

WOMEN EMPOWERMENT

❖ **Menstrual leave and its global standing**

➤ **CONTEXT:** Recently, the Supreme Court refused to entertain a PIL about menstrual leave for workers and students across the country, calling it a policy matter. It highlighted that there were different “dimensions” to menstrual pain leave, and also that while menstruation was a biological process, such leave may also act as a “disincentive” for employers from engaging female employees.

- The court was hearing a petition filed, seeking a direction to States to frame rules for granting menstrual pain leave for students and working women in workplaces. The Bench headed by Chief Justice of India, urged the petitioner to approach the Union Ministry of Women and Child Development Ministry to frame a policy.
- The concept of menstrual leave for workers and students has swirled around for a couple of centuries, but such policies are uneven and subject to much debate, even among feminist circles. Sources note that menstruating women were given leave from paid labour in Soviet Russia in the 1920s; a historian even claims that a school in Kerala granted period leave as early as 1912.

➤ **Menstrual leave**

- Menstrual leave or period leave refers to all policies that allow employees or students to take time off when they are experiencing menstrual pain or discomfort. In the context of the workplace, it refers to policies that allow for both paid or unpaid leave, or time for rest.
- Most women experience a menstrual cycle of 28 days— a normal cycle may vary from 23 to 35 days. For some, period pain, or dysmenorrhea, is an uncomfortable component of it. More than half of those who menstruate experience pain for a couple of days a month; for some it is debilitating enough to hamper daily activities and productivity.
- According to health experts between 15% to 25% of people who menstruate will experience moderate to severe menstrual cramps. A 2017 survey of 32,748 women in the Netherlands published in the British Medical Journal also found that 14% had taken time off from work or school during their periods. The researchers estimated that employees lost around 8.9 days’ worth of productivity every year due to menstrual-cycle related issues.
- Menstrual leave policies are designed with a view to allow women time off if they suffer from symptoms which may hamper their functioning and productivity.
- However, not everyone (not even all those who menstruate) are in favour of menstrual leave. Some believe either that it is not required or that it will backfire and lead to employer discrimination against women.
 - ✓ For example, in response to the plea filed in the Supreme Court, a caveat was filed by law student, highlighting a potential issue with menstrual leave. “The law student says that if you compel employers to grant menstrual pain leave, it may operate as a de facto disincentive for employers to engage women in their establishments. This has a policy dimension,” Chief Justice observed.

➤ **What kind of menstrual leave policies are in place globally?**

- On February 16, Spain became the first European country to grant paid menstrual leave to workers, among a host of other sexual health rights. Workers now have the right to three days of menstrual leave (expandable to five days) a month. The government will pay for the provision, with the country’s equality minister Irene Montero saying in Parliament that women are not “full citizens” without such rights.
- In Asia, Japan introduced menstrual leave as part of labour law in 1947, after the idea became popular with labour unions in the 1920s. At present, under Article 68, employers cannot ask women who experience difficult periods to work during that time. However, many women may not avail of it— a 2014 study by the government revealed that less than 0.9% of the surveyed women who had such a policy in place in their workplace had actually taken leave.
- Indonesia too introduced a policy in 1948, amended in 2003, saying that workers experiencing menstrual pain are not obliged to work on the first two days of their cycle. In the Philippines, workers are permitted two days of menstrual leave a month. Taiwan has an Act of Gender Equality in Employment in place. Under Article 14 of the Act, employees have the right to request a day off as period leave every month, at half their regular wage. Three such leaves are permitted per year— extra leaves are counted as sick leave.
- South Korea takes a slightly different route, allowing for monthly physiologic leave under Article 73 of their labour law, allowing all female workers to get a day off every month. Vietnam’s labour law takes a different approach too, stipulating a 30-minute break for women every day of their period cycle. However, in 2020, a three-day leave per month was added, and those who didn’t take the leave needed to be paid extra.
- Among the African nations, Zambia introduced one day of leave a month without needing a reason or a medical certificate, calling it a Mother’s Day. The petition also mentioned that the United Kingdom, China and Wales have menstrual leave provisions.
- In 2016, a proposal to introduce menstrual leave in Italy failed in Parliament, allaying the concerns of those worried that it would affect hiring of women. The U.S does not have a formal policy in place either; the U.S also does not have a federal requirement for paid sick leave.

- Companies across nations, such as Nike and Coexist, have introduced menstrual leave as an internal policy.
- **What attempts are being made in India?**
- In India, too, certain companies have brought in menstrual leave policies— the most famous example being Zomato in 2020, which announced a 10-day paid period leave per year. 621 employees have taken more than 2,000 days of leave after the policy was introduced.
- Other such as Swiggy and Byjus have also followed suit.
- Among State governments, Bihar and Kerala are the only ones to introduce menstrual leave to women, as noted in the petition before the Supreme Court.
- The Bihar government, introduced its menstrual leave policy in 1992, allowing employees two days of paid menstrual leave every month.
- Recently, on January 19 2023, Kerala announced that the State's Higher Education department will now grant menstrual and maternity leaves for students in universities that function under the department. Girl students will get the benefit of a lowering of the minimum attendance required to appear for examinations to 73% (from the existing 75%). Taking a cue from this, a Kerala school Labour India Public School, Kottayam, too decided to introduce a similar system for its students on January 24— on the occasion of National Girl Child Day.
 - ✓ The petition called the lack of menstrual leave in certain States as a violation of Article 14, saying that despite the fact that “women suffer from similar physiological and health issues during their menstrual cycles, they are being treated differently in different states of India.”
 - ✓ The petition sought a direction under Section 14 of the Maternity Benefit Act, which deals with appointment of inspectors and says appropriate government may appoint such officers and may define the local limits of jurisdiction within which they shall exercise their functions under this law.
- **Parliamentary measures: Parliament has seen certain measures in this direction, with no success.**
- In 2017, MP Ninong Ering from Arunachal Pradesh introduced ‘The Menstruation Benefits Bill, 2017’ in Parliament. It was represented in 2022 on the first day of the Budget Session in the Lok Sabha, but was disregarded as an “unclean topic,” the petition says. Similarly, Dr. Shashi Tharoor introduced the Women's Sexual, Reproductive and Menstrual Rights Bill in 2018, which proposed that sanitary pads should be made freely available for women by public authorities in their premises.
- Congress MP from Kerala Hibi Eden announced that he will be moving a private member's Bill seeking the right to paid leave during menstruation for working women, menstrual leave for female students, and free access to menstrual health products, in the ongoing Budget session of the Parliament.
- The Bill titled ‘The Right of Women to Menstrual Leave and Free Access to Menstrual Health Products Bill, 2022’ provides for three days of paid leave for women and transwomen during the period of menstruation. It also seeks to extend the benefit for students.
- According to the Bill “According to research, approximately 40 per cent of girls miss school during their periods. Nearly 65 per cent said it had an impact on their daily activities at school and that they had to skip class tests and lessons as a consequence of discomfort, anxiety, shame, and concerns about leakage and uniform discolouration.”.

PRELIMS

1. National Science Day 2023

- **CONTEXT: February 28 designated as National Science Day to commemorate the announcement of discovery of Raman Effect.**
- In 1986, the Government of India, under then Prime Minister Rajiv Gandhi, designated February 28 as National Science Day to commemorate the announcement of the discovery of the “Raman Effect”. This year's edition is being celebrated under the theme of “Global Science for Global Wellbeing”, in light of India's G20 presidency.
- The Raman Effect was the discovery which won physicist Sir CV Raman his Nobel Prize in 1930. Conducting a deceptively simple experiment, Raman discovered that when a stream of light passes through a liquid, a fraction of the light scattered by the liquid is of a different colour. This discovery was immediately recognised as groundbreaking in the scientific community, being the subject of over 700 papers in the first seven years after its announcement.
- **The Raman Effect**
- The Raman Effect refers to the phenomenon in which when a stream of light passes through a liquid, a fraction of the light scattered by the liquid is of a different colour. This happens due to the change in the wavelength of light that occurs when a light beam is deflected by molecules.
- In general, when light interacts with an object, it can either be reflected, refracted or transmitted. One of the things that scientists look at when light is scattered is if the particle it interacts with is able to change its energy. The Raman Effect is when the change in the energy of the light is affected by the vibrations of the molecule or material under observation, leading to a change in its wavelength.

- In their first report to Nature, titled “A New Type of Secondary Radiation,” CV Raman and co-author KS Krishnan wrote that 60 different liquids had been studied, and all showed the same result – a tiny fraction of scattered light had a different colour than the incident light. “It is thus,” Raman said, “a phenomenon whose universal nature has to be recognised.”
- Raman would go on to verify these observations using a spectroscope, publishing the quantitative findings in the Indian Journal of Physics on March 31, 1928.
- **The importance of the discovery**
- CV Raman’s discovery took the world by storm as it had deep implications far beyond Raman’s original intentions. As Raman himself remarked in his 1930 Nobel Prize speech, “The character of the scattered radiations enables us to obtain an insight into the ultimate structure of the scattering substance.” For quantum theory, in vogue in the scientific world at the time, Raman’s discovery was crucial.
- The discovery would also find its use in chemistry, giving birth to a new field known as Raman spectroscopy as a basic analytical tool to conduct nondestructive chemical analysis for both organic and inorganic compounds. With the invention of lasers and the capabilities to concentrate much stronger beams of light, the uses of Raman spectroscopy have only ballooned over time.
- Today, this method has a wide variety of applications, from studying art and other objects of cultural importance in a non-invasive fashion to finding drugs hidden inside luggage at customs.

2. MIIRA

- **CONTEXT: India has introduced a draft to launch a global initiative to encourage the consumption and production of millet. The draft of the proposed initiative — MIIRA — was placed during the first Agriculture Deputies Meeting under the Agriculture Working Group (AWG), G20 at Indore, Madhya Pradesh. During the meeting, Shubha Takur, Joint Secretary, Ministry of Agriculture, introduced the MIIRA.**

- **What is MIIRA?**

- The acronym MIIRA stands for ‘Millet International Initiative for Research and Awareness’.
- According to Agriculture Ministry sources, the MIIRA will be aimed at coordinating millet research programmes at the international level. It is in line with the UN declaring 2023 as the International Year of Millets, the proposal for which was moved by India and supported by 72 countries.
- The International Year will see several events and activities such as conferences, issuing of stamps and coins etc. to raise awareness about millets, improve their production and quality, and attract investments. The Centre also plans to make India a global hub for millets.

- **What is the aim of MIIRA?**

- MIIRA will aim to connect millet research organisations across the world while also supporting research on these crops. This is significant as issues like food security and nutrition are among the key priority areas in the agriculture sector during India’s G20 Presidency. India assumed the G20 Presidency on December 1, 2022.
- Besides setting up a web platform to connect researchers and holding international research conferences, the plan is also to raise awareness for promoting the consumption of millet.

- **Who will fund the MIIRA initiative?**

- For MIIRA to take off, India will contribute the “seed money”, while each G20 member will later have to contribute to its budget in the form of a membership fee. The MIIRA secretariat will be in Delhi, India being a major producer of millets, this will ensure a flow of investment from the country’s industry and research bodies.

- **Which foodgrains are called millets?**

- Millets are small-grained cereals such as sorghum (jowar), pearl millet (bajra), foxtail millet (kangni/ Italian millet), little millet (kutki), kodo millet, finger millet (ragi/ mandua), proso millet (cheena/ common millet), barnyard millet (sawa/ sanwa/ jhangora), and brown top millet (korale). These crops require much less water than rice and wheat, and are mainly grown in rainfed areas.
- Now grown in more than 130 countries, millets are the traditional food for more than half a billion people in Asia and Africa. Globally, jowar is the most widely grown millet crop; its major producers are the US, China, Australia, India, Argentina, Nigeria, and Sudan.
- Bajra, another major millet crop, is mainly grown in some African countries and India, where millets are mainly a kharif crop. During 2018-19, Agriculture Ministry data show, bajra (3.67%), jowar (2.13%), and ragi (0.48%) accounted for about seven per cent of the gross cropped area in the country.

- **Why are millets termed ‘Nutri Cereals’?**

- On April 10, 2018, the Agriculture Ministry declared millets such as jowar, bajra, ragi/ mandua, some minor millets such as kangani/ kakun, cheena, etc, and the two pseudo millets (buckwheat (kuttu) and amaranth (chaulai)) as ‘Nutri Cereals’ for their “high nutritive value”.
- Finance Minister has described millets as “Shree Anna”. In her Budget speech, while describing various types of millets as ‘Shree Anna’.

- Now to make India a global hub for Shree Anna, the Indian Institute of Millet Research, Hyderabad will be supported as the Centre of Excellence for sharing best practices, research and technologies at the international level.
- 3. **ALMA telescope**
 - **CONTEXT:** The Atacama Large Millimetre/submillimetre Array (ALMA) (a radio telescope comprising 66 antennas located in the Atacama Desert of northern Chile) is set to get software and hardware upgrades that will help it collect much more data and produce sharper images than ever before, the journal Science reported recently. It added that the upgrades would take around five years to finish and cost \$37 million.
 - The most significant modernisation made to ALMA will be the replacement of its correlator, a supercomputer that combines the input from individual antennas and allows astronomers to produce highly detailed images of celestial objects.
 - “Today, ALMA’s correlators are among the world’s fastest supercomputers. Over the next 10 years, the upgrade will double and eventually quadruple their overall observing speed,” said the National Research Council of Canada (NRC), whose Herzberg Astronomy and Astrophysics Research Centre will work along with the U.S. National Science Foundation (NSF) National Radio Astronomy Observatory (NRAO), Massachusetts Institute of Technology (MIT) Haystack Observatory and a Canadian industry partner to upgrade the telescope’s “brain”.
 - As ALMA is operated under a partnership among the United States, 16 countries in Europe, Canada, Japan, South Korea, Taiwan, and Chile, the announcement came after all the partners cleared the funding required for the improvements.
 - Fully functional since 2013, the radio telescope was designed, planned and constructed by the US’s National Radio Astronomy Observatory (NRAO), the National Astronomical Observatory of Japan (NAOJ) and the European Southern Observatory (ESO). Over the years, it has helped astronomers make groundbreaking discoveries, including that of starburst galaxies and the dust formation inside supernova 1987A.
 - **What is ALMA?**
 - ALMA is a state-of-the-art telescope that studies celestial objects at millimetre and submillimetre wavelengths — they can penetrate through dust clouds and help astronomers examine dim and distant galaxies and stars out there. It also has extraordinary sensitivity, which allows it to detect even extremely faint radio signals, the telescope consists of 66 high-precision antennas, spread over a distance of up to 16 km.
 - According to a report each antenna is outfitted with a series of receivers, and each receiver is tuned to a specific range of wavelengths on the electromagnetic spectrum. The antennas can be moved closer together or farther apart for different perspectives – like the zoom lens of a camera. The result is magnificent, never-before-seen imagery of deepest, darkest space. Producing a single image from all the antennas is done by the correlator.
 - **Why is ALMA located in Chile’s Atacama Desert?**
 - ALMA is situated at an altitude of 16,570 feet (5,050 metres) above sea level on the Chajnantor plateau in Chile’s Atacama Desert as the millimetre and submillimetre waves observed by it are very susceptible to atmospheric water vapour absorption on Earth. Moreover, the desert is the driest place in the world, meaning most of the nights here are clear of clouds and free of light-distorting moisture — making it a perfect location for examining the universe.
 - For travelling from Japan, it takes 40 hours to get to the ALMA site in Chile including connection time. In spite of such a long distance, the selected site is still the ultimate observing site on Earth with ideal conditions for the ALMA telescope.
 - **What are some of the notable discoveries made by ALMA?**
 - With ALMA’s capability of capturing high-resolution images of gas and dust from which stars and planets are formed and materials that could be building blocks of life, scientists are trying to find answers to age-old questions of our cosmic origins.
 - One of the earliest findings came in 2013 when it discovered starburst galaxies earlier in the universe’s history than they were previously thought to have existed. “These newly discovered galaxies represent what today’s most massive galaxies looked like in their energetic, star-forming youth”.
 - In 2022, ALMA provided detailed images of the protoplanetary disc surrounding HL Tauri — a very young T Tauri star in the constellation Taurus, approximately 450 light years from Earth — and “transformed the previously accepted theories about the planetary formation”.
 - In 2015, the telescope helped scientists observe a phenomenon known as the Einstein ring, which occurs when light from a galaxy or star passes by a massive object en route to the Earth, in extraordinary detail.
 - More recently, as part of the Event Horizon Telescope project, a large telescope array consisting of a global network of radio telescopes, it provided the first image of the supermassive black hole at the centre of our own Milky Way galaxy. The image was unveiled by scientists in May 2022.

ANSWER WRITTING

Q “The Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) aims at enhancing the livelihood security of people but it also suffers from many challenges.” Critically examine the issues and impact of MGNREGS on the rural economy.

The Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), 2005 provides one hundred days of guaranteed wage employment in every financial year to every household whose adult members volunteer to do unskilled manual work. It is referred to as the world's largest welfare program, run by the government of India. Unlike other schemes, MGNREGA goes beyond poverty alleviation and recognizes employment as a legal right.

Currently, the MGNREG scheme is facing many issues such as:

- **Lack of sufficient budget allocation:** The government has allocated ₹61,032.65 crores for the scheme in latest budget 2023-24. This is 30% lower than the previous year's revised estimate. Every year about 80-90% of the budget gets exhausted within the first six months leading to a slowdown of work on the ground.
- **Delay in wage payments:** Ministry of rural development withholds wage payments for workers who do not meet administrative requirements. For instance, the Centre is yet to clear wages worth thousands of crores in West Bengal and Rajasthan. The recently introduced **Aadhaar-based payment system (ABPS)** will impact close to 80% of workers in Maharashtra who are yet to complete the relevant formalities.
- **Low wage rate:** A concern pointed out by a panel of the Rural Development Ministry is that the minimum wage rate under MGNREGS is fixed on the basis of the **Consumer Price Index-Agricultural Labourers**. It noted that the type of work done by agricultural labourers and MGNREGS workers was different, suggesting that minimum wage be decided vis-a-vis the **Consumer Price Index-Rural** as it is more recent and provided for higher expenditure on education and medical care.
- **Issues of corruption:** Works are carried out at the gram panchayat level, accountability is based at the state level, and MGNREGA funds are disbursed at the federal level. This leaves a huge gap and can lead to political influence and corruption.
- **Technological issues:** Faulty Management Information System (MIS) data, fake job cards and late uploading of muster rolls are other issues plaguing the scheme.

Impact of MGNREGA on the rural economy:

- **Providing employment:** Studies suggest that by employing the unemployed, MGNREGA has reduced poverty and distress migration. A **National Council of Applied Economic Research (NCAER)** study has stated that MGNREGA has reduced poverty overall by up to 32 per cent.
- **Significance during the pandemic:** MGNREGA made a marked difference during the pandemic by protecting the most vulnerable households from significant loss of income.
- **Capacity building:** Since the nature of work, the scale of work, and the capacities of stakeholders under MGNREGAs are diverse, separate training modules are built for different target groups. For example, according to a PIB release in 2018, 6,367 local youths were trained to become **Bare Foot Technicians**. This training was imparted to bridge the gap in the availability of technical resources at the Gram Panchayat level.
- **Women Empowerment:** The scheme gave a large number of women their first opportunity to earn cash income. As a result, there was a substantial increase in women's control over resources including cash in hand, the likelihood of having a bank account and an improvement in women's ability to make independent decisions about their health.
- **Helpful in lean agriculture season:** An agricultural lean season is the time interval between planting crops and harvesting. During this period, job prospects are rare, incomes shrink, food stocks get scarce, and low-income families skip meals regularly. Since the introduction of MGNREGA, these low-income families fare much better through the agricultural lean seasons.

Therefore, in order to make MGNREGA effective there is a need to increase budget allocations and ensure better coordination between centre and state governments. People at the grassroots level should be empowered so that regular social audits are conducted. The scheme fosters conditions for **inclusive growth** ranging from **basic wage security and recharging the rural economy** to a transformative empowerment process of democracy.

MCQs

1. Consider the following statements with respect to National Science Day
 1. National Science Day is celebrated every year to commemorate Indian physicist CV Raman discovering the Raman Effect.
 2. The theme of 2023 science day is, Global Science for Global Wellbeing.
 3. CV Raman was the first Indian to win the Nobel Prize in Physics.
 Which of the statement/s given above is/are not correct?
 - a) 1 and 2 only
 - b) 2 and 3 only

- c) 1 and 3 only
d) **None of the above**
2. Consider the following statements with reference to Raman Effect
1. Raman Effect is the change in the wavelength of light on deflection from molecules of the medium.
 2. Raman Effect can be used to describe the blue colour of the oceans.
- Which of the above given statement/s is/are correct?
- a) 1 only
b) 2 only
c) **Both 1 and 2**
d) Neither 1 nor 2
3. With reference to MIIRA initiative consider the following statements
1. This initiative aims to demonstrate the improved production and post-harvest technologies and to demonstrate value addition techniques, in an integrated manner, with a cluster approach.
 2. Poor, small, marginal and tribal farmers have a larger stake in this scheme.
 3. An important objective of the scheme is to encourage farmers of commercial crops to shift to millet cultivation by offering them free kits of critical inputs of nutrients and micro-irrigation equipment.
- Which of the above statement/s is are not correct?
- a) 1 only b) 2 and 3 only c) 1 and 2 only **d) 1, 2 and 3**
4. Atacama desert often mentioned in news recently, with reference to it consider the following statements
1. The Atacama is the driest place on earth, other than the poles.
 2. The Atacama Desert contains the world's largest supply of sodium nitrate
- Which of the above statement is are not correct?
- a) 1 only b) 2 only **c) Both 1 and 2** d) Neither 1 nor 2
5. Chajnantor plateau is often mentioned in news for its importance in the highest major observatory site in the world located in which of the following country?
- a) Chile** b) Argentina c) Brazil d) Venezuela
6. Consider the following statements
1. In India there is no central provision about menstrual leave for workers and students across the country.
 2. Among State governments, Bihar and Kerala are the only ones to introduce menstrual leave to women
- Which of the above statement/s is are correct?
- a) 1 only b) 2 only **c) Both 1 and 2** d) Neither 1 nor 2
7. Which of the following countries/s is/are part "Fab 4" or 'Chip 4' semiconductor alliance?
1. Taiwan
 2. United States
 3. Japan
 4. South Korea
 5. China
- Choose the correct answer using the codes given below?
- a) 1,2 and 3 only
b) 2,3 and 4 only
c) 1,3,4, and 5 only
d) 1,2,3 and 4 only
8. Mollem National Park recently seen in news due to critically endangered Malabar tree toad found in it, the Mollem national park is located in which of the following state?
- a) Gujarat b) Maharashtra **c) Goa** d) Karnataka
9. "Windsor Framework," often mentioned in news is a framework between which of the following countries or organization?
- a) Britain and European Union**
b) USA and Russia
c) Ukraine and Russia
d) USA and Turkey
10. With reference to Exercise Desert Flag VIII consider the following
1. It is a multilateral air exercise in which Air Forces of various country participate.
 2. This is the first occasion when the LCA Tejas will participate in an international flying exercise outside India.
- Which of the above statement/s is/are correct?
- a) 1 only b) 2 only **c) Both 1 and 2** d) Neither 1 nor 2