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Short Message Service (SMS)

- The first SMS message was sent over the Vodafone GSM network, in the United Kingdom (England) on 3 December 1992, by “Neil Papworth”.
- The text of the message was "Merry Christmas".
- Celebrated 25th anniversary on December 3.

Bharat Stage emission standards (BSES – 4)

- BSES are emission standards instituted by the Government of India to regulate the output of air pollutants from internal combustion engines and Spark-ignition engines equipment, including motor vehicles.
- The standards and the timeline for implementation are set by the Central Pollution Control Board under the Ministry of Environment & Forests and climate change.
- The Supreme Court recently ordered that only vehicles with engines compliant with BS IV standards must be sold from April 1, 2017.

BS IV standards

- 2020 April 1st is the last date for the selling of BS IV vehicles.
- From 30 June 2020, registration of BS – IV norms vehicles should not be allowed.

BS VI standards

- From 1st April 2020, all vehicles should have designed with BS - IV.

Monsoons

- Seasonal reversing win
- High pressure area associated with cool temperature.
- Low pressure area associated with High temperature.
- Air moves high pressure area to low pressure area.
- While travelling low pressure to high pressure because of precipitation rain fall occurs.

Southwest monsoon

- July – September months, contains 80% of rain fall
During this months “Thar Desert” (Rajasthan) and the surrounding areas will be heated up.

As a result, a low-pressure area will be created.

At the same time “Indian Ocean” will be in high pressure area.

Air stats moving towards India subcontinent from the sea.

This monsoon, first touches Andaman Nicobar islands and reaches Malabar cost (Kerala), then divides into 2 branches, Arabian sea branch and the Bay of Bengal branch.

Arabian sea Brach will follow through western Ghats.

Bay of Bengal branch will collect some more moisture from the Bay of Bengal, follow though eastern Ghats and the ganges valley.

Both will be meagre at Punjab or Himachal Pradesh area.

Which casus rains all over India.

Himalayas acts as walls to stopping the winds to reach northern Asia.

**Northeast monsoon**

- Can be called as retreating monsoon.
- During December to March months.
- During this season, because of rain fall and cold winds from Himalayas, will create a high-pressure area in northern India, at the same time, Indian Ocean and Arabian sea will be in low pressure area.
- As a result, winds will be stared moving towards sea from the Indian subcontinent.

**Food Security Act**

- As per the latest survey
  - It is not implementing as per the plans or records from the past 4 years.
  - There was no food checking committees appointed to regulate or review.
- **Supreme Court** has given latest guidelines.
Before August 31 – a meeting must be held on how to regulate and implement this scheme.

By December 31 must be implemented.

Appointment of committees, regulative authorities, Special institutions and required facilities must be provided.

Annual reports and regulations must be taken place.

**Bhopal gas tragedy**

The Bhopal disaster, also referred to as the Bhopal gas tragedy, was a gas leak incident in India, considered the world’s worst industrial disaster.

- Happened 33 years ago, on 3rd December 1984 midnight, in union carbide India limited (UCIL).
- 40 tons of MiK (Missile Iso Synate) pollutants were mixed in the air.
- More than 4000 were dead, greater then 2.5 lakhs people were hit with permanent disability.
- Reason : Storage tank filled with water leads to blast.

**Rohingya # Myanmar**

The recent tensions were a hot topic in world news and the UN-Human rights wing. The migrations of Rohingya’s from Myanmar to Bangladesh and India were still going on as refugees. The Bangladesh govt. was not ready to give permanent shelter to the people. The govt. looking for temporary solution for shelter & security not a permanent one.

**Reasons for migrations**

1. Clashes between Rohingya salvation army (RSA) and the Myanmar police was the major reason for the suppression of Rohingya’s, which results in migrations.
2. Myanmar govt. unofficially recognized Rohingya salvation army as a terrorist group.
3. Moving on the steps of ethnic clenching.
4. Calling them by “Bengali terrorists”.

From 2012 Rohingya’s were started migrating but now it reached to the peak stage.

**About Rohingya’s**

1. The Rohingya’s are Muslims who migrated to barma (Myanmar) at the time of British ruling from Bengal.
2. Even there are living from long back Myanmar people doesn’t mixed with them.
3. In Myanmar 90% of Buddhism prevails
4. Because of heavy religious domination, still there was a clear separation between Myanmar and the Rohingya.

**UN-human rights**

- Representative “Jayde al Hussein”.
  - Condemned these suppressions.
  - Fighting for protection of rights of Rohingya’s.

**Indian Rivers Inter-link Project**

- It was aimed at, link Indian rivers by a network of reservoirs and canals and so reduce floods in some parts and water shortages in other parts of India.
- The Inter-link project has been split into three parts
  - Northern Himalayan rivers
  - Southern Peninsular
  - Intrastate rivers linking component
- The project is being managed by India’s National Water Development Agency (NWDA), under its Ministry of Water Resources.
- Even though the average rainfall in India is about 4,000 billion cubic meters but most of India's rainfall comes over a 4-month period (June - September).

**+Ve things:**

- Interlinking of rivers will help entire India to have water throughout the year.
  - In Rainey season most of it falls in northern and eastern part of India, the amount of rainfall in southern and western part are comparatively low.
- Interlinking of rivers will be a practical solution when monsoon failed
  - because the water can be stored or water can be transferred from water surplus area to deficit.
- The Ganga Basin, Brahmaputra basin sees floods almost every year.
  - Floods will be controlled and scarcity of water will be reduced.
- This can be used as Commercial inland waterways and which helps in faster movement of goods from one place to other.
- Interlinking creates a new occupation like fishing, farm houses, for people living in and around these canals.
Problems:

×  mass deforestation
   o  Huge amount of distortion in the existing environment like cutting trees, clearing dense forest, this will have impact on rains and in turn affect the whole cycle of life.

×  Change their course
   o  Usually rivers change their course and direction in about 100 years and if this happens after interlinking, then the project will not be feasible.

×  fresh water entering seas
   o  this will cause a serious threat to the marine life system and will be a major ecological disaster.

×  Submerging of land
   o  huge amount of area, will be submerged leading to displacement of people and government will have to spend more to rehabilitate these people.

×  Huge initial investment
   o  government will have to take loans from the foreign sources which would increase the burden on the government and country will fall in a debt trap.

×  Conflict between Countries and states
   o  Countries like Bangladesh, Nepal and Pakistan might protest for this.

Interlinking of rivers is definitely a good solution for the scarcity of water, but interlinking has to take place after a detailed study so that does not cause any problem to the environment or aquatic life.

**River linking through water transportation**

It was proposed to link the rivers through water transportation, like connectivity between national highways.

I.  By digging large canals among states to transport & reserve flood waters throughout the year.
II. There is no need to go for lift irrigation process.

Proposed Concept:

- For the purpose of water transport, big canals planned.
- Same level water must be maintained in all the canals.
- 62,000 TMC flood waters were mixing into sea every year.
• If 25% of the flood waters transported to proposed canals then, 15,000 TMC waters can come into usage.
• Then yearlong 15,000 km water transportation will be created newly.
• This project will be divided into 3 parts.

Himalayan River transportation

• Stared from Jammu to North eastern states,
  o 150 meters width, 10 meters depth, 4500km long canals will be constructed.
  o Yearlong 10 meters water storage must be maintained, in order to use it as a water transportation channel in all the seasons.
  o Small reservoirs will be constructed to maintain balancing in water level (250 meters width and 30 meters depth).

By this plan we can minimise the effects of Ganga & Brahmaputra floods.

Central river transportation

• From Vindhya’s to Maharashtra (through Bihar and west Bengal).
• Here We can plan for water power plants on Mahanadi and Narmada rivers.

South water transportation

• From Maharashtra to Kanyakumari.

By this proposal we can reduce

• Land
• Money
• Wastage
• Disputes between states.
• 24*365 water transportation

Inter-state River Water Disputes (Amendment) Bill 2017

This international award is the highest honour in materials research.

Bill proposes a Single Standing Tribunal (with multiple benches) instead of existing multiple tribunals.

• consist of one Chairperson
• one Vice-Chairperson and
• not more than six other Members.

While the term of office of the Chairperson is five year or till he attains the age of 70 years, whichever is earlier, the term of office of Vice Chairperson and other member of tribunal shall be co-terminus with the adjudication of the water dispute.

• The appointment of Assessors to provide technical support to the tribunal.
• They shall be appointed from amongst experts serving in the Central Water engineering Service not below the rank of Chief Engineer.
• The total time period for adjudication of dispute has been fixed at maximum of four and half years.
• The decision of the Tribunal shall be final and binding with no requirement of publication in the official Gazette.
• introduce mechanism to resolve the dispute amicably by negotiations, through a Dispute Resolution Committee (DRC) to be established by the Central Government consisting of relevant experts, before such dispute is referred to the tribunal.
• The Bill also provides for transparent data collection system at the national level for each river basin and for this purpose, an agency to maintain data-bank and information system shall be appointed or authorized by Central Government.

**Interstate River Water Disputes Act**

The Interstate River Water Disputes Act, 1956 (IRWD Act) is enacted under Article 262 of Constitution of India on the eve of reorganization of states on linguistic basis to resolve the water disputes that would arise in the use, control and distribution of an interstate river or river valley.

**Article 262**

It provides a role for the Central government in adjudicating conflicts surrounding inter-state rivers that arise among the state/regional governments.

• IRWD Act is applicable only to interstate rivers / river valleys.

**Short Note :**

1. Navy Day – December 4th
2. International Day of Disabled Persons – December 3rd
3. Hepatitis - C is a virus infection of the liver.