

NATIONAL**Transgender Rights Bill**

The Lok Sabha has passed the Transgender Persons (Protection of Rights) Bill, 2016 to give transgender persons equal rights and protection under law through a voice vote. The Bill had gone to the standing committee, and as many as 27 amendments have been accepted by the government.

New definition:

The amendments passed include a change in the previous definition of transgender persons as “neither wholly female or wholly male”, which was criticised as being insensitive.

According to the new definition, a transgender person is somebody “whose gender does not match the gender assigned to that person at birth and includes trans-men or trans-women, persons with intersex variations, gender-queers, and persons having socio-cultural identities such as kinnar, hijras, aravani, and jogta”.

Highlights of the Bill:

- The Bill aims to stop discrimination against a transgender person in various sectors such as education, employment, and healthcare. It also directs the central and state governments to provide welfare schemes for them.
- The Bill states that a person will be recognised as transgender on the basis of a certificate of identity issued through the district screening committee. This certificate will be a proof of identity as transgender and confer rights under this Bill.

Draft National Child Protection Policy

Women and child development ministry has drafted a policy dedicated to the protection of children. Until now, protection of children was only a part of the broader National child policy 2013.

Key provisions and highlights of the draft policy:

- The policy will apply to all Institutions and organisations including corporate and media houses government or private sector.
- As per the policy all organisations must have a code of conduct based on zero tolerance of child abuse and exploitation.
- The policy requires organisations to lay down that employees don't use language or behaviour that is inappropriate, harassing, abusive, sexually provocative, demeaning or culturally inappropriate.
- Institutions should also designate a staff member to ensure that procedures are in place to ensure the protection of children as well as to report any abuse.
- Any individual who suspects physical, sexual or emotional abuse must report it to the helpline number 1098 or police or a child welfare committee.

National e-Vidhan Application (NeVA) Project

Minister of State for Parliamentary Affairs and Water Resources, River Development and Ganga Rejuvenation, gave details on the status of implementation of National e-Vidhan Application (NeVA) Project.

e-Vidhan:

- It is a Mission Mode Project (MMP) comes under the Digital India Programme.
- Ministry of Parliamentary Affairs (MoPA) is the ‘Nodal Ministry’ for its implementation in all the 31 States/UTs with Legislatures.
- The funding for e-Vidhan is provided by the MoPA and technical support by Ministry of Electronics and Information Technology (MietY).
- The funding of NeVA is through Central Sponsored Scheme i.e. 60:40; and 90:10 for North East & hilly States and 100% for UTs.

Aim of NeVA: It aims to bring all the legislatures of the country together, in one platform thereby creating a massive data depository without having the complexity of multiple applications.

Highlights of NeVA:

- Paperless Assembly or e-Assembly is a concept involving of electronic means to facilitate the work of Assembly.
- It enables automation of entire law making process, tracking of decisions and documents, sharing of information.
- Through the cloud technology (Meghraj), data deployed can be accessed anywhere at any time.
- The live webcasting of Lok Sabha TV and Rajya Sabha TV is also available on this application.
- Doordarshan has already been enabled with provision to incorporate similar facility in respect of State Legislatures.
- Himachal Pradesh is already the first Digital Legislature of the country.

Central Project Monitoring Unit (CPMU) and Detailed Project Report (DPR):

- The CPMU under MoPA, is responsible for reviewing the financial and technical progress of the project. The State will prepare detailed project report (DPR) and gap analysis report.
- State level project monitoring committee will carry out the technical scrutiny and financial scrutiny of the DPR and after final approval of the same will be send to the MoPA for approval.
- After the technical and financial scrutiny, funds will be released for project implementation.

State Government's Role in the implementation of e-Vidhan: The State Government will appoint a Secretary level officer to be designated as the nodal officer/representative for e-Vidhan implementation in the State Legislature(s).

State Government will bear the funds required for running of e-Vidhan MMP after 3 years. The State Government will ensure capacity building for the effective implementation of e-Vidhan MMP module. State Government/Legislature will undertake maintenance and replacement of ICT equipment after 3 years. Release of next instalment would not be made in case the utilization certificate and confirmation of release of funds by the state government of their share is not received by the CPMU.

INTERNATIONAL AND BILATERAL**Gender gap index 2018**

World economic forum has released the 2018 gender gap index. It is published annually by the world economic forum since 2006. Global gender gap index is a part of this which measures gender equality across four pillars– they are economic opportunity, political empowerment, educational attainment and health and survival.

Performance of various countries:

- Iceland has been ranked as Number 1. It is followed by Norway, Sweden and Finland.
- Other countries in top 10 include Nicaragua, Rwanda, New Zealand, Philippines, Ireland and Namibia.
- As per the report, at the current speed it will take about 108 years to close the overall gender gap in the world. And after 202 years there will be parity in the workplace in the world at the current rate of change.
- Syria, Iraq, Pakistan and finally Yemen showed the biggest overall gender gaps of the countries surveyed.

Performance of India:

- India has been ranked at 108.
- It has recorded improvement in wage equality for similar work and has fully closed its tertiary education gender gap for the first time.
- It ranks 142nd out of 149 countries in the economic opportunity and participation subindex.

- India continues to rank third-lowest in the world on health and survival, remaining the world's least-improved country on this subindex over the past decade.
- India has slightly improved in WEF's wage equality for similar work indicator, where it stood at 72nd place. The country has also closed its tertiary education enrolment gap for the first time in 2018 and has managed to keep its primary and secondary gaps closed for the third year running.
- Interestingly, India has the second-largest artificial intelligence (AI) workforce but one of the largest AI gender gaps, with only 22% of roles filled by women.

SCIENCE AND TECHNOLOGY

Graphene

A group of researchers at Nagpur-based Visvesvaraya National Institute of Technology have developed a new technique which promises to help produce high value graphene from discarded dry cells batteries. As of now, researchers have achieved 88% yield of graphene from a single graphite rod. It can be scaled up to the industrial level.

Significance: Since graphene is made out of graphite, its production is both expensive and has significant environmental impact. The new technique helps both reduce the cost and preserve environment.

Graphene:

- Graphene has been touted in the global electronics industry as a "miracle material" given its strength, electrical conductivity and elasticity, and has been seen as an alternative to lithium-ion batteries since its discovery in 2004. It is a form of carbon that can be used to develop smaller, slimmer batteries but with higher capacity.
- Graphene is a carbon material that is one atom thick. Its thin composition and high conductivity means it is used in applications ranging from miniaturised electronics to biomedical devices. These properties also enable thinner wire connections; providing extensive benefits for computers, solar panels, batteries, sensors and other devices.

Applications:

- Graphene is widely used in making solar cells, light-emitting diodes, touch panels and smart windows. Graphene supercapacitors serve as energy storage devices with a capacity for faster charging and longer life span than traditional electrolytic batteries.
- Other potential applications of graphene include water filtration and purification, renewable energy, sensors, personalised healthcare and medicine, to name a few.

Navic powered gadgets to TamilNadu fishermen

The Tamil Nadu government has distributed 200 Navic- powered satellite- enabled communication devices developed by ISRO to 80 fishing boat groups.

Significance: These gadgets will help the Tamil Nadu fishermen know about cyclones and provide weather updates on a real- time basis. These gadgets are basically receivers which will produce a beep when alerts are received by the device. They are Bluetooth enabled and the alerts received can be read on the Navic app.

NAVIC: NAVIC is an independent regional navigation satellite system designed to provide position information in the Indian region and 1500 km around the Indian mainland.

'Farout' Dwarf Planet:

It is the most-distant body ever observed in our solar system discovered recently. It is located over 100 times farther than Earth is from the Sun.

It has been given the provisional designation 2018 VG18. It is at about 120 astronomical units (AU), where 1 AU is defined as the distance between the Earth and the Sun.

The discovery images of 2018 VG18 were taken at the Japanese Subaru 8-metre telescope located atop Mauna Kea in Hawaii on November 10, 2018. 2018 VG18 was seen for the second time in early December at the Magellan telescope at Carnegie's Las Campanas Observatory in Chile.

The second-most-distant observed solar system object is Eris, at about 96 AU. Pluto is currently at about 34 AU, making 2018 VG18 more than three-and-a-half times more distant than the solar system's most-famous dwarf planet.

ENVIRONMENT

The quest for a global Rulebook

- During the weekend, the global fight against climate change reached another milestone when negotiators from 196 countries finalized a rulebook for the 2015 Paris Agreement.
- The finalization paves the way for implementation of the Paris Agreement, which is supposed to replace the existing Kyoto Protocol in 2020.
- The creation of the rulebook has been hailed as an important step that has breathed life into the Paris Agreement.
- At the same time, several countries and nongovernmental organisations have said the deal reached in Katowice, though welcome, was not enough.

The Rulebook: The rulebook contains various other processes and guidelines needed for implementing the other provisions of the Paris Agreement. In short, it holds the operational details of the Paris Agreement.

- Broadly, the Paris Agreement, which seeks to keep the global average temperatures “well below” 2°C from pre-industrial times, specifies what steps countries need to take in the fight against climate change.
- The rulebook prescribes how to do those things, and how each of them would be measured and verified.
- For example, the Paris Agreement says every country must have a climate action plan, and that this should be periodically updated and submitted to the UN climate body.
- The rulebook now specifies what actions can be included in the action plan, how and when to submit them.
- Further, the Paris Agreement asks every member nation to submit information about their greenhouse gas emissions every two years.
- The rulebook specifies which gases to measure, what methodologies and standards to apply while measuring them, and the kinds of information to be included in their submissions.

Climate Finance: A crucial element of Rulebook

- Again, under the Paris Agreement, developed countries are supposed to provide “climate finance” to developing countries to help them deal with climate change, and submit an account of this.
- The rulebook says what kinds of financial flows — loans, concessions, grants — can be classified as climate finance, how they should be accounted for, and the kind of information about them needed to be submitted.