Prelim Bits 06-11-2019

Wasteland Atlas

- The 5th edition wasteland atlas of India is released by the Department of Land Resources, Ministry of Rural Development.
- The previous 4 editions were released in 2000, 2005, 2010 & 2011.
- National Remote Sensing Centre (NRSC), Department of Space collaborate with the ministry.
- The new wastelands mapping exercise is carried out by NRSC using the Indian Remote Sensing Satellite data.
- The changes in wastelands between 2008-09 and 2015-16 have been presented in the Atlas.
- It provides district and state wise distribution of different categories of wastelands area including mapping of about 12.08 Mha hitherto unmapped area of Jammu & Kashmir.
- **Data highlights** – The spatial extent of wasteland is 55.76Mha (16.96 % of geographical area of the Country) for the year 2015-16 as compared to 56.60 Mha in the year 2008-09.
- During this period 1.45 Mha of wastelands are converted into non wastelands categories.
- A reduction in wasteland area was observed in the categories of land with dense scrub, waterlogged and marshy land, sandy areas, degraded pastures / grazing land and gullied and / or ravinous land.
- Positive changes were observed in the following States - Rajasthan, Bihar, Uttar Pradesh, Andhra Pradesh, Mizoram, Madhya Pradesh, Jammu & Kashmir and West Bengal.
- Majority of wastelands have been changed into categories of croplands.

Danakil Depression

- The Danakil Depression in Ethiopia is at the northern end of the Great Rift Valley and separated by live volcanoes from the Red Sea.
- It is one of the world's hottest places, as well as one of its lowest, at 100 metres below sea level.
- It was formed by the evaporation of an inland water body and no stream flow out from its extreme environment.
- It is covered with more than 10 lakh tonnes of salt.

- Microbes are known to survive almost anywhere. Scientists now believe that this place is an exception.
- A new study says that active and naturally occurring life cannot be sustained and even it is daunting for extremophile microbes which can adapt to environmental conditions that are too extreme for everything else.
- It identifies two barriers that makes adaptation highly difficult such as

    i. Magnesium-dominated brines that cause cells to break down and
    ii. Environment having simultaneously very low pH and high salt.

New Rules on Ethanol Production

- The Central Government has declared that no separate environmental clearance is required to produce additional ethanol from B-heavy molasses as it does not contribute to the pollution load.
- **Ethanol Production** - Ethanol is a secondary biofuel which is produced through processing of biomass.
- In the National Policy on Biofuels 2018, Government has allowed B grade molasses, sugarcane juice and damaged food grains as feedstocks to increase availability of ethanol.
- **"A" molasses** is intermediate by-product resulting from initial processing of sugarcane juice at the sugar factory.
- **"B" molasses/"second" molasses** is an intermediate product, obtained from boiling together "seed-sugar" & A molasses to extract an additional 12% of raw sugar.
- **"C" molasses/"final"** is the end product of the sugar extraction process. It still contains considerable amounts of sucrose but there is no economically viable method to date to extract this.
- While in many nations, ethanol is directly produced from sugarcane juice, in India ethanol has been produced from C-heavy molasses.
- It is because of a general perception that diverting a food crop for producing fuel would lead to a shortage of sugar in the country.
- With various incentives provided by the Government of India, sugar mills are expected to undertake production of ethanol from B-heavy Molasses and other by-products/products.
- The recent environment clearance clause is to facilitate ethanol production from B-heavy molasses/Sugar cane juice/ Sugar syrup/ Sugar.
- Such projects will be considered under the provisions of 7 (ii) (a) of EIA Notification, 2006 by the concerned Expert Appraisal Committee for grant of environmental clearance.

Acute Respiratory Infections

- ARI is a serious ailment that prevents normal breathing function and kills an estimated 2.6 million children annually every year worldwide.
- Indians face the double burden of heavy air pollution in addition to the high rate of ARI which hits children the hardest.
- National Health Profile – 2019 says that Acute Respiratory Infections (ARI) accounted for 69.47% of morbidity (poor health) in the communicable disease category leading to 27.21% mortality (Loss of Life).
- ARI is highest in the Andhra Pradesh, Gujarat, Karnataka, Kerala, Tamil Nadu, Uttar Pradesh and West Bengal.
- **Implications** – Polluted air penetrate and inflame the linings of bronchial tubes and lungs.
- This leads to respiratory illness such as chronic bronchitis, emphysema, heart disease, asthma, wheezing, coughing and difficulty in breathing.
- It poses a high risk to pregnant women and the baby. The foetus receiving polluted air from mother can increase health risk of unborn babies.
- In pregnant women, it can cause a medical condition called intrauterine inflammation.

Global Exhibition on Services

- The 5th Global Exhibition on Services (GES) was organised by the Ministry of Commerce & Industry in New Delhi.
- It is organised in partnership with Services Export Promotion Council and the Confederation of Indian Industry.
- The objective is to give focused attention to the following 12 identified Champion Services Sectors for promoting their development and realizing their potential.

    i. Accounting & Finance
    ii. Media & Entertainment
    iii. IT & ITES
    iv. Health & Wellness
    v. Infra & Construction
    vi. Legal
    vii. Transport & Logistics
    viii. Banking, Financial & Insurance
    ix. Communications
    x. Tourism & Hospitality
    xi. Education

xii. Environment

- The ‘India Services’ brand was created by the Ministry of Commerce andIndustry to represent the services sector of India.

Source: PIB, The Hindu, The Indian Express

