Prelim Bits 25-03-2023 | UPSC Daily Current Affairs

Biotransformation Technology

A UK-based start-up claims to have developed Biotransformation technology that can alter the state of plastics and make them biodegradable.

- Biotransformation technology is a process which alters the state of plastics and make them biodegradable.
- The technology would digest the plastic packaging waste naturally with the help of microbes without leaving behind any microplastics.
- It ensures that plastic which escaped refuse streams to be fully biodegrade in the natural environment.

*The biotransformation technology is the world's first that ensures **polyolefins** fully biodegrade in an open environment causing no microplastics.*

- **Process** - Plastics made using this technology are given a pre-programmed time during which it looks and functions like conventional plastics.
- After expiry and exposure to the external environment, it self-destructs and biotransforms into bioavailable wax.
- This wax is then consumed by microorganisms, converting waste into water, CO_2, and biomass.

- The technology attacks the crystalline and amorphous region of the polymer structure, rapidly turning it into a wax-like material.
- This wax-like material is no longer a plastic and is not harmful to the environment.
- **Utility** - This technology to reduce waste can be used in the 2 prime plastic waste producing sectors - food packaging and health care.
- **Indian initiatives** towards plastic waste management
    1. Plastic waste management gazette.
    2. Last year, the Indian government imposed a ban on single-use plastics.
    3. National Dashboard on Elimination of Single Use Plastic and Plastic Waste Management.
    4. Extended Producer Responsibility (EPR) portal.

References

1. The Hindu - What is Biotransformation technology?

Disqualification of MP

Wayanad MP Rahul Gandhi's membership of Parliament has been cancelled following his conviction in a defamation case.

- The Lok Sabha Secretariat issued a notification stating that 'Rahul stood disqualified from the membership of Lok Sabha from the date of his conviction.
- His disqualification was in terms of the provisions of
  - Article 102(1)(e) of the Constitution of India.
  - Section 8 of the Representation of the People Act, 1951.
- **Article 102** deals with the disqualification of MPs from either house of the Parliament.
  - **Article 102 (1)** of the article lists the reasons why an MP can be disqualified.
  - **Article 102 (1) (e)** if he is so disqualified by or under any law made by Parliament.
- In this case, the law under which he has been disqualified is the Representation of People Act, 1951.

The Representation of the People Act, 1951

- The Act provides for the conduct of election of the Houses of Parliament, the qualifications and disqualifications for membership of those Houses.
- Section 8 of the RP Act, 1951 deals with disqualification of a lawmaker for conviction in certain offences.
- Disqualification is triggered under
  - Section 8(1) - specific offences.
  - Section 8(2) - offences that deal with hoarding or profiteering, adulteration of food or drugs and for conviction and sentence (at least 6 months) under the Dowry Prohibition Act.
- Congress Leader Rahul Gandhi was held guilty and sentenced to 2 years in jail by a Surat court in a 2019 defamation case, which triggered the Section 8(3) of the RPA, 1951.
- **Section 8(3)** of the RPA, 1951 states that a person convicted of any offence and sentenced to imprisonment for not less than 2 years shall be disqualified from the date of such conviction.
- Further the person shall continue to be disqualified for a further period of 6 years since his release.
- **Reversal** - The disqualification can be reversed if a higher court grants a stay on the conviction or decides the appeal in favour of the convicted lawmaker.

Lily Thomas v Union of India, 2013

- **Immediate Disqualification** - In the landmark judgement, the Supreme Court struck down Section 8(4) of the RPA as unconstitutional.
- **Section 8(4)** of the RPA stated that the disqualification takes effect only after 3 months have elapsed from the date of conviction, within which lawmakers could file an appeal in the High Court.

References

1. IE - Laws under which Rahul Gandhi has been disqualified

ICMR Guidelines for AI

The Indian Council of Medical Research (ICMR) has released India's first Ethical Guidelines for Application of Artificial Intelligence in Biomedical Research and Healthcare.

- The Indian Council of Medical Research (ICMR) is the India's apex body for formulation, coordination and promotion of biomedical research.
- **Publisher** - ICMR has released the document titled Ethical Guidelines for AI in Healthcare and Biomedical Research.
- The ethical guidelines document was prepared by the Department of Health Research and ICMR Artificial Intelligence Cell, Delhi.
- **Aim** - It aims at creating an ethics framework which can assist in the development, deployment, and adoption of AI-based solutions in healthcare.
- The document is intended for all stakeholders involved in research on AI in biomedical research and healthcare.
- The guidelines include ethical principles, guiding principles for stakeholders, an ethics review process, governance of AI use, and informed consent.
- **Other initiatives** - India already offers streamlining of AI technologies in healthcare through
    1. National Health Policy (2017)
    2. National Digital Health Blueprint (NDHB 2019)
    3. Digital Information Security in Healthcare Act (DISHA 2018) under which National Data Health Authority and other health information exchanges were established.

References

1. The Hindu - Ethical guidelines for AI usage in healthcare
2. Down To Earth - ICMR releases guidelines for AI usage
3. ICMR - Ethical guidelines for application of Artificial Intelligence

National Rabies Control Programme

The Union Minister of Fisheries, Animal Husbandry and Dairying elaborated about Rabies control in India in a written reply in Rajya Sabha.

- Ministry of Fisheries Animal Husbandry & Dairying and Ministry of Health & Family Welfare jointly launched 'National Action Plan for Dog Mediated Rabies Elimination (NAPRE) from India by 2030'.
- The Union Government has launched the National Rabies Control Programme (NRCP) for prevention and control of Rabies.
- The Strategies of the National Rabies Control Program are
    1. Provision of rabies vaccine & rabies immunoglobulin through national free drug initiatives.
    2. Training on appropriate animal bite management, prevention and control of

rabies.
3. Strengthening surveillance of animal bites and rabies deaths reporting.
4. Creating awareness about rabies prevention.

- **Rabies** - Rabies is a vaccine-preventable zoonotic viral disease.
- **Transmission** - Dogs are the source of the vast majority of human rabies deaths, contributing up to 99% of all rabies transmissions to humans.
- **Prevention** - The most cost-effective prevention strategy is vaccinating dogs.



References

1. PIB - GoI launches National Rabies Control Programme (NRCP)
2. WHO - Rabies in India

GST Appellate Tribunal

Lok Sabha approves setting up of GST Appellate Tribunal to solve disputes linked to the Goods and Services Tax (GST).

- The GST Act of 2017 has provisions to set up an appellate tribunal for disputes between assesses and the authorities.
- **Present Status** - Taxpayers file writ petitions before High Courts.
- **GST Council** - The council is the apex federal body on GST matters, headed by the Union finance minister, with states represented through their respective finance ministers.
- The 49th GST Council meeting accepted the constitution of GST appellate tribunal (GSTAT).
- **GSTAT** - The tribunal will hear appeals against the orders passed by the Appellate Authority or the Revisional Authority.
- GSTAT will have a Principal Bench and also state benches.
- The Principal Bench in New Delhi will consist of a President, a judicial member, a technical member (centre) and a technical member (state).
- State benches will be set up on the request of states which will include 2 judicial members, and 2 technical members representing the Centre and state.
- **Provisions** -

Disputes	Adjudicated by
Up to Rs 50 lakh	Single member bench
Above Rs 50 lakh	1 technical member and 1 judicial member

- **Advantage -** Establishment of Appellate tribunal would result in lower burden on the courts and taxpayers.

References

1. Business Standard - Lok Sabha approves for GST Appellate Tribunal
2. Hindustan Times - Lok Sabha nods for forming GSTAT



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