

Topic 1

The Eurasian Balance

Relevancy:

- GS Mains Paper III, Optional: Political Science
- International relations, India and Europe, Eurasia, India, China and Eurasia

Recently:

Three events last week point to the importance of Delhi quickly adjusting its mental maps.

1. The **Chabahar port** on the south-eastern coast of Iran, formally launched on Sunday by President Hassan Rouhani, opens up not just an alternative route to Afghanistan but also facilitates India's overland connectivity with Central Eurasia.
2. Second was the annual gathering of the heads of government of the **Shanghai Cooperation Organisation** in Sochi, Russia. Delhi, along with Islamabad, was accepted earlier this year as a full member of this organisation whose membership covers the heart of Eurasia but is named after a city on China's Pacific coastline.
3. A third and equally consequential event last week in Budapest, Hungary went entirely unreported in India. It was the annual summit of an organisation called **C-CEEC** that promotes cooperation between China and 16 Central and East European Countries. It is more popularly known as "**sixteen plus one**". That India is hardly interested in this new forum underlines the problem it has in dealing with a changing Eurasia.

How and when "Indo-Pacific" gained its prominence:

- If Indo-Pacific is an idea that gained traction during 2017, Delhi must now cope with another expansive geopolitical construct — Eurasia.
- The Indian political and policy establishment, long brought up on the notion that Europe and Asia are different, must adapt to their slow but certain integration into a single geopolitical theatre.
- But it was really Japan's Shinzo Abe who imagined the Indo-Pacific. Australia was quick to adopt it.
- Jakarta, which along with Delhi dreamt of Asian unity and founded the non-aligned movement in the middle of the last century, was enthusiastic in its embrace of the Indo-Pacific.

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- Like India, America was not quite sure. It was President Donald Trump who ended American ambivalence by consistently using the term “Indo-Pacific” during Asian tour last month.
- One wonders if the concept of “Indo-Pacific” survives the Trump Administration.

The story of Eurasia is a little more complex.

Role of China:

- Beijing is breaking down the idea that Europe and Asia are two different continents.
- More immediately, it is about the expanding Chinese economic and political influence in spaces that were once dominated by either the West or Russia.
- To be sure, China is not about to supplant America’s large military footprint, Russia’s political weight or the European Union’s economic heft in Central Europe.
- But in exporting large amounts of capital for infrastructure development, drawing its economies east ward, and creating new political groupings, China has begun to undermine the Western hubris and Russian self-regard in Central Europe.
- It also widens the strategic options for Central European states. Fed up with bullying from both Brussels and Moscow, the Central Europeans are quite happy to play ball with China.

The problem for India is two fold:

- Delhi’s world-view, traditionally defined in terms of an irreconcilable tension between “East and West”, “North and South” or “Europe and Asia” is becoming unsustainable as China’s massive **Silk Road Initiative** begins to integrate Europe with Asia.
- The old metrics of foreign policy purity in Delhi — distance from the West and solidarity with the East — make no sense as Chinese expansion and American retrenchment reshape the political and economic geography of Eurasia.

Conclusion:

- Prime Minister Narendra Modi has put India back in play in the maritime world by accepting the Indo-Pacific idea.
- But Delhi is yet to come to grips with continental Eurasia.
- If the Great Himalayan barrier and post-Partition geography have made it hard for India to develop connectivity with inner Asia, Delhi has been reluctant to walk though the open door in Europe.

- Focused as it is on bilateral relations with France, Germany and Russia, Delhi has neglected the European Union and ignored Central Europe.
- Correcting this imbalance is the first step towards a more purposeful Indian engagement with Eurasia.

Topic 2

Can China rob us of Brahmaputra?

Relevancy

- GS Mains paper III, Optional- Political Science
- International affairs, Indo-China relations, Brahma hypothesis

Brahma Hypothesis

- As per media reporting China has plan of northward rerouting of the Brahmaputra waters from the Tibetan borders through constructions of dams.
- Brahmaputra in Tibet is known as Yarlung Tsangpo.
- This plan of rerouting Brahmaputra waters has emerged as a prime point of contention with China-India strategic relations.
- Brahma Chellaney, one of the foremost strategic thinkers of India, described the Chinese design of taking control over Brahmaputra water as “most dangerous”.
- The fear of drying up of the Brahmaputra has become widespread in Indian public psyche, especially in Assam.
- This **hypothesis of perceived fear** is termed in this article as the “**Brahma hypothesis**”.

How is Brahma hypothesis a perceived fear?

- The growing water demand in Tibet and the option available in principle to China of building water storage and transfer projects on the Yarlung have given birth to such fears in India.
- The apprehension is this can affect Bangladesh further downstream.
- The concern has aggravated with the news of Chinese plans to build a 1,000-km-long tunnel to divert water from the Brahmaputra River in Tibet to the parched Xinjiang region.
- It has been reported in sections of the media that the perceived Chinese threats to divert the river’s water prompted the Centre to call an inter-ministerial meeting recently to discuss proposed projects on Brahmaputra.
- Amidst the confusion about Chinese projects on Brahmaputra, there has hardly been an objective data-based analysis of the popular “Brahma hypothesis”.
- These claims therefore must be examined through data, hydrological regimes, upstream interventions and their downstream implications.

Identifying the flow

- The Brahmaputra is identified as downstream flow of the meeting of three tributaries-Lohit, Dibang and Dihang, near Sadiya.
- The link of Brahmaputra with Yarlung Tsangpo, which originates from the Angsi glacier near Mt. Kailash, was discovered rather recently.
- Out of the total length of the Brahmaputra of 2,880 km, 1,625 km is in Tibet flowing as Yarlung Tsangpo, 918 km is in India known as Siang, Dihang and Brahmaputra and the rest 337 km in Bangladesh has the name Jamuna till it merges into Padma near Goalando.
- As a trans-Himalayan tributary, Yarlung is substantially fed by snow and glacial melts, in addition to rainfall.
- The normalized melt index (defined as the volumetric snow and glacier upstream discharge divided by downstream natural discharge) of the Brahmaputra is merely in the range of 0.15-0.2, signifying that snow and glacial melt, the main source of run-off in the Tibetan region, contributes negligibly to the total flow.

Making the discourse realistic

- The Tibetan region lies in the rain shadow with the Himalaya acting as the barrier to the rain-laden monsoon.
- The annual precipitation in the trans-Himalaya Tibet averages about 300 mm annually.
- As the tributaries cross the Himalayan crest line, the annual average precipitation reaches about 2000 mm.
- A very large component of the total annual flow of Brahmaputra is generated in the southern aspect of the Himalaya in India by tributaries from Buri Dihing in the East to Teesta in the west.
- Data published by Chinese scholar Jiang and team show that the total annual outflow of the Yarlung River from China is estimated to be about 31 BCM while the annual flow of Brahmaputra at Bahadurabad, the gauging station near the end of the sub-basin in Bangladesh, is about 606 BCM.
- The above figures do not support the linear thinking that the flow in a river is proportional to its length inside a country.
- Further, while the peak flows during monsoon at Nuxia and Tsela Dzong in Tibet, a measuring station at the great bend in the Tibetan plateau, are about 5,000 and 10,000 cumecs, as presented by Vijay Singh and colleagues.
- The peak flow at downstream Guwahati is around 40,000 cumecs and the one at Bahadurabad in Bangladesh is approximately 50,000 cumecs.
- During the lean season, the flow in Nuxia, as identified from a hydrograph given in Rivers and Lakes of Xizang (Tibet) (in Chinese), is 300-500 cumecs, while the one at Pasighat is to the tune of 2000-odd cumecs, the one at Guwahati is around 4000-odd cumecs, and Bahadurabad is about 5000 cumecs, all these being peer-reviewed data.
- This data shows that the Brahmaputra gets fatter and mightier as it flows further downstream.
- This is more so because of the flow contribution of the various tributaries like Dibang, Lohit, Subansiri, Manas, Sankosh, Teesta to name a few.

- This can be noted from the fact that at Guwahati (Pandu), the percentage annual yield of the main river course from Pasighat is barely 34 per cent, while the tributaries like Dibang, Lohit, Subansiri, as also the tributaries joining between Pasighat and Guwahati contribute the remaining 66 per cent. Further downstream, the mainstream contribution diminishes further.
- Another concern relates to the impact of the projects on the sediment flow.

Can water diversion affect sediment flow?

- The flow volume and discharge in the Yarlung River is not sufficient to generate and transport carry the very large sediment load as in prevalent in the downstream Brahmaputra.
- The annual suspended sediment load near Nuxia in Tibet is around 30 million metric tonnes, (as suggested in a 2016 volume titled River Morphodynamics and Stream Ecology of the Qinghai-Tibet Plateau by Wang and colleagues), which is miniscule as compared to same load measured as 735 million metric tonnes at Bahadurabad.
- Therefore, the large amount of suspended sediment load that gets deposited in the downstream to form a fertile Jamuna floodplain cannot be carried by the Yarlung-Tsangpo stretch.
- It is created further downstream in India, where precipitation is almost 12 times higher than the rain shadow Tibet.

A popular hypothesis

- Prima facie, it can be said that the impacts of water diversion (or even hydropower like the Zangmu Dam) in the Yarlung-Tsangpo cannot have substantial impact on the flow regime in the Indian boundary, especially in the Assam floodplains and Bangladesh.
- The concern of many in India has been based on the perception that structural interventions always reduce downstream flows, which, in case of Brahmaputra, is not true.
- Based on the hydro-meteorological data, it seems highly improbable that a cloudburst can occur in the rain-shadow Tibet so as to cause floods in Assam.
- Therefore, the “Brahma hypothesis” or the myth spread in the media does not stand the test posed by scientific data and knowledge.
- Informed science should inform public perceptions, policy, hydro-politics, and water governance, rather than jingoistic emotions or linear, reductionist logic.

Topic 3

IUCN updates red list

Relevancy:

- GS Prelims
- Environment, IUCN Red list

Recently:

- The International Union for Conservation of Nature (IUCN) on Monday released an updated red list classifying the different species.

What are the red list categories and what is it for?

- According to their website, the IUCN Red List Categories are intended to be an easily and widely understood system for classifying species at high risk of global extinction.

The categories are:

- a. EXTINCT — the last individual in the species has died.
- b. EXTINCT IN THE WILD — it now lives only in captivity and not in its natural habitat.
- c. CRITICALLY ENDANGERED — facing an extremely high risk of extinction in the wild.
- d. ENDANGERED — facing a very high risk of extinction in the wild.
- e. VULNERABLE — facing a high risk of extinction in the wild.
- f. NEAR THREATENED — likely to qualify for a threatened category in the near future.
- g. LEAST CONCERN — it is widespread and abundant in the wild.

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- h. DATA DEFICIENT — inadequate information.
- i. NOT EVALUATED — not yet been evaluated against the criteria.

Details of the list:

- Species of wild rice, wheat and yam are threatened by overly intensive agricultural production and urban expansion.
- Poor fishing practices have caused steep declines in the **Irrawaddy Dolphin** and **Finless Porpoise**.
- A drying climate is pushing the **Ringtail Possum** to the brink of extinction.
- Three reptile species found only on an Australian island – the **Christmas Island Whiptail-skink**, the **Blue-tailed Skink** (*Cryptoblepharus egeriae*) and the **Lister's Gecko** – have gone extinct.

Important names from exam point of view:

- The **Finless Porpoise** (*Neophocaena asiaeorientalis*) has been moved from Vulnerable to Endangered category. Its number has become almost half over the past 45 years. Accidental entanglement in fishing nets is the main cause of its decline.
- **Blue-tailed Skink** (*Cryptoblepharus egeriae*) of Christmas Island, Australia has gone extinct in the wild. Diseases and changes in inland ecology are the main causes.
- **Kikuzato's Stream Snake** (*Opisthotropis kikuzatoi*), endemic to Kumejima Island and the rarest of all snakes in Japan is now listed critically endangered. This species declined dramatically over the past 15 years due to predation by invasive species.
- Christmas Island **Forest-skink** (*Emoia nativitatis*) is now extinct in the wild. The reason for their decline remains unclear, though predation by the invasive Wolf Snake introduced to the island in the mid-1980s may be to blame.
- **Irrawaddy Dolphin** (*Orcaella brevirostris*) has moved from vulnerable to endangered category. In the Mekong River, the majority of Irrawaddy Dolphin deaths in recent years have been caused by entanglement in gillnets—'curtains' of fishing net that hang in the water.
- **Okarito Kiwi** (*Apteryx rowi*) and the Northern Brown Kiwi (*Apteryx mantelli*) of New Zealand has move down from endangered to vulnerable. Both species of Kiwi have been facing threats including habitat loss and predation by introduced mammals. Government and community conservation efforts on predator control, and removing and incubating eggs for release into the wild has helped save the two species.
- **Western Ringtail Possum** (*Pseudocheirus occidentalis*), has moved from vulnerable to critically endangered due to a fall in species numbers by over 80% in the past ten years. Australia's increasingly dry and hot climate has led to their dramatic decline.

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- **Lister's Gecko** (*Lepidodactylus listeri*) native to Australia has gone extinct in the wild. Predation and lack of immunity to novel diseases are the main cause of their decline.