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Data on Family Planning

- Union Ministry of Health and Family Welfare chaired the virtual meeting on the occasion of World Population Day.
- The meeting highlighted the following
- 1. About 50 % of the country's population falls in the <u>reproductive age group</u> of 15-49 years.
- 2. India's Crude Birth Rate (CBR) has reduced from 21.8 (2011) to 20 (2018)
- 3. Total Fertility Rate (TFR) has declined from 2.4 (2011) to 2.2 (2018)
- 4. The teenage fertility has halved from 16 (NFHS III) to 7.9 (NFHS IV).
- These efforts have taken India closer to reaching the replacement fertility level of 2.1 and 25 out of 36 States/UTs have already achieved replacement level fertility.
- The National Family Planning Program has introduced the Injectable Contraceptive in the public health system under the <u>"Antara" program.</u>

Innovation in Super Capacitor

- Super Capacitor / Ultra capacitors are next-generation energy storage device.
- They have ultrafast charging characteristic as compared to conventional capacitors and lithium-ion batteries (LIB).
- In a super capacitor, electrode, electrolyte are the pivotal components which directly determine the electrochemical behavior of the super capacitors.
- Recently International Advanced Research Centre for Powder Metallurgy and New Materials (ARCI) has developed a low-cost, environmentally friendly, super capacitor electrode.
- It is *derived from industrial waste cotton* which can be used as an energy harvester storage device.
- Natural seawater is explored as an alternative aqueous electrolyte.

- It may <u>replace the existing aqueous-based electrolytes for the economic fabrication of supercapacitor.</u>
- The device shows great potential for practical application, and integration with solar cell.



Transgender Persons (Protection of Rights) Act

- Union government has released draft rules framed under the Transgender Persons (Protection of Rights) Act, 2019.
- In the draft it has done away with the requirement of a medical examination for Trans persons applying for a certificate of identity.
- By which <u>Magistrate would issue a transgender identity certificate</u> and card based on an affidavit by the applicant, <u>"but without any medical</u> examination".
- Trans- persons would be required to fill out a form and submit an affidavit saying they perceive themselves to be "a transgender person whose gender does not match with the gender assigned at birth" and that they "declare" themselves to be transgender.
- In case of change of gender, the application for new identification certificate <u>would require a certificate from the medical superintendent</u> or chief medical officer of the medical institution where the applicant underwent the intervention.

Srebrenica Massacre

- Srebrenica is a *town in Bosnia and Herzegovina in south-eastern Europe*.
- The disintegration of Yugoslavia in 1991 threw the south-eastern and central Europe in chaos and led to violent inter-ethnic wars in the region over the next few years.
- In July 1995, approximately 8,000 Muslims, mostly men and boys were killed in Srebrenica, by Bosnian Serb forces led by Commander Ratko Mladić
- In many ways, the violence perpetrated against Bosniaks or Bosnian

Muslims during the Srebrenica massacre <u>was a result of this regional</u> conflict.

- These killings were later *classified as genocide by international tribunals investigating the massacre.*
- 25 years on, commemoration services were held at the Srebrenica-Potocari Memorial in remembrance of the victims of the Srebrenica massacre.



Satellite Town Ring Road (STRR)

- Union Environment Ministry has recommended the grant of Environmental Clearance for the development of an economic corridor between Tamil Nadu and Karnataka.
- TN-KA Satellite Town Ring Road (STRR), a Greenfield highway is part of Bharatmala Pariyojana.
- It will be implemented by the *National Highways Authority of India*.
- The project will start in <u>Dabaspet in Karnataka and end near Devarapalli</u> <u>village on the Tamil Nadu-Karnataka border.</u>

Bharatmala Pariyojna

- Bharatmala Project is the second largest highways construction project, under which almost 50,000 km or highway roads were targeted across the country.
- It will look to improve connectivity particularly on economic corridors, border areas and far flung areas with an <u>aim of quicker movement of cargo and boosting exports.</u>
- It calls for improvement in efficiency of existing corridors through development of Multimodal Logistics Parks and elimination of choke points.
- It enhances focus on improving connectivity in North East and <u>leveraging</u> <u>synergies with Inland Waterways.</u>

Heron UAV

- The IAI Heron is a medium-altitude long-endurance unmanned aerial vehicle (UAV) developed by the *Israel Aerospace Industries*.
- It is capable of <u>Medium Altitude Long Endurance (MALE) operations of up</u> to 52 hours' duration at up to 10.5 km (35,000 ft).
- It has demonstrated 52 hours of continuous flight, but the effective operational maximal flight duration is less, according to payload and flight profile.
- Heron unmanned aerial vehicles are already in use with Indian Air Force, Navy, and the Army.
- It is being used extensively at the moment by both Army surveillance and Air Force in the Ladakh sector.
- Indian forces are working towards inducting an armed version of the UAV, under the ambitious 'Project Cheetah' spearheaded by the Indian Air Force.

Spike Missiles

- Spike is an Israeli <u>fire-and-forget anti-tank guided missile and anti-personnel missile.</u>
- It was developed and designed by the *Israeli company Rafael Advanced Defense Systems*.
- It is available in man-portable, vehicle-launched, and helicopter-launched variants.
- Indian Army is planning to place orders for more Spike anti-tank guided missiles from Israel under the emergency financial powers granted to the services.

Man-Portable Anti-Tank Guided Missile (MP-ATGM)

- The MPATGM, or Man Portable Anti-Tank Guided Missile, is an Indian third-generation fire-and-forget anti-tank guided missile derived from Nag ATGM.
- It is *currently under development by the DRDO*.
- It is *fitted with high-explosive anti-tank (HEAT) warhead*.
- The MPATGM is equipped with an advanced imaging infrared (IIR) sensor and integrated avionics.
- It reportedly share many similarities with Spike (ATGM).

Source: PIB, the Hindu, Economic Times

