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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 *reproductive age group* <u>of 15-49 years.</u>
- 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</u> <u>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 examination"</u>.
- 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> <u>conflict.</u>
- 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 *leveraging synergies with Inland Waterways.*

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 <u>Force.</u>

Spike Missiles

- Spike is an Israeli *fire-and-forget anti-tank guided missile and antipersonnel missile.*
- It was developed and designed by the *Israeli company Rafael Advanced* <u>Defense Systems</u>.
- 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

