

Indian Railway



FREIGHT ON THE FRONT FOOT
Railways Gives a Leg up to Freight Transport for Prosperous Businesses of New India



Exports from India to Bangladesh in Full Swing
Export traffic to Bangladesh now open for Parcels, Containers & Automobiles



Transforming States to Transform India

RAILWAYS SECTOR COMES UP WITH CONSTRUCTIVE PLANS

- Sh. Narendra Modi unveiled plaques for the commencement of operation of goods trains on the newly constructed Rail-cum-Road Bridge at Patna.
- Memorandum of Understanding (MoU) signed between Ministry of Railways and PEC University of Technology, Chandigarh for setting up 'Kalpana Chawla Chair' on Geospatial Technology.
- Roll on - Roll off scheme launched on Digha Rail Bridge over River Ganges near Patna, under which loaded trucks would be moved on the flat wagons to avoid congested roads across Ganges.
- Construction of 12 Rail overbridges in Bihar.

MyGovIndia | www.transformingindia.mygov.in | Date: 13th Feb, 2017

particularly after the government merged its rail budget with the main budget.

- However, its operating ratio, which is the ratio of ordinary working expenses to the gross traffic receipts, has shown no improvement.
 - A lower ratio implies better profitability and surplus for capital investment.
 - Since the IR continues to have a total lack of surplus, it has been augmenting the funds raised through Gross Budgetary Support (GBS) and Extra Budgetary Resources (EBS).
 - The merging of budgets helped this cause as GBS from the central government could be increased without much scrutiny.
 - However, with respect to EBS, there is a price to pay.
 - The IR's spending on repayment of principal and interest is pegged at ₹22,229 crores and ₹23,782 crores respectively, which together make it 17% of revenue receipts, a sharp rise from less than 10% till 201516.
 - It appears that this debt liability was noticed as capex relied almost entirely on GBS in this year's budget.
- **The Indian Railways (IR) has been on a spending spree with respect to capital expenditure (capex),**
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- Despite this, the unprecedented rise in capex appears to be predicated on the premise that the IR's operating and financial performance should not be viewed in isolation but along with its role as an engine for the growth of the country's economy.
- Investment in railways boosts manufacturing and services, tax revenue for the government and allows for more job opportunities
- For example, coal consumption was 602 and 978 million tonnes (MT) in 2011 and 2020 respectively while the rail transport share was 420 and 587 MT respectively
- Further adding to the woes of the IR is the constantly fluctuating key index of Net Tonne Kilometres (NTKM), which fell for two successive years in 201516 and 2016-17 by 4% and 5% over the preceding years first time such a fall has happened for two consecutive years

Identifying the problem

- The IR's freight segment is profitable whereas the passenger segment makes huge losses.
- The Comptroller and Auditor General of India (CAG) report presented in Parliament on August 8, 2023 states that there was a loss of ₹68,269 crores in all classes of passenger services during 202122, with all the profit from freight traffic nullified in cross subsidizing passenger services.
- The 11 commodities in the IR's transport basket account for 90% of tonnage and revenue, of which coal is around 45% and iron ore and cement are around 10% each.
- Although these three still account for two thirds of the IR's total freight volume, the share of the IR in their transport has reduced over the years.

The Hindu

US – Venezuela

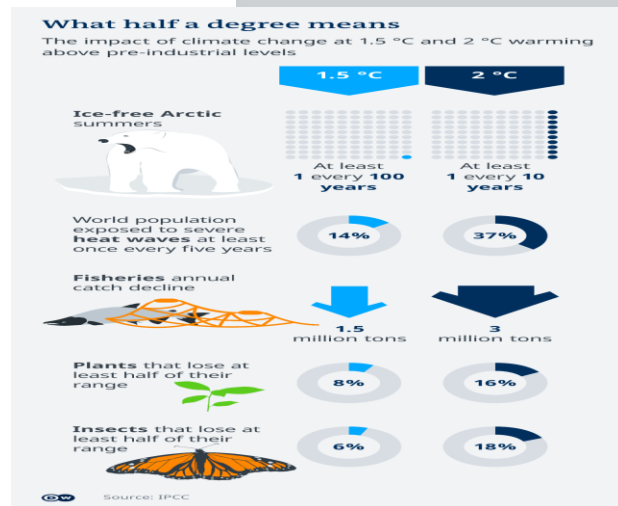


- Part of the explanation for the re-engagement between Washington and Caracas lies in the challenges presented by the shifts in geopolitical realities consequent to the ongoing war between Russia and Ukraine.
- Within weeks of the February 2022 invasion, the Biden administration

dispatched top officials to negotiate with Caracas, the country with the world's largest oil reserves, so as to smooth the effects of the energy crisis issuing from the conflict.

- Another dimension to the re-engagement were the apprehensions over the potential regional security implications of Moscow's backing of its Latin American allies in the event of a deepening conflict between the two superpowers.
- Caracas has more or less weathered the consequences of the U.S. and EU sanctions on its energy sector, thanks to crucial support from Cuba, China, Russia and Iran.
- For President Maduro, the revival of ties with Washington could mean the beginning of the end to his government's disastrous international isolation

Impact of high temperature



Polar bears face uncertain future

Disappearing sea ice makes hunting a challenge

Major threats

Climate change

- ▶ Sea ice retreating because of global warming
- ▶ Habitat decreasing in both quality and area

Other threats

- ▶ Increased interactions with humans
- ▶ Illegal killings
- ▶ Pollution
- ▶ Disturbance from shipping
- ▶ Legal killings by indigenous people
- ▶ Legal trade in skins and animal parts

Status: Vulnerable (IUCN)
Population: 22,000 - 31,000

Global range

Range limited by southern extent of sea ice

- Data deficient
- Declining
- Increasing
- Stable

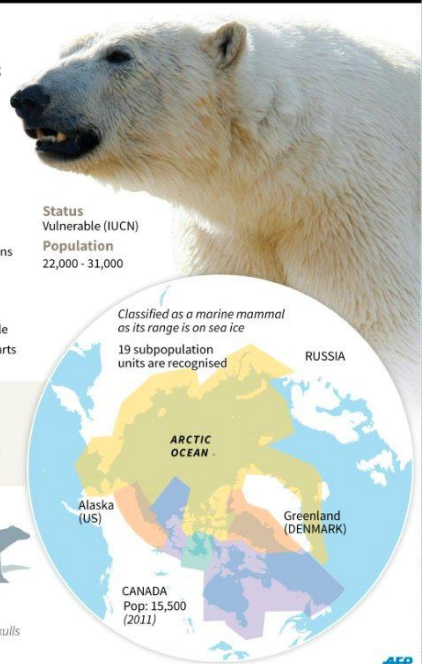
Protected from hunting since 1973

Largest bear species

Lifespan
Male: 25 years
Female: 30 years

32,000 body parts recorded in legal trade from 2001 to 2010, including skins, claws, meat, teeth, skulls

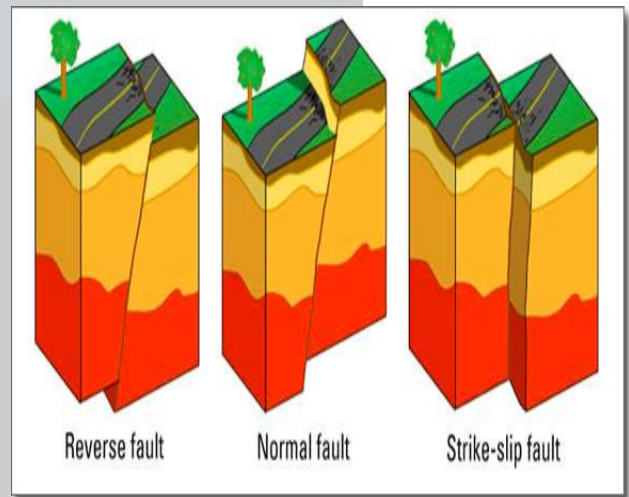
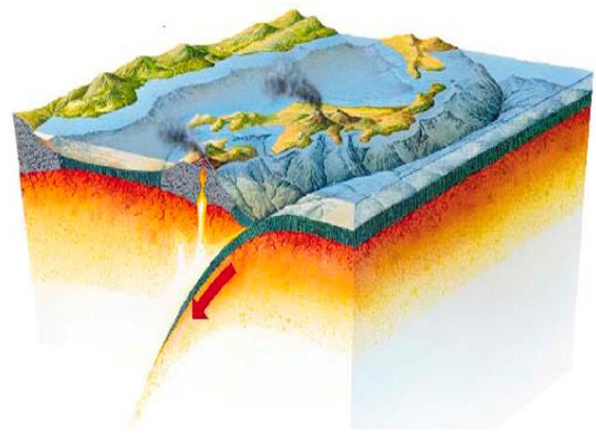
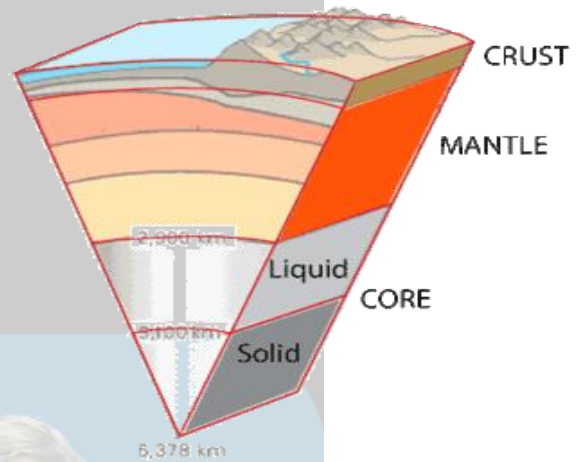
Source: IUCN/WWF/CITES



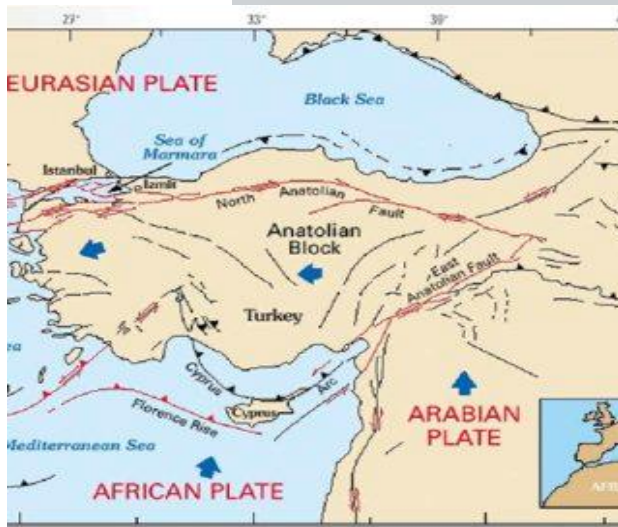
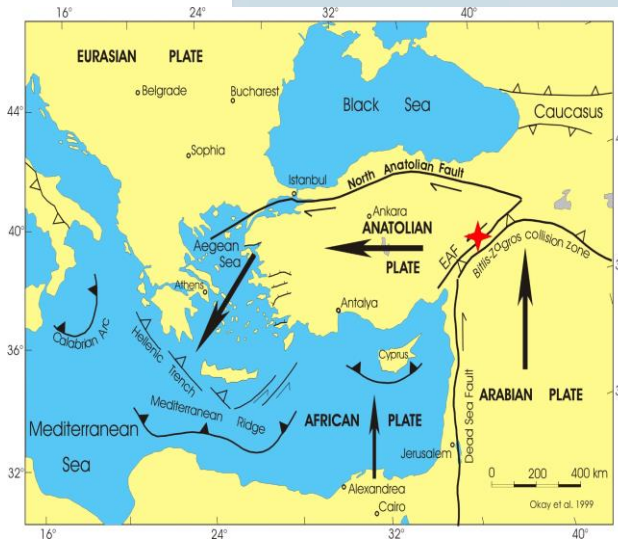
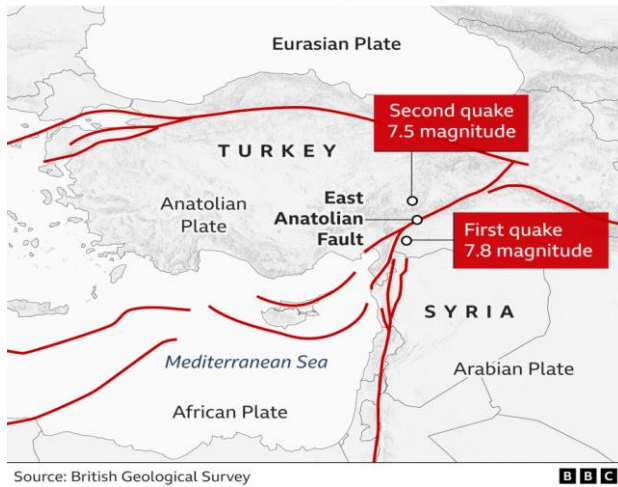
- Developed countries responsible for three fourths of existing carbon emissions will end up emitting 38% more carbon in 2030 than they have committed to, going by current trajectories, shows a study published last week by the Delhi - based think tank Council for Energy Environment and Water (CEEW).

- The CEEW study noted that the NDCs of developed countries already fall short of the global average reduction of emissions to 43% below 2019 levels that is needed to keep temperatures from rising above 1.5 degrees Celsius.
- Instead, developed countries' collective NDCs only amount to a 36% cut.
- For a fighting chance at keeping warming below critical tipping points, decades of negotiations have obliged developed countries to lead global efforts to reduce greenhouse gas emissions with legally binding targets.
- To keep temperatures below 1.5 degrees Celsius, developed countries need to cut emissions to 43% below their 2019 level.
- However, the CEEW study found that based on their current emissions trajectories, their cuts would likely amount to only 11% by 2030.
- Except for two countries Belarus and Norway none of the developed countries seem to be on the path to meet their 2030 targets, though Japan and Kazakhstan are close, and are expected to miss their targets by only a single percentage point.

Why earthquake in Turkey?



Fault lines around Turkey and Syria



- A Chinese communist party delegation has visited the Solomon Islands, calling the “flourishing” cooperation between China and the Pacific nation a show of how diplomatic ties were in their peoples’ interest.
- China had signed a policing pact with the Solomon Islands in July, as both countries upgraded their ties to a “comprehensive strategic partnership”
- The earth’s crust consists of tectonic plates. Fault lines form where these plates interact, as they collide, pull apart or slide past each other.
- When these plates abruptly grind and slip past each other, they release pent-up pressure, leading to earthquakes.
- The earthquakes in Turkey occurred along the East and North Anatolian Fault Lines, which run 700 km and 1,500 km long, respectively
- The unusual interaction initiated a cascade of ruptures, resulting in a larger than usual total rupture length and a more tremendous potential for destruction.
- The Narlı Fault and Çardak–Sürgü Fault Zone are also primarily located in eastern Turkiye.

- They extend from the southern part of Turkiye to the northeastern part, roughly parallel to the border with Armenia.
- They both experienced separate earthquakes. The ground near the coast some 200 km to the southwest began to move like a liquid work in Science was distinguished by two methods: kinematic slip inversion and fault property modelling.
- Kinematic slip inversion is like rewinding an earthquake video to understand how fault surfaces moved, indicating what might have occurred underground.
- In fault property modelling, researchers estimate the characteristics of the fault, like friction and material properties, to predict how an earthquake is likely to spread along it.
- These predictions are then compared to real earthquake data to gain insights.
- The force that an object feels when travelling along this warped path is called gravity. It tends to move the object towards the mass.
- The strength of this force depends on the gravitational constant. Denoted by a 'G', it is a fundamental physical constant.
- It was first accurately determined by Henry Cavendish in 1797.
- G is an essential component of both Isaac Newton's law of universal gravitation and Albert Einstein's theory of general relativity.
- In Newton's theory, the gravitational force between two objects is directly proportional to the product of their masses and inversely proportional to the square of the distance between them. G is the proportionality constant.
- In Einstein's theory of general relativity, G appears in the equations that describe the curvature (or the 'warping') of spacetime in the presence of mass and energy.
- This theory provides a more accurate description of gravitation, particularly in extreme conditions, such as near massive celestial objects.

The Hindu

Gravitational constant

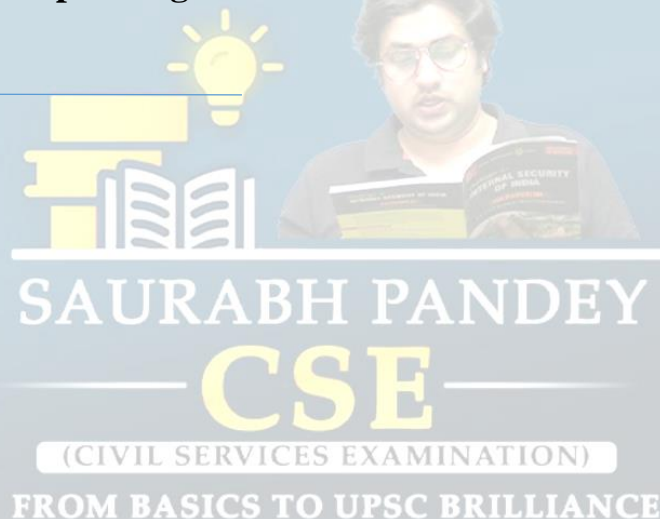
- Any mass warps the fabric of space-time around itself.
- The more the mass, the more the warping.

- The precise value of G is crucial to understanding celestial mechanics and to determine the mass of celestial bodies.

Mapping in news

- Rock paintings at the Ponta das Lajes archaeological site, in a rural area of Manaus, Brazil,
- The archaeological site was exposed following a drought in the Negro River, unveiling rock paintings

The Hindu



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