

EVERYDAY CURRENT AFFAIRS – JUNE 10, 2019

STATES

- ◆ **Nashik police in Maharashtra - have set up a 'Nirbhaya squad' to check incidents of eve-teasing and harassment of women**



- ✓ The newly formed 10-member squad comprises both men and women security personnel
- ✓ The squad members will maintain a strict vigil in crowded areas like bus stands, railway stations and malls to ensure safety and security of women
- ✓ Citizens, specially women, can also complain to the police on its toll free number '1091' about any incident of eve-teasing, molestation and other such offences

NATIONAL

- ◆ **The Union Cabinet chaired by Prime Minister Narendra Modi - has approved Pradhan Mantri Kisan Pension Yojana, a new Central Sector Scheme (CSS), to provide pension cover to farmers**

Cabinet Decision
May 31, 2019

Pradhan Mantri Kisan Pension Yojana

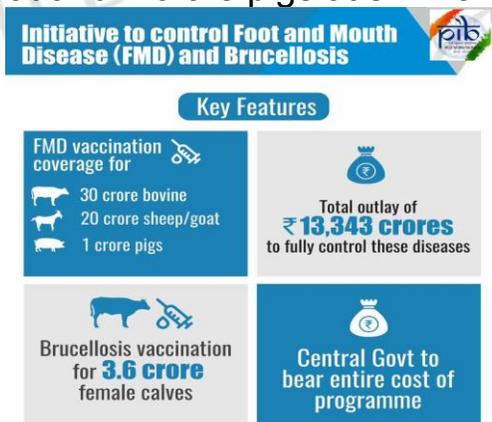


- The Union Cabinet has approved a new Central Sector Scheme namely Pradhan Mantri Kisan Pension Yojana. This Scheme is a voluntary and contributory pension scheme for all Small and Marginal Farmers (SMF) across the country, with entry age of 18 to 40 years with a provision of minimum fixed pension of Rs.3,000/- on attaining the age of 60 years
- The Central Government shall also contribute to the Pension Fund an equal amount as contributed by the eligible farmer.
- After the subscriber's death, while receiving pension, the spouse of the SMF beneficiary shall be entitled to receive 50% of the pension received by the beneficiary as family pension, provided he/she is not already an SMF beneficiary of the Scheme.
- An interesting feature of the Scheme is that the farmers can opt to allow his/her monthly contribution to the Scheme to be made from the benefits drawn from the Pradhan Mantri Kisan Samman Nidhi (PM-KISAN) Scheme directly
- The Scheme aims to cover minimum 5 crore small and marginal farmers in the first three years.

- ✓ This decision was taken at the first Cabinet meeting after formation of new Government (second term) of Modi Government.
- ✓ It is voluntary and contributory pension scheme for all Small and Marginal Farmers (SMF) across the country
- ✓ Entry age of 18 to 40 years with provision of minimum fixed pension of Rs.3,000 on attaining the age of 60 years
- ✓ Beneficiary farmer of this scheme is required to contribute Rs 100 per month at median entry age of 29 years, with equal contribution from the central government
- ✓ After subscriber's death (while receiving pension), spouse of SMF beneficiary is entitled to receive 50% of pension received by beneficiary as family
- ✓ In case of death of subscriber happens during period of contribution, the spouse shall have the option of continuing scheme by paying regular contribution
- ✓ The beneficiary farmer can pay his monthly contribution by registering through Common Service Centres (CSCs) under Union Ministry of Information and Technology or the amount can be drawn from the benefits of Pradhan Mantri Kisan SAMman Nidhi (PM-KISAN) Scheme directly.

◆ **Union Cabinet - has approved new initiative (scheme) to control Foot and Mouth Disease (FMD) and Brucellosis to support the livestock rearing farmers and the animals**

- ✓ This initiative aims to fully control these diseases amongst livestock in the country in next five years and eradicate the same later
- ✓ The centre has allocated Rs. 13,343 crores for this scheme
- ✓ It envisages vaccination coverage to 30 crore bovines (cows-bulls and buffaloes) and 20 crore sheep/goat and 1 crore pigs at six months' interval



- ✓ These diseases are very common amongst the livestock – cow-bulls, buffaloes, sheep, goats, pigs etc.
- ✓ If the livestock gets infected with FMD, it results in milk loss upto 100%, which could last for four to six months.
- ✓ In case of Brucellosis, milk output reduces by 30% during the entire life cycle of animal.
- ✓ It also causes infertility amongst animals.

◆ **The Ministry of Information and Broadcasting (I&B) - has instituted a new award called 'Antarashtriya Yoga Diwas Media Samman' (AYDMS) from year 2019**

- ✓ It intends to recognise contribution made by media in spreading awareness about Yoga in India and abroad apart from the promotion and commemoration of International Yoga Day, held every year
- ✓ The award will be conferred to Media Houses engaged in Print Media and Electronic Media (including Television & Radio)
- ✓ Media campaigns on yoga from 10 June to 25 June coverage will be considered for the award
- ✓ A total of 33 awards will be given to media houses including 11 each for print media, TV and radio channels for excellent coverage given to Yoga
- ✓ Tentatively the award ceremony for AYDMS will be held in July, 2019 at which all honours will be announced.

◆ **Chaukhandi Stupa, an ancient Buddhist site located in Sarnath, Uttar Pradesh (UP) - has been declared as 'protected area of national importance' by Archaeological Survey of India (ASI)**



- ✓ The Stupa is known as 'Chaukhandi' because of its four armed plan
- ✓ It has evolved from burial mounds and served as a shrine for a relic of Buddha
- ✓ It also finds mention in account of Hiuen Tsang, celebrated Chinese traveler of 7th century AD
- ✓ Stupa was originally built as a terraced temple during Gupta period (4th-6th centuries AD) to mark the site where Lord Buddha traveling from Bodh Gaya to Sarnath
- ✓ It is maintained, conserved and preserved by Archaeological Survey of India (ASI)

INTERNATIONAL

◆ **The United Arab Emirates (UAE) Cabinet - adopted a 'National Strategy for Wellbeing 2031'**



- ✓ It aims to enhance the quality of living by promoting an integrated concept of wellbeing, thereby supporting vision of UAE Vision 2021 and UAE Centennial 2071
- ✓ The strategy is based on a national framework of three main levels- Individuals, Society and the Country
- ✓ It focusses on strengthening family ties and promotes healthy and active lifestyle with sound mental health and positive thinking
- ✓ Under the strategy 90 new projects will be launched that will target more than 40 priority areas
- ✓ One of the most important initiatives in wellbeing strategy is development of first National Wellbeing Observatory, which will support policymaking process
- ✓ A National Wellbeing Council will also be formed to manage and coordinate the national strategy

◆ **The African Union (AU) - suspended Sudan until establishment of a civilian-led transition to democracy.**

- ✓ The decision was taken at AU's peace and Security Council meet in Addis Ababa, Capital of Ethiopia
- ✓ Since December 2018 Sudan has been rocked with anger over increasing prices and shortages, leading to the removal of its seventh president, Omar al-Bashir by the military
- ✓ The military leadership then took control of Sudan after ouster of Omar in April 2019.
- ✓ The decision of AU in Sudan was by endorsed European Union (EU)

INDIA AND OTHER COUNTRIES

◆ **India's leading civil services training institution, National Center for Good Governance - signed a Memorandum of Understanding (MoU) with Maldives Civil Services Commission for the training of 1,000 civil servants of Maldives over next five years**



- ✓ This agreement was signed during Prime Minister Narendra Modi's recent visit to Male (Maldives capital)
- ✓ Other than Maldives, NCCG had also successfully conducted training programmes for civil servants of Bangladesh, Myanmar and Gambia
- ✓ All expenses of training programme will be borne by Union Ministry of External Affairs
- ✓ In April 2019, NCCG had trained 28 Maldives civil servants, paving way for the current agreement

CONFERENCES & SUMMITS

◆ **G20 Ministerial meeting on Trade and Digital Economy - is being held from 8 June- 9 June 2019 in Japanese city of Tsukuba, Ibaraki Prefecture, Japan**

- ✓ Japan has been conducting series of ministerial meetings after it assumed its 1st ever rotating presidency in G20
- ✓ Its presidency will be culminating during G20 summit in Osaka on 28-29 June 2019
- ✓ Indian delegation for G20 Ministerial meeting on Trade and Digital Economy is being led by Piyush Goyal, Union Minister of Commerce and Industry & Railways
- ✓ Over 50 Trade and Digital Economy Ministers got together for 1st time in G20 history for the meeting
- ✓ The meet discussed importance of Digitalization for the benefit of economies and how it will help achieve inclusive, innovative and human-centred future society 'Society 5.0'.
- ✓ India is an active participant in the G20 meetings, even since it was founded in 1999

PERSONALITIES

◆ **Eminent historian and writer Romila Thapar - has been elected as international member of American Philosophical Society (APS) at its Annual Spring Meeting**



- ✓ She is Professor Emerita of history at Jawaharlal Nehru University (JNU) in New Delhi
- ✓ She is renowned for her careful scholarship on emperor Aśoka, epigraphy of Mauryan period, and ground-breaking studies and multiple historiographies surrounding contested Hindu and Muslim history of Somnath
- ✓ Her APS citation reads- 'she is the greatest living historian of India'
- ✓ Dr. Thapar was among 1,013 members elected to APS at its spring 2019 meeting
- ✓ APS is the oldest learned society in US
- ✓ It was founded by Benjamin Franklin (American polymath and one of Founding Fathers of US) for purpose of 'promoting useful knowledge' in 1743

SCIENCE, TECHNOLOGY & ENVIRONMENT

◆ **The first meeting of the Gaganyaan national advisory council – took place in Bengaluru on June 8**

- ✓ It focused on the need to further accelerate efforts to meet the December 2021 deadline for the human space flight programme
- ✓ Chaired by Isro chairman K Sivan, a presentation about the project status was made by Human Space Flight Centre director Unnikrishnan Nair
- ✓ The participants included India's first spaceman Rakesh Sharma, who was part of the joint Indo-Soviet spaceflight programme in April 1984.

◆ **Scientists at IIT, Roorkee - have developed a multimodal fluorescent polymer sensor for highly sensitive detection of nitro-aromatic explosives**



- ✓ As per the scientists, if metal detectors are coated with a thin sheet of this polymer, it will detect explosives from a distance of over 100 m
- ✓ If this specially-synthesised highly fluorescent polymer is near explosives such as DNT, TNT and Picric Acid which are often used in landmines, the device will glow green-yellow and the explosives will be spotted.
- ✓ Nitro-aromatic explosives are not only fatal for humans and animals but also contaminate the environment
- ✓ The conventional explosives detection methods mainly rely on sniffer dogs or sophisticated instruments such as gas chromatography to name a few.
- ✓ However, all these methods are expensive and complex

DEFENCE

◆ **Indian Air Force (IAF) - signed Rs.300 crore deal with Israel's Rafael Advanced Defense Systems to procure a batch of SPICE 2000 guided bombs**



- ✓ The bombs are expected to be supplied within next three months
- ✓ IAF used SPICE bombs for a non-military, pre-emptive strike on terror group Jaish-e-Mohammed's (JeM) terrorist training camp in Pakistan's Balakot region in February 2019

- ✓ The SPICE stands for Smart, Precise Impact and Cost-Effective.
- ✓ It is a guidance and maneuvering kit that can overcome errors in locating target, GPS jamming and also reduces collateral damage
- ✓ It is reportedly biggest conventional bomb that can be delivered by IAF and is used on French-origin Mirage-2000 jets.
- ✓ It has two variants SPICE-1000 kit and SPICE-2000 kit
- ✓ SPICE-1000 is meant for 500kg bombs and has glide range of about 100km.
- ✓ SPICE-2000 is meant for 1,000kg bombs and has a glide range of about 60km
- ✓ These two are difficult to detect by most ground-based radars

◆ **India - to acquire the National Advanced Surface to Air Missile System-II (NASAMS-II) from the US, at a budget of Rs 6000 crore**

- ✓ It will be used along with indigenous and Russian and Israeli systems to erect an ambitious multi-layered missile shield over the National Capital Territory of Delhi against aerial threats ranging from drones to ballistic missiles.
- ✓ Once the deal is signed, the deliveries will take place in two to four years
- ✓ As per the proposed overall air defence plan for Delhi, the innermost layer of protection will be through the NASAMS.

PROPOSED MULTI-LAYERED MISSILE SHIELD FOR NCT OF DELHI

<p>1. Outermost BMD layer</p> <ul style="list-style-type: none"> ➤ Two-tier indigenous system of AAD (advanced air defence) & PAD (Prithvi air defence) interceptor missiles ➤ Designed to track & destroy ballistic missiles both inside (endo) and outside (exo) at altitudes from 15-25 km to 80-100 km Phase-1 (interceptor missiles with 4.5 Mach speed) meant for 2,000-km range enemy missiles. System almost ready Phase-2 (interceptor missiles with 6-7 Mach speed) will be for 5,000-km class missiles 	<p>2. S-400 layer</p> <ul style="list-style-type: none"> ➤ Russian Triumf surface-to-air missile (SAM) systems ➤ \$5.43 billion (Rs 40,000 crore) deal inked in October 2018 ➤ Missiles with interception ranges of 120, 200, 250 & 380 km ➤ Deliveries of 5 squadrons from Oct 2020 to April 2023 	<p>3. Barak-8 layer</p> <ul style="list-style-type: none"> ➤ Medium & long-range SAM systems jointly developed by Israeli Aerospace Industries & DRDO ➤ Interception range of 70 to 100 km ➤ Systems being delivered to Navy (initial cost Rs 2,606 crore), IAF (Rs 10,076 crore) & Army (Rs 16,830 crore)
<p>4. Akash layer</p> <ul style="list-style-type: none"> ➤ Indigenous area defence missile system ➤ Range: 25-km ➤ IAF inducting 15 squadrons of Akash-1 & 2 systems for Rs 10,900 cr ➤ Army has inducted 2 regiments for Rs 14,180 cr. Two Akash-2 regiments on the way 		
<p>5. NASAMS layer</p> <ul style="list-style-type: none"> ➤ Quick reaction, networked system of Stingers, gun systems & AMRAAM missiles ➤ Deal for almost \$1 billion being finalized with the US ➤ Geared to track & destroy small incoming targets, shoot around buildings 		

- ✓ It will be a combination of different weapons like Stinger surface-to-air missiles, gun systems and AIM-120C-7 AMRAAMs (advanced medium-range air-to-air missiles), backed by three-dimensional Sentinel radars, fire-distribution centres and command-and-control units
- ✓ The outermost layer of Delhi's missile shield will be provided by the indigenous two-tier ballistic missile defence (BMD) system being developed by DRDO.

- ✓ This system's AAD (advanced air defence) and PAD (Prithvi air defence) interceptor missiles are currently geared to intercept enemy missiles, in the 2,000-km class, at altitudes from 15-25 km to 80-100 km
- ✓ The second layer will be through the highly automated and mobile S-400 systems, which will have missiles with interception ranges of 120, 200, 250 and 380 km
- ✓ The Ministry of defence has also signed the \$5.43 billion (almost ₹40,000 crore) deal with Russia for five squadrons of the advanced S-400 Triumf surface-to-air missile systems in October 2018
- ✓ The S-400 systems, scheduled for delivery in the October 2020-April 2023 timeframe, are meant for strategic deterrence against China and Pakistan along the borders as well.
- ✓ NASAMS-II is an upgraded version of the NASAMS developed by Raytheon in partnership with KONGSBERG Defence and Aerospace of Norway
- ✓ It has been operational since 2007.
- ✓ It features new 3D mobile surveillance radars and 12 missile launchers for quicker reaction
- ✓ It is part of the air defence network guarding US capital city Washington DC.

AWARDS

◆ **The Women Sangams (groups) of Deccan Development Society (DDS) - were honoured with Equator Prize 2019 by United Nations Development Programme (UNDP)**



- ✓ The award recognizes their contribution to ecology and innovations in rainfed millet cultivation
- ✓ The Equator Prize 2019 was awarded to six women farmer belonging to Deccan Development Society (DDS) sanghams
- ✓ They became only Indian group to have won the 2019 award for building their own seed banks and growing millets in predominantly rain-fed villages of Sangareddy district, Telangana
- ✓ DDS is Indian agriculture based Non-Governmental Organisation (NGO) in Medak district in Telangana
- ✓ It was founded in 1983
- ✓ The Equator prize was established in 2002.
- ✓ Since its inception, out of a total 223 awards, only 9 awards have been bagged by India so far
- ✓ It is awarded biennially by Equator Initiative of UNDP in recognition of community efforts to reduce poverty via conservation and sustainable use of biodiversity
- ✓ In 2019, out of 847 nominations received from over 127 countries, 20 were given this prestigious award, including DDS sangam women too

◆ **The 16-year old climate activist, Greta Thunberg of Sweden - won Amnesty International's 'Ambassador of Conscience' Award 2019 for mobilising world public opinion about global warming**



- ✓ She skipped school every Friday demanding Swedish government take more serious action to tackle climate crisis
- ✓ Her 'Fridays for Future' movement has spread globally with students around the world strike from school to participate in climate protests

OBITUARY

◆ **Girish Karnad, acclaimed bollywood and theatre personality (81 years)**



- ✓ Girish Karnad was born on May 19, 1938, in Mathern, Maharashtra
- ✓ In Sirsi, Karnataka, he was exposed to travelling theatre groups, Natak Mandalis, as his parents were deeply interested in their plays.
- ✓ After working with the Oxford University Press, Chennai for seven years (1963–70), he resigned to take to writing full-time.
- ✓ He got involved with local amateur theatre group, The Madras Players
- ✓ He served as director of the Film and Television Institute of India (1974–1975) and chairman of the Sangeet Natak Akademi, the National Academy of the Performing Arts (1988–93).
- ✓ In television, he played the role of Swami's father in the TV series Malgudi Days (1986–1987), based on R. K. Narayan's books.
- ✓ Girish Karnad was a recipient of the 1998 Jnanpith Award, the highest literary honour conferred in India

SPORTS

◆ **World athletics' governing body, the IAAF - is to be rebranded as World Athletics**

- ✓ The IAAF was initially founded in 1912 as the International Amateur Athletic Federation.
- ✓ The body took its present name in 2001
- ✓ The World Athletics should be operational from October.
- ✓ It is currently presided over by Britain's two-time Olympic 1500m gold medallist Sebastian Coe

◆ **Rafael Nadal (Spain) – defeats Dominic Thiem (Austria) to claim a record 12th French Open Tennis crown from 12 finals**



- ✓ The four-set triumph took Nadal's Grand Slam count to 18 titles, two behind Roger Federer's record of 20.
- ✓ Nadal is the first player in history to win 12 singles titles at any major.
- ✓ His victory over Thiem here in 2018, helped him equal Aussie Margaret Court's record of 11 titles at a major (Australian Open)
- ✓ The world number two has previously won the title in 2005-2008, 2010-2014, 2017 and 2018.

RANKINGS

◆ **SriLankan Airlines, the National Carrier of island nation - has been named the 'World's Most Punctual Airline' for second consecutive time**



- ✓ In September 2018 it achieved a punctuality rating of 91.37%
- ✓ It was named so by global flight tracker, 'Flightstats' which analysed data of over 41 carriers from Europe, North America, South America, Asia and Middle East
- ✓ Achieving punctuality rating of 90.75% by SriLankan Airlines in May 2019 was impressive, following the Easter suicide attacks in the capital Colombo

CHANDRAYAAN-2 – STATUS REPORT

◆ **Isro - has entered the last leg of testing of Chandrayaan-2 with the final tests are happening at Mahendragiri in Tamil Nadu and Byalalu in Bengaluru**

- ✓ As part of Isro's present schedule, spacecraft will leave Bengaluru on June 19, and reach the launchpad in Sriharikota on June 20 or 21
- ✓ The agency is looking at a July 9 launch
- ✓ ISRO has set September 6 as the date to soft-land its landing craft at the lunar south pole - a region where no agency has got to so far.
- ✓ The lander is named Vikram (meaning valour, after the father of the Indian space programme, Vikram Sarabhai).
- ✓ It will release a small robotic rover, named Pragyan (wisdom), to move around, feel and understand the lunar surface.

- ✓ Vikram must gently descend on a harsh rugged lunar surface, without getting damaged.
- ✓ It must also avoid landing in a shadowy patch as it needs sunlight for generating its power.
- ✓ The mission carries 14 payloads or instruments to observe and gauge the lunar scene – both from a distance and on its surface.
- ✓ One of them is a tiny NASA reflectometer to mark the spot for future missions and assess the distance from the earth.
- ✓ Weighing about 3,500 kg, Chandrayaan-2 will be launched on the heavy-lift GSLV-Mk III rocket.



Challenges of a Moon landing

- **Trajectory accuracy:** Ensuring trajectory accuracy while covering a destination of 3.844 lakh km has its own challenges
- **Communication issues:** Owing to the large distance from earth, radio signals would be weak when Chandrayaan's handlers need to be in touch with the orbiter, monitor and control the lander and the rover later on Moon
- **Trans-lunar injection:** On-board motors will be programmed to burn at the appointed time and spot, so that the spacecraft slips precisely into the pre-planned orbit
- **Lunar dust:** The lunar dust that may rise from craters can be deadly for the lander and rover. The dust can cling to the machines and damage their sensors and functions

Source: ISRO

7 CHALLENGES OF THE MOON LANDING

1 Trajectory Accuracy

Distance to Moon is 3,844-lakh-km. Ensuring trajectory accuracy is key. It's influenced by Moon's gravity—different parts have different pulls. Other astronomical bodies & solar radiation pressures also influence.

2 Deep-space Communication

Owing to distance and limited on-board power, there'll be a communication delay. Every message sent will reach after a few minutes. Signals become weak with background noise which must be picked up by antennas.

3 Trans Lunar Injection & Lunar Capture

Mission will have a series of engine burns to get close to Moon whose location changes continuously. Intersection of spacecraft & Moon's path must be predicted in advance with accuracy. Margin of error is narrow.

4 Orbiting Around Moon

Lunar gravity is 'lumpy' due to uneven mass distribution & influences spacecraft's orbit. Precise knowledge of temperatures 100km away from Moon is key.

5 Soft Landing on Moon

Variation in local gravity must be factored into lunar descent trajectory. All systems have to work in unison & landing site landscape features shouldn't result in a communication shadow area.

6 Lunar Dust

Firing on-board engines close to surface results in backward flow of hot gases & dust. Lunar dust is miniscule & hard. Its negative charge makes it stick to surfaces and can cause a disruption in deployment mechanisms, solar panel performance and so on.

7 Extreme Temperatures & Vacuum

A lunar day or night lasts 14 Earth days. This results in extreme surface temperature variations. Ambient pressure of surface is a hard vacuum which makes it a hostile environment for lander & rover.

Payloads which will help study the moon

ORBITER

- 1) **Terrain Mapping Camera-2 (TMC-2):** Prepares detailed 3D map
- 2) **Collimated Large Array Soft X-ray Spectrometer (CLASS):** Maps abundance of major rock forming elements
- 3) **Solar X-ray Monitor (XSM):** Observes X-rays emitted from Sun & supports CLASS
- 4) **Orbiter High Resolution Camera (OHRC):** Provides high-resolution images of landing site
- 5) **Imaging Infra-Red Spectrometer (IIRS):** Identifies minerals & signatures of hydroxyl and water molecules
- 6) **Synthetic Aperture Radar (SAR):** Maps lunar craters & other features especially in polar regions
- 7) **Chandra's Atmospheric Composition Explorer (CHACE-2):** Will carry out a detailed study of lunar exosphere
- 8) **Radio Anatomy of Moon Bound Hypersensitive ionosphere and Atmosphere (RAMBHA):** Measures total electron content (TEC)

LANDER

- 1) **RAMBHA (Langmuir Probe):** Measures TEC of lunar ionosphere & its morphology. Measures surface plasma density & changes
- 2) **Chandra's Surface Thermophysical Experiment (ChaSTE):** Measures thermal properties of regolith & polar region
- 3) **Instrument for Lunar Seismic Activity (ILSA):** Measures seismicity around landing site & structure of crust & mantle

ROVER

- 1) **Laser-Induced Breakdown Spectroscope (LIBS):** Derives chemical composition & infers mineralogical composition on surface
 - 2) **Alpha Particle X-Ray Spectrometer (APXS):** Determines elemental composition of rocks and soil
- NOTE:** Apart from these 13 scientific instruments, the mission will carry a passive payload, Retroreflector, from Nasa



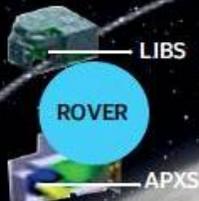
ORBITER



CHACE-2
RAMBHA



LANDER



ROVER



ILSA

Source: Isro