate their economic development by implementing various fisheries schemes and programs.
- ✓ **Main objectives:**
 - to **facilitate interaction** with **fishermen** and other stakeholders so as to **disseminate information** of various schemes and programs being implemented by the Government
 - demonstrating **solidarity** with all **fisher folk** as a spirit of **Aatmanirbhar Bharat**
 - to **promote responsible fisheries** with focus on sustainable development
 - **protection of marine ecosystems**

4. Kakrapar Atomic Power Project (KAPP3)

In Context: Recently, the third unit of the indigenously developed 700-megawatt electric (MWe) nuclear power reactor at the Kakrapar Atomic Power Project (KAPP3) in Tapi district of Gujarat has commenced operations at full capacity.

Background

- ✓ The foundation of KAPP-3 happened in November 2010 and this unit was originally expected to be commissioned in 2015.
- ✓ State-owned Nuclear Power Corporation of India Ltd (NPCIL) is responsible for construction and management of the plant.
- ✓ The reactor at the Kakrapar Atomic Power Project (KAPP) had started commercial operations on June 30 but was operating at 90 per cent of its capacity till now. Before the inauguration of KAPP, the biggest reactor of indigenously design was the 540 MWe PHWR, two of which have been deployed in Tarapur, Maharashtra.

About

- ✓ KAPP-3 is the country's first and the biggest indigenously developed variant of the Pressurised Heavy Water Reactor (PHWR).
- ✓ A PHWR is a nuclear power reactor, commonly using unenriched natural uranium as its fuel that uses heavy water (deuterium oxide D2O) as its coolant and moderator.
- ✓ PHWR technology was started in India in the late 1960s with the construction of the first 220 MWe reactors, Rajasthan Atomic Power Station (RAPS-1).
- ✓ Significance:
- ✓ The new 700MWe unit addresses the excess thermal margins (thermal margin refers to the extent to which the operating temperature of the reactor is below its maximum operating temperature) — and also marks an improvement in the economies-of-scale, without significant design changes to the 540 MWe reactor.

ANSWER WRITING

Q. Women empowerment in India needs gender budgeting. What are the requirements and status of gender budgeting in the Indian context?

Introduction: A gender budget is not a separate budget for women. Instead, the gender budgets are an attempt to assess government priorities as they are reflected through the budget and examine how they impact women and men. Gender budgets look at what the impact of the spending is on men and women and whether or not budgets respond to the needs of both women and men adequately.

Following below are the key requirements of a gender budget :

- ✓ An analysis of the situation for women and men and girls and boys (and the different sub- groups) in a given sector.
- ✓ An assessment of the extent to which the sector's policy addresses the gender issues and gaps described in the first step. This step should include an assessment of the relevant legislation, policies, programme and schemes. It includes an analysis of both the written policy as well as the implicit policy reflected in government activities. It should examine the extent to which the above meet the socio-economic and other rights of women.
- ✓ An assessment of the adequacy of budget allocations to implement the gender sensitive policies and programme identified in step mentioned above.
- ✓ Monitoring whether the money was spent as planned, what was delivered and to whom? This involves checking both financially and the physical deliverables (disaggregated by sex).
- ✓ An assessment of the impact of the policy/ programme/scheme and the extent to which the situation described in step mentioned above has been changed, in the direction of greater gender equality. Ever since the gender budgeting has been adopted in 2005, the Indian budget lists out schemes exclusively for women. States like Rajasthan, Gujarat, Madhya Pradesh, Karnataka, Orissa, Kerala, Assam, Bihar, etc have adopted gender budgeting. An IMF research paper shows the impacts on states which have accepted gender budgeting, in regard of gender equality:
- ✓ Greater gender equality wrt enrollment in schools. More girls are enrolling with increase in awareness.
- ✓ Spending on infrastructure has also increased for eg. women in BPL categories given free LPG for better health prospects.
- ✓ Providing women with safe toilets in school especially in villages, giving free cycles for easy commutation (for eg. In Bihar), providing them with drinking water facilities are some steps in this direction.
- ✓ This has helped improve women's economic equality. However not every objective could be achieved by gender budgeting:
- ✓ India has low level of female labour force participation- women coming forward only during economic distress.
- ✓ Gender disparity- in terms of economic freedom, financial rights, freedom to work and legal status.

- ✓ Social customs also bind women to achieve greater heights.
- ✓ Access to public goods is not readily available to women- for eg. safe streets, clean drinking water in rural areas, sanitation.
- ✓ Lack of a standardized nomenclature for the various schemes related to women is also a concern.

Conclusion: A gender sensitive budget helps in translating gender-specific commitments into budgetary commitments. Since women comprise approx 48% of the population of India, it becomes important for their voices to be heard. Gender based inequality will reduce provided this step is effectively implemented.

MCQs

1. Regarding the recently launched 'US-India Renewable Energy Technology Action Platform (RETAP)', consider the following statements:
 1. It aims to advance renewable technologies with a view towards deployment and scaling.
 2. It solely focuses on green hydrogen.
 3. The initiative is launched under the Strategic Clean Energy Partnership (SCEP).
 How many of the statements given above are correct?
 - a) Only 1
 - b) **Only 2**
 - c) Only 3
 - d) None of these
2. With reference to Bharat NCAP (New Car Assessment Program), consider the following statements:
 1. It will allocate Star Ratings ranging from 0 to 4.
 2. It is only applicable to cars that are produced in the country and not the imported models.
 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**
3. Considered the following statement regarding Kakrapar Atomic Power Project (KAPP3)
 1. The Kakrapar Atomic Power Project it is located in Tapi district of Gujarat.
 2. KAPP-3 is the country's first and the biggest indigenously developed variant of the Pressurised Heavy Water Reactor (PHWR)
 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
4. The Kampala Declaration, often in the news, is associated with:
 - a) **A landmark climate change agreement to address the nexus of human mobility and climate change in the continent.**
 - b) A declaration on women's rights and gender equality adopted by African nations.
 - c) A declaration on the rights of indigenous peoples in Latin America.
 - d) A declaration on the conservation of endangered species in Southeast Asia.
5. Considered the following statement regarding World Coconut Day.
 1. The theme for World Coconut Day 2023 is "Sustaining Coconut Sector for the Present and Future Generation"
6. Indonesia is one of the largest producers of coconuts.
7. It is celebrated every year on 2nd September. How many of the above statement is/are correct?
 - a) Only 1
 - b) Only 2
 - c) **Only 3**
 - d) None of these
6. Considered the following statement regarding Poshan Maah.
 1. The theme centered on "Suposhit Bharat, Sakshar Bharat, Sashakt Bharat"
 2. The Central Government is celebrating the sixth Rashtriya Poshan Maah in September.
 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
7. Considered the following statement regarding Jais language.
 1. 'Jais', the world's most advanced Parsi large language model.
 2. Jais is a bilingual Parsi-English model
 Which of the statements given above is/are incorrect?
 - a) 1 only
 - b) 2 only
 - c) **Both 1 and 2**
 - d) Neither 1 nor 2
8. Who is the new appointee as India's chargé d'affaires at its high commission in Islamabad, Pakistan?
 - a) **Geetika Srivastava**
 - b) Suresh Kumar
 - c) Jaya Verma
 - d) Ak Lahoti
9. Considered the following statement regarding Kalapo or owl parrot.
 1. It is found in New Zealand.
 2. It is Critically Endangered in IUCN status.
 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
10. Recently, Kokborok language is in news, which of the following family mostly speak the language?
 - a) **Tibeto- Burman Family**
 - b) Dravidian family
 - c) Ariyan family
 - d) None of the above