DAILY CURRENT AFFAIRS ANALYSIS

30 MARCH 2024

1 - Marriage Can't be Grounds to Sack Women from the Military:

GS I

Indian Society

- **Context:**

- Recently, the Supreme Court (SC) has directed the Ministry of Defence to pay Rs 60 lakh in compensation to a former permanent commissioned officer in the Military Nursing Service (MNS).

- It is ruled that the officer was “wrongly” released from service in 1988 on grounds of her marriage.

- As of Aug 2023, over 7,000 women personnel are serving in the Indian Army followed by 809 in the Indian Air Force and 1306 in the Navy.

- **What are the Key Facts of the Case?**

- **Background:**

- Former permanent commissioned officer of the MNS, was released from employment in 1988 on grounds of her marriage, as stipulated by Army Instruction No. 61 of 1977 titled “Terms and Conditions of Service for the Grant of Permanent Commissions in the Military Nursing Service.” It was later withdrawn by a letter dated 9th August, 1995.
- It governed the terms and conditions of MNS.
- Clause 11 dealt with the termination of an appointment on certain grounds. These included “being pronounced by a medical board to be unfit for further service in the Armed Forces”; getting married; misconduct; breach of contract, or if services are found unsatisfactory.”
- In 2016, she sought recourse through the Armed Forces Tribunal (AFT), established under the Armed Forces Tribunal Act of 2007 to adjudicate disputes related to commission, appointments, enrollment, and conditions of service. The AFT deemed her termination "illegal" and directed her reinstatement with back wages.
- However, the Central government contested this ruling by moving the Supreme Court in the case titled ‘Union of India & Others vs. Ex. Lt. Selina John’.

- **SC’s Observations:**

- The SC stated that her release from the service was “wrong and illegal”.
- The court also rejected the Centre’s argument, based on a rule in force at the time.

- Such rule was ex facie manifestly arbitrary, as terminating employment because the woman has got married is a coarse case of gender discrimination and inequality.

- Women officers were initially inducted into the Indian Army under the Women Special Entry Scheme (WSES) in 1992.
- Under WSES, they served for five-year periods in certain streams, like the Army Education Corps and the Corps of Engineers.
- However, they faced restrictions on certain roles, such as infantry and armored corps.
- In 2006, WSES was replaced by the Short Service Commission scheme, which allowed women officers the option to switch from WSES to SSC.
- Men under SSC were commissioned for ten years, extendable up to fourteen years. Men in SSC have an option to opt for a PC.

- **How has the SC Acted in Favour of Women Officers in the Armed Forces?**

- **Union of India v. Lt Cdr Annie Nagaraja Case, 2015:**

- In 2015, seventeen women officers who had joined the Indian Navy as Short Service Commissioned (SSC) officers in various cadres (such as Logistics, Law, and Education) filed writ petitions before the Delhi High Court.
- These officers had completed fourteen years of service as SSC officers but were not considered for the grant of Permanent Commissions (PCs) and were subsequently discharged from service.
- In 2020, the SC held that serving women Short Service Commission Officers in the Indian Navy were entitled to Permanent Commission at par with their male counterparts.

- **Secretary, Ministry of Defence vs. Babita Puniya Case, 2020:**

- In February 2020, SC upheld the demands of women in the SSC, stating that seeking a Permanent Commission (PC) or a full-length career was “justified”.
- Before the ruling, only male officers on Short Service Commission (SSC) could opt for PC after 10 years of service, leaving women unable to qualify for a government pension.
- The court's decision brought women officers in 10 streams of the Army at par with men.

- **Government's Arguments:**

- The Centre argued that the issue was a matter of policy, adding that Article 33 of the Constitution allows fundamental rights to be restricted when it comes to the armed forces.
- It also argued that there were “dangers involved in serving in the army” and adverse service conditions including “absence of privacy in field and insurgency areas, maternity issues and child care”.
- The case was first filed in the Delhi HC by women officers in 2003 and the HC awarded Permanent Commissions to women officers in all branches where they were serving in 2010.

- **Following the 2020 Ruling:**

- Following the 2020 ruling, the Army constituted the Number 5 Selection Board, directing the Army to induct all eligible female officers as Permanent Commission (PC) officers.
- The special board came into effect in September 2020, led by a senior general officer. It also includes a woman officer of the rank of brigadier.
- Here, women officers qualifying for the screening process will be granted PC status, subject to being in the acceptable medical category.

- **Permanent Commission for Women In Indian Coast Guard:**

- In Priyanka Tyagi v. Union of India Case, 2024, SC underscored the necessity for the Central government to ensure that eligible women officers receive permanent commission in the Indian Coast Guard.
- The Attorney General presented arguments citing operational challenges in granting permanent commissions to women officers.
- However, the Court dismissed these arguments, emphasising that in the year 2024, such justifications hold no merit.
- The SC further urged the Centre to develop a gender-neutral policy on this matter, calling for a departure from patriarchal norms.
- This instance underscores the ongoing struggle for gender equality and the necessity for proactive measures to ensure women's inclusion and empowerment in all spheres of society, including the armed forces.

- **What is the Significance of Increasing the Representation of Women in the Armed Forces?**

- Gender is not a Hindrance: As long as an applicant is qualified for a position, one's gender is arbitrary. In the modern high technology battlefield, technical expertise and decision-making skills are increasingly more valuable than simple brute strength.
- Military Readiness: Allowing a mixed gender force keeps the military strong. The armed forces are severely troubled by falling retention and recruitment rates. This can be addressed by allowing women in the combat role.
- Effectiveness: The blanket restriction for women limits the ability of commanders in theatre to pick the most capable person for the job.
- Tradition: Training will be required to facilitate the integration of women into combat units. Cultures change over time and the masculine subculture can evolve too.
- Global Scenario: When women officially became eligible for combat positions in the American military in 2013, it was widely hailed as another step towards the equality of sexes. In 2018, the UK military lifted a ban on women serving in close combat ground roles, clearing the way for them to serve in elite special forces.

- **What is MNS?**

- MNS is the only all women corps of the Armed Forces. The MNS, an integral part of the Armed Forces Medical Services (AFMS), encompasses the Army Medical Corps (AMC) and Army Dental Corps (ADC).
- The mission of Military Nursing Service is 'Excellence in patient care' both in peace and war.
- Officers of Military Nursing Service have always been resilient in meeting the ever changing and expanding demands of AFMS clientele in health care services and became the front line warriors in the healthcare system.
- Personnel of the AFMS serve in India's medical establishments and have actively participated in United Nations Peacekeeping Missions abroad.
- Military nurses marched in the 2024 Republic Day parade for the first time, they were still denied the status of ex-servicemen.
- In February 2024, the Punjab and Haryana HC ruled that MNS officers cannot be denied ex-serviceman status under the Punjab Recruitment of Ex-Servicemen Rules, 1982.
- Under this, officers who were released from service on completion of their term with a gratuity (as SSC officers do), are categorised as ex-servicemen.

- **Way Forward:**

- Implement comprehensive policy reforms to eliminate discriminatory practices and ensure equal opportunities for women officers, including granting them equal access to permanent commissions across all branches and ranks.
- Conduct regular awareness programs and sensitivity training for military personnel to promote a culture of gender equality, respect, and inclusion within the armed forces.
- Establish support systems and facilities tailored to the needs of women officers, including provisions for maternity leave, childcare assistance, and adequate medical facilities.

Source → The Hindu

2 - India's first Indigenous Hydrogen Fuel Cell Ferry:

GS III

Science and Technology

- **Context:**

- Recently, Prime Minister of India flagged off India's first indigenously built hydrogen fuel cell ferry boat in virtual.

- The hydrogen cell-powered inland waterway vessel launched under the Harit Nauka initiative.

- **What are the Other Key Highlights About the Ferry?**

- **About:**

- The vessel's flagging off was a key component of a major program that involved the foundation stone laid for a ₹17,300-crore project, including the outer harbor at the V.O. Chidambaranar Port.
- The vessel has been built at the Cochin Shipyard.

- **Importance:**

- It will make urban mobility smooth and easy through inland waterways. The vessel underscores the pioneering step for embracing clean energy solutions and aligning with the nation's net-zero commitments.

- The V.O. Chidambaranar Port is the first Green Hydrogen Hub Port of the country and the projects include a desalination plant, hydrogen production and bunkering facility.

- **What is the Harit Nauka initiative?**

- **About:**

- The Ministry of Ports, Shipping and Waterways unveiled the Harit Nauka guidelines for inland vessels in January 2024.

- **Guidelines:**

- As per the guidelines, all states have to make efforts to use green fuels for 50% of inland waterways-based passenger fleets in the next one decade, and 100% by 2045.
- This is to reduce greenhouse gas emissions as per the Maritime Amrit Kaal Vision 2047.
- Globally, the shipping industry is increasingly transitioning to green fuels due to environmental regulations, sustainability goals, and advancements in green fuel technologies.
- Hydrogen and its derivatives are gaining attention for promising zero-emission fuels for the industry.

- **What is a Hydrogen Fuel Cell?**

- **About:**

- Hydrogen fuel cells are a clean, reliable, quiet, and efficient source of high-quality electric power.
- They use hydrogen as a fuel to drive an electrochemical process that produces electricity, with water and heat as the only by-products.
- Hydrogen is one of the most abundant elements on earth for a cleaner alternative fuel option.

- **Significance:**

- Zero Emission Solutions: It is one of the best Zero Emission solutions. It is completely environment friendly with no tailpipe emissions other than water.
- Tailpipe emissions: Emission of something such as gas or radiation into the atmosphere.
- Quiet Operation: The fact that the fuel cells make little noise means that they can be used in challenging contexts, such as in hospital buildings.
- Initiatives Taken: The Union Budget for 2021-22 has announced a National Hydrogen Energy Mission (NHM) that will draw up a road map for using hydrogen as an energy source.

- **Other Initiatives for Renewable Energy:**

- Jawaharlal Nehru National Solar Mission (JNNSM)
- International Solar Alliance
- PM- KUSUM
- National Wind-Solar Hybrid Policy
- Rooftop Solar Scheme

- **Net-Zero Target:**

- It is referred to as carbon neutrality, which does not mean that a country would bring down its emissions to zero. Rather, it is a state in which a country's emissions are compensated by the absorption and removal of greenhouse gasses from the atmosphere.
- Further, absorption of the emissions can be increased by creating more carbon sinks such as forests.
- While the removal of gasses from the atmosphere requires futuristic technologies such as carbon capture and storage.
- More than 70 countries have promised to become Net Zero by the middle of the century i.e., by 2050.
- India has promised to cut its emissions to net zero by 2070 at the Conference of Parties (COP)-26 Summit of UNFCCC.

Source → The Hindu

3 - NITI Aayog GROW Report and Portal:

GS II

Government Policies and Interventions

- **Context:**

- Recently, the Greening and Restoration of Wasteland with Agroforestry (GROW) report and portal was launched by NITI Aayog (National Institution for Transforming India).

- **What are the Key Highlights of the GROW Report?**

- **GROW Report Objective:**

- The GROW report aims to facilitate restoration projects for achieving national commitments of Land Degradation Neutrality and restoring 26 million hectares of degraded land by 2030, as well as creating an additional carbon sink of 2.5 to 3 billion tonnes of carbon dioxide equivalent.

- **Extent of Wastelands in India:**

- The report highlights that India possesses approximately 55.76 million hectares of wastelands, comprising 16.96% of the total geographical area (TGA) of the country.
- These degraded lands have suffered from reduced productivity and biodiversity due to various natural and human-induced factors. However, the report suggests greening and restoring these wastelands through agroforestry.

- **Agroforestry as a Solution:**

- The report also underscores the potential benefits of converting underutilised areas, especially wastelands, for agroforestry.
- Currently, agroforestry covers 8.65% of India's total geographical area, totalling about 28.42 million hectares and about 6.18% and 4.91% of India's land are highly and moderately suitable for agroforestry, respectively.
- As per Indian Space Research Organisation (ISRO) Rajasthan, Madhya Pradesh, and Telangana are the top large-sized states for agroforestry suitability, while Jammu and Kashmir, Manipur, and Nagaland ranked highest among the medium-sized states.
- The report identifies the policy and institutional support required for scaling up agroforestry interventions in wastelands.

- **Policy Framework:**

- The report emphasises India's National Agroforestry Policy of 2014, which aims to enhance productivity, profitability, and sustainability through this agro ecological land use system.
- This aligns with global commitments like the Paris Agreement, Bonn Challenge, UN Sustainable Development Goals, United Nations Convention on Combating Desertification (UNCCD), Green India Mission and more.

- **What is the GROW Portal?**

- The GROW portal is hosted on the Bhuvan platform, ensuring universal access to state and district-level data related to agroforestry suitability.
- Through the portal, users can access detailed maps and assessments of agroforestry suitability across different regions of India.
- The portal utilises thematic datasets derived from remote sensing and Geographic Information System (GIS) technology, offering comprehensive information on factors influencing agroforestry suitability.
- One of the key features of the portal is the Agroforestry Suitability Index (ASI), which provides a standardised index for prioritising agroforestry interventions at the national level.
- The portal offers insights into the current extent of agroforestry in India, highlighting its geographical spread and total coverage.

- **What is Agroforestry?**

- **About:**

- Agroforestry is a land use management system that combines trees and shrubs with crops and livestock. It combines agricultural and forestry technologies to create more sustainable land-use systems.
- Agroforestry has been an integral part of Indian agriculture, fulfilling diverse needs such as wood demand, fuelwood, fodder, and subsistence requirements.
- Agroforestry is practised by both small and marginal farmers in rainfed conditions and large farmers under irrigated conditions, albeit with variations in adoption rates.

- **Evolution of Agroforestry Policies and Initiatives:**

- The initiation of All India Coordinated Research Project (AICRP) on Agroforestry in 1983 marked the formal integration of agroforestry into agricultural and forestry research agendas.
- Major policy initiatives in India, such as the National Forest Policy 1988, the National Agriculture Policy 2000, National Bamboo Mission 2002, National Policy on Farmers 2007, and Green India Mission 2010, have consistently highlighted the importance of agroforestry.
- Agroforestry gained momentum after India adopted the National Agroforestry Policy (NAP) 2014.
- The NAP is a policy framework that aims to improve agricultural livelihoods by integrating trees, crops, and livestock into the same plot of land. The policy was launched in February 2014 during the World Congress on Agroforestry, held in Delhi.
- India became the first country in the world to adopt a comprehensive agroforestry policy in 2014.
- As a follow- up to the policy, the Sub-Mission on agroforestry (SMAF) under National Mission for Sustainable Agriculture (NMSA) was launched in 2016-17 to encourage and expand tree plantation on farmland, with the motto of "Har Medh Par Ped", along with crops/ cropping system.

- **Impacts of Agroforestry:**

- **Economic Impact:**

- Agroforestry systems demonstrate positive yield growth for fruits, timber, and crops, contributing to enhanced agricultural productivity.
- Agroforestry proves economically viable, offering additional income streams from diversified livelihood sources, including timber, fuelwood, and fodder.

- **Social Impact:**

- Agroforestry systems, particularly those emphasizing fruit crops, contribute to improved nutrition and health status among communities.

- While women's participation in agroforestry is significant, there's a need for further research to understand the impact of agroforestry on gender dynamics and women's empowerment.

- **Environmental Impact:**

- Agroforestry enhances soil fertility, nutrient cycling, and soil organic carbon, contributing to sustainable land management practices.
- Agroforestry systems improve water-use efficiency, mitigate soil erosion, and contribute to watershed management and conservation efforts.
- Agroforestry serves as a significant source of biomass energy while also sequestering carbon, aiding in climate change mitigation efforts.
- Agroforestry promotes biodiversity conservation by providing habitat, supporting species movement, and reducing deforestation rates.

Source → The Hindu

4 - Himalayas More Prone to Extreme Weather Events:

GS III

Environmental Conservation

- **Context:**

- The Himalayan Region, prone to cloudbursts and extreme weather events, is experiencing accelerated impacts of Global Warming.

- **How are the Shifts in Weather Patterns Increasing the Frequency of Extreme Events?**

- **Shift in Monsoon Patterns:**

- There is evidence suggesting a shift in southwest monsoon patterns, with deviations occurring more frequently in the Indo-Gangetic plain rather than the southern half of the sub-continent.
- This includes excessive rainfall in the arid and semi-arid western half of India and deficient rainfall in the eastern half and coastal areas, indicating a reversal of historical precipitation patterns.

- **Temperature Rise in the Arabian Sea:**

- The uppermost layer of the Arabian Sea has experienced abnormal warming, leading to increased evaporation and potentially altering the behaviour of the southwest monsoon.
- This warming trend has also contributed to more Cyclonic storms in the Arabian Sea, including some making landfall on the west coast of India.
- Between 2001 and 2019, there has been a 50% increase in the frequency of cyclones in the Arabian Sea. About half of these dissipate before they land.

- **Extreme Rainfall and Cloudbursts:**

- Cloudbursts are not just intense rain showers, but a genetically different form of rain. Even in heavy showers, the raindrops are usually about 2 mm in diameter.
- Their size grows to between 4-6 mm during severe thunderstorms and cloudbursts. Being heavier, these raindrops fall faster, thus they trigger landslides with their tremendous pounding power.
- Number of thunderstorms, cloudbursts and hailstorms has increased from between two and 4 per annum during the four decades between 1970-2010, to 53 in Himachal Pradesh alone in 2023.

- **Glacial Melting and Glacier Lake Outbursts:**

- Rising temperatures in the Himalayas have caused glaciers to melt rapidly, leading to the formation of glacial lakes.
- The increasing frequency and ferocity of cloudbursts are causing these lakes to overflow or burst their banks, resulting in floods and loss of lives and property downstream.
- The number of such lakes in Uttarakhand and east of Himachal Pradesh, has increased from 127 in 2005 to 365 in 2015.

- **Loss of Glacial Ice:**

- The Himalayas have already lost more than 40% of their ice, and this trend is expected to continue, with projections indicating a potential loss of up to 75% by the end of the century.
- This loss of ice is affecting the vegetation line, agricultural practices, and water resources in the region.

- **What can be the Adaptation Measures to Tackle the Impact of Climate Change?**

- There is a growing need for improved monitoring of glaciers and glacial lakes, as well as better forecasting and early warning systems for landslides and glacial lake outbursts.
- However, these measures alone may not be sufficient to address the long-term impacts of climate change in the Himalayas.
- Reducing Greenhouse Gas (GHG) emissions and transitioning to renewable energy sources are seen as essential steps to mitigate the effects of global warming and safeguard the Himalayan region and its inhabitants.

- There should be Sustainable Construction Activities in the Himalayas region, which can withstand any calamitous event if it occurs. Some of the steps are-
- Understanding Terrain Characteristics: Recognising the impact of slope, drainage, and vegetation cover on the stress that an area can endure is fundamental. By delineating zones based on these factors, authorities can better manage construction activities and mitigate risks associated with unstable terrain.
- Assessing Climate Vulnerability: Given the increasing frequency of extreme weather events like floods and landslides, it's essential to project future climate scenarios and identify vulnerable areas. Projections and simulations can help in devising strategies to adapt to and mitigate the impacts of climate change.
- Managing Development Impacts: Development projects, particularly hydropower ventures, often have significant ecological consequences in hilly regions. Regulations should incorporate risk assessments and consider cumulative impacts to safeguard against forest degradation, changes in river courses, and loss of biodiversity.
- Enhancing Adaptive Capacity: As hill town populations grow, their ability to cope with climate change diminishes due to various challenges such as water scarcity, inadequate infrastructure, and limited livelihood options.
- Improving adaptive capacity involves bolstering services and infrastructure while prioritising sustainable solutions with community involvement.

- **What are the Government Initiatives Related to the Himalaya?**

- **National Mission on Sustaining Himalayan Ecosystem (2010):**

- Covers 11 states (Himachal Pradesh, Uttarakhand, Sikkim, all northeast states, and West Bengal) and 2 UTs (Jammu & Kashmir and Ladakh).
- Part of the National Action Plan on Climate Change (NAPCC), comprising eight missions.

- **Indian Himalayas Climate Adaptation Programme (IHCAP):**

- It aims to enhance the resilience of vulnerable communities in the Indian Himalayas by strengthening the capacities of Indian institutions in climate science, with a specific focus on glaciology and related areas

- **SECURE Himalaya Project:**

- Integral to the "Global Partnership on Wildlife Conservation and Crime Prevention for Sustainable Development" (Global Wildlife Program), funded by the Global Environment Facility (GEF).
- Focuses on promoting sustainable management of alpine pastures and forests in the high-range Himalayan ecosystems.

- **Mishra Committee Report 1976:**

- Named after MC Mishra, the then Garhwal commissioner in erstwhile Uttar Pradesh. It provided findings on land subsidence in Joshimath.
- Recommendations included imposing restrictions on heavy construction work, blasting, excavation for road repairs and other construction activities, and tree felling in the region.

- The recent shifts in monsoon patterns and extreme weather events underscore the urgent need for proactive measures to address the impacts of climate change in the Indian subcontinent.
- It is imperative for governments and stakeholders to prioritise adaptation and mitigation strategies to minimise the socio-economic and environmental risks posed by these changing climatic conditions.
- Only through concerted efforts in sustainable development, renewable energy adoption, and disaster preparedness can we mitigate the adverse effects of climate change and ensure the resilience of communities across the subcontinent.

Source → The Hindu