Prelim Bits 13-04-2018

Index of Economic Freedom

- Index of Economic Freedom is published by Heritage Foundation, an American think-tank.
- The Index covers 12 freedoms – from property rights to financial freedom – in 186 countries.
- The Index of Economic Freedom documents the positive relationship between economic freedom and a variety of positive social and economic goals.
- Economic freedom is measured based on 12 quantitative and qualitative factors, grouped into four broad categories of economic freedom:

1. Rule of Law (property rights, government integrity, judicial effectiveness)
2. Government Size (government spending, tax burden, fiscal health)
3. Regulatory Efficiency (business freedom, labor freedom, monetary freedom)
4. Open Markets (trade freedom, investment freedom, financial freedom)

- India moved up to the 130th spot, up from 143 in 2017.
- India's overall score increased by 1.9 points, led by improvements in judicial effectiveness, business freedom, government integrity, and fiscal health.

- Economic freedom is the fundamental right of every human to control his or her own labor and property.

Mahatma Phule

- Prime Minister paid tributes to Mahatma Phule on his birth anniversary recently.
- Phule was India's first Dalit reformer who offered a systematic theory of caste.
- In the 19th century, Jyotiba Phule was the most radical opponent of untouchability and the caste system as he called for the complete demolition of its oppressive structure.
- The Maharashtrian reformer and his wife Savitrirao Phule opened the **first-ever school for Dalit girls** in 1848 in Pune.
- **Gulamgiri (slavery)** is one of the 16 books written by him which was dedicated to the African-American movement to end slavery.
- Phule led the foundation of **Satyashodhak Samaj** ('Seekers of Truth') in 1848 in a bid to attain equal social and economic benefits for the lower castes in Maharashtra.

Rare sculpture of Rudrama Devi's 'last battle' discovered

- A sculptural slab carved in granite that has a life-size portrait of Kakatiya warrior queen Rudrama Devi was discovered by the Archaeological Survey of India (ASI).
- It was discovered in the sanctum sanctorum of Trikuta temple at Bekkallu village in Siddipet district of Telegana.
- The discovery has unraveled the mystery of her death who was killed during

a war by her own subordinate chief kayastha king Ambadeva somewhere near Warangal.
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- The portrait sculpture is a first of its kind that displays a fierce fighting scene between Rudrama Devi and Ambadeva.
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- The Kakatiya dynasty was a South Indian dynasty whose capital was Orugallu, now known as Warangal in the State of Telegana.
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- Rudrama devi was one of the very few women to rule as monarchs in India and promoted a male image in order to do so.
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Guidance to increase support for breastfeeding

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- World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) issued a new 10-step guidance to increase support for breastfeeding in health facilities recently.
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- Health facilities provide the immediate health system platform to help mothers initiate breastfeeding within the first hour and breastfeed exclusively for six months.
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- Breastfeeding all babies for the first 2 years would save the lives of **more than 8, 20,000 children under age 5 annually**, noted a release issued by the WHO.
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- Key features of the Guidelines include
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1. Hospitals should have a written breastfeeding policy in place, required staff competencies.
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2. Hospitals should also have an antenatal and post-birth care, including breastfeeding support for mothers.
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3. It recommends limited use of breast milk substitutes, rooming-in, responsive feeding.
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4. Finally it stresses upon support when mothers and babies are discharged from hospital and also educating parents on the use of bottles and pacifiers.

- **MAA – Mothers' Absolute Affection**, a nation-wide program for promoting breastfeeding is in place under the Ministry of Health and family welfare, in India.

Green Trains for Green India

- As per estimation, approx. 4,000 MT of human waste is discharged from train coaches every day.
- Indian Railways has provided about 1, 25,000 bio-toilets in its coaches till March 2018.
- With the proliferation of bio-toilets in 60% coaches commensurate human discharge in open, has been eliminated.
- "Bio-Toilet project" of Indian Railways is an innovative & indigenous development of technology.
- This technology is first of its kind being used by any railroad in the world for **On-board accelerated digestion of human waste**.
- The human waste discharged in the bio-toilets is acted upon by a colony of **anaerobic bacteria** that convert human waste mainly into water and small amount of bio-gases.
- The gases escape into atmosphere and waste water is discharged after chlorination onto the track.
- It was developed jointly by Indian Railways' Engineers & DRDO's scientists.
- It is one example where the technology developed for defence applications has been utilized for civilian purpose.

Indian Regional Navigation Satellite System 1I

- Navigation satellite IRNSS-1I was put in orbit by the Indian Space Research Organization's (ISRO) PSLV-C41 rocket.
- The navigation satellites are meant for giving precise information of position, navigation and time of objects or people.
- The satellites will form the fleets of NavIC (Navigation with Indian Constellation).
- NavIC is being dubbed as India's Own GPS.

IRNSS, India's answer to Global Positioning System, will cover a radius of 1,500km with India at the centre. Here is where India stands in a comity of space-faring nations

GPS
Country | **US**
No. of Satellites | **31**
Coverage | **Global**
First satellite launch | **1978**
Lifetime of each satellite | **10 years**
Precision | **5m**

GLONASS
Country | **Russia**
No. of satellites | **24**
Coverage | **Global**
First satellite launch | **October 1982**
Lifetime of each satellite | **10 years**
Precision | **5m to 10m**

GALILEO
Region | **European Union**
No. of satellites | **40 (10 in orbit now)**
First launch | **2011**
Area of coverage | **Global**
Lifetime of each satellite | **12 years**
Precision | **1m for public and 1cm for military**

BEIDOU
Country | **China**
Has two separate satellite constellations– limited test system and full-scale global navigation system

No. of satellites | **35 (20 now in orbit)**
First launch | **October 2000**
Area of coverage | **global**
Lifetime of each satellite | **12 years**
Precision | **10m for public and 10cm for military**

IRNSS
Country | **India**
No. of satellites | **7(5 in orbit)**
Area of coverage | **Radius of 1500km**
First satellite launch | **2013**
Lifetime of each satellite | **12 years**
Precision | **20m for civilian, 10m for military**

- The satellites were built by a consortium of six Indian companies led by Alpha Design Technologies Ltd., Bengaluru.
- They have a civilian and a restricted military/security application.
- Like all other IRNSS satellites, IRNSS-1I will also carry two payloads

1. Navigation payload former to transmit signals for determining position, velocity and time.
2. Ranging payload for determining the frequency range of the satellite.

- Each satellite has a life span of 10 years.
- The system was planned to consist of 7 satellites (A,B,C,D,E,F,G) with 2 substitutes (H and I).
- Out of 7 satellites A, B, F, G will be in geosynchronous and C, D, E will be in geostationary orbit.
- IRNSS 1H, was unsuccessful as the satellite did not come out of its heat shield.
- While IRNSS 1I will replace IRNSS 1A as its three imported rubidium atomic clocks failed while in orbit.

Map of the Day

India Tiger Reserves

- In total, there are 50 tiger reserves in the country.
- Kamlang Tiger Reserve in Arunachal Pradesh is the 50th tiger reserve and latest addition in the country.
- The following are the states with only one tiger reserve

1. Valmiki -Bihar
2. Palamau- Jharkhand

3. Dampa –Mizoram

4. Nagarjunasagar Srisailam (NSTR)- Andhra Pradesh

- Amrabad Tiger Reserve was earlier part of Nagarjunasagar – Srisailam Tiger Reserve (NSTR) but, post-bifurcation, the northern part of the reserve is vested with Telangana and renamed as Amrabad Tiger Reserve and the southern part (NSTR) is with Andhra Pradesh.

- Jammu and Kashmir, Punjab, Himachal Pradesh, Haryana, Gujarat, Goa, Sikkim, Nagaland, Meghalaya, Tripura and Manipur are the states with no tiger reserves in their region.
- The tiger reserve in the four corner of our states

1. Rajaji Tiger Reserve (Uttrakhand) -North
2. Kalakad-Mundanthurai (KMTR) - South
3. Namdapha (Arunachal Pradesh) - East
4. Sahyadri (Maharashtra) – West

Source: PIB, The Hindu, Business standard

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