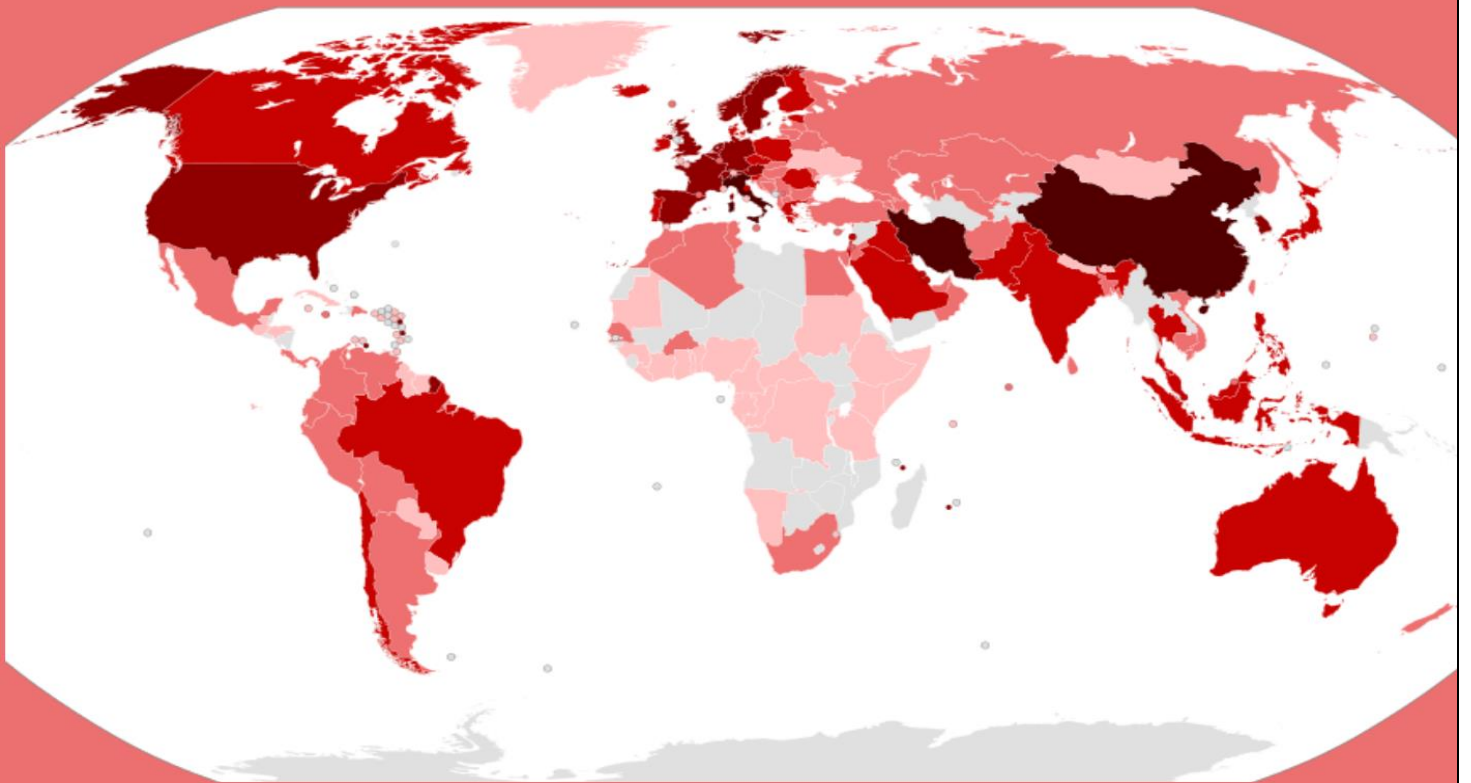




# **YK GIST - OCTOBER**

## **INTERNATIONAL RELATIONS WATER & SANITATION**



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## Preface

This is our 67<sup>th</sup> edition of Yojana Gist and 58<sup>th</sup> edition of Kurukshetra Gist, released for the month of October 2020. It is increasingly finding a place in the questions of both UPSC Prelims and Mains and therefore, we've come up with this initiative to equip you with knowledge that'll help you in your preparation for the CSE.

Every issue deals with a single topic comprehensively sharing views from a wide spectrum ranging from academicians to policy makers to scholars. The magazine is essential to build an in-depth understanding of various socio-economic issues.

From the exam point of view, however, not all articles are important. Some go into scholarly depths and others discuss agendas that are not relevant for your preparation. Added to this is the difficulty of going through a large volume of information, facts and analysis to finally extract their essence that may be useful for the exam.

We are not discouraging from reading the magazine itself. So, do not take this as a document which you take read, remember and reproduce in the examination. Its only purpose is to equip you with the right understanding. But, if you do not have enough time to go through the magazines, you can rely on the content provided here for it sums up the most essential points from all the articles.

You need not put hours and hours in reading and making its notes in pages. We believe, a smart study, rather than hard study, can improve your preparation levels.

**Think, learn, practice and keep improving!**

**You know that's your success mantra 😊**

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## INTERNATIONAL RELATIONS

### A. Indian Foreign Policy In The Times Of Pandemic

The ongoing coronavirus pandemic is altering the global landscape. On the one hand it has exacerbated economic competition between countries, while on the other hand it has also created opportunities for countries to work together and lead multilateral responses to tackle the challenges stemming from the disease.

#### Challenges and questions to India

- What goals will India prioritize in its foreign policy decisions?
- How will the country realign its geopolitical interests in a shifting world order?
- How to ensure that India engages with the international community in a manner that is both consistent and responsive to contemporary realities?
- What began as a health emergency has expanded into an economic disruption, a geopolitical shock and a social challenge of unprecedented magnitude. How we deal with these immense difficulties and whether we are able to transform some of them into opportunities — will influence our future trajectory as a nation.
- Will we emerge as part of the problem or as part of the solution? Will we emerge weaker or stronger as a nation? Will we have been guided by divisive political agendas that deepen our fault lines? Or will we have worked towards an inclusive India that embraces all of us in its fold, regardless of caste, class or creed? The pandemic has brought us to an inflection point. How we deal with it will determine our place in the future world order.

#### India's Strengths

- Largest and strongest diaspora
- Powerhouse in the Services sector – The nature of services assumes the world as borderless ensuring an interlinked marketplace.
- The international system is human-centric – undertaken humanitarian assistance and disaster-relief operations over a geographical area spanning from the Pacific to the Atlantic, becoming a net security provider.
- Catalysed some very important international organisations with forward-facing agendas which the world really/should care about – International Solar Alliance (ISA) and Coalition for Disaster Resilient Infrastructure.
- Guided by two principles – “Vasudhaiv Kutumbakam”- the world is one – as well as “Nishkama Karma”, that good needs to be done for its own sake

#### INDIAN DIASPORA: MAJOR ISSUES AND CHALLENGES

The Indian diaspora has been a source of remittances, technology and intellectual power. Ever since the Indian economy was liberalised and began to grow at a rapid pace, the prosperous diaspora in the developed countries and the massive number of migrant workers in the Gulf became the back bone of the Indian economy.

- Covid-19 has put to the test the seriousness of the pledge of assistance and protection made by the government to every Indian abroad.
- The government shut down Indian skies to all inbound traffic on March 22, which left a large number of Indians stranded in various countries. The stranded Indians included employees working in MNC's, students went to study in abroad, migrant workers in the

regions of gulf, and tourists including medical tourists and occasional visitors.

- Indians stranded abroad stared at the bleak possibility of not returning home.
- They faced evictions from hostels and hotels in certain cases due to safety measures as well as financial constraints.
- The events that followed gave the impression that the administration has a discriminatory approach towards its citizens in need overseas.
- Air India signed a contract with the four countries – Germany, Canada, France and Ireland. The contract said that Air India would return safely the citizens of four countries. But it opted to fly back empty instead of ferrying back Indians, which left everyone with a sense of betrayal.
- Added to this is the real danger of loss of lives among the diaspora, resulting in cases of deprivation and misery. Unless the spread of Coronavirus is halted and the world economy recovers, India will have a gigantic burden on its hands.
- With the growth of nationalism in different parts of the world and diminishing international cooperation, India cannot count much on external help. The United Nations itself remains paralysed on account of the arrogant approach of China. Kerala will be particularly affected as many of the people who are likely to be affected will be from the state.
- As nearly 17.5 million people of Indians live abroad, the job loss led to weakening of their financial books, in turn unfolding survival problems in front of them.
- Hunger fight: As many of the people have lost jobs due to COVID-19 induced lockdown, it led to weak financial conditions of people. Which led to be dependent on the relatives or at help of the NGO's and Civil Society organisations.
- Large amount of remittance flow stopped due to job loss.
- Many of the stranded Indian failed to get quick medical attention in the countries where they are stuck. Leading to risk of loss of lives.
- Students faced evacuation from the Universities under the reasons of noncompliance of Online education in their education curriculum. For instance, USA initiated such process.
- In the case of stranded Indians, even the Supreme Court of India said, “stay where you're” in an observation while dealing with the plea seeking directions to the government to initiate evacuation missions.

However, in 2017, then External Affairs Minister of India said, “Even if you are stuck on Mars, the Indian Embassy will be there to help you”. It was based on the glorious track record of 30-plus successful overseas evacuations by the government since Independence.

Following such events ‘Samudra setu’ and ‘Vande Bharat’ mission has been launched to bring back stranded Indians:

- Vande Bharat Mission is the biggest evacuation exercise to bring back Indian citizens stranded abroad amidst the coronavirus-induced travel restrictions.
- It is also considered as the largest exercise to bring back Indian citizens since the evacuation of 177,000 from the Gulf region in the early 1990s at the start of hostilities between Iraq and Kuwait during the first Gulf War.
- The mission has given priority to Indian citizens with “compelling reasons to return” – like those whose employment have been terminated, those whose visas have expired and not expected to be renewed under the present circumstances and those who have lost family members in recent times.
- The program named Samudra Setu by Indian navy entails to bring back around two thousand Indians in two ships during the first phase of evacuation.
- INS Jalashwa and INS Magar are being operated as part of efforts to repatriate Indian nationals from foreign shores.

According to Global Migration Report 2020, India continues to be the largest country of origin of international migrants with a 17.5 million-strong diaspora across the world, and it received the



highest remittance of \$78.6 billion (this amounts to a whopping 3.4% of India's GDP) from Indians living abroad. Hence, it becomes important protect and take care of the interest of the Indian diaspora living abroad.

### **Post-pandemic India**

The role that India plays in the post-pandemic world order will be determined by how we deal with the crisis now, and how we emerge from it. This, in turn, depends on certain fundamental factors — the quality of leadership, the quality of administration at all levels, (Centre, State, district and village), the robustness of institutional frameworks, the quality of health care, and our social coherence as a people.

#### *Internally*

It is time to – lay out a comprehensive road map to deal with both the health and the economic consequences of the crisis, and to make long overdue investments on the massive scale needed, in universal health care, education and social security. Or at least to plan for it, and to raise the resources to back these plans with adequate funding, regardless of the fiscal deficit that will follow. The investment that needs to be made in the millions of our people who live in poverty, or on the edge of it, are not merely welfare measures. They are fundamental to our socioeconomic transformation, which in itself is an imperative. Also, if India is to be in any position to make use of opportunities that emerge in the reordering of the global economy as the pandemic recedes.

### ***The emerging geopolitical challenges for India during the ongoing COVID-19 pandemic***

#### **China and India**

China's strategy focussed on disinformation campaign designed to obfuscate its role in spreading the pandemic, control the public narrative and stoke domestic nationalism. Thus, China peddles the tale that the source of the corona virus could be the US or Italy and the exemplary actions of the CCP leadership have been instrumental in rapidly bringing the pandemic under control, while democratic Western nations are still floundering, thereby highlighting the superiority of its own political system. China's current belligerence on the LAC and increased physical tussles between Indian and Chinese soldiers rightly explained as reflection of endeavour to boost domestic nationalism.

China's increasing use of wolf-warrior diplomacy as response to growing Chinese criticism is evidenced not only in combative words but aggressive actions. For example, in early April, a Chinese coastguard ship allegedly sank a Vietnamese fishing trawler near the Paracel Islands. When Vietnam protested, the Chinese foreign ministry responded by saying Vietnam's claims to the area are illegal.

#### **US retreat and Dynamics of Indo-Pacific**

- US has indicated retreat from world affairs with "leading from behind" of Obama times to President Trump's "America first" and during the current crisis, the U.S.'s efforts at cornering supplies of scarce medical equipment and medicines and acquiring biotech companies engaged in research and development in allied states, show that this may mean "America alone".
- Moreover, even as countries were losing trust in the U.S.'s leadership, its bungled response at home to the pandemic indicates that countries are also losing trust in the U.S.'s competence. The U.S. still remains the largest economy and the largest military power but has lost the will and ability to lead. This mood is unlikely to change, whatever the outcome of the election later this year.
- US retreat has become geopolitical challenge for India at multiple locations like Indo-pacific, Afghanistan and Central Asia.

- US continue to provide only verbal service to the increased Chinese expansion in South China Sea. ASIAN response remains fractured to Chinese pressure due to interlinked economies with China.
- Initiative of QUAD is yet to realise its full potential. China's increasing footprint in the Indian Ocean remains concern for India.

#### Instability in India's west and Afghanistan

- **Pakistan continues to indulge in cross border terrorism** despite of global health crisis. Recent mischief in Sopore and Kupwara underlines it.
- In Afghanistan, the peace process was already facing the difficult transition to **intra-Afghan negotiations and a US drawdown**. Travel restrictions and political opportunism will make the process of negotiation difficult, adding to the difficulties of finding a sustainable peace.
- Pakistan will gain upper hand in the post American Afghanistan as Pakistan has always supported Taliban overtly and covertly threatens India's interest in the region.
- Iran is unlikely to wilt under sustained US pressure; in fact it may be tempted to increase its activities as the US elections draw near. The successful launch of Iran's first military satellite on April 22, 2020 is indicative of this.
- **Tumbling oil prices and increased US-Iran tensions:** India relies both for energy and remittances from its eight million strong diaspora in west Asia, which in turn could face displacement from their jobs in the region.
- Rapidly changing geopolitical situation in Islamic world continues to be challenge for India at both humanitarian and economic level.
- **Reverse migration:** The pandemic has initiated a reverse migration of Indian blue-collar workers as projects in oil-rich States has stalled
- **Reduction in salaries of Indian workers:** The [oil price crash](#) will carry massive costs to the West Asian economies, and, by association, to foreign workers employed there.
- **Reduction in remittances:** Overall, close to nine million Indians work in West Asia, responsible for sending back more than 56% of India's annual infusion of \$80 billion in remittances which will reduce in the wake of reverse migration

#### Steps taken by India

- India completed that De-hyphenation process in July 2017 when the Prime Minister Modi visited Israel, the first visit ever by an Indian prime minister to that country
- India maintains solidarity with the cause of a separate Palestinian state. India voted at the UN against the United States resolution to move the Israeli capital from Tel Aviv to Jerusalem
- India has proactively reached out to all these countries in the wake of the Covid-19 pandemic; sending doctors, medical teams, medicines and vital PPEs and other life-saving equipments to afflicted nations, including Iran, and sharing best practices.
- The UAE is also the first partner of India's National Investment and Infrastructure Fund and invested US\$1 billion as the anchor investor.
- India's 'soft power' is also clearly visible in the region; with the cultural connect of language, food, music, yoga and, Bollywood movies. India's democratic character, its neutrality and noninterference in internal affairs of others and goodwill towards all have allowed the prime minister to rely on soft power diplomacy as his key foreign policy instrument.
- Medical and health diplomacy has also gained traction in these countries, with many preferring the Indian option over more expensive western medical facilities.
- The International Solar Alliance initiative, launched jointly by India and France, has become another major area of convergence and cooperation between India and West Asia.
- The way Pakistan has been distanced by the Arab nations like UAE and Saudi Arabia, in forums like the OIC, has been another major gain for India. Exceptionally close intelligence,



de-radicalisation and counter-terrorism collaboration with all these countries has been a hallmark of recent agreements.

#### **Way Forward**

- Central government needs to work with the government of Maharashtra to expedite land acquisition for the \$50 billion mega-refinery project as Saudi Aramco & the Abu Dhabi National Oil Company have committed to investing \$25 billion in the project
- Fast-track resolution of endless litigation that has stopped the sale of a major stake of Mumbai airport by GVK to a consortium that includes the UAE sovereign fund will send out a positive signal to the markets
- Government has set up an empowered group headed by Cabinet Secretary Rajiv Gauba to take necessary steps to attract FDI into India. This mechanism has to take up West Asia on priority.
- To mitigate the problem of return of semi-skilled and skilled workers into an economy already struggling with jobs government has launched the Skilled Workers Arrival Database for Employment Support (SWADES)
- SWADES attempts to capture the skills profile of returning workers and house them in a central portal that can be accessed by Indian and foreign companies. There has to be effective utilization of this initiative

The Abraham agreement, signed in August 2020, between the UAE and Israel, to establish full diplomatic relations and “normalise” their bilateral relations provides India, a close partner of both Israel and UAE, a chance to become an important player in West Asia.

India’s blooming relations with the Arab countries and with Iran could also be leveraged by New Delhi to offer a way ahead for those countries competing for primacy in the Islamic world, to cooperate and arrive at a workable relationship.

## **B. Evolution Of India’s Trade Negotiations**

### **India’s Trade Snapshot In 2019-20 –**

- Exports were US\$313.2 billion
- While imports were US\$473.9 billion
- Exports have grown faster than the GDP over these years.

Currently, India’s share in global exports is **1.7%**. In contrast, countries such as Japan, Korea, China and even ASEAN enjoy much greater share in global trade as a consequence of their open economic policies with significant thrust on exports.

- India’s total trade in 2019-20, was about \$787 billion. A worrisome factor for India is the **ever widening trade deficit with China**, which is feared to be dumping its goods in India indiscriminately through deliberate state-sponsored unfair trade practices, while insulating its markets through highly cumbersome non-tariff measures.
- In South Asia, India is the most dominant economy with total trade at about \$25.7 billion in 2019-20, of which India’s exports were \$22.8 billion. India’s export product profile more or less remained constant for several years; petroleum products, Gems & Jewellery, machinery, organic chemicals, pharmaceuticals, electronics, leather, etc. have been consistently leading the chart.
- Diversifying export basket with value added products would help to expand its global market share. India’s export of services trade has been gradually growing in the last two decades. However, India’s share in world services trade is only 2.6%, mostly concentrated in IT and IT enabled services. With a view to diversifying services trade, India identified 12 champion services sectors with emphasis on realising their potential for employment generation.

### India's Trade Support System Infrastructure

- **The Sagarmala initiative:** To reduce logistics cost for domestic and export-import cargo.
- **Bharatmala Pariyojana:** Focuses on freight and passenger movement across the country for the highways sector.

#### *Institutions*

- **Indian Commercial missions** located in important countries are geared to promote trade, technology, tourism and investments. Sector-specific Export promotion Councils, Federation of Indian Export Organisations, and several Trade Associations engage with exporters to resolve day-to-day and development issues.
- **Export Cum Guarantee Corporation** provides insurance facility while Exim bank extends long-duration loans to long-duration projects located in specified countries. India Brand Equity programme activity promotes Indian brands.
- **Council for Trade Development and Promotion** has been created for making states active partners in boosting India's exports. Board of Trade engages with leaders of industry in promoting India's trade interests.

#### *Ease of Doing Business and IT Initiatives*

- The number of mandatory documents required has been reduced to 3 each for export and import.
- Earlier, seven documents were needed for exports and 10 for imports. Persons from small and medium enterprises, industrial clusters, small exporting firms have been trained by DGFT under the Niryat Bandhu program.

### Seven Strategies for Increasing India's Exports

- Expand manufacturing and trade of the products, the world buys most—Electronics, Organic Chemicals, Machinery, Telecom, etc. This will need reforms in duty structure, building efficient ports, and online systems.
- Avoid critical dependence on any country.
- Define "Made in India" standards and make it a quality label. This will require setting up Design Studios, Innovation labs, and strengthening of Standards and Quality infrastructure.
- Open large product exhibition centers cum markets.
- Provide actionable trade intelligence – What are other countries doing? At what prices are they purchasing?
- Promote trade-in services - India's services exports are characterised by over-dependence on Software Services, which accounts for about 40% of India's services exports. To diversify India's services exports, Government has identified 12 sectors for focused development.
- Reduce input costs

#### Free Trade Agreements:

- India's most notable bilateral FTAs are with Japan, Korea, Chile, Singapore and regional FTAs are SAFTA, ASEAN, Mescosur, APTA, etc.
- Traditionally, India has been conservative to opening its economy through Free Trade Agreements for fear of exposing domestic industry to external competition.
- Not being part of preferential trade architecture could be detrimental for a growing economy like India as it would amount to inevitable erosion of its market share.

#### **India's trade negotiating approach would need to take a broader long-term view of things to come in future.**

- Increasing volume of trade is more important than trade deficit because trade need not be a zero-sum game.
- Ultimately, combination of quality and price determines the staying power of a product in the market.

- Understanding the evolving linkages between trade, investment, services and technology, GVCS is critical.

India should consciously develop a wide-angle approach to these evolving global trade dynamics.

### **C. Just when multilateralism was most in demand, it did not rise to the occasion – The UN**

A global health pandemic should have been the high point of the multilateral search for a collective solution. Instead, it has turned out to be a complete failure.

In some ways, the crisis of multilateralism should not be surprising. The global order that emerged after the end of World War II was a product of its time. As underlying structural realities shift, the stress is palpable, as various institutions, norms and processes face challenges from multiple directions. Not only is China challenging an order that it believes was created in its absence, but even the US, which was its most important founding father, seems dissatisfied with the status quo.

For a liberal order that has arguably been central to maintaining peace and prosperity worldwide for more than seven decades, this growing inability to provide equitable and effective solutions to today's common challenges signals a remarkable retreat. As it happens, it is this seeming retreat that makes it imperative for nations like India to develop an alternative strategy to secure their interests in a world where great power competition is becoming sharper by the day.

#### *India's Stand*

- Challenged the UN to introspect, as a "crisis of confidence" haunts the institution and called for a new template of multilateralism that "reflects today's reality, gives voice to all stakeholders, addresses contemporary challenges, and focuses on human welfare".
- PM Modi in his speech directly targeted the UN for its non-performance during the ongoing crisis when he underlined the absence of the international body over the period that the world had been battling the pandemic. He asked: "Where is the United Nations in this joint fight against the pandemic? Where is its effective response? Reform in the responses, in the processes, and in the very character of the UN is the need of the hour."
- He went on to question the viability of the present state of affairs as the leader of a country "which in the course of maintaining peace, has lost the maximum number of its brave soldiers" and where "the faith and respect that the UN enjoys among the 1.3 billion people in India is unparalleled". This led him to his central question: "For how long will India be kept out of the decision-making structures of the United Nations? A country, which is the largest democracy of the world; a country with more than 18% of the world population; a country which has hundreds of languages, hundreds of dialects, many sects, many ideologies; a country which was a leading global economy for centuries and also one which has seen hundreds of years of foreign rule."

PM Modi's remarks were a veiled warning to the UN that despite New Delhi's inherent faith in the global multilateral order, India's absence from its decision-making structures and lack of genuine reforms might force India to look for alternatives. For a country like India that aims to be a rule shaper, not merely a rule-taker, this is an inflection point. If the extant multilateral order will not work to secure Indian interests, then New Delhi will have to look for alternatives. That process is already underway.

## D. Is Indo-Pacific — the geopolitical and geo-economic nerve center of the 21st century?

Faced with the common challenge of a non-traditional security emergency, COVID-19 has caused significant strategic shifts, lending traction to the Indo-Pacific security architecture. This is witnessed in the emerging role of the Quad as a multilateral formation committed to an enhanced partnership in the post-COVID-19 world order.

Three primary factors drove the shift from the Asia-Pacific to the Indo-Pacific:

1. The rise of China,
2. The rise of India's economic and strategic clout,
3. The growing importance of the Indian Ocean as a strategic trade corridor carrying almost two-thirds of global oil shipments and a third of bulk cargo

COVID-19 has provided a boost to the Indo-Pacific security framework, as exemplified by the active role of the Quad.

### The Quad

The Quad, consisting of four Indo-Pacific democracies — **Australia, Japan, India, and the United States** — formally resumed their dialogue in late 2017 after nearly a decade of inactivity. Since then, they have met twice a year. In 2019, the grouping upgraded the dialogue to the level of foreign minister/secretary of state. With COVID-19, the group was upgraded to “Quad Plus,” adding three additional Indo-Pacific countries: **New Zealand, South Korea, and Vietnam**. This expansion is driven by the logic of convergent security interests under the pandemic and jointly looking at a way forward.

Issues of cooperation such as vaccine development, challenges of stranded citizens, assistance to countries in need and mitigating the impact on the global economy; topics such as these have reaffirmed the spirit behind the formation of the Quad in response to the 2004 tsunami — collaborating in humanitarian assistance/disaster relief (HA/DR). However, over time the Quad evolved to possess a strategic outlook regarding concerns over **free and open seas** and a **rules-based order**. In this light, COVID-19 has pushed Quad to further act on non-traditional security objectives — aiming at **human security** against the scourge of the coronavirus.

### COVID-19 and India

COVID-19 has also increased India's strategic weight in the region. India's aid in fighting the pandemic is noteworthy.

- India lifted its export ban on drugs such as hydroxychloroquine (seen by some as a possible cure for COVID-19) and paracetamol in a bid to supply them to countries such as the United States.
- It also sent such medicine to South Asian Association for Regional Cooperation (SAARC) countries, as well as to Mauritius and the Seychelles, and provided medical aid to Caribbean and Latin American countries.
- India is also leveling up its position as a key player in the global supply chain given countries' plans to shift production away from China.
- Companies from Japan, the United States, and South Korea have expressed interest in relocating to India. To facilitate this possibility, India has identified land parcels across the country spanning 461,589 hectares — almost the size of Luxembourg — in support of these anticipated investments.

COVID-19 has not just pushed India to step up its proactive engagement in the region but has also provided a boost to India's strategic interests in Indo-Pacific, which can be argued under a five-fold framework.

1. Joining of the league of great powers, mainly the United States and Japan, reinforces India's rise in status and enhances its great power aspirations and power projection both in the Indo-Pacific region and globally.
2. Second, India's active engagement in the Indo-Pacific automatically provides a boost to its "Act East Policy," as well as its "Extended Neighborhood Policy." These policies are reinforced by New Delhi's closer ties with ASEAN and countries such as Vietnam, Singapore, Thailand, and Myanmar.
3. Third, India's strong foothold in the Indo-Pacific provides a counterbalance to China's growing footprint in the Indian Ocean. India's security concerns include China's encirclement policy through port facilities in India's neighborhood — Gwadar in Pakistan and Hambantota in Sri Lanka — open and free sea lanes of communication against concerns over Chinese chokepoints in the South China Sea; and China's increasing maritime presence in the Indian Ocean under the shadow of anti-piracy operations.
4. Fourth is a stronger push toward strengthening the India-U.S. Strategic Partnership, mainly through defense ties. There has been increased engagement between New Delhi and Washington: agreements such as the 2016 Logistics Exchange Memorandum of Agreement (LEMOA) and the 2018 Communications Compatibility and Security Agreement (COMCASA); arms transfers, as American arms exports to India have risen from zero to \$15 billion over 10 years; increased military exercises between India and the United States, such as Tiger Triumph, a U.S.-India bilateral tri-service amphibious military exercise; and the Blue Dot Network, an alternative to China's Belt and Road Initiative.
5. India's fifth and final strategic interest is to further boost to India-Australia relations. This relationship has recently been upgraded to a Comprehensive Strategic Partnership signed under nine arrangements that include "Mutual Logistics Support" for their militaries.

## E. EU and India

EU and India seem to be getting their act together, speaking the language of being "natural" partners. This closeness undoubtedly stems from the desire of both parties to preserve and reform multilateralism, and lessen the human and economic suffering of their own peoples and globally that the pandemic has caused. But ironically, they probably also have China's recent expansionist spree to thank for bringing them together.

Chinese border disputes with India, territorial claims in the South China Sea, and even developments in Hong Kong may have seemed sufficiently far away to Europe. But the exploitation of global health chains by China as part of its coronavirus diplomacy, as well as growing concerns worldwide about Chinese investment in 5G and other critical technologies, have brought the threat posed by China's rise much closer to home for Europe. Perhaps Europe finally sees where India has long been coming from.

### The EU and India have much in common like:

- Both aim to enhance strategic autonomy and their global standing.
- Need for diversifying strategic value chains (moving away from China-centrism)
- Address climate change.

### Significance of India-EU relationship

- EU champions the rules-based international order (that India also supports), which is being increasingly challenged by the proliferation of exceptionalism.
- In geopolitical terms, India is facing increasingly powerful rival in China.
- A stronger cooperation with like-minded, democratic powers like EU can help India face its rival effectively in geopolitics

**India and EU – An opening for enhanced economic partnership**

- EU is India's first trading partner and the biggest foreign investor, with €67.7 billion worth of investments made in 2018 (22% of total FDI inflows)
- However, EU investments in China in 2018 amounted to €175.3 billion
- In post COVID world, there is scope for India in attracting EU investment that might be moving out of China

While the 15<sup>th</sup> Summit might have set EU-India cooperation on the right path, the challenges that these two players still face towards a deeper cooperation are several.

1. **Fixation on trade issues**, and then getting deadlocked in a very narrow debate on labour and environmental standards. Commercial interests within Europe complain of the difficulties they face in doing business with India. Even after the quantum leaps that India has made in the Ease of Doing Business Index under Modi, the "efficiency" of a totalitarian state (and irrespective of its abysmal human rights record) seems to be more attractive to some business interests. India reacts with defensiveness, and its own market-oriented reform still leaves much room for improvement.
2. **Need to fast track the stagnating Free Trade Agreement (FTA) negotiations:** A new study from the European Parliament assesses the potential impact of an EU-India trade agreement at between €8 billion and €8.5 billion gains from increased trade for both sides
3. **Collaboration on Climate Change**
  - Through its new industrial strategy, the Green Deal, EU is building on its ambitious target to render the continent carbon-emission neutral by 2050.
  - India has also announced ambitious targets in Paris Climate deal
  - Thus, both can collaborate on technology front to achieve their targets
4. **Reforming Multilateral Institutions:** The EU and India must join forces to promote sustainable reform of multilateral institutions, with the World Trade Organization (WTO) first in line.
5. **Emerging security partnership**

*Peacekeeping efforts*

  - Prioritize the Women, Peace and Security (WPS) agenda and increasing the number of women in peacekeeping—during the last peacekeeping summits and in policy documents—could serve as a good starting point.
  - Join hands in their training efforts.

*Nuclear Cooperation*

  - Nuclear cooperation between India and the EU takes place along three vertices: energy cooperation, research and development, and nuclear diplomacy. While there has been substantial engagement on each of these in the past, what is missing is a sustained pace and direction. Therefore, these engagements, despite their intensity, has been mostly episodic and driven by external developments.
  - An India-EU High Technology Dialogue – along the lines of the US-India High Technology Cooperation Group would be beneficial. It can identify potential areas of technology cooperation and along with nuclear, can supplement the already identified sectors of 5G, AI and Outer Space.

*Maritime security*

  - The EU should become a part of IONS meetings and naval exercises, what would build-up India's role in the Indian Ocean Region and strengthen its position towards China.



- The EU, as an important strategic trade partner of China, could act not only as India's ally in defence of the liberal system of international law of the sea and the institutional framework of the international maritime cooperation but also as a factor encouraging China to cooperate and make adjustments to its maritime policy.
- The EU should become part of the Sagarmala project and extend its contribution to the process of expanding the maritime infrastructure in the Bay of Bengal and Arab Sea.
- EU members from all its sub regions have untapped potential in maritime technologies. The good practices of the Integrated Maritime Policy as a unique, global programme of the holistic approach towards maritime governance can be utilised in India and other Bay of Bengal countries.

## F. India Russia Relations

It has been a strategic partnership that has grown in strength with every passing year. Built on the rich legacy and preparation for future the India-Russia strategic partnership is truly strategic in nature with a strong component of Make in India and joint ventures. Growing cooperation in the field of defense and energy along with shared perception to an "equitable and multipolar world order" is strengthening bilateral relations despite many an irredentism.

The International strategic order has undergone a rapid change in the last few months due to the COVID-19 pandemic crisis, a subsequent economic recession which is propelling towards some sort of "trade war", growing disarray within the EU along with a emergence of an "unholy power" in the form of China which is threatening peace and security of the global order.

On the other hand, despite these structural changes, India-Russia strategic partnership is evolving day-by-day. The normative framework of "**Special and Privileged Strategic Partnership**" is growing robust over the years, thus bringing out a new synergy in the relationship between the two countries having millennia old-civilisational ties as depicted aptly by Bal Gangadhar Tilak in his book, Arctic Home in the Vedas.

The year 2020 celebrates the **20th anniversary of the formal signing of Declaration of Strategic Partnership**. On 3rd October, 2000, then Prime Minister Atal Bihari Vajpayee and President Vladimir Putin signed the **Declaration on Strategic Partnership** between the Russian Federation and India. Over the subsequent years, annual summits between the leaders have strengthened this partnership to ever greater heights and not a single annual Summit has been skipped.

Through the next decade since 2000, bilateral ties were enhanced, with Putin as the Chief Guest for the Republic Day parade in 2007. In December 2009, the first formal BRIC Summit took place in Yekaterinburg and in December 2010, the Strategic Partnership was elevated to the level of a "Special and Privileged Strategic Partnership."

Since the signing of "Declaration on the India-Russia Strategic Partnership", India-Russia ties have acquired a qualitatively new character with enhanced levels of cooperation in almost all areas of the bilateral relationship including political, security, defence, trade and economy, science and technology, and culture. Far East Russia & associated connectivity projects besides cooperation in Arctic region have emerged as the next frontier for partnership.

Under the Strategic Partnership, several institutionalized dialogue mechanisms operate at both political and official levels to ensure regular interaction and follow up on cooperation activities.

**Sino-India crisis:** In the recent months Russia has been a political factor during the ongoing Sino-Indian crisis indulging in quiet backchannel diplomacy to defuse tensions. The Defence Minister visited Moscow twice notwithstanding pandemic and Moscow was the venue for the critical talks

between the Foreign Ministers of India and China. Russia has also assured to maintain critical defence supplies during emergency including new batches of fighter aircraft.

### The field of outer space

India-Russia cooperation in the field of peaceful uses of outer space dates back to about four decades. Both sides cooperate in the peaceful uses of outer space, including satellite launches, GLONASS navigation system, remote sensing and other societal applications of outer space.

- A MoU ISRO and ROSCOSMOS on Joint Activities in the field of Human Spaceflight Programme was signed during the 19th Bilateral Summit.
- Indian cosmonauts for Gaganyaan mission are being trained in Russia and program is on

**Nuclear Energy:** Russia is an important partner for India in the area of peaceful use of nuclear energy. It recognizes India as a country with advanced nuclear technology with an impeccable non-proliferation record. MoU on Action Plan for Prioritization and Implementation of Cooperation Areas in the Nuclear Field was signed during the 19th Annual Summit in October in New Delhi. Russia has backed Indian membership for NSG as well as for a permanent seat in the UN Security Council.

**On Terror:** Both sides are exploring various third country projects as part of their global partnership and share strong counter-terror cooperation.

### Key Pillars of Strategic Partnership

**Kudankulam** - Kudankulam is the largest nuclear power plant in India, scheduled to have 6 VVER-1000 reactors to produce 2 GW of electricity. Construction started in 2002 by NPCIL & Atomstroyexport with the first reactor getting connected to the grid in 2013. The Rooppur Nuclear Plant is being built as a collaborative effort between India, Russia and Bangladesh

**BrahMos-** BrahMos Aerospace (from Brahmaputra and Moskva rivers) is a joint venture set up between the Russian Mashinostroyeniya and Indian DRDO to produce the fastest cruise missile in the world. It was first test fired in 2001, and was inducted into the Indian Army in 2007 and subsequently into the Indian Navy and Air Force. After the success of BrahMos, a hypersonic version-BrahMos-II is under development and testing expected to begin by 2020-21.

**Sakhalin** - ONGC Videsh Ltd acquired a 20% stake in Sakhalin in 2001. It further bought Imperial Energy a few years later and has recently invested in Vankorneft and TasYuryah. In return, Russian firm Rosneft has bought a majority stake in Essar Oil for USD 12.9 billion.

**Today, Russia is one of India's largest investment destinations in the oil and gas sector.** Gas utility GAIL has contracted 2.5 million tonnes per annum of LNG from Russia's Gazprom for 20 years. India has embarked on the path of becoming a gas-based economy, and a steady partnership with Russia is an important pillar in that vision. India is working on a long term oil supply agreement with Russia.

**INS Vikramaditya (aircraft carrier):** Vikramaditya in Sanskrit means "Brave as the Sun". After serving in the Soviet and Russian navies from 1987 to 1996, the carrier was acquired from Russia by India on January 20, 2004. After successful completion of her sea and aviation trials in September 2013, she was formally commissioned in the Indian Navy on 16 Nov 2013. On 14 June 2014, the Prime Minister of India formally inducted INS Vikramaditya into the Indian Navy.

### Strategic and Defence Partnership

India has longstanding and wide-ranging cooperation with Russia in the field of defence. India-Russia military technical cooperation has evolved from a buyer - seller framework to one involving joint research, development and production of advanced defence technologies and systems.

#### The Contracts

Ongoing contracts will be maintained and not just maintained, in a number of cases will be taken forward in a shorter time. The Military and technical cooperation has been the key areas of the

privileged Strategic Partnership between the countries. Russia has been the main and the preferred supplier of military platforms to India for seven decades.

- In October 2018, India had signed a USD 5 billion deal with Russia to buy five units of the S-400 air defence missile systems, notwithstanding warning from the Trump administration that going ahead with the contract may invite US sanctions.
- Last year, India made the first tranche of payment of around USD 800 million to Russia for the missile systems. Moscow was to begin the delivery of the system by the second half of next year.
- Russia has been one of India's key suppliers of arms and ammunition. However, it has been a long-standing grievance of armed forces that supply of critical spares and equipment from Russia takes a long time affecting maintenance of military systems procured from that country.

*Why is it required?*

- Russia has deferred delivery of lethal S-400 missiles to India due to the Covid-19 pandemic. China, which is also a strategic partner of Russia, already has S-400 systems in its arsenal which can detect, track and destroy any hostile weaponry.
- According to a newspaper report, the Indian government has commenced the process of filling up gaps in defence readiness, stocking-up supplies and developing inventory profile based on worst-case scenarios, including a two-front conflict with China and Pakistan.

*The S-400s*

- One of Russia's most sophisticated long-range surface to air missiles and arguably the most versatile in the world with over half a dozen types of surface to air missile each specialised in intercepting different types of targets at different ranges.
- Makes use of an advanced cold launch system and is capable of guiding up to 160 missiles simultaneously and engaging up to 80 targets at a time – including combinations of ballistic and cruise missiles and all types of manned and unmanned aircraft.

The platform is prized for its advanced capabilities against stealth aircraft and will allow Indian air defences to threaten advanced next-generation jets fielded by China's People's Liberation Army Air Force such as the Chengdu J-20 – as well as upcoming Pakistani stealth fighter being developed with China under Project AZM.

### Recent developments:

In recent years, energy is becoming the fulcrum of their joint partnership. Over the years, India has made big inroads into the energy sector particularly in Siberia and the Far East. Russia wants India to be a major collaborator for strategic cooperation in the energy field even in the lucrative Arctic energy sector. In fact, the September 2019 EEF summit provided the catalyst to greater Indian involvement in Russia's energy sectors.

- Indian and Russian investments in Vietnam's oil and gas sector can be considered as one of the areas of cooperation.
- India wants Indo-Pacific region to be free and fair for everyone.
- A stable Indo-Pacific assumes particular importance for Russia too with the proposed energy bridge from Arctic to Vladivostok to Chennai.

**Do you know?**

- There have been standoffs between China and Vietnam in the South China Sea due to overlapping claims close to the Indian oil blocks in Vietnam's Exclusive Economic Zone (EEZ).
- Russian President Vladimir Putin to visit India later this year which coincides with the 20th year of India-Russia strategic partnership.

There is a need for Russia to move out from the Chinese orbit and augment its relations with India on an "equal footing" for ushering an equitable world order. This can provide a new impetus to the India-Russia relations.

## G. India and Nepal

India and Nepal share deep social, cultural, strategic, political, and economic ties that have been forged over many centuries.

Understanding Nepal's zeal to change its primitive economy into a vibrant economy, India started supporting Nepal in its drive for modernisation since the early 1950s. Nepal's first Five-Year plan that started in 1956 and also the second Plan were entirely supported by India. During last seven decades of economic cooperation between Nepal and India, there is virtually no important sector in which India did not support Nepal — be it the development of roads, railways, airports, education, health or power.

The **1950 Treaty of Peace and Friendship** between the two countries that accord national treatment to the citizens of one country into the other countries made the relation still stronger. As such, nearly seven million Nepalese, which is almost one-fourth of the country's total population, work in India; while the number of Indians working in Nepal is six hundred thousand.

- Though itself being an aid recipient country, India's development assistance to Nepal in all such connectivity projects such as roads, airports and communication is all the more important. Under the "Aid to Nepal" budget in 2019-20, India provided Indian Rupees 1,200 crore for the economic development of Nepal. Each year, Nepal is benefited from such assistance from India.
- India constructed Nepal's first highway, Tribhuvan Rajpath, to link Kathmandu to Birgunj through the most difficult rugged hill regions of the country as far back as in 1956. Almost 75 per cent of East-West Highway that connects one end of the country to the other through the Terai region was completed by India. The Koshi Barrage that is important in irrigating land in Nepal and India also happens to be the sole bridge to link the entire eastern region of Nepal to the rest part of the country. Other vital Indian projects like the Gandaki Irrigation project, Devighat Hydropower project, and B.P. Koirala Institute of Health Sciences in Dharan proved immensely valuable to Nepal.
- A 69 km crossborder petroleum pipeline between Motihari (Bihar, India) and Amlekhgung (Nepal) was constructed in September 2019 to ensure year-round supply of oil from India to Nepal. The Birgunj-Raxaul Integrated Check Post was completed in 2018; while the Jogbani-Biratnagar Integrated Check Post was completed in 2020 to facilitate bilateral trade and people-to-people contact between the two countries. Also, India's support to Nepal in the construction of the crossborder railway between Jaynagar (Bihar, India) and Bardibas (Nepal) will prove a milestone in relations between the two countries.

The economic cooperation between Nepal and India not only helped Nepal to create a sound foundation for economic development, but it also strengthened the traditional bonds of friendship between the two countries.

Once the single largest source for Foreign Direct Investments (FDIs) in Nepal, India has seen its position erode with growing Chinese investments. In 2019, for instance, China accounted for approximately 40% of new FDIs against India's 30%. The relative decline in Indian investments in Nepal reflects two underlying factors.

- First, the socio-economic ties between India and Nepal have failed to adapt rapidly enough. That network was the main driver of investments in the past: it identified opportunities, secured investments, and facilitated its flow. As these socio-economic networks have lagged, particularly by failing to modernize from the informal to the formal, Indian investments have declined.
- Second, the Indian government stepped in to lead India's investment foray into Nepal. The story about growing Chinese investments in Nepal was cast in geo-political terms as the

dwindling of Indian influence. India responded by committing investments backed up by its government.

This strategy has undermined India's efforts in Nepal, further eroding the historic economic ties between people of the two countries.

### Border dispute: Kalapani and Lipulekh

The persistent border dispute between the two countries is an opportunity for them to modernize old ties towards a shared vision of prosperity. India and Nepal must do more than merely resolve boundary issues. They must return to the core strengths of their unique social, cultural, strategic, political, and economic bonds and modernize ties to directly connect its people, markets, finance, and technology.

The Nepal government's decision to pass the constitutional amendment ratifying a change in its maps that include Lipulekh, Kalapani and Limpiyadhura, territories that India controls, marks a decidedly new phase in ties.

### Treaty of Sugauli

- The Nepalese kingdom had stretched from the Sutlej river in the west to the Teesta river in the East.
- However, Nepal lost the Anglo-Nepalese War and the resulting Treaty of Sugauli, 1816 limited Nepal to its present territories.
- The Sugauli Treaty stated that Nepal ceded to British the whole of the lowlands between the Rivers Kali and Rapti.
- The Kali River is formed by the union of two headwaters: **the Kalapani river that originates below the Lipulekh Pass** and the Kuthi Yankit river that rises below the Limpiyadhura range. Both the streams have been termed 'Kali River' on different occasions.
- The valley of Kalapani, with the Lipulekh Pass at the top, forms the Indian route to Kailash–Manasarovar.
- The Kali River serves as the boundary between Uttarakhand (Kumaon region) and Nepal from Limpiyadhura.
- In addition to Mahakali/Sharda (West), Gandak/Narayani (South) and Mechi (East) are two other rivers which demarcate the border between India and Nepal.
- By 2007, the Nepal-India Technical Level Joint Boundary Working Group agreed on 182 strip maps covering almost 98% of the boundary, except the two **disputed areas of Kalapani and Susta**.

### Issue of Kalapani area

- Over the decades, these rivers have changed courses several times, giving rise to disputes, claims and counterclaims on land.
- The Nepal government claims that by taking advantage of Nepal's negligence in guarding its borders, India has encroached on its borderland.
- The former director-general of the Department of Survey of Nepal, claims that maps from 1850 and 1856, prepared by the Survey of India with the participation of Nepali authorities, clearly state that the Mahakal River originates from Limpiyadhura, 16 km northwest of Kalapani, thereby proving that Kalapani belongs to Nepal.
- However, India has consistently refused to accept those maps as proof.
- Indian officials insist that a map drawn up by the British colonial government in 1875 should be considered instead.
- The 1875 map allegedly shows the origin of the Mahakali River to the east of Kalapani. Unlike the maps from 1850 and 1856, the 1875 map does not have Nepal's certification.

### Controversy about Lipulekh pass

- The Lipulekh pass, as well as the **Limpayadhura pass (or Limpiya pass)**, are on Nepal border with Tibet.

- The Lipulekh Pass links Uttarakhand with China's Tibetan Autonomous Region. The pass is near the **tri-junction of India, Nepal and China**
- The Lipulekh Pass is situated at an **altitude of 5,000 metres**. Nepal claims that the Indian army has encroached 372 km<sup>2</sup> towards Limpiyadhura from Kalapani since the 1962 Indo-China war. At that time, Nepal, as a friendly neighbour, granted permission to the Indian army to set up a camp in the region.
- Subsequently, despite several firm requests by Nepal's prime minister at the time, to evacuate the camp, Indian troops stayed put.
- Because of the asymmetric power relationship between the two countries, Nepal has not been able to force India to withdraw its troops from the area

#### **Danger of Crisis snowballing into**

- At the base of the rift is the lack of diplomatic manoeuvring by India to de-escalate the issue.
- While New Delhi contends that it was willing to discuss matters at a mutually convenient date, Kathmandu says the Ministry of External Affairs (MEA) has rejected two dates suggested by the Nepal
- Nepal also alleges India has routinely dismissed requests from the Nepal Ambassador for a meet with the Foreign Secretary.
- Also, MEA said Kalapani talks could wait until both countries had dealt with the coronavirus pandemic first, which further enraged the Nepali government.
- This was in contrast with India's participation by videoconference in bilateral and multilateral meetings.
- Meanwhile, Mr. Oli's (Nepal PM) push towards the amendment at exactly the same time as the India-China border stand-off bolstered the belief that he is speaking with confidence borne from Beijing's backing.
- The Oli government, which seeks to build its legacy by overturning what it calls "unequal" agreements made by the monarchy, could also cause a security nightmare for India
- If Nepal opens up other parts of their long boundary, and reverses old commitments on open and unsecured border posts, the bilateral relationship will worsen benefitting China.

#### **The Way Forward**

- Create modern business hubs that enable young tech-savvy Nepali entrepreneurs to connect with India's innovations.
- Offer credit lines that small and medium enterprises could directly access for cross border trade and investments.
- Harmonize and ease cross border trading rules.
- Encourage Indian and Nepali businesses to speak with each other and provide them the confidence that their governments want them to succeed.
- Give top priority to speed up the development projects which can contribute to maintain cordial ties between two countries.
- The meeting of existing bilateral mechanisms should take place on regular basis; the current pace of works should be continued without any interruptions.

Centuries of social, cultural, political, strategic, and economic ties can only remain strong if they can remain relevant to changing times. India still enjoys considerable leverages in Nepal which can be used quite effectively to re-establish India's primacy in the region. But this must be done quietly. Nepal must be made to understand that the natural affinity and affection that most Indians have towards Nepal – Hindu country and all that – must not be stretched or tested beyond a point. Because once this bond breaks, the consequences will be extremely serious and severe. The governments of India and Nepal must reset the narrative, modernize their policies, and get out of the way so that the ties between people thrives again.



## H. India and Bhutan

India and Bhutan share a five-decade-old relationship that has withstood not only changes in government in India but also the unfolding of larger geopolitical events. Beginning in 1998, Bhutan undertook reforms in governance, and has since transitioned from being a monarchy to a multi-party democracy. This transition began when the Fourth King of Bhutan, Jigme Singye Wangchuck, voluntarily gave up his powers despite the absence of any domestic or foreign threat to his authority. The king then decreed the holding of elections.

As Bhutan made its way out of the monarchical system, its relations with India underwent changes, too. In 2007, the Indo-Bhutan Friendship Treaty of 1949 was updated: if the original treaty provided that Bhutan was to be “guided” by India in its foreign policy, the amendment stated that the two countries will not let their respective territories be used for activities inimical to the national security and interests of the other. With the revision, India-Bhutan relations shed their colonial vestiges and the two recognised each other as sovereign states.

Diplomatic relations between India and Bhutan were established in 1968, and the basic framework of India- Bhutan bilateral relations was the Treaty of Friendship and Cooperation signed in 1949 between the two countries, which was revised in February 2007.

The India-Bhutan Friendship Treaty not only reflects the contemporary nature of our relationship but also lays the foundation for their future development in the 21st century. The Golden Jubilee of the establishment of formal diplomatic relations between India and Bhutan is being celebrated in the year 2018.

The India-Bhutan relationship is often characterised by the grants and aid that India has extended to the small country, principally to the hydropower plants that provide Bhutan its largest single source of revenue. The political relationship, though, precedes the hydropower projects by decades, and is best seen in the context of Tibetan issues.

### History

- After India gained independence, Bhutan was one of the first countries to reach out to the new India.
- Formal bilateral relations between Bhutan and India were established in January 1968 with the appointment of a special officer of the Government of India to Bhutan.
- The basis for bilateral relations between India and Bhutan is formed by the Indo-Bhutan Treaty of 1949.
- On August 8, 1949 Bhutan and India signed the Treaty of Friendship, calling for peace between the two nations and non-interference in each other’s internal affairs.
- However, Bhutan agreed to let India “guide” its foreign policy and decided that both nations would consult each other closely on foreign and defence affairs. The treaty also established free trade and extradition protocols.

### The Treaty of 2007

- The treaty of 1949 between India and Bhutan was updated in 2007. The most significant change was in Article 2.
- Article 2 was the most important provision in the treaty, according to which, “The Government of India undertakes to exercise no interference in the internal administration of Bhutan.”
- On its part, the Government of Bhutan agrees to be guided by the advice of the Government of India in regard to its external relations.
- The point that had provoked some amount of criticism or controversy pertains to the second part of this Article since it tries to qualify Bhutan’s external relations.

### India's Development Diplomacy in Bhutan

India's development assistance to Bhutan commenced in 1961 nearly a decade after the start of Indian assistance to Nepal.

#### A. Physical and Social Infrastructure

- One of first major projects to be undertaken was the 179 km Western Highway connecting the capital Thimphu to Phuentsholing and was completed in 1968.
- The journey which started from the first FYP 1961- 66 - which had a total outlay of Ngultrum 107.2 million totally funded by India - has reached 12th FYP 2018-23 outlay of Nu 280773 million, 77.56% funded by domestic revenues and 16% by Government of India assistance (INR 45000 million).

#### B. Hydropower Cooperation

- The agreement for 27 MW Jaldakha HEP constructed on Indian side of the border was signed in 1961. The 336 MW Chukha HEP was commissioned in 1986-88.
- Subsequently, joint projects totalling 1800 MW have been commissioned and project totalling 2800 MW are expected to be commissioned in next three years. The ambitious framework agreement on India-Bhutan hydropower cooperation envisages 10000 MW generation capacity.

### Bhutan's Significance to India

#### Geography

- Bhutan's significance to India stems from its geographic location. Nestled in the Himalayas, it is sandwiched between India and China. Thus, it serves as a buffer between the two Asian giants. Bhutan's value as a buffer soared after China annexed Tibet in 1951.
- As the 2017 crisis in the Doklam region revealed, India will strongly oppose, even militarily, any Chinese attempt to assert control over mDoklam. Securing Bhutan's present borders especially its western border is clearly important for India.
- Doklam in the hands of a hostile power would heighten the vulnerability of India's Siliguri Corridor, a narrow strip of land that links India to its Northeastern states. So vital is Doklam to India's defence that India has a permanent and sizeable military contingent and an army hospital in Haa district, where Doklam is located.

#### Economy

- India dominates Bhutan's economy. It is Bhutan's largest trade partner; around 79% of Bhutan's total imports are from India and India provides a market for 90% of its exports.
- Additionally, India is Bhutan's largest aid donor. Between 2000 and 2017, Bhutan received \$4.7 billion in aid from India, the lion's share of India's total foreign aid.

#### Energy, Infrastructure & Security

- *Bhutan is a strategically important country for India due to its location, and both sides have been ramping up overall cooperation, including in areas of defence and security, and energy, over the past a few years.*
- India's Border Roads Organisation has completed construction of a strategically key road in Bhutan, linking the neighbouring country's border town of Phuentshogling with its capital city of Thimphu.
- Under the 2007 India-Bhutan Friendship Treaty, the two sides have agreed to "cooperate closely with each other on issues relating to their national interests. Neither Government shall allow the use of its territory for activities harmful to the national security and interest of the other." During the Doklam standoff between troops of India and China last year, Bhutan had extended support to New Delhi

### Kholongchhu project

- India and Bhutan signed pact for first joint hydel project – **Kholongchhu project**

- It is the first time an India-Bhutan hydropower project will be constructed as a **50:50 joint venture**, not as a government-to-government agreement.

*Do you know?*

- India had committed in 2008 to help Bhutan create a total 10,000 MW of installed capacity by 2020.
- The Kholongchhu project is one of four additional projects agreed to in 2008.

### MoU on cooperation in the areas of Environment

- The MoU will cover the following areas of environment:
  - Air
  - Waste/Chemical Management
  - Climate Change
  - Any other areas jointly decided upon.
- This MoU shall enter into **force** on the date of signature and shall continue to remain in force for a **period of ten years**.
- It will facilitate **exchange of best practices** and technical knowhow through **both public and private sectors**.
- It shall contribute to sustainable development.
- It provides the possibility for joint projects in areas of mutual interest.
- However, no significant employment generation is envisaged.

Throughout Bhutan's transition to democracy from 1998 to 2018, India provided the country with steadfast support in various ways. The ties that have bound the two countries continue to hold, providing help to Bhutan in its efforts to achieve economic stability especially when it had just begun its transition away from monarchic rule.

## I. India and China

### There are two faces to India-China relations –

#### ***Face 1: A historical, civilizational dimension that linked our border regions with those on China's periphery, Xinjiang and Tibet***

A land border, among the longest in the world, remains to be mutually agreed upon between the two countries, and spells a protracted contest.

- The closed-door approach of the Chinese that has cut off all ties between our Himalayan regions and Tibet, ties that were people-centered; has compromised the historical, geo-civilizational dimension of these relations.
- The Belt and Road Initiative (BRI) today leverages China's resources, but there were antecedents; Nepal settling its border with China in the 1960s, China's sharing of nuclear technology with Pakistan in the 1970s, Bangladesh importing Chinese military hardware in the 1980s, and Chinese backing for the military junta in Myanmar in the 1990s.

#### ***Face 2: Trade Relationships: Long-term presence and a significant stake in the Indian market***

- Our trade relationship is grossly imbalanced, coupled with justified grievance about China's reluctance to open sectors like IT and pharmaceuticals to Indian companies and its non-tariff barriers.
- Our imports from China in 2018-19 amounted to \$70.3 billion while our exports to China were \$16.7 billion for the same period. Chinese investments into India since 2014 has

changed the nature of the transactional trade relationship. The sectors involved include manufacturing, infrastructure, energy, automobiles, consumer goods, and real estate.

- Starting 2016, Chinese capital has entered the technology sector through investments and acquisitions of Indian startups. Chinese tech giants Alibaba (in Paytm, Snapdeal, BigBasket, Zomato) and Tencent (Ola, Flipkart, Byju, Swiggy) are some entrants. Mobile phone company Xiaomi is another big investor

*What about Make in India?*

- The dependence on Chinese goods is huge in India. Our Make in India revolution has not gathered critical velocity. Relocation of substantive supply chains, given the fact that these are located closer to final demand markets and China is a major such demand market, may not happen soon.
- Bringing investment into manufacturing in India will be really successful only if we upgrade our infrastructure including ports, and improve labour productivity and ease of doing business. Our exit from negotiations to conclude a Regional Comprehensive Economic Partnership, at a time when we want to be a hub and work with countries in the region to relocate supply chains, creates a new set of complexities.

**BUT** Chinese investment in critical sectors that impinge on national security deserves special scrutiny.

### The India-China border flare-up

The India-China border has been witnessed tensions during April-May 2020, with incidents reported in at least four different locations along the Line of Actual Control (LAC).

**Where have the incidents (army clashes) happened?**

- The Pangong lake in Ladakh
- Naku La in Sikkim
- Galwan valley and Demchok in Ladakh

**Why do face-offs occur?**

- Non-Demarcation of LAC: LAC that has never been demarcated. As a result, India and China have overlapping claim lines along LAC which leads to such clashes
- Non-implementation of protocols: Additionally, the Protocols agreed to in 2005 and 2013 regarding rules of engagement to prevent such incidents, have not always been adhered to.

**What is behind the latest tensions?**

- The northern bank of Pangong lake has always been a point of contention where there are differing perceptions of the LAC.
- The stand-off in Galwan valley(not many incidents in past as LAC was thought to be settled here) was triggered by China moving in troops & equipment to stop construction activity by India
- Delhi says that construction was well within India's side of the LAC, but China thinks otherwise.
- The broader context for the unexpected tensions in Sikkim appears to be a changing dynamic along the LAC, as India plays catch-up in improving infrastructure there.
- China has enjoyed an advantage in infrastructure as well as terrain that is more favourable to mobilisation in Sikkim area and likes to maintain status-quo.

**Why has not the LAC been clarified?**

- India has long proposed an exercise to clarify differing perceptions of the LAC to prevent such incidents.
- The exercise could pave the way to regulate activities in contested areas until a final settlement of the boundary dispute.
- Maps were exchanged in the Middle Sector, but the exercise fell through in the Western Sector where divergence is the greatest.

- China has since rejected this exercise, viewing it as adding another complication to the on-going boundary negotiations.

#### **What is the state of boundary negotiations?**

- In 2005, an agreement on political parameters and guiding principles completed the first of three stages of the talks.
- The 2005 agreement said both sides “shall safeguard due interests of their settled populations in border areas”.
- The current, and most difficult, stage involves agreeing a framework to resolve the dispute in all sectors.
- The final step will involve delineating and demarcating the boundary in maps and on the ground.

#### **What are the prospects of a settlement?**

- The likelihood appears remote.
- The main differences are in the Western and Eastern sectors.
- India sees China as occupying 38,000 sq km in Aksai Chin. In the east, China claims as much as 90,000 sq km, extending all across Arunachal Pradesh.
- One particular sticking point appears to involve China’s claims to Tawang in Arunachal Pradesh, which has been increasingly raised by China in recent years
- A swap was hinted at by China in 1960 and in the early 1980s, which would have essentially formalised the status quo.
- Both sides have now ruled out the status quo as a settlement, agreeing to meaningful and mutual adjustments.
- At the same time, the most realistic solution will involve only minor adjustments along the LAC, considering neither side will be willing to part with territory already held.

#### **What is the Strategic Calculation behind boundary dispute?**

- India insists that its relations with China won’t improve fundamentally until the border dispute is resolved
- China appears to view an unsettled border as holding some leverage with India, one of the many pressure points it could use to keep India off-guard

#### ***Pattern change in Chinese behaviour on the border:***

- They have reportedly come in large numbers into a new area (Galwan river valley) which had not been contentious in terms of the alignment of the LAC
- They are staying put, dug down and in tents and not just as a short-term patrol
- These incursions are happening in multiple locations
- They have become more assertive and aggressive in their behaviour

*This is part of a larger pattern of behaviour from the Chinese and should not be seen as localized and isolated incidents in pockets along the India-China border.*

- It is reflective of increased Chinese assertiveness. The activation of border areas by China could also be part of its pressure tactics and its desire to gain leverage vis-a-vis India with regard to issues in bilateral relations and matters like Covid and WHO.
- It is also quite possible that China is eyeing the waters of the Shyok, Galwan and Chang-Chenmo rivers, to divert them to the arid Aksai Chin and its Ali region.

#### **The Five-point Plan**

Recently, India and China have agreed on a five points plan to disengage troops and reduce tensions along the Line of Actual Control (LAC). The talks were held on the margins of a Shanghai Cooperation Organisation (SCO) meeting in Russia.

- Both sides should take guidance from Wuhan and Mahabalipuram summits on developing India-China relations. Differences should not be allowed to become disputes.
- Border troops should continue their dialogue, quickly disengage, maintain proper distance and ease tensions.

- The two sides shall abide by all the existing agreements and protocols on China-India boundary affairs and avoid any action that could escalate matters.
- Continuing communications through the Special Representatives mechanism, and meetings of the Working Mechanism for Consultation and Coordination (WMCC) on border affairs.
- Working to conclude new confidence-building measures.

### The Way Forward

- PM Modi must take the Opposition political parties into confidence on the nature of the crisis.
- There is a need for an early political consultation between Delhi and Beijing on exploring ways to end the stand-off. Reports that Chinese troops are sitting on Indian Territory underline the importance of restoring status quo ante; this is unlikely to be achieved at the local level.
- A renewed effort at resolving the conflict over the boundary dispute must necessarily complement the management of frequent crises on the Indian frontier with China. In recent years, Delhi has often proposed that the two countries must begin the clarification of the Line of Actual Control on an urgent basis. That would pave the way for a political settlement of the boundary dispute.
- The reason why China manages to bully its way through disputes is not because of its military power, but because of economic interdependencies. India will do itself and the world a service if it were to weaken economic dependence on China.

The stakes involved impact India's economic well-being but national security concerns cannot be ignored. The choices to be made are not easy, but difficult times such as these should spur the national resolve to make the necessary adjustments and craft rational responses.

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## WATER & SANITATION

### J. Water Scarcity and Measures to deal with it

According to a 2018 NITI Aayog report, 600 million Indians face high to extreme water stress and about 200,000 people die every year because of inadequate access to safe water.

- By 2030, the country's water demand is projected to be twice the available supply, implying severe water scarcity for millions and an eventual 6% loss in the country's gross domestic product (GDP).
- The 2030 Water Resources Group on "Charting Our Water Futures" set up by the erstwhile Planning Commission in 2009 had projected that if the current demand pattern for water continues, by 2030, the available water will meet only about half of India's demand for water.
- The NITI Aayog has projected that the groundwater of 21 cities will run out by 2020 (that is, next year) and the cities include Bengaluru, Delhi, Chennai and Hyderabad.
- The BBC in February 2018 listed 11 cities most likely to run out of water.

India is suffering from 'the worst water crisis' in its history with about 60 crore people facing high to extreme water stress and about two lakh people dying every year due to inadequate access to safe water, NITI Aayog said in a report. The report, titled 'Composite Water Management Index' further said the crisis is only going to get worse.

- 600 million people in India face high to extreme water stress in the country.
- About three-fourth of the households in the country do not have drinking water at their premise.
- With nearly 70% of water being contaminated, India is placed at 120th amongst 122 countries in the water quality index.
- 75% of households do not have drinking water on premise.
- 84% rural households do not have piped water access.

#### Causes of Water Scarcity

- **Overuse of Water:** Undeveloped countries' per capita water consumption is far more than developing and poor countries. An average U.S. family wastes 13,000 gallons of water every year.
- **Geographical distribution:** Usage depends on availability of water; Canadian households use an average of 91 US gallons each day, while American households use just over 100 gallons. Contrast this to Israel, where water supplies are limited, which uses an average of only 36 gallons per household per day.
- **Pollution of Water:** 80 percent of wastewater from human activities is discharged into waterways without any pollution removal. Bangalore water crisis was due to pollution in city's lakes and rapid urbanisation.
- **Conflict:** Water stress in Yemen, Syria, and Iraq are examples of water crisis due to conflicts. War disrupts the infrastructure as well as administration.
- **Distance:** Areas that are considered to be desert, or areas that are secluded deal with water scarcity because they just aren't close to anywhere that has water.
- **Women in sub-Saharan Africa** collectively spend about 40 billion hours a year collecting water. This significantly impacts their employment opportunities.
- **Drought:** A drought is an area which is not getting enough rainfall to be able to sustain the life that is residing there. Some areas are in perpetual drought, whereas other areas may be dealing with a drought on occasion. Some examples of it are from India itself, Marathwada region in Maharashtra is usually under drought conditions throughout the year. Another

classic example is the recent water crisis in Cape Town, South Africa, major reason here was drought.

- **Climate Change:** Due to climate change and rising temperature there is change in global weather pattern and monsoon. Leading to drying up of rivers and reservoirs. Floods too affect the usability of water.
- **Insufficient usage of water:** Water scarcity in India has come about not so much from insufficient supply as from the way in which we manage the water we have.
  - Agriculture uses 78 per cent of India's water, and uses it very inefficiently. About two-thirds of water used for irrigation comes from groundwater. Huge electricity subsidies for farmers to pump groundwater and the fact that groundwater is largely unregulated have led to a steady explosion in groundwater use through tube-wells for irrigation over the past several decades.
  - Urban India's inefficiency in water use arises from inadequate, old and dilapidated distribution networks, inefficient operations, inadequate metering, incomplete billing and collection, and a general state of poor governance.
  - Another source of inefficiency comes from not treating wastewater and using the recycled water for specialised uses such as horticulture, and also for flushing toilets. Under-pricing of urban water also contributes to wasteful use. If something is under-priced, users will use more of it. Only about 30 per cent of the municipal waste water or sewage is treated and the rest is released untreated into the rivers and/or the ground. Because of the density and concentration in urban areas, contamination from wastewater happens much faster.
  - Tankers: Access to treated tap water is available to only 62 per cent of urban households (Census 2011). Those who are unconnected to the piped network have to rely on buying water from tankers at exorbitant rates. This leads to increasing but unaccounted use of groundwater by extensive digging of borewells to meet the demand deficit.

**SDG-6:** Ensuring universal access to safe and affordable drinking water for all by 2030

### How is urbanisation affecting the water bodies in the cities?

Urbanisation is taking place at a faster rate in India. Population residing in urban areas in India crossed 30% as per 2011 census, standing at 31.16%. According to the Composite Water Management Index (CWMI) report released by the NITI Aayog in 2018, 21 major cities (Delhi, Bengaluru, Chennai, Hyderabad and others) are racing to reach zero groundwater levels by 2020, affecting access for 100 million people.

#### **Urbanisation affecting Waterbodies:**

##### **Exploitation of Ground water:**

- We need to also realise that with the country's rapid urbanisation, demand cannot be met by groundwater reserves alone.
- For instance, according to the Delhi Jal Board estimates, groundwater meets just 10% of Delhi's drinking water needs. The rest is met by surface water sources, most of it transported from outside Delhi.

**Encroachment:** In Bengaluru, 15 lakes have lost their ecological character in less than five years according to a High Court notice to the city's administrative body responsible for civic amenities and some infrastructural assets.

**Pollution:** There is an increasing level of urban population which however is not having enough civic facilities such as adequate infrastructure for the disposal of waste. Therefore, lakes become the dumping grounds for disposing untreated local sewage and solid waste.

**Eutrophication:** Lakes are closed water bodies. Therefore, a large part of the substances that enter in the lakes become a permanent part of it. There is a rapid change in the in the lakes which leads to growth of unwanted weeds destroying ecology of the lakes.

**Unplanned Tourism Activities:** There is unplanned tourism activities as there is no systematic planning and regulation. There is no adequate facility to dump garbage which leads to lakes becoming dumping grounds. Therefore, adequate arrangements for sustainable tourism must be made in cities like Udaipur which is filled with lakes, Dal Lake in Srinagar, etc.

### Creation of a Ministry of Jal Shakti

*Merger of the ministries of water resources, river development, Ganga rejuvenation, and drinking water and sanitation*

#### The Issue

In 1951, per-capita water availability in India was just over 5,000 cu m per year. In 2011, it was 1,545 cu m. The figure has almost certainly come down since. Should it drop below 1,000 cu m per year, India will formally become a water-scarce country for the first time in its 5,000-year history. If water availability is a problem, inequality in access is even more so.

India has 180 million rural households. About 33 million have access to piped water; a little over 145 million don't. This mission means 4.5 times more houses have to be linked to piped water in the coming five years than has been done in the past 72 years-

- Augmenting water availability will be the sum of several efforts:
- Conservation and revival
- Recycle and reuse of water (including grey water)
- Rainwater harvesting
- Judicious use of water for farming (an expansion of 'per drop, more crop')
- Efficient use of water in industry
- In situ treatment of waste rather than transporting it long distances using copious quantities of water
- Labelling products, or pushing industry to benchmark optimal use of water

#### Jal Jeevan Mission (JJM)

Government of India has restructured and subsumed the ongoing National Rural Drinking Water Programme (NRDWP) into Jal Jeevan Mission (JJM) to provide **Functional Household Tap Connection (FHTC) to every rural household** i.e., *Har Ghar Nal Se Jal* (HGNSJ) by **2024**.

Proposed Jal Jeevan Mission will be a decentralised, community-managed and sustainable water management scheme –

- Out of 17.87 crore rural households in the country about 14.6 crore which accounts for 81.67 percent are yet to have household tap connections for water.
- JJM envisages a structural change in the provision of drinking water supply services. The service provision should change to 'utility based approach' centered on 'service delivery'
- The government had also integrated different ministries and departments dealing with water into one ministry — the Ministry of Jal Shakti.

#### Work to be taken up under JJM:

- In-village water supply (PWS) infrastructure for tap water connection to every household
- Reliable drinking water source development/ augmentation of existing sources
- Transfer of water (multi-village scheme; where quantity & quality issues are there in the local water sources)
- Technological intervention for treatment to make water potable (where water quality is an issue, but quantity is sufficient)

- Retrofitting of completed and ongoing piped water supply schemes to provide FHTC and raise the service level
- Grey water management
- Capacity building of various stakeholders and support activities to facilitate the implementation

**73rd Amendment of Constitution of India:** Gram Panchayats or its sub-committees will play a crucial role in planning, designing, execution, operations and maintenance of the in-village infrastructure under the Jal Jeevan Mission – Every village is to prepare a village action plan (VAP) which will be essentially having three components namely;

1. Water source & its maintenance
2. Water supply and
3. Grey water management.

### Jal Shakti Abhiyaan

Jal Shakti Abhiyan (JSA) is a time-bound, mission-mode water conservation campaign. Ensuring India's water security and providing access to safe and adequate drinking water to all Indians is a priority of the government. The Jal Shakti ministry will look at the management of country's water resources and water supply in an integrated and holistic manner, and will work with states to ensure Har Ghar Jal (piped water supply) to all rural households by 2024 under the Jal Jeevan Mission

- **During the campaign**, officers, groundwater experts and scientists from the Government of India will work together with state and district officials in India's most water-stressed districts for water conservation and water resource management by focusing on accelerated implementation of five target intervention.
- **The JSA aims** at making water conservation a Jan Andolan through asset creation and extensive communication.
- **Nodal agency for Urban Renewal:** Ministry of Housing and Urban Affairs

**The JSA will run in two Phases:**

- Phase 1 from 1st July to 15th September 2019 for all States and Union Territories
- Phase 2 from 1st October to 30th November 2019 for States and UTs receiving the retreating monsoon (Andhra Pradesh, Karnataka, Puducherry and Tamil Nadu).
- As many as 600 million people are already estimated to face "high-to-extreme" water stress every year.

**Why was it required?**

- One Ministry will lead to one integrated data management system and understanding the gaps present.
- The need of the hour is the creation of water availability data from various resources on both quality and quantity at one platform.

**Intervention Areas**

1. Water conservation and rainwater harvesting
2. Renovation of traditional and other water bodies/tanks
3. Reuse and recharge structures
4. Watershed development
5. Intensive afforestation
6. Development of Block and District Water Conservation Plans (To be integrated with the District Irrigation Plans)
7. Krishi Vigyan Kendra Melas to promote efficient water use for irrigation (Per Drop More Crop), and better choice of crops for water conservation
8. Urban Waste Water Reuse: In urban areas, plans/approvals with time-bound targets to be developed for waste water reuse for industrial and agriculture purposes. Municipalities to pass by-laws for the separation of grey water and black water. Every urban local body has been asked to first constitute a rainwater harvesting cell which would monitor ground water

extraction, water harvesting potential of the city and oversee projects on rainwater harvesting.

9. Scientists and IITs to be mobilised at the national level to support the teams
10. 3D Village Contour Mapping: 3D Village Contour Maps may be created and made accessible for efficient planning of interventions

### Mobile Application for Geo Tagging launched

- A mobile application for geo-tagging of the components of projects under Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) was recently launched. .
- **Ministry:** Ministry of Jal Shakti
- **Developed By:** Bhaskaracharya National Institute of Space Applications & Geo-informatics (BISAG-N).
- **Objective:** To track the pace of work and actual status of the projects.
  - The mobile application can be used to capture the image of the project component along with other details.
  - The captured information can be submitted by the user for geo-tagging on the geographic information system (GIS) portal.
  - It can be operated in both online & offline mode.

### Composite Water Management Index

This index is an attempt to budge States and UTs towards efficient and optimal utilization of water and recycling thereof with a sense of urgency. The Index and this associated report are expected to:

- Establish a clear baseline and benchmark for state-level performance on key water indicators
- Uncover and explain how states have progressed on water issues over time, including identifying high-performers and under-performers, thereby inculcating a culture of constructive competition among states
- Identify areas for deeper engagement and investment on the part of the states.

**Major Issue:** Data and centre-state and inter-state cooperation are some of the key levers that can help address the crisis. Data systems related to water in the country are limited in their coverage, robustness, and efficiency.

- **Limited coverage:** Detailed data is not available for several critical sectors such as for domestic and industrial use, for which data is only available at the aggregate level and lacks the level of detail required to inform policies and allocations.
- **Unreliable data:** The data that is available can often be of inferior quality, inconsistent, and unreliable due to the use of outdated methodologies in data collection. For example, estimates on groundwater are mostly based on observation data from 55,000 wells, while there are 12 million wells in the country.
- **Limited coordination and sharing:** Data in the water sectors exists in silos, with very little inter-state or centre-state sharing, thereby reducing efficiencies.

The Composite Water Management Index (CWMI) is a major step towards creating a culture of databased decision-making for water in India, which can encourage 'competitive and cooperative federalism' in the country's water governance and management.

### The Way Ahead

**Efficiency in Agriculture:** The agricultural sector consumes over 85 per cent of the available water today in India, and there is enormous scope to save water here through improved efficiency.

- Shifting cropping pattern from water-intensive to less water consuming crops can save significant amount of water.

- Micro-irrigation method (drip and sprinkler) of rice cultivation promises to enhance water use efficiency with increased crop productivity.
- Rainwater harvesting is one of the cheapest and easiest ways of augmenting water stock.
- Investing and promoting water-recycling technologies and storm water capturing schemes should also be given utmost emphasis.
- The proposed water conservation fee on groundwater extraction is definitely a right step in the direction of regulating water use.
- Need to relook at water-guzzling sugarcane —with a value chain that sucks is terrible in terms of subsidies at various stages

#### **Strict pollution control enforcement:**

- User-centric approach to water management, especially in agriculture
- Decentralisation of irrigation commands, offering higher financial flows to well-performing States through a National Irrigation Management Fund
- Steady urbanisation calls for a new management paradigm – augmenting sources of clean drinking water supply and treatment technologies that will encourage reuse.
- Need to reimagine the public health engineering department (PHED) as not just a technical body but also as a public utility that oversees water entitlements as well as pricing of such entitlements is a goal. Digital sensors could facilitate remote monitoring of household water supply and quality, and eliminate tedious meter readings.
- This devolution can be incentivised by GoI, linked to milestones state governments and gram panchayats must reach, and hand-held by NGOs. For instance, JJM could tie up with the skill development ministry to train village women to measure turbidity and quality.

#### **Rethink water management**

- Creative and imaginative governance in the form of building larger storage dams which can store excess water in lesser time is the need of the hour.
- People should be sensitised about the judicious use of water and educated about water-retention dams and other conventional structures such as eari, bawli, talab, anict, dam etc. to store water.
- The old practice of rainwater harvesting should also be popularised. Tamil Nadu has made mandatory installation of water harvesting structures in every house and this must be replicated in other States as well.
- Investing and promoting water-recycling, storm-water capturing technologies and micro-irrigation techniques in crop cultivation can also solve the problem of water scarcity.
- The cost effective method of reviving the traditional small water bodies under the age old practice of Kudimaramath should be given top priority
- On the lines of the Swachh Bharat Mission, extensive information, education and communication will be needed to create a jan andolan for water management. The ongoing Jal Shakti Abhiyan will help in creating awareness about the importance of integrating source sustainability and water reuse with the provision of household water supply.

#### **Need to make “every drop count”**

1. Expanding water supply
2. Increasing storage

*This will ensure that cities survive under drought. This can be done by*

- Long-distance water transfers, but can also come from groundwater or desalination.
- When cities appropriate more water, they impact the freshwater ecosystem. Sometimes urban water usage is more than in agriculture. Society should make more efficient use of



water. Putting in place an efficient piped supply system has to be top on the agenda of policymakers and planners.

- Steps must be taken to make farmers efficient in use of irrigation water. Water reuse is an option too.
- Both in urban and rural areas, digging of rainwater harvesting pits must be made mandatory for all types of buildings.

**Nature-based solutions** can address overall water scarcity through “supply-side management,” and are recognised as the main solution to achieving sustainable water for agriculture.

- Environmentally-friendly agricultural systems like those which use practices such as conservation tillage, crop diversification, legume intensification and biological pest control work as well as intensive, high-input systems.
- The environmental co-benefits of nature-based solutions to increasing sustainable agricultural production are substantial as there are decreased pressures on land conversion and reduced pollution, erosion and water requirements.
- Constructed wetlands for wastewater treatment can also be a cost-effective, nature-based solution that provides effluent of adequate quality for several non-potable uses (irrigation) and additional benefits that include energy production.
- Watershed management is another nature-based solution that is seen not only as a complement to build or “grey” infrastructure but also one that could also spur local economic development, job creation, biodiversity protection and climate resilience.

#### **Tackling issues related to Urbanization – Mitigation & Rehabilitation**

- Cities need to stop the destruction of local water bodies and local tree cover, treat its sewage properly, harvest rainwater, and stop straightening and concretizing the rivers and encroaching on their floodplain.
- **Mission Kakatiya Model:** Mission Kakatiya of Telangana involves the restoration of irrigation tanks and lakes/minor irrigation sources built by the Kakatiya dynasty.
- Reclaiming of Kundalahalli Lake: Kundalahalli lake in Bengaluru which had made way for a landfill has been reclaimed through corporate social responsibility funds in a Public-Private Partnership model.
- Mapping of the flood prone areas is a primary step involved in reducing the risk of the region. Historical records give the indication of the flood inundation areas and the period of occurrence and the extent of the coverage.
- Enacting the Flood Plain Zoning Bill in states
- The number of casualties is related to the population in the area at risk. Hence, in areas where people already have built their settlements, measures should be taken to relocate to better sites so as to reduce vulnerability.
- No major development should be permitted in the areas which are subjected to high flooding. Important facilities like hospitals, schools should be built in safe areas. In urban areas, water holding areas can be created like ponds, lakes or low-lying areas.
- Better coordination among the government agencies which undertake lake and wetlands restoration and protection programmes
- With the help of reforestation, protection of vegetation, clearing of debris from streams and other water holding areas, conservation of ponds and lakes etc. the amount of runoff can be decreased.

#### **Water digitalization**

*Digitalization of Water means adopting a smarter approach to water management.*

- Digital technologies offer unlimited potential to transform the world’s water systems, helping utilities to become more resilient, innovative, efficient, empowering them to arrive at more economically viable strategies.
- Digitalization provide diversity, and modularity, combining concepts of water as per their usage purpose, Digital Control means using IoT supporting data-driven models that can help integrate and optimise smart pumps, valves, sensors and actuators, and enabling each device to “talk” to each other, or for that matter to a customer’s smartphone, and send real-time information that can be accessed and shared over the cloud.
- Utilities can analyse, automate, correct in real time, predict and minimise risks by adopting digital infrastructure. These will equip them to address many of the current challenges they face, including extending the life of aging assets, reducing leakages, attacks or other abnormalities in the distribution network service levels.
- Upping the reliability of supply, promoting water conservation, or increasing revenue through operational efficiencies are added benefits that comes with them.

The need of the hour is to build a holistic digital roadmap to set the beginning of the digital water. The real effect of digitisation lies in linking new technologies to re-imagining business processes with the help of advanced technology.

Reshaping water governance will require state governments and local governments to take coordinated action in a federal system. What is needed is a political compact between the Centre and states to jointly address the challenges of saving India’s water, while actively involving local governments and engaging with the communities of water users.

**Reduce, reuse, and recycle** must be the watchwords if we have to handover a liveable planet to the future generations.

**Note:**

- **First state to have water policy:** Meghalaya; to address water issues, conservation, and protection of water sources in the state.
- Water is a **State** subject
- **Water-stressed districts:** Districts with critical or over-exploited groundwater levels as per the Central Ground Water Board (CGWB) 2017. For states without critical and over-exploited groundwater levels, districts with the least availability of groundwater in comparison to the rest of the districts in the state have been selected.
- **Water stress and water scarcity**
  - Water stress is the difficulty of obtaining sources of fresh water for use during a period of time and may result in further depletion and deterioration of available water resources.
  - Water scarcity involves water stress, water shortage or deficits, and water crisis.
  - Water scarcity can be due to physical water scarcity and economic water scarcity. Physical water scarcity refers to a situation where natural water resources are unable to meet a region’s demand and economic water scarcity is a result of poor water management resources.
  - The latter is found more often to be the cause of countries or regions experiencing water scarcity, as most countries or regions lack the means to provide water in an accessible manner.

## K. Swachh Bharat Mission

### Motivation -

- **Political will** especially from the very top. Prime Minister of India provided leadership to the movement and made SBM one of the government's flagship programme.
- **Large investment** on sanitation through public financing: the central and state governments have invested in excess of **one lakh crore on sanitation** over 2014-19 period
- **Civil Society movement:** Media and NGOs realized the socio-economic significance of sanitation. These groups owned up the scheme and made it into social movement which led to behavioural changes at ground level.
- **Community Ownership:** The scheme relied upon the community owning up the scheme (through rankings of cities, declaration of ODF villages) instead of government bureaucracy led scheme. This led to **sustenance of progress** made during initial period. 95% of people with access to toilets in rural India used them regularly

### Returns on these investments in sanitation (through SBM):

- UNICEF estimated that investments in sanitation in India are yielding a **400 per cent return**
- Each rural household in an open-defecation-free village saving Rs 50,000 on account of avoided medical costs and time savings.
- The Toilet Board Coalition has estimated that the sanitation infrastructure and services market in India will be worth **over \$60 billion by 2021** –creating many jobs even in the rural parts of the country.
- A study by UNICEF has estimated that SBM resulted in creating over **75 lakh full time equivalent jobs** over the past five years, giving the rural economy a major boost.

On October 2, 2019, PM Modi commemorated the ODF declaration by all states and stated that the focus in future has to be on sustaining the success and moving towards **ODF++ strategy**.

### Objectives

- Eliminate open defecation,
- Conversion of insanitary toilets to pour flush toilets,
- Eradication of manual scavenging,
- 100% collection and scientific processing/disposal reuse/recycle of Municipal Solid Waste,
- Behavioural change in people and awareness generation among the citizens about sanitation and its linkages with public health,
- Strengthening of urban local bodies to design, execute and operate systems, and
- To enhance private sector participation.

### The above objectives are to be achieved with the help of the following components:

- Construction of Household Toilets,
- Community and Public Toilets,
- Solid Waste Management,
- Information, Education & Communication (IEC) and Public Awareness,

### Challenges in the Success of SBA

#### Data Related Challenges

- Adequate data on the basis of third party surveys and evaluation is not available to assist in performance evaluation.
- Whatever data has been recorded reveals a lot of inconsistencies. Accuracy of data is lacking since there is duplication of names and false toilet construction has been reported in many cases.

**Quality Concerns**

- Quality of toilets being constructed and performance of other initiatives is an issue.
- No training is being undertaken to mobilise all the people involved. Officials of the local government and those responsible for sanitation are not given any training for community mobilization.

**Administrative Concerns**

- Even though Panchayati Raj Institutions (PRI) have a major role to play still there is lack of institutional capacity at the grassroots level to deliver sanitation services.
- The high level of political focus that SBA has received has brought along with it immense performance pressure for essential stakeholders such as district collectors. This pressure has had a negative impact on the officers in charge.
- For the success of this programme a lot of investment in terms of administrative capabilities has to be made. Since the same is lacking, there is inefficiency in the performance and also diversion from the prime objective.

**Citizen Engagement**

- Since the district collectors and other officers in charge are supposed to work towards targets, they have resorted to penalization of citizens.
- Coercive measures such as disconnecting power supply and withholding supply of rations are being used in case of failure of public to construct toilets.
- Citizens are being fined for not constructing toilets and being forced to take loans from banks since the government gives the money after construction of the toilet.
- There is limited interaction between the government officials and the citizens who need to be made aware of the programme and their roles and responsibilities.

**Reforms Strategy**

- Citizens need to be involved in activities to spread awareness and for the purpose of demand creation. Citizen participation has to be increased.
- Not always will a carrot and stick approach work. Hence, the bureaucracy and the government officials involved should not use coercive measures. Rather citizens should be incentivized and motivated.
- Community interaction should be encouraged. Civil society institutions need to be approachable to the people. Such collective action will go a long way in the success of this campaign.
- Local government has to be very proactive in their work. Organs of local government need to be strengthened with sufficient powers to work towards the objectives of SBA.

There is no fixed path towards success for SBA. It has to be a combination of many elements. The government needs to combine top down and bottom up methods, role modelling and advertisements have to be combined with citizen participation and community interaction. With so much of political willingness and support for the programme, it is time that government also empowers local government in the best manner.

**The Swachh Bharat Mission-Gramin (SBM-G)**

*Technical realities and what people know:*

**The preference for septic tanks** remains deeply rooted and widespread. People believe they are better than the recommended more sustainable and economic twin pits because they are big and will take longer to fill, and, used sparingly, may even never have to be emptied. Due to widespread ignorance of technical details, many septic tanks are not built according to the guidelines, and end up contaminating the environment and damaging public health.

**New technology:** Twin leach pits are much better.

- Human waste flows to the first pit. Once full, it is left to become manure while new waste is diverted into a second pit. The first pit is emptied and the cycle starts again. This technology allows time for the waste to compost and become harmless, odourless and valuable fertiliser.
- However, rapid investigations found many people who had had twin pits constructed for them without any explanation of how they work. They lacked a sense of ownership and believed the pits would fill up fast. In consequence, they were using them only some of the time, continuing open defecation (OD) even in villages with 100 per cent toilet coverage.
- This problem is acutely urgent. A recent rapid survey covering over a thousand households found that the proportion of twin pits being built in SBM is declining, and more and more unsustainable single leach pits are being built, especially among Scheduled Castes and Tribes.

**What is the Solution:** The solution is to empower people through knowledge.

- Few rural people are aware of technical details or convinced by the advantages of twin pits.
- Mason training can help, but the major thrust needed is a massive communication campaign to inform all villagers of the technical options and details, what they are entitled to demand in quality and quantity of materials, and how to ensure masons do a full job, so that they are never be short-changed with single pits or substandard construction.

**Challenges beyond ODF in rural areas:**

- Children's poor, handwashing
- Rural faecal sludge management
- Solid and liquid waste management
- Toilets that need upgrading

**Way ahead:**

- SBM-G verifications and several studies indicate that in practice 70-90 per cent coverage is often taken as acceptable for a declaration of open defecation free (ODF). There should be definite evidence on thresholds for coverage and use.
- Often those without toilets are predominantly the marginalised and disadvantaged — OBC, SC, ST, the very poor, sick, disabled, aged and weak, or living in difficult or remote areas. For them, additional efforts and special policies and provisions are needed.
- One rapid study discovered effective ways of changing men's behaviour — groups of older women influencing men to adopt toilets when they go for OD. The study suggests that similar gentle and positive approaches should be promoted.
- Rapid learning, sharing and adapting will be vital. If acted on effectively, it will speed progress and enhance sustainability.

The scale and complexity facing the SBM-G make it more challenging than any other rural development programme in the world. The scale of the achievements and milestones passed over the past three years far surpass anything we believed conceivably possible. Driven forward with impressive leadership and dynamism, shortcomings are inevitable and rapid learning and adjustments vital and imperative for sustainable success.

**Do you know?**

- **ODF protocol** – Not a single person is found **defecating in the open**.
- **ODF+ protocol**- Not just open defecation but also no **public urination**. Additionally, all community & public toilets need to be functional and well-maintained.
- **ODF++ protocol** adds the condition that faecal sludge/septage and sewage is safely managed and treated, with no discharging and/or dumping of untreated faecal sludge/septage and sewage in drains, water bodies or open areas.

## L. Waste Management in India

- 62 million tonnes of waste is generated annually in the country at present, out of which 5.6 million tonnes is plastic waste, 0.17 million tonnes is biomedical waste, hazardous waste generation is 7.90 million tonnes per annum and 15 lakh tonne is e-waste.
- Only about 75-80% of the municipal waste gets collected and only 22-28 % of this waste is processed and treated.
- Waste generation will increase from 62 million tonnes to about 165 million tonnes in 2030.

### E-waste in India:

- Even today, when India is among the world's largest consumer of mobile phones with 1.5 million tonnes of e-waste generated in 2015, most consumers are still unaware of how to dispose of their e-waste.
- E-waste is growing at a compound annual growth rate (CAGR) of about 30% in the country. ASSOCHAM estimated that e-waste generation was 1.8 million metric tonnes (MT) per annum in 2016.

Many developing and emerging countries are faced with the major challenge of improving their inadequate and unsustainable waste management systems.

### “Legacy waste”

Years of neglect, lack of foresight and complete absence of urban planning has left India with mountains of waste-landfills, waste-choked drains, water bodies and rivers. This is called “legacy waste”, a cumulative consequence of decades of neglect and lack of foresight.

India faces a challenge of treating and **getting rid of the legacy waste**, with simultaneous and **continuous accumulation of fresh everyday waste**.

### How staggering is the issue?

- India generates the most waste globally, about 275 million tonnes of waste per year.
- With current waste treatment rates of about 20-25%, the majority of waste remains untreated, in a heap, on landfills, and an equal amount in drains and river bodies.
- Drains and water bodies, emptying out into Indian rivers, also carry with them an unimaginable amount of waste. The Ganga is among the top 10 polluted rivers in the world, together accounting for 90% of the total ocean plastic pollution.
- Central, state, city and municipal governments, over decades, have not been able to prevent the situation, nor deal with its scale.
- Out of a total 92 large WTE(Waste-to-Energy) plants only a small fraction is operational. The plants that are operational, run at suboptimal capacity.

### Suggested solutions

#### India needs affordable, decentralised, customised solutions:

- Municipalities need to have access to affordable technology.
- Local situations needs local solutions: Today most of the technology/equipment needed for waste management is imported, expensive and often not suited in our varied local situations. Amphibian equipment to clean water bodies is imported and can work well for large water bodies. Indigenisation of design and manufacturing of such equipment for smaller drains and water bodies is essential.
- *Atmanirbhar Bharat* (self-reliant India) needs to kick in immediately.

#### Ease of procurement of technology and equipment:

- Evolving a less cumbersome process for the procurement of technology and equipment is imperative.
- State governments are hit by a double whammy due to lack of technology and a rigid procurement system.



**Policy change:**

Policy which provides a direction to accelerate the removal of waste exponentially is needed.

- One way, used internationally, is to **unlock the land value under landfills**. Allowing agencies, companies or industry that clear waste, to own the land can fund the clean-up.
- **Development of skilled and trained professional personnel** to operate and maintain the waste management chain, right from collection, operation and maintenance of waste-handling plants.
- Moving to a **zero-waste society**.
- Central, and integral to success, is design. Design in the collection, of centralised and decentralised waste treatment plants, and of the equipment used. **Design of waste management should be the bedrock** of a well-planned smart city, town or village.

**Get rid of the plastic menace:**

- Leading a grassroots movement to support the adoption of a global framework to regulate plastic pollution.
- Educating, mobilising and activating citizens across the globe to demand that governments and corporations control and clean up plastic pollution.
- Educating people worldwide to take personal responsibility for plastic pollution by choosing to reject, reduce, reuse and recycle plastics.
- Promoting local government regulatory and other efforts to tackle plastic pollution.
- Education and responsibility are only one side of the coin, however; the other side is infrastructure. The technology to create a circular economy by means of recycling does in fact exist, but the infrastructure needed to fully implement it is seriously lacking. Of all the plastic waste produced in the world, less than 10% is recovered due in large part to the lack of infrastructure both at home and abroad.

**Sustainable strategies to address the problem of solid waste**

- **Waste-to-energy technologies:** In recent years, waste disposal companies have increasingly been offering partners in developing and emerging countries technologies for recovering energy from waste, based in part on their potential for climate change mitigation.
- **Avoidance of marine litter:** Various national policy instruments are being examined to determine their effectiveness in reducing marine litter; models are generated to demonstrate their economic, environmental and social impact.
- **Electronic waste:** Extended Producer Responsibility and “Reduce, Re-use and Recycle” are the best of available sustainable strategies for handling of Electronic waste.
- **Economic instruments:** For local and national administrations, the costs associated with waste management are considerable. In addition to the traditional approaches to financing, economic incentive systems can be developed to avoid or recycle waste. The focus here is on concepts such as product taxation, deposit systems or user charges.

**India’s Solid waste management rules, 2016 and E-waste management rules, 2016** are good examples of sustainable strategies to problems of waste management.

**Some of the salient features of SWM Rules, 2016 include: –**

- The source segregation of waste and Responsibilities of Generators has been mandated.
- Integration of waste pickers/ rag-pickers and waste dealers/ Kabadiwalas in the formal system
- Generator will have to pay ‘User Fee’ to waste collector and for ‘Spot Fine’ for Littering and Non-segregation
- New townships and Group Housing Societies have been made responsible to develop in-house waste handling, and processing arrangements for bio-degradable waste.

- Problems of construction and demolition waste, horticulture waste and garden waste and strategies to resolve them are also mentioned briefly in rules.

**Some of the salient features of the E-waste (Management) Amendment Rules, 2018 are as follows:**

- Extended Producer Responsibility (EPR), which put the onus on the producer for the management of the final stages of the life of its product, in an eco-friendly way.
- The Extended Producer Responsibility (EPR) is the global best practice to ensure the take-back of the end-of-life products.
- A new arrangement entitled, ‘Producer Responsibility Organisation’ (PRO) has been introduced to strengthen EPR further.

Waste disposal issues are exacerbated by changing patterns of consumption, industrial development and urbanisation; this in turn means that traditional systems for solid waste disposal and recycling are no longer appropriate. Strict implementation of the rule, creating adequate awareness, training for requisite skill sets and providing affordable technology to the informal sector could be a game-changer. Up-gradation of the informal sector to reach environmentally acceptable operations is need of the hour.

Science and technology must be the fulcrum to provide solutions to the waste challenges faced by the country, a challenge which is both urgent and important, and can be ignored at our own peril.

**All the best**  
**Team IASbaba ☺**

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