



Monthly Editorial Consolidation



1st January to 31st January 2022

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Need For UNSC Reforms

This editorial is based on “UNSC Reforms: India Needs To Take Charge” which was published in Hindustan Times on 31/12/2021. It talks about the challenges associated with the functioning of the UN Security Council and the role that India can play as a non-permanent member of the UNSC.

Tags: International Relations, GS Paper 2, Important International Institutions, Groupings & Agreements Involving India and/or Affecting India's Interests, Effect of Policies & Politics of Countries on India's Interests

The **UN Security Council (UNSC)**, one of the main six organs of the **United Nations**, was established during the **World War era**. The organisation gives **excessive powers to its five permanent members (P-5)** which emerged as supreme powers of that era. However, the realities of that time are completely incomparable to the present.

There is a **longstanding acknowledgement of the need to expand** the UNSC, both its permanent and non-permanent membership, to make it representative of the contemporary world, and not the world of its founding in 1945.

However, the Council has shown nothing in terms of what is called progress. Serious questions are being raised about its ability to serve the purpose of its existence.

In this context, India, now being in the second year of its two year tenure for UNSC non-permanent membership, can play a **bigger and important role in bringing out UNSC reforms**.

UN Security Council and India

- **About UNSC:** The UNSC, with a mandate to **maintain international peace and security**, is the **centrepiece of global multilateralism**.
 - It selects the **UN Secretary-General** and plays a co-terminus role with the UN General Assembly in electing judges to the **International Court of Justice**.
 - Its resolutions, adopted under chapter VII of the UN charter, are binding on all countries.
 - The UNSC is composed of 15 members, 5 permanent and 10 non-permanent.
 - **Five permanent members:** China, France, the Russian Federation, the United Kingdom, and the United States.
 - **Ten non-permanent members:** Elected for two-year terms by the General Assembly.
- **India's Membership:** India has served seven times in the UN Security Council as a non-permanent member and in January 2021, India **entered the UNSC for the eighth time**.

- India has been **advocating a permanent seat in UNSC**.

➤ India's Contribution:

- India took active part in the formulation of the **Universal Declaration of Human Rights (UDHR)** in 1947-48 and raised its voice passionately against racial discrimination in South Africa.
- **India has played its part in formulating decisions on several issues** such as admitting former colonies to the UN, addressing deadly conflicts in the Middle East and maintaining peace in Africa.
- It has **contributed extensively to the UN**, particularly for the maintenance of international peace and security.
 - India has **taken part in 43 Peacekeeping missions** with a total contribution exceeding 160,000 troops and a significant number of police personnel.
 - As of August 2017, **India is the third largest troop contributor**, with 7,860 personnel deployed with 10 UN Peacekeeping Missions.
- India's population, territorial size, GDP, economic potential, civilisational legacy, cultural diversity, political system and past and ongoing contributions to UN activities make **India's demand for a permanent seat in the UNSC completely rational**.

Issues Associated to Functioning of UNSC

- **Absence of Records and Texts of Meetings:** The current rate of progress in the UNSC raises serious questions about its ability to serve the purpose of its existence.
 - The **usual UN rules don't apply to the UNSC deliberations** and **no records are kept of its meetings**.
 - Additionally, there is **no “text” of the meeting to discuss, amend or object**.
 - The 'text' is a term used for a formal document containing proposals and options in diplomatic meetings.
- **Powerplay in UNSC:** The main problem with the current system is the **capturing of governing capacity** of international security relations **by the elite class of countries**.
 - The veto powers that the UNSC's five permanent members enjoy is an **anachronism** in this age.
 - The elite decision-making structure does not suit the current global security needs.
 - The UNSC in its current form has become a constraint in understanding the international changes and dynamics in the area of human security and peace.

- **Divisions Among the P5:** There is a **deep polarisation within the UN's membership**, so decisions are either not taken, or not heeded.
 - Frequent divisions within the UNSC P-5 **end up blocking key decisions**.
 - These issues can be manifested in the example of the emergence of the coronavirus pandemic where the UN, the UNSC, and **WHO** failed to play an effective role in helping nations deal with the spread.
- **An Underrepresentation Organisation:** The UNSC has been unable to act with credibility essentially due to its unrepresentative nature.
 - The **absence in the UNSC of the globally important countries** – India, Germany, Brazil and South Africa – is a matter of concern.
 - The existing gaps in terms of the **under-representation of regions** especially from **Africa, Asia and Latin America** is crippling the UNSC as a global institution governing international peace and security.

Way Forward

- **Democratisation of UNSC:** The imbalances in power relationships among P5 and the rest of the world needs to be corrected urgently.
 - This is necessary to **make the UNSC more democratic and give it greater legitimacy to govern**, ensuring that the principles of international peace, security and order are respected universally.
- **Expansion of UNSC:** The current needs of global governance for world peace and security are quite different and demand significant reforms in the UNSC's governance mechanisms.
 - It is **"indispensable" to reform the Security Council through an expansion in permanent and non-permanent seats** to enable the UN organ to better deal with the "ever-complex and evolving challenges" to the maintenance of international peace and security.
- **Equitable Representation:** Equitable representation of all the regions in the UNSC is **critical to decentralizing its governing power** and authority over nations.
 - This transformation will enable equal chance for nations of all the regions to raise their concerns impacting peace and democratic stability in their respective countries.
 - The decentralization of the UNSC's decision-making processes will enable its **transformation to a more representative, participatory body**.
- **India's Role - Leveraging Non-Permanent Membership:**

India as the current one of the non-permanent members of the UNSC can start by **drafting a resolution containing a comprehensive set of proposals** for reforming the UNSC.

- It can further **approach other like-minded countries** (like the **G4; India, Germany, Japan and Brazil**) and keep growing its circle of support till sufficient number of countries are together to reach out to the whole UNGA to **propose the resolution with a realistic chance of winning the vote**.
- India needs to **revitalise its engagement with its traditional partners in the "global south"** by articulating their peace and security concerns in the UNSC.
 - In this context, two sub-groups of the global south should be of particular interest; the **Small Island States and Africa**.

Conclusion

The year 2022 will be the second and final year of India's eighth non-permanent membership of the UNSC. It would be well spent if it was used to start a more meaningful and realistic process to reform the UNSC. There cannot be a more convincing demonstration of the clout of an emerging power.



Roadblocks to Successful Implementation of PMMVY

This editorial is based on "State Schemes Can Cast A Lifeline To This Welfare Plan" which was published in The Hindu on 03/01/2021. It talks about the challenges associated with the progress of the Pradhan Mantri Matru Vandana Yojana (PMMVY).

Tags: Governance, GS Paper 2, Issues Related to Women, Health, Government Policies & Interventions

In the beginning of the year 2017, Government of India rolled out the **Pradhan Mantri Matru Vandana Yojana (PMMVY)** under which a cash incentive of ₹5,000 is provided to pregnant women and lactating mothers for the first living child of the family.

The scheme is **aimed at improving health-seeking behaviour** and to compensate for wage loss for pregnant women, particularly in the unorganised sectors.

However, the **performance of the scheme has been deficient**, necessitating urgent need for improvement especially when the novel coronavirus pandemic has resulted in economic shocks for 260 lakh women who deliver on an average a child each year in India.

Maternal Healthcare in India and PMMVY

- **Maternal Healthcare:** India accounts for a **fifth of the total childbirths in the world**, with a **maternal mortality rate of 113 per 1,00,000 live births**.
 - During the months of national lockdown in 2020 between April and June, compared to the same period in 2019, there was:
 - 27% drop in pregnant women receiving four or more ante-natal check-ups.
 - 28% decline in **institutional deliveries**.
 - 22% decline in prenatal services.
 - Initiatives of the Government of India to facilitate maternal healthcare include:
 - **LaQshya program**.
 - **Safe Motherhood Assurance (SUMAN) initiative**.
 - **Janani Suraksha Yojana**.
 - **Janani Shishu Suraksha Karyakaram (JSSK)**.
 - **Poshan Abhiyan**.
 - **Mother and Child Protection Card**.
 - **Pradhan Mantri Matru Vandana Yojana (PMMVY)**.
- **About PMMVY:** It is a **Centrally Sponsored Scheme** being executed by the **Ministry of Women and Child Development**.
 - The beneficiaries include all **Pregnant Women and Lactating Mothers (PW&LM)**, excluding those who are in regular employment with the Central/ State Governments or PSUs or in receipt of similar benefits under any law for the time being in force.
 - Since its inception, the **PMMVY has covered 2.01 crore women nationally**, disbursing a total amount of ₹8,722 crore.
- **Corresponding State-Specific Schemes:** States such as **Odisha, Telangana and Tamil Nadu** implemented State-specific schemes (respectively) for maternity benefits in the form of **MAMATA (2011)**, the **KCR Kit (2017)**, and the **Dr. Muthulakshmi Reddy Maternity Benefit Scheme (MRMBS)** with relatively increased coverage and higher maternity benefits.
 - Odisha's MAMATA scheme offers a conditional cash transfer of ₹5,000 as **maternity benefit for up to two live births**.
 - In a comparative analysis between the PMMVY and MAMATA for 2020-21, the PMMVY shows poor performance with a 52% drop in the number of beneficiaries covered while **MAMATA showcased a 57% increase in women who received all the instalments**.

Issues Associated to PMMVY

- **Incomplete Coverage:** While the estimated **eligible population of PW&LM in India was 128.7 lakh**

(2017-18), the **target set by the Government was 51.70 lakh** beneficiaries, which is only 40% of the eligible population.

- This **implies an exclusion error of at least 60% since 2017**, as the target has remained unchanged over the years.
- **Declining Enrollment and Disbursements:** The enrollment and disbursements under the scheme have witnessed a **downward fall in the last two years**, as in the data provided by the Ministry of Women and Child Development (WCD).
 - In 2020-21, **more than 50% of registered beneficiaries did not receive all three instalments** and there was a **9% drop in enrollment under the scheme**.
- **Decline in Budgetary Allocation:** Despite the Government's continued emphasis on maternal and child health, the **overall budget for women and child development was reduced by 20% for 2021-22**.
 - Further **clubbing of PMMVY scheme under SAMARTHYA scheme** has led to decline of Budget allocation for the PMMVY.
 - The overall budget of SAMARTHYA is ₹2,522 crore, which is nearly equivalent to the budget of PMMVY alone in the previous financial years.
- **Inadequate Maternity Benefit Amount:** Most women continue to work during and post-pregnancy since they cannot afford to lose wages; additionally, they also spend on out-of-pocket expenses during pregnancy.
 - The current entitlement of ₹5,000 provided over one year **amounts to only one month's wage loss** (as per the **Mahatma Gandhi National Rural Employment Guarantee Act** wage rate of ₹202).
- **Implementation Gaps:** The implementation gaps in the PMMVY scheme lead to reduced coverage.
 - These gaps stem from a **lack of awareness within targeted beneficiaries** and **process level challenges**.

Way Forward

- **Extending Maternity Benefits:** The Government shall consider extending the **maternity benefit under the PMMVY scheme to the second live birth**.
 - It is imperative to include second live birth under the maternity benefit **cover particularly for women in the unorganised sector** who are more vulnerable to economic shocks and nutrition loss for all child births.
- **Increasing Maternity Benefit Amount:** Since the primary objective of the PMMVY is to provide partial wage compensation, it is important to revisit the maternity benefit amount offered under the scheme.

- In line with the **Maternity Benefit Act, 1961** which mandates 12 weeks of maternity leave for women with two or more children, pregnant and lactating mothers and considering the minimum wage rate as per MGNREGA, PW&LM **shall be entitled to receive 12 weeks of wage compensation amounting to ₹15,000.**
- **Learning from the States:** The scheme like MAMATA stands as a testament to an inclusive and efficient implementation of the maternity benefit programme, thereby serving as promising evidence for the Centre to improve the PMMVY in line with the Odisha Government Scheme.
- **Simplifying Procedures:** The current registration form requires a mother and child protection (MPC) card, husband's Aadhaar card, bank passbook and registration form for each of the three instalments, resulting in delayed, rejected or pending applications.
 - A simplification of the process can result in increased registration of beneficiaries.

Conclusion

- To fulfil India's commitment towards the **Sustainable Development Goal** of improving maternal health, an ambitious **Prime Minister's Overarching Scheme for Holistic Nourishment (POSHAN) Abhiyan** and a national maternity benefit scheme are promising initiatives by the Centre.
- However, targets can be achieved only if we revisit the design and implementation of the scheme, drawing lessons from States such as Odisha which are successfully prioritising maternal health and nutrition in a pragmatic manner.



Protecting Western Ghats

This editorial is based on "Why There Should Be No Delay In Protecting The Western Ghats" which was published in Hindustan Times on 03/01/2022. It talks about the threats faced by the Western Ghats and the declaration of the Ghats as an Ecologically Sensitive Area (ESA).

Tags: Biodiversity and Environment, GS Paper 3, Environmental Pollution & Degradation, Government Policies & Interventions

The link between the climate crisis and extreme weather events such as cloudbursts and flash floods is now well understood by the virtue of numerous researches and various IPCC reports.

Mindless construction and land use has only

exacerbated all these impacts, particularly in ecologically vulnerable regions such as the **Western Ghats.**

However, the Central Government and the **Western Ghat state governments have remained oblivious** of this science especially in case of land use planning in the region.

Western Ghats

- **About:** Western Ghats consist of a chain of mountains running parallel to India's Western Coast and passing from the states of **Kerala, Maharashtra, Goa, Gujarat, Tamil Nadu and Karnataka.**
- **Significance:**
 - The Ghats **influence the Indian monsoon weather patterns** that mediate the warm tropical climate of the region.
 - They **act as a barrier to rain-laden monsoon winds** that sweep in from the south-west.
 - Western Ghats are **home to tropical evergreen forests**, as well as to **325 globally threatened species.**
- **Threats to Western Ghats:**
 - **Developmental Pressures: Urbanisation together with agricultural expansion** and livestock grazing are posing serious threats to the region.
 - About **50 million people** are estimated to live in the Western Ghats Region, resulting in developmental pressures that are orders of magnitude greater than many protected areas around the world.
 - **Biodiversity Relates Issues: Forest loss, habitat fragmentation**, habitat degradation by **invasive plant species, encroachment and conversion** also continue to affect the Ghats.
 - Fragmentation caused by development pressure in the Western Ghats is **shrinking the availability of wildlife corridors** and suitable habitats outside Protected Areas.
 - **Climate Change:** In the intermediate years, the climate crisis has gained momentum:
 - In the past four years (2018-21), **floods have ravaged the ghat areas of Kerala thrice** killing hundreds of people and delivering an overwhelming blow to infrastructure and livelihoods
 - **Landslides and flash floods** ravaged the ghat areas of Konkan in 2021
 - **Cyclones are also gaining intensity** with the **warming of the Arabian Sea** leaving the west coast especially vulnerable.

- **Threats from Industrialisation:** More polluting industries, **quarries and mines, roads, and townships are likely to be planned** due to the **absence of the Western Ghats ESA policy.**
 - This implies more damage to the fragile landscape of the region in future.
- **Committees for Western Ghats:**
 - **Gadgil Committee (2011):** Also known as the **Western Ghats Ecology Expert Panel (WGEEP)**, it recommended that **all of the Western Ghats be declared as the Ecological Sensitive Areas (ESA)** with only limited development allowed in graded zones.
 - **Kasturirangan Committee (2013):** It **sought to balance the development and environment protection** in contrast to the system proposed by the Gadgil report.
 - The **Kasturirangan committee** recommended that instead of the total area of Western Ghats, **only 37% of the total area should be brought under ESA** and a complete ban on mining, quarrying and sand mining be imposed in ESA.
- **Procedural Delays in Western Ghats ESA Declaration:**
 - The Centre has kept the **notification of the Western Ghats ESA pending since 2011.**
 - Since the recommendations of the Kasturirangan Committee, four draft notifications have been issued but to no avail.
 - More recently, the Central Government **extended the deadline till June 30, 2022 to notify the 2018 draft** Western Ghats ESA notification.
 - While a six-month extension may seem inconsequential, implementation of the **Western Ghats ESA policy has been pending for over 10 years now.**
 - While the government intends to prohibit or restrict industrial and developmental activities in some 37% of the mountain range, the **Western Ghats states are opposed to many such barriers.**

Way Forward

- **Preventive Approach:** Considering the changes in climate, which would affect the livelihood of all people and hurt the nation's economy, it is **prudent to conserve the fragile ecosystems.**
 - This will cost less compared to the situation prone to calamities than spending money/resources for restoration / rejuvenation.
 - Thus, any **further delay in the implementation will only accentuate degrading** of the most prized natural resource of the country.

- **Engaging With All Stakeholders:** A proper analysis based on scientific study followed by **consensus among various stakeholders by addressing respective concerns** is required urgently.
 - **Holistic view of threats and demands** on the forest land, products and services, devising strategies to address these with clearly stated objectives for the authorities involved must be taken.
- **Addressing the Concerns of Local People:** Arguments go that the idea of demarcating an ecologically sensitive area is inherently against people and their developmental aspirations.
 - However, many of the local people might have no information on what is an ESA; whether it will derail development in the region and what are the alternative models of development.
 - The issue can be discussed through **detailed public consultations** so that the policy is not seen to have a top-down approach.
- **Role of State Governments:** The states must recognise the dangers of destroying the ecosystem, especially when India has been facing the brunt of the climate crisis.
 - They must realise that the climate crisis is a reality, and instead of delaying the decision-making process, **devise more decisive climate-proofing actions** to save the valuable Western Ghats.
- **Empowering Local Communities:** The WGEEP emphasised that it **is the people at the grassroots level** who have the knowledge and are tied to the environment should have the motivation to safeguard the region.
 - The way forward lies in the **pursuit of genuine democratic decentralisation and empowering local communities** in villages and cities.
 - The people of Western have previously pioneered progressive initiatives such as the People's Planning Campaign in Kerala. The spirit of such movements should now be restored to **effectively counter resource exhaustion.**

Conclusion

- There are no two views on protecting the Western Ghats, but also, there is a need to strike a balance between safeguarding the forests and the right to livelihood of the local people.
- It is important to realise that the Western Ghats or any natural resource for that matter, is not just ours to destroy. It is everyone's duty to preserve it for posterity.



The Open-Source Mission for India

This editorial is based on “It’s in India’s National Interest to Promote Open Source Software” which was published in Livemint on 03/01/2022. It talks about the increased importance of Free and Open Source Softwares (FOSS) and its role in India’s technological development.

Tags: Science & Technology, GS Paper 2, Government Policies & Interventions, GS Paper 3, Growth and Development, Scientific Innovations & Discoveries, Indigenization of Technology

One of the most awe-inspiring tech developments in the last 20 years has been the rapid growth of **Free and Open Source Software (FOSS)** worldwide.

Most digital experiences are powered by FOSS today, with more than **85% of India’s Internet running actively on FOSS**. Major institutions like the **courts, IRCTC, and the State Bank of India** rely on FOSS to scale operations and provide timely and efficient digital services to millions.

FOSS democratises technology and enables fast innovation by giving organisations access to a global pool of talent and the tools needed to develop secure, reliable and scalable software.

It is in India’s national interest to promote free and open source software as it will help in making India self-reliant in the field of science and technology.

Free and Open Source Softwares

- **About FOSS:** A FOSS doesn’t mean software is free of cost. The term “free” indicates that the **software does not have constraints on copyrights**.
 - It means that source code of the software is **open for all and anyone is free to use, study and modify** the code.
 - It allows other people also to contribute to the development and improvement of the software like a community.
 - The FOSS may also be referred to as **Free/Libre Open Source Software (FLOSS)**.
 - Examples of FOSS include **MySQL, Firefox, Linux**, etc.
- **Significance of FOSS:** FOSS today presents an **alternative model to build digital technologies** for population scale.
 - Unlike proprietary software, everyone has the **freedom to edit, modify and reuse open-source code**.
 - This results in many benefits — **reduced costs, no vendor lock-in, the ability to customise for local context**, and greater innovation through wider collaboration.

- FOSS communities can examine the open-source code for **adherence to data privacy principles, help find bugs, and ensure transparency and accountability**.

➤ India and FOSS:

- **Initial Attempts:** The earliest attempts by governments to promote open source have mostly involved **adopting Linux-based operating systems and open document formats**.
 - However, it failed because governments couldn’t build better consumer products than corporations or open-source communities.
- **Current Scenario of FOSS Developers:** Indian developers are major players in this ecosystem. According to **GitHub**, more than 7.2 million of its 73 million users in 2021 were from India, placing it **at third position behind China (7.6 million) and the US (13.5 million)**.
 - But the Indian developer base is growing faster, close to 40% in 2020-21 compared to 16% in China and 22% in the US.
 - GitHub expects to see 10 million Indian developers on its platform by 2023.
 - Millions of Indian developers plugged into the global open-source ecosystem is a good sign and can be a **source of competitive advantage for India** in high-technology geopolitics.
- **Related Initiative:** In April 2021, the Ministry of Electronics & IT (MeitY) announced the **#FOSS4GOV Innovation Challenge** to accelerate adoption of Free and Open Source Software (FOSS) in Government.
 - It will **harness the innovation potential of the FOSS community and start-ups** to solve critical issues in Government Technologies (GovTech).
 - It is a **key component of GovTech 3.0**, which is about building secure and inclusive Open Digital Ecosystems (ODEs).

Challenges Associated

- **India Lacks in Domestic FOSS Innovations:** Despite a strong consumption, India lags behind the global landscape in **building sustainable home-grown FOSS innovations**.
 - The **lack of substantial FOSS contributions** from India has resulted in having a software ecosystem that lacks representation from India’s diverse languages, cultural contexts, and lived experiences.
 - These factors **restrict scaling digital adoption for the majority** of first-time internet users.
- **Misconceptions Regarding FOSS:** “Free” in FOSS is perceived to be “free of cost” and hence **many think that the solutions based on FOSS are not good enough**.

- For example, FOSS is **often mistaken to be less trustworthy** and **more vulnerable**, whereas it can actually create more trust between the government and citizens.
- **Lesser Accountability in FOSS:** Another important issue is that it can feel easier to deal with a proprietary software vendor who builds a bespoke software and can be held accountable for any failures.
 - In the case of FOSS, there **appears to be an absence of one clear “owner”**, which makes it **harder to identify who is responsible**.
- **Operational Insufficiencies:** The use of open-source components can **create a lot of additional work**.
 - One must keep track of what components are used, what version is the software and how they might interact with other components in use.
- **Intellectual Property Issues:** There are over 200 types of licenses that can be applied to open-source software.
 - Many of these licenses are incompatible with each other, meaning that **certain components cannot be used together since one has to comply with all terms** when using open-source software.
 - The more components are used, the more difficult it is to track and compare all of the license stipulations.

Way Forward

- **FOSS in GovTech:** The first step is to incentivise the **uptake of FOSS in government**. The government's policy on the adoption of open-source software requires all tech suppliers to submit bids with open source options.
 - A policy framework will go a step further by **formally giving greater weightage to FOSS-specific metrics** in the evaluation criteria in RFPs (request for proposals), and **offering recognition to departments that deploy FOSS initiatives**, such as, a special category under the **Digital India Awards**.
- **Open Source Technology in National Interests:** India must **maximize its independent technological power**. Indeed, open-source software is in India's national interest, given the unfolding economics and politics of the technology space.
 - Focusing on open-source projects is far more productive than attempting technological sovereignty by reinventing everything and insisting on localization.
 - It is a **reliable way to reduce dependence on transnational technology companies** (and the governments behind them).
- **Promoting Open-Source Economy:** India must now promote an open-source economy by pushing a

number of policy levers to **create incentives for developers and firms to invest more** in building open-source software.

- It should aim to **create globally-competitive developers** and firms that become important nodes in the tech ecosystem.
- The **gig economy** will grow in the post-pandemic world and hence, it **shall be encouraged to contribute in this field**.
- **Role of Technology Institutions:** Engineering colleges **shall encourage their students to participate** in open-source projects.
 - Ensuring a healthy open-source ecosystem is in fact a matter of **social responsibility for a country with a big IT industry**.
 - If support for open-source projects is recognized as satisfying **Corporate Social Responsibility (CSR)** commitments, more developers will be drawn towards them.
 - It will reduce the chances of dependence on just a few individuals to hold up a crucial piece of the world's information infrastructure.
- **A FOSS Centre of Excellence:** A **credible institutional anchor** is needed to be a home for FOSS led innovation in India which can bring together FOSS champions and communities scattered across India.
 - **Kerala's International Centre for Free & Open Source Software (ICFOSS)** is one such institution that led to Kerala being a pioneering state in the adoption of FOSS.
 - A national **“FOSS Centre of Excellence”** can convene capital, resources and capacity-building support, creating the much-needed momentum to build world-class “made in India” FOSS products.

Conclusion

India is at an inflection point in its journey towards greater adoption of FOSS in GovTech. With an IT workforce of more than four million employees and a software industry that is the envy of the world, India already has the required talent and what more is needed is a concerted push to harness the biggest promise that FOSS holds — the possibility of collaborative technological innovation.



Towards Net Zero

This editorial is based on “The Road To Net Zero” which was published in Indian Express on 05/01/2022. It talks about India's contribution in Net Zero Carbon Emissions and the role of the private sector in fulfilling its net-zero by 2070 target.

Tags: Biodiversity & Environment, GS Paper 2, Government Policies & Interventions, GS Paper3, Environmental Pollution & Degradation

Suffering from global warming, frequent floods and fires, Covid-19 pandemic and numerous other problems, the planet is going through an existential crisis, citing an **urgent need for scientific and innovative steps to secure humanity's future**.

In this context, India at **UNFCCC CoP-26** announced its enhanced climate commitments — the “**Panchamrit**”, including a commitment to reach **net-zero carbon emission by 2070**.

India's announcement of its net-zero goal is a major step considering the fact that it is **not one of the major contributors to global warming**. Its historical cumulative emissions are a **mere 4.37% of the world's total**.

Now, to achieve its targets of 2070, India particularly needs to focus on a smoother renewable energy transition, greater **adoption of electric vehicles** and greater participation from the public as well as the private sector.

India's Contribution Towards Net Zero

- **India's Renewable Energy Targets:** India's **renewable energy targets** have steadily become more ambitious, from the 175 GW by 2022 declared at Paris, to 450 GW by 2030 at the UN Climate Summit, and now **500 GW by 2030, announced at COP26**.
 - India has also announced the **target of 50% installed power generation capacity from non-fossil energy sources** by 2030, raising the existing target of 40%, which has already been almost achieved.
 - India has also announced a **Hydrogen Energy Mission** for grey and green hydrogen.
 - In energy efficiency, the market-based scheme of **Perform, Achieve and Trade (PAT)** has avoided **92 million tonnes of CO2 equivalent emissions** during its first and second cycles.
- **Reforms in Transport Sector:** India is accelerating its e-mobility transition with the **Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles Scheme**.
 - India **leapfrogged from Bharat Stage-IV (BS-IV) to Bharat Stage-VI (BS-VI) emission norms by April 1, 2020**, the latter being originally scheduled for adoption in 2024.
 - A **voluntary vehicle scrapping policy** to phase out old and unfit vehicles complements the existing schemes.
 - The **Indian Railways** is also charging ahead, targeting the **full electrification of all broad-gauge routes by 2023**.
- **India's Support to EVs:** India is among a handful of

countries that **support the global EV30@30 campaign**, which aims for at least 30% new vehicle sales to be electric by 2030.

- India's **advocacy of five elements for climate change — “Panchamrit”** — at the **COP26 in Glasgow** is a commitment to the same.
- India has taken various measures to develop and promote the EV ecosystem:
 - The remodeled **Faster Adoption and Manufacturing of Electric Vehicles (FAME II)** scheme
 - **Production-Linked Incentive (PLI) scheme for Advanced Chemistry Cell (ACC)** for the supplier side
 - The recently launched **PLI scheme for Auto and Automotive Components** for manufacturers of electric vehicles.
- **Role of Government Schemes:** The **Pradhan Mantri Ujjwala Yojana** has helped 88 million households to shift from coal based cooking fuels to LPG connections.
 - More than 367 million LED bulbs have been distributed under the **UJALA scheme**, leading to a **reduction of 38.6 million tonnes of CO2 per year**.
 - These two and other similar initiatives have helped India achieve a **reduction of 24% in the emission intensity of its GDP between 2005 and 2016**.
- **Role of Industries in Low-Carbon Transition:** The **public and private sectors** in India are already playing a key role in meeting the climate challenge, helped by growing customer and investor awareness, as well as increasing regulatory and disclosure requirements.
 - For instance, the **Indian cement industry has taken pioneering measures and achieved one of the biggest sectoral low carbon milestones worldwide**.
 - There is greater synergy of India's climate policy with the actions and commitments of its private sector.

Associated Challenges

- **Issues in Smooth Transition to Renewables:** Identification of **land with Renewable Energy potential** and the **time consuming procedures of land clearance**.
 - **Integrating** a larger share of renewables with the grid is another roadblock.
 - Challenges are also expected in enabling penetration of renewables in the so called **hard to decarbonize sectors**.
- **Challenges for Coal-Powered Companies:** A transition from coal to non-fossil fuel based power generation/transportation is relatively easier for the companies operating in the services sector.

- However, the **low-carbon transition challenge is bigger for companies that are largely coal-powered** and contribute more than half of our country's emissions.
- **Lack of Technology and Skilled Labour for EV Manufacturing:** India is **technologically deficient** in the production of electronics that form the backbone of the EV industry, such as batteries, semiconductors, controllers, etc.
 - EVs have higher servicing costs which require higher levels of skills. **India lacks dedicated training courses for such skill development.**
- **Consumer Related Issues for Shifting to EVs:** In 2018, **India was reported to have only 650 charging stations**, which is quite less than the neighboring counterparts who already had over 5 million charging stations.
 - **Lack of charging stations** makes it unsuitable for the consumers in covering long range.
 - Also, the **cost of a basic electric car is much higher** than the average price of a car running on conventional fuel.

Way Forward

- **An Energy Mix of Renewables:** Round the clock supply of sources like wind and sunlight is not possible everywhere, therefore, it would be **wise to go for a diversified energy mix of solar, wind and hydrogen based energy.**
 - India should work on areas like **investment in infrastructure, capacity building and better grid integration** in the near and immediate future.
- **Encouraging Private Sector Engagement:** Since industries also contribute to GHG emissions, any climate action will need to reduce or offset emissions that emerge from industrial and commercial activity.
 - Service companies can easily reduce their emissions by **expanding the use of renewable energy, and working with supply chain partners.** They can become carbon neutral by sourcing 50% of their electricity from renewable sources.
 - For coal-powered companies, this 'energy-transition movement' offers an **opportunity to invest in climate technologies** and expand the use of renewable energy sources.
- **Electric Vehicle as Way Forward:** EVs will **contribute to improving the overall energy security situation** as the country imports over 80% of its overall crude oil requirements, amounting to approximately \$100 billion.
 - To mitigate the charging issues of EVs, charging infrastructures that draw power from local electricity supply can be **set up at private residences, public**

utilities such as petrol and CNG pumps, and **in the parking facilities of commercial establishments** like malls, railway stations, and bus depots.

- **Increasing R&D in EVs:** The Indian market needs **encouragement for indigenous technologies** that are suited for India from both strategic and economic standpoint.
 - Since investment in **local research and development is necessary to bring prices down**, it makes sense to leverage local universities and existing industrial hubs.
 - India can **pursue countries like the UK to synergise EV development.**

Conclusion

There is a need to act decisively to reach global net-zero, restricting future cumulative emissions to the remaining carbon budget, if the rise in temperature is to remain within the limits of the Paris Agreement.



Raising Legal Age for Marriage

This editorial is based on "Minding The Gender Gap" which was published in Indian Express on 06/01/2022. It talks about arguments in favour of and against raising the legal age for marriage to 21.

Tags: Social Justice, GS Paper 2, Issues Related to Women, Gender, Government Policies & Interventions

The Union Cabinet's Proposal for bringing **uniformity in the marriageable age of men and women** is certainly a progressive step to realise **Goal 5 of the SDGs** which asks nation-states to formulate policies to achieve gender equality.

However, good intent does not guarantee favourable outcomes. Coercive laws without wide societal support often fail to deliver even when their statement of objects and reasons aims for the larger public good.

India and Minimum Marriageable Age

- **The Current Laws:** For Hindus, **The Hindu Marriage Act, 1955**, sets 18 years as the minimum age of marriage for the bride and 21 years as the minimum age for the groom.
 - In Islam, the marriage of a minor who has attained puberty is considered valid.
 - The **Special Marriage Act, 1954** and the **Prohibition of Child Marriage Act, 2006** also prescribe 18 and 21 years as the minimum age of consent for marriage for women and men respectively.

- **India's Efforts for Reducing Gender Gap:** India had ratified the **Convention on the Elimination of All Forms of Discrimination Against Women in 1993**.
 - Article 16 of this Convention strictly forbids child marriage and asks governments to identify and enforce the minimum marriage age for women.
 - Since 1998, India has had **national legislation exclusively on human rights protections** drafted in consonance with international instruments such as the **Universal Declaration of Human Rights, 1948**.
- **Reasons behind the Minimum Age:** The law prescribes a minimum age of marriage to essentially **outlaw child marriages and prevent the abuse of minors**.
 - Child marriages **expose women to early pregnancy, malnutrition, and violence** (mental, emotional, and physical).
 - Early pregnancy is associated with **increased child mortality rates** and affects the health of the mother.

Arguments for

Increasing Legal Marriageable Age

- **Protection of Basic Rights:** Protection of women against early and child marriage is a protection of their basic rights and this monumental step will lead to changes in related legislative frameworks to provide a **comprehensive rights-based framework for the aadhi aabadi**.
- **Bringing Gender Parity:** Section 2(a) of the Special Marriage Act declares legal marriageable age women as 18 while for men this age is 21; the **difference seems to have no justifiable logic**.
 - The age of voting can be equal for men and women, the age to consensually, wilfully, and validly enter into a contract is the same for men and women, then why not instill equality in the age requirements for marriage.
- **Equal Laws Emanate Equality:** Equality emanates from equal laws and social transformations are both the precursors of laws and a consequence of them.
 - **A change in law is also more likely to bring changes in social perceptions** in progressive societies.
- **Facilitating Women Empowerment:** There are various indicators of growth in women specially in enrolment of female students in higher education.
 - Moreover, schemes like **UJJAWALA, Mudra Yojana** and **Pradhan Mantri Jan-Dhan Yojana** have shown women as the largest section of beneficiaries of government schemes.
 - Women's empowerment will get a further fillip with equality in marriage age.

Arguments Against

Increasing Legal Marriageable Age

- **Unlikely to Benefit Financially Dependent Women:** Though the objective looks good on paper, merely raising the age of marriage without creating social awareness and improving access to health care is **unlikely to benefit the community it wants to serve: young women not yet financially independent**, who are unable to exercise their rights and freedoms while still under the yoke of familial and societal pressures.
- **High Prevalence of Child Marriage Despite Stringent Laws:** The law prohibiting marriage below the age of 18 has been in effect in some form since the 1900s, yet child marriage has persisted virtually undeterred until 2005 when almost half of all women aged 20-24 had married below the legal minimum age.
- **No Criminal Records for Early Marriages:** Even though more than one in five marriages took place below age 18, **hardly any violations of the Act appear in the criminal records of the country**.
- **No Assurance for Eliminating Child Marriages:** The magnitude of the population of women of marriageable age who will be affected is immense, with **over 60% marrying before 21**.
 - Incapability to eliminate marriages of women before 18 **provides no evidence that it would be eliminated by increasing this age to 21**.
- **Misuse of Laws by Parents:** Women's rights activists point out that **parents often use this Act to punish their daughters who marry against their wishes** or elope to evade forced marriages, domestic abuse, and lack of education facilities.
 - Hence, within a patriarchal setting, it is more likely that the change in the age limit **will increase parents' authority over young adults**.

Way Forward

- **Ensuring Objective Equality:** Any justification — biological, social, or data and research-based — cannot justify the inequality in age between men and women to enter into a valid marriage.
 - India decided in 1954 with the Special Marriage Act that age must be one of the basic requisites of a valid marriage. The only flaw was not having equality in this regard which is now being corrected by amending the Prohibition of Child Marriage Act (PCMA), 2006.
- **Empowering Disadvantaged Women:** What is required to empower disadvantaged women is to **respect their reproductive rights** and in **ensuring more investments in reversing the fundamental structural disadvantages** that women who marry early face.

- The government must **invest far more in addressing issues of equity** — measures that will enable the disadvantaged to complete their **education**, **provide career counselling** and **encourage skilling and job placement**.
 - The **safety issues** also need to be addressed in public places including public transportation.
- **Behavioural change in parents** is also necessary as they ultimately make marriage related decisions for a majority of women.
- **Increasing Awareness among Women:** A good, but not easy, way to achieve the stated objective is to take steps to **counsel girls on early pregnancies**, and provide them the network to improve their health.
- The focus must be on **creating social awareness about women's sexual and reproductive health and rights**, and ensuring girls are not forced to drop out of school or college.



Chinese Aggression, Indian Resolve

*This article is based on the editorial **The Chinese challenge uncovers India's fragilities** which was published in The Hindu on 06/01/2022. It talks about the India - China relations and the conflict, especially the border conflict and also suggests a way forward.*

Tags: International Relations, GS Paper - 2, India and its Neighbourhood, Effect of Policies & Politics of Countries on India's Interests

China, recently renamed **15 places in Arunachal Pradesh** and justifies the renaming as being done on the basis of its historical, cultural and administrative jurisdiction over the area. Moreover, on January 1, 2022, China's new land border law came into force, which provides the People's Liberation Army (PLA) with full responsibility to take steps against "invasion, encroachment, infiltration, provocation" and safeguard Chinese territory. Also, China is constructing a **bridge on the Pangong Tso lake** which is claimed by India as its territory.

All these instances again make the already bad relationship worse.

The External Affairs Ministry said that the move by Beijing 'does not alter' the fact that Arunachal Pradesh — itself a Sanskritised rechristening of the North-East Frontier Agency in 1971 on being made a Union Territory — was an integral part of India.

In this context, it is imperative that India and China start an effective disengagement process and resolve the

issue of border conflict in order to bring about an 'Asian Century'.

Pangong Tso Lake

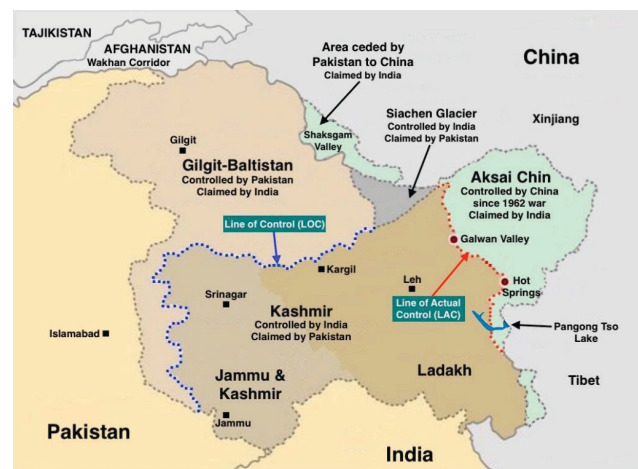
- Pangong Lake is located in the **Union Territory of Ladakh**.
- It is situated at a height of almost 4,350m and is the **world's highest saltwater lake**.
- Extending to almost 160km, **one-third of the Pangong Lake lies in India and the other two-thirds in China**.

Associated Issues

- **Possibility of War:** A aggressive boundary dispute between India - China and collusion of China with Pakistan might lead to a full-blown war between three nuclear-armed states.
- **Impacting Trade:** The frequent disputes between the two countries adversely impact the economic trade and business of the two countries and this is not healthy for the two developing nations.
- **Economic Constraints:** Capability building also requires a serious debate, particularly in view of the fact that the country's economic situation will not permit any significant increase in the Defence Budget for the foreseeable future

Issues Associated With Disengagement Process

- The events of last year have left enormous distrust, which remains a hurdle, and China's actions on the ground have not always matched its commitments.
 - **China's policy of territorial expansion is one India is critical of.**



- Further, **China is wary of India's attractiveness to the United States** and the Quadrilateral Security Dialogue.
- Owing to the disputed nature of the border and a lack of trust between the two sides, any perceived violations of 'no patrol' zones can lead to deadly outcomes as seen in Galwan valley in 2020.

Way Forward

- Both sides should take guidance from **Wuhan and Mahabalipuram summits** on developing India-China relations, that includes **not allowing differences to become disputes**.
- Border troops should continue their dialogue, quickly disengage, maintain proper distance and ease tensions.
- The two sides should 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 on border affairs.
 - The **Special Representatives (SRs) on the Boundary Question** was established in 2003. It provided important guidance for ensuring peace and tranquility in border areas in a challenging situation.
- Working to conclude new confidence-building measures.



Migrant Workers and Urban Housing

This editorial is based on "A Shelter In Pandemic" which was published in Indian Express on 10/01/2022. It talks about the housing related issues of the migrant workers which is further aggravated by the Covid-19 Pandemic.

Tags: Social Justice, GS Paper 1, Human Resource, Urbanization, Population and Associated Issues, Poverty and Developmental Issues, GS Paper 2, Government Policies & Interventions, Issues Relating to Development

Urbanisation and the growth of cities in India have been accompanied by **pressure on basic infrastructure and services like housing**, sanitation and health. The worst sufferers of unavailability of these basic needs are the **migrant workers**.

The **Covid-19 pandemic** has further aggravated the poor housing conditions of the urban poor/ migrant workers.

All these challenges point directly to the need of a sound policy framework that must also be viewed from the **lens of human rights, property rights and socio-economic development**.

These policy initiatives must be **in sync with the Sustainable Development Goal (SDG) 8.8** which stands for providing a safe and secure working environment for all workers, **particularly migrants**.

Urban Housing and Migrant Workers

- **Homeless Urban Families:** The **2011 Census of India** reveals that the urban population of the country stood at 31.16% where there are about **4.5 lakh homeless families** and a total population of **17.73 lakh** is living **without any roof over their heads**.
 - **Maharashtra and Uttar Pradesh** are the two states with an **acute housing crisis**.
- **Migrants and Urban Housing:** A vast majority of urban population, especially migrants, live under conditions of **poor shelter and in highly congested spaces**.
 - In India, more than half of the urban households occupy a single room, with an **average occupancy per room of 4.4 persons**.
 - In the case of migrants working in small units, hotels and homes, their **workplace is also their place of lodging**.
 - Such places are often unhygienic and poorly ventilated.
 - Most construction workers stay in makeshift arrangements. **Casual workers sleep under bridges** and on pavements, often living as a group in unhygienic surroundings.
- **Impact of Pandemic on Migrants' Housing:** Due to the **pandemic induced nationwide lockdown**, most workers rushed back home leaving behind their temporary abodes and those **who were left behind lost their shelter** because workplaces were shut.
 - Migrants who lived in rented apartments **could not maintain social distancing**.
 - In suburban regions with a sizable number of migrants, the local population **insisted on them to vacate houses** citing the unhygienic conditions in the dwellings.
 - Even though most state governments appealed to house owners to waive two months' rent, the migrant workers continued to face **pressures for paying the rent**.
- **Initiatives for Urban Housing:**
 - **Smart Cities Mission:** The **Smart Cities Mission** identified 100 cities, covering 21% of India's urban population, for a transformation in four rounds starting January 2016.
 - Some of the core infrastructure elements in a smart city include **proper water supply, assured electricity supply, sanitation, and affordable housing** especially for the poor.
 - **AMRUT Mission:** Efforts like the **Atal Mission for Rejuvenation and Urban Transformation (AMRUT)** launched in 2005 are intended to make the process of urbanisation smooth.

- It aimed to ensure that every household has **access to a tap** with the **assured supply of water and a sewerage connection**.
- The mission has now entered its second phase to make cities water-secure and provide better amenities for the marginalised.
- **ARHCs Envisaged in Atma Nirbhar Bharat Package:** The Rs 20 lakh crore **Atma Nirbhar Bharat package** announced by the government in May 2020 included the provision of **Affordable Rental Housing Complexes (ARHC)** for migrant workers/urban poor.
- The plan was to convert government-funded housing in the cities into **ARHCs through Public-Private Partnerships**, and provide incentives to various stakeholders to develop ARHCs on their private land and operate them.

Issues in Affordable Housing for Migrants

- **Ineffective Implementation of Housing Schemes:** The Government data shows that **49% of 5,196 projects of the Smart Cities Mission** for which work orders were issued across 100 smart cities in India **remain unfinished**.
 - This lag in implementation raises questions about the efficacy of innovative policy prescriptions.
- **Absence of WASH Facilities:** According to a 2020 **International Labour Organisation (ILO)** report on internal labour migrants, the **absence of dignified housing** is aggravated by a **lack of adequate water, sanitation and hygiene (WASH) facilities**.
- **Inadequate Public Toilets:** Even though there has been an installation of public toilets through **Swachh Bharat Abhiyan**, their **availability is not adequate in migrant-dense clusters**.
- **Sudden Increase in Rents:** Migrant workers find housing in slums, which is often subject to a **sudden increase in rent**, and have access only to the **poorest infrastructure and services**.

Way Forward

- **Polymaking For Housing Sector:** The existing housing conditions indicate the necessity of **coordinated efforts of the state and the contractors** to address housing issues. It calls for long-term polymaking and analysis of the housing sector along with **necessitating more transparency in the case of contracts**.
 - Instead of an extreme condition where the owner suddenly increases a rent, the state can look into the matter to **ensure an optimal condition where the rent evolves for a competitive market** for houses.

- **Reducing Owner-Tenant Conflicts:** While developing social rental housing, the state should ensure that the location has **proper access to transport networks, education and healthcare**.
 - The working group by **NITI Aayog** constituted to study internal labour has recommended that rental housing in the public sector could be expanded through the provision of **dormitory accommodation**.
 - This would make public housing affordable and **reduce the conflict between owners and tenants**.
 - Action-oriented policies alone can improve the lives of labouring migrants.
- **Redeveloping Small and Medium Cities:** There is no denying that even our non-megacities have inadequate planning, non-scalable infrastructure, unaffordable housing, and poor public transport.
 - In order to ensure **good urbanisation**, it is important to equally focus on the **small and medium cities** and **address the issues of inadequate housing and lack of basic facilities in these cities too**.

■■■

The Strategy for Eurasia

This editorial is based on "The Sail That Indian Diplomacy, Statecraft Need" which was published in The Hindu on 11/01/2022. It talks about the recent geopolitical shifts going on in Central Asia and Eurasia and what diplomatic strategy India needs.

Tags: International Relations, GS Paper 2, India and its Neighbourhood, Groupings & Agreements Involving India and/or Affecting India's Interests, Effect of Policies & Politics of Countries on India's Interests

The year 2021 was an **annus horribilis** on account of the **Iran nuclear imbroglio**, rising oil and gas prices, sputtering **crises in Yemen**, Iraq, Syria, Lebanon and the **Taliban's return to power in Afghanistan** following a **United States (US) withdrawal of troops**. All these developments are of high concern for India's continental security interests.

India's continental strategy, in which the **Central Asian region is an indispensable link**, has progressed intermittently over the past two decades — promoting connectivity, incipient defence and security cooperation, enhancing India's soft power and boosting trade and investment.

It is laudable, but as is now apparent, it is insufficient to address the broader geopolitical challenges engulfing the region. **Striking the right balance between continental**

and maritime security would be the best guarantor of India's long-term security interests.

Geopolitical Developments in Eurasia

- **Recent Developments:** China's assertive rise, the withdrawal of the US/NATO forces from Afghanistan, the rise of Islamic fundamentalist forces and the changing dynamics of the historic stabilising role of Russia (most recently in Kazakhstan) have all set the stage for a sharpening of the geopolitical competition on the Eurasian landmass.
 - The geopolitical competition is marked by a weaponization of resource and geographical access as a form of domination, practised by China and other big powers.
- **Russian Centrality in Eurasian Geopolitics:** Each of the current crises in Belarus, Ukraine, the Caucasus, and Kazakhstan might have a specific logic and trajectory of its own, but together they are reshaping the geopolitics of Eurasia.
 - Russia, with its geographic spread across Eurasia, is at the very centre of that restructuring.
 - Moscow's military intervention in Kazakhstan and its recent negotiations with the US on European security underline the Russian centrality in Eurasia.
- **Rising Chinese Interventions:** The Chinese willingness and capacity for military intervention and power projection are growing far beyond its immediate region.
 - Its rise is not merely in the maritime domain but is also expanding on the Eurasian continent via:
 - The Belt and Road Initiative projects in Central Asia extending up to Central and Eastern Europe and the Caucasus, undercutting traditional Russian influence.
 - Gaining access to energy and other natural resources
 - Dependency-creating investments
 - Cyber and digital penetration; and
 - Expanding influence among political and economic elites across the continent.
- **Declining US Influence:** Though it has a substantial military presence on the continental peripheries, the American military footprint has shrunk dramatically on the core Eurasian landmass.
 - While the U.S. had over 2,65,000 troops under its European command in 1992, it now has about 65,000.
 - Even with the rise of China's military power, the U.S. which had about 1,00,000 troops in the early 1990s under what is now called the Indo-Pacific Command, currently has about 90,000 troops

mostly committed to the territorial defence of Japan and South Korea.

- However, the U.S. is a pre-eminent naval power, even more so in the Indo-Pacific region, and defines its strategic preferences in the light of its own strengths.



Challenges Associated

- **Limited Influence on Landmass:** The U.S., which might be an important ally for India in gaining a strong foothold in Eurasia is a powerful player in the Indo-Pacific region but has left comparatively lesser influence in the
 - However, maritime security and associated dimensions of naval power are not sufficient instruments of statecraft as India seeks diplomatic and security constructs to strengthen deterrence against Chinese unilateral actions and the emergence of a unipolar Asia.
- **India's Border and Connectivity Issues:** The persistent two-front threat from Pakistan and China set the stage for a tough continental dimension of India's security. There has been increased militarisation of the borders with Pakistan and China.
 - India has been subject for over five decades to a land embargo by Pakistan that has few parallels in relations between two states that are technically not at war.
 - Connectivity has no value if the access is denied through persistent neighbouring state hostility contrary to the canons of international law.

Way Forward

- **Central Asia is Key to Eurasia:** Bulwarks against Chinese maritime expansionist gains are relatively easier to build and its gains easier to reverse than the long-term strategic gains that China hopes to secure on continental Eurasia.

- Like the **Association of Southeast Asian Nations (ASEAN)** centrality is key to the Indo-Pacific, **centrality of the Central Asian states should be key for Eurasia.**
- **Resolving Connectivity Issues:** It may appear strange that while India joins the U.S. and others in supporting the right of freedom of navigation in the maritime domain, it **does not demand with the same force the right of India to conduct interstate trade**, commerce, and transit along continental routes — be it through the lifting of Pakistan's blockade on transit or the lifting of U.S. sanctions against transit through Iran into Eurasia.
 - With the recent Afghan developments, India's physical connectivity challenges with Eurasia have only become starker.
 - The marginalisation of India on the Eurasian continent in terms of connectivity **must be reversed.**
- **Ensuring Continental and Maritime Interests:** It is quite clear India will not have the luxury of choosing one over the other; it would need to **acquire strategic vision and deploy the necessary resources to pursue its continental interests without ignoring the interests in the maritime domain.**
 - This will require a **more assertive push for the continental rights** (transit and access), **working with the partners in Central Asia**, with Iran and Russia and a **more proactive engagement with economic and security agendas** ranging from the **Shanghai Cooperation Organisation (SCO)**, **Eurasian Economic Union (EAEU)** and the **Collective Security Treaty Organization (CSTO).**

Conclusion

India will need to define its own parameters of continental and maritime security consistent with its own interests. In doing so, maintaining strategic autonomy will help India's diplomacy and statecraft navigate the difficult landscape and the choppy waters that lie ahead.



Human Development in Sync with Planetary Pressures

This editorial is based on "Treating The Planet Well Can Aid Progress" which was published in The Hindu on 12/01/2022. It talks about including 'Planetary Pressures' as a criteria of ranking countries in the UNDP Human Development Index (HDI).

Tags: Governance, GS Paper 2, Government Policies & Interventions, Human Resource, Issues Related to Development, GS Paper 3, Growth & Development.

Human-induced environmental change can irrevocably destabilise the long-term dynamics of the earth system, thereby disrupting the life-supporting system of the planet. Therefore, the environment is now being considered as an essential component to be factored in to measure human development.

The 2020 Human Development Report of the **United Nations Development Programme (UNDP)** proposed a **Planetary pressures-adjusted Human Development Index (PHDI).**

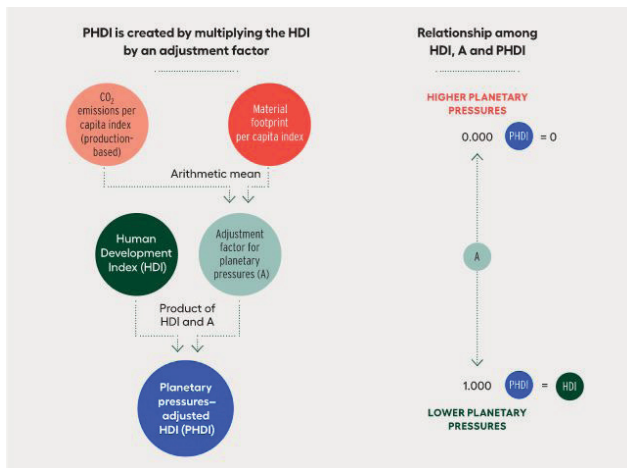
However, the concept of the planetary boundary was introduced by a group of scientists across the world, led by **J. Rockström of the Stockholm Resilience Centre in 2009.**

Planetary pressure-adjusted HDI

- **About:** The PHDI adjusts the standard HDI by a **country's level of carbon dioxide emissions and material footprint**, each on a **per capita basis.**
 - The purpose of the PHDI is to communicate to the larger society the risk involved in continuing with existing practices in the global resource use and environmental management, and the **retarding effect that environmental stress can perpetuate on development.**
 - It succinctly **brings out the nature of planetary pressure generated by the developed countries** and indirectly indicates their responsibility in combating the situation.
- **Decline in Global Average HDI:** When planetary pressure is adjusted, the world average of HDI in **2019 came down from 0.737 to 0.683.**
 - This adjustment has been worked out by factoring per capita carbon dioxide (CO₂) emission (production), and per capita material footprint.
 - The average per capita global **CO₂ emission (production) is 4.6 tonnes** and the per capita material footprint is **12.3 tonnes.**
- **Individual Impact on Countries:** The global ranking of several countries was altered, in a positive and negative sense, with adjustment of planetary pressure.
 - **Switzerland is the only country** in the group of High HD countries whose **world rank has not changed** with adjustment of planetary pressure.
 - Although the HDI value of 0.955 came down to 0.825 after the necessary adjustment.
 - Among 66 Very High HD countries, 30 countries recorded a fall in rank values ranging from **minus**

1 for Germany and Montenegro to minus 131 for Luxembourg.

- Norway, which topped the HDI, fell 15 places, the **US (17) and Canada (16) fell 45 and 40 places** respectively and **China (85) dropped 16 places**.
- In the case of **India**, the **PHDI is 0.626 against an HDI of 0.645** with an average per capita CO₂ emission (production) and material footprints of 2.0 tonnes and 4.6 tonnes, respectively.
- India **gained in global rankings by eight points** (131st rank under HDI and **123rd rank under PHDI**), and its per capita carbon emission (production) and material footprint are well below the global average.



Challenges for India

- **Lack of Environmental Concern Prevails:** India's **natural resource use is far from efficient**, environmental problems are growing, and the onslaught on nature goes on unabated with **little concern about its fallout** as evident from a **number of ongoing and proposed projects**.
- **High Multidimensional Poverty Rates:** India has **27.9% people under the Multidimensional Poverty Index** ranging from 1.10% in Kerala to 52.50% in Bihar, and a sizable section of them **directly depend on natural resources for their sustenance**.
 - It is quite **difficult to play a proactive role** in addressing the environmental concerns when India is **already underperforming in more primary indicators of human development**.
- **Unattended Issues:** The **twin challenges of poverty alleviation and environmental safeguarding** India articulated in the 1972 Stockholm conference on the human environment, still remain unattended.
 - Fifty years have passed but there is little change in the scenario. In fact, the situation is much more complex now.

- **Standalone Actions are Insufficient:** The **Chipko movement in Uttarakhand** and the **Silent Valley movement in Kerala** are among the most well-known environmental protection movements in India that inspired several other such movements during the last five decades.
 - However, **standalone environmental safeguarding actions are not sufficient to navigate the Anthropocene** (most recent period in earth's history when human activity started to have a significant impact on the planet's climate and ecosystems).

Way Forward

- **Intertwining Environmental and Social Development:** It is now well established that there are **interdependencies of earth system processes** including social processes, and their relationships are non-linear and dialectic.
 - Therefore, it is necessary to **nest human development including social and economic systems into the ecosystem**, and build a biosphere on a systematic approach to **nature-based solutions that put people at the core**.
- **Local Level Involvement:** It is now essential to consider people and the planet as being a part of an interconnected social-ecological system.
 - Social and environmental problems cannot be addressed in isolation anymore; an integrated perspective is necessary.
 - This can be conceived and addressed at the local level, for which India has constitutional provisions in the form of the **73rd and 74th Amendments**.
- **A Collaborative Efforts of Government, Institutions and Technology:** The remarkable advances in earth system science and sustainability research along with **enabling technology of remote sensing and Geographic Information System (GIS)** have helped to document and explain the impact of human activities at the ground level and stimulate new interdisciplinary work encompassing the natural and social sciences.
 - They also provide insights into how to mitigate these impacts and improve life.
 - What is required is a **reorientation of the planning process**, adoption of a **decentralised approach**, a plan for **proper institutional arrangements**, and steps to **enable political decisions** to efficiently address the environmental stress.
- **Recommendations by the HDR Report:** The 2020 HDI report outlines three mechanisms for collective change:
 - **Social Norms and Values:** As the world seeks to expand agency and empower people through

human development, it must also establish new **norms that give greater weight to planetary balance** and sustainability.

- **Incentives and Regulation:** Incentives and regulations can be used to promote or deter action, helping to **bridge the gap between behaviours and values**.
- **Nature-based Solutions:** These can create a virtuous cycle between human development and planetary health by generating and supporting **actions that protect, sustainably manage and restore ecosystems**.



Harnessing the Demographic Transition

This editorial is based on “Reaping India’s Demographic Dividend” which was published in The Hindu on 13/01/2022. It talks about the measures that can be taken now to harness the potential of the youth to the fullest in future when the major proportion of India’s population will be aged.

Tags: Governance, GS Paper 2, Government Policies & Interventions, Education, Health, Issues Related to Development, Population & Associated Issues, GS Paper 3, Growth & Development, Employment.

A nation’s growth requires the productive contribution of all segments of society, particularly the children and the youth, who need to be provided opportunities for self-expression.

Household and national investments in children and youth yield long-term returns in terms of high productivity of the economically active population till they enter the elderly cohort.

Currently, India’s population is among the **youngest in an ageing world**, however, a major proportion of India’s population will be aged by 2050. This calls for more forward-looking policies incorporating population dynamics, education and skills, healthcare, gender sensitivity, and providing rights and choices to the younger generation so they can contribute up to their maximum potential in the nation’s economic growth in future.

India’s Demographic Dividend

- **Impact of Decline in Fertility Rates:** As fertility declines, the share of the young population falls and if this decline is rapid, the **increase in the population of working ages is substantial**, yielding the ‘**demographic dividend**’.

- The **smaller share of children** in the population enables **higher investment per child**. Therefore, the future entrants in the labour force can have better productivity and thus boost income.
- **Increase in India’s Median Age:** With **falling fertility (currently 2.0)**, the median age of India has risen from **24 years in 2011 to 29 years now** and is **expected to be 36 years by 2036**.
 - With a falling dependency ratio (expected to decrease from 65% to 54% in the coming decade taking 15-59 years as the working age population), India is **in the middle of a demographic transition**.
- **Impact of Demographic Transition on GDP:** India’s demographic transition provides a **window of opportunity towards faster economic growth**.
 - Although, in India, the **benefit to the GDP from demographic transition** has been **lower than its peers in Asia** and is already tapering.
 - Countries like Singapore, Taiwan and South Korea have adopted forward-looking policies to empower the youth in terms of education, skills and health choices and achieved incredible economic growth.
 - This points towards the **urgency to take appropriate policy measures**.
- **Diversity in India’s States:** While India is a young country, the status and pace of population ageing vary among States. Southern States, which are advanced in demographic transition, already have a higher percentage of older people.
 - While **Kerala’s population is already ageing**, in Bihar the working age cohort is predicted to continue increasing till 2051.
 - By 2031, the overall size of our vast working age population would have declined in 11 of the 22 major States.
 - The differences in age structure reflect differences in economic development and health of the states.

Roadblocks to

Tapping the Youth Potential

- **India’s Low Per Capita Consumption and Expenditure:** A child in India consumes around **60% of the consumption by an adult** aged between 20 and 64, while a child in **China consumes about 85%** of a prime-age adult’s consumption.
 - In Asia, India ranks **poorly in terms of private and public human capital spending**.
 - **Health spending has also not kept pace** with India’s economic growth. The public spending on health has remained flat at around 1% of GDP.

- **Impact of Absence of Proper Policies:** Without proper policies, the increase in the working-age population may lead to **rising unemployment**, fueling economic and social risks.
 - India already suffers from poor implementation of several welfare policies and programmes.
- **Unfulfilled Educational Requirements:** The **gender inequality in education** is a concern as in India, boys are more likely to be enrolled in secondary and tertiary school than girls.
 - However, in the Philippines, China and Thailand, it is the reverse and in Japan, South Korea, and Indonesia, the gender differences are rather minimal.
- **Absence of Skill Upgradation:** **UNICEF** 2019 reports that **at least 47% of Indian youth are not on track** to have the education and skills necessary for employment in 2030.
 - While over 95% of India's children attend primary school, the **NFHSs** confirm that **poor infrastructure in government schools, malnutrition, and scarcity of trained teachers have ensured poor learning outcomes.**

Way Forward

- **Upgrading Education Standards:** Irrespective of rural or urban setting, the public school system must ensure that every child completes high school education, and is **pushed into appropriate skilling, training and vocational education** in line with market demand.
 - **Modernising school curricula**, deploying **new technology to put in place virtual classrooms** together with **Massive Open Online Courses (MOOCs)** and **investing in open digital universities** would further help yield a higher educated workforce.
- **Fulfilling Health Related Requirements:** The elderly population in India is projected to double from 8.6% in 2011, to 16% in 2040. This will sharply reduce the per capita availability of hospital beds in India across all major States, unless investments in health systems address these infirmities.
 - **More finance for health** as well as **better health facilities from the available funding** needs to be ensured and **reproductive healthcare services** need to be made accessible on a **rights-based approach.**
- **Bridging Gender Gaps in Workforce:** New skills and opportunities for women and girls befitting their participation in a \$3 trillion economy is urgently needed. This can be done by:
 - **Legally compulsory gender budgeting** to analyse gender disaggregated data and its impact on policies
 - **Increasing childcare benefits**

- **Boosting tax incentives for part-time work**
- **Federal Approach for Diverse States:** A new federal approach to governance reforms for demographic dividend will need to be put in place for **policy coordination between States on various emerging population issues** such as **migration, ageing, skilling, female workforce participation** and **urbanisation.**
 - Inter-ministerial coordination for strategic planning, investment, monitoring and course correction should be an important feature of this governance arrangement.
- **Inter-Sectoral Collaborations:** Moving forward towards safeguarding the futures of adolescents, it is imperative to put in place mechanisms for better inter-sectoral collaboration.
 - For instance, School **mid-day meals** exemplify how improved **nutrition benefits learning.** Studies have established strong links between nutrition and cognitive scores among teenagers.
 - **Coordination across departments can enable better solutions** and greater efficiencies in tackling the crisis that our adolescents face.
 - The **Health and Education Ministries can collaborate** to disseminate key information to **help adolescents safeguard their health and ability to learn.**

Conclusion

The youth provides India with a great opportunity for growth, peppered with the possibility of path-breaking innovation. To be able to best utilise this boom, policies must ensure that they comprehensively cover all aspects aimed at increasing human development and standards of living, and can reach the remotest corners of this fast-growing nation.



Ensuring Transparency in Election Commission of India

This editorial is based on "Act Now, Recast The Selection Process Of The ECs" which was published in The Hindu on 13/01/2022. It talks about the issues associated with the appointment of the members of the Election Commission of India (ECI).

Tags: Indian Polity, GS Paper 2, Constitutional Bodies, Transparency & Accountability, Judiciary, Executive, Administrative Reforms Commission (ARCs)

The **Election Commission of India (ECI)** is a constitutional body envisaged to **uphold the values of equality, equity, impartiality, independence** enshrined in the Indian

Constitution and the rule of law in superintendence, direction, and control over the electoral governance.

It was established to **conduct the elections with the highest standard of credibility, freeness, fairness, transparency, integrity, accountability, autonomy and professionalism.**

However, over the last years, the ECI has faced multiple accusations regarding its independence and impartiality in electoral governance and the process of appointment of its members.

Perhaps, a more **transparent and independent method in appointment of the members** of the ECI, that is also free from a dominant participatory role of the Executive, is what India requires for a better functioning of the body.

Members of the Election Commission of India

- **Constitutional Provisions: Part XV** of the Indian constitution deals with elections, and provides for the establishment of the ECI.
 - **Article 324** to 329 of the constitution deals with powers, function, tenure, eligibility, etc of the commission and the members.
- **Statutory Provisions:** Originally the commission had only one election commissioner but after the enactment of the **Election Commissioner Amendment Act 1989**, it has been made a multi-member body.
 - The commission consists of one **Chief Election Commissioner** and two **Election Commissioners**.
- **Role of Parliament:** The members of the ECI are appointed by the President of India **based on the recommendations made by the Prime Minister**.
 - However, **Article 324(2)** provides that the Parliament is **entitled to enact legislation regarding the appointment** of Election Commissioners (ECs).
- **Recommendations for Appointment of ECs:** In 1975, the **Justice Tarkunde Committee** recommended that **ECs be appointed on the advice of a Committee** comprising the Prime Minister, Lok Sabha Opposition Leader and the Chief Justice of India.
 - This was **reiterated by the Dinesh Goswami Committee in 1990** and the **Law Commission in 2015**.
 - The 4th Report (2007) of the **Second Administrative Reforms Commission (ARCs)** additionally recommended that the **Law Minister and the Deputy Chairman of the Rajya Sabha be included** in such a Collegium.

Issues Associated

- **Failure of Parliament in Enacting Laws:** It is the

Parliament responsible for making laws with respect to the appointment of the ECs,

- However, apart from enacting a law in 1989 enlarging the number of ECs from one to three, Parliament has so far **not enacted any changes to the appointment process.**

- **Over-dependence on the Executive for Appointment:** The Election Commission renders a quasi-judicial function between the ruling and other parties. In such a case, the **executive cannot be a sole participant in the appointment of ECs.**

- The current practice of appointment of ECs by the Centre **violates Article 14, Article 324(2)**, and Democracy as a **basic feature of the Constitution.**

Way Forward

- **Multi-Institutional Committee:** Given that ECI is the **institutional keystone holding up the edifice of Indian democracy**, establishing a multi-institutional, bipartisan committee for fair and transparent selection of ECs can enhance the perceived and actual independence of ECI.
 - The **quasi-judicial** nature of ECI's functions makes it especially important that the **appointments process conform to the strictest democratic principles.**
 - Such a procedure is already with regard to appointment of the authorities such as the Chief Information Commissioner, Lokpal, **Vigilance Commissioner**, and the Director of the **Central Bureau of Intelligence.**
- **Recommendations of Second ARC Report:** The Second ARC report recommended that an **ECI collegium headed by the PM** should make recommendations for the President for appointment of the ECI members.
 - The **Anoop Baranwal v. The Union of India (2015)** case also **raised the demand for a Collegium system** for the ECI.
 - A Bench comprising **Chief Justice J S Khehar** and **Justice D Y Chandrachud** had also noted that the ECs supervise and hold elections across the country and their selection has to be made in the most transparent manner.
- **Role of Parliament:** Parliament would do well to **pre-empt judicial strictures by going ahead and formulating a law** that establishes a multi-institutional, bipartisan Collegium to select ECs.
 - There is a **need for debate and discussions in the Parliament on the issue** of independence of ECI and consequently passing of required legislation.
 - After all, separation of powers is the gold standard for governments across the world.

Conclusion

ECI's constitutional responsibilities require a fair and transparent appointment process that is beyond reproach, which will reaffirm the faith of the people in this vital pillar of the Indian polity. The existing veil over the appointment process of ECs potentially undermines the very structure on which India's democratic aspirations rest.



Quantum Technology and India

This editorial is based on "A Four-Point Action Plan For Quantum Technologies" which was published in Hindustan Times on 14/01/2022. It talks about the steps that India can take to move ahead in adopting quantum technology.

Tags: Science & Technology, GS Paper 2, Government Policies and Interventions, GS Paper 3, Indigenization of Technology, Technology Missions, Scientific Innovations & Discoveries

In recent years, the global quantum industry has taken incredible strides and seen massive investments made by both governments and the private sector.

Countries like the US, France, Germany, China and Russia have already been investing resources and human capital on **Quantum Technology** since the last decade, however, India may have to work overtime to bridge the gap in its bid to gain supremacy in this field.

While much progressive is not what India has done in the field of quantum tech yet, it is better late than never. India's willingness to be at par with other technologically advanced countries can be seen via the announcement of the **National Mission for Quantum Technologies and Applications (NM-QTA)**.

Quantum Technology

- **About:** Quantum Technology is based on the principles of **Quantum mechanics** that was developed in the early 20th century to describe nature at the scale of atoms and elementary particles.
 - The first phase of this revolutionary technology has provided the foundations of understanding of the physical world and led to ubiquitous inventions such as lasers and semiconductor transistors.
 - The second revolution is currently underway with the goal of putting properties of quantum mechanics in the realms of computing.
- **A Comparison between India and China:**
 - **R&D in China:** China started its research and

development (R&D) in the field of quantum technology in 2008.

- In 2022, China boasts of developing the **world's first quantum satellite**, creating a **quantum communication line** between Beijing and Shanghai, and **owning two of the world's fastest quantum computers**.
- This was a result of decade-long research carried out in the hope of achieving critical breakthroughs.
- **India:** Quantum Technology remains a field highly concentrated in long-term R&D in India.
- Just a few hundred researchers, industry professionals, academicians, and entrepreneurs are in the field right now without a constant focus on R&D.
- **Quantum Tech and Private Sector:** Large Technology Corporations such as **Google, Microsoft, and IBM** have dedicated programmes for **quantum computing** and its applications.
 - Similarly, several **Indian startups** such as QNu Labs, BosonQ, and Qulabs.ai are also **doing remarkable work in developing quantum-based applications** for cryptography, computing, and cybersecurity.
- **India's Related Initiatives:**
 - In 2018, the Department of Science & Technology unveiled a programme called **Quantum-Enabled Science & Technology (QuEST)** and committed to **investing Rs. 80 crore** over the next three years to accelerate research.
 - In the 2020 Budget speech, the Finance Minister of India announced the **National Mission for Quantum Technologies and Applications (NM-QTA)** with a **total outlay of ₹8000 crore** over five years for strengthening the quantum industry in the country.
 - In October 2021, the government also **inaugurated C-DOT's Quantum Communication Lab** and unveiled the **indigenously developed Quantum Key Distribution (QKD) solution**.

Challenges Associated

- **Slow Progress in Legislative Procedures:** Although the NM-QTA was announced in the 2020 Budget speech, the **mission has still not received any approval and no funds were allocated**, disbursed or utilised under NM-QTA during the FY 2020-21.
- **Limited Private Sector Involvement in NM-QTA:** The Union Minister of Science & Technology has also claimed that for the NM-QTA, **no private sector partners had been identified yet** and no one from outside the

government had been tapped for consultations for the national mission.

- The government must recognise the leaps made by these companies.
- **Security Related Issues:** Quantum computing can have a **disruptive effect on cryptographic encryption**, which secures communications and computers.
 - It might pose a challenge for the government also because if this technology goes into the wrong hands, all the **government's official and confidential data will be at risk** of being hacked and misused.
- **Technological Issues:** The challenge lies in harnessing the properties of quantum superposition in a **highly controlled manner**. The **qubits tend to be very fragile** and lose their "quantumness" if not controlled properly.
 - Also, a **careful choice of materials, design and engineering** is required to get them to work.
 - On the theoretical front lies the **challenge of creating the algorithms and applications** for quantum computers.

Way Forward

- **Better Policy Making and Regulations:** The focus should be to develop an overarching strategy for the next 10-15 years. The strategy must **ensure that there is no misallocation of resources** and that the efforts put in are concentrated in key areas that provide both economic and strategic benefits.
 - Additionally, **adequate attention to those who can contribute to developing quantum technology** must be the **government's top priority**.
 - It would also be prudent to develop a **regulatory framework for quantum computing** before it becomes widely available, **defining the limits of its legitimate use**, nationally and internationally.
- **Establishing Centres of Excellence:** The primary focus must be on establishing centres of excellence **dedicated to quantum science and technology** within academic institutions as well as government research institutes.
 - A majority of the Indian **government's outlay has to be pumped into such institutions** specialising in quantum R&D. This can pay dividends in two ways:
 - It will **help create crucial intellectual property (IP) infrastructure** that can be used for the country's benefit.
 - The focus on research and academia will also **improve the talent pool** and strengthen the domestic quantum technology workforce.
- **Centre-State Coordination:** The state governments can **play an integral role in setting up semiconductor fabs** in the near future, quantum tech can benefit

immensely from these domestic manufacturing facilities and units.

- The **joint establishment of "quantum innovation hubs"** by Centre and states can help direct investments efficiently and **build a well-connected quantum research network** in the country.
- The central and state governments should **establish a conducive fiscal and legal environment to foster innovation** and attract international firms while **involving local talent**.
- **Private Sector Involvement:** The power of startups and Big Tech corporations involved in developing quantum technology and applications must be harnessed.
 - While academic institutions are largely involved on the research side, quantum tech corporations and **startups are vital in converting and commercialising this research into applications** or products that can be of use.
 - Facilitations must be made by the government to **connect academic institutions and industry** to translate research into real-world applications.
- **International Cooperation:** The quantum value chain remains highly complicated and it will be **hard for India to remain self-reliant** to build a successful quantum ecosystem.
 - **Quantum technology agreements with the US, Australia, Canada, UK** and others should serve as a base for India to pursue a joint effort on projects related to quantum technologies.
 - India can also **pursue engagement with its allies** in key groupings such as **Quad and BRICS**.

Conclusion

The Government of India has taken the first step by acknowledging the importance of quantum technologies through its plan of kick-starting a national mission in the country. However, more needs to be done in the field of R&D and ensuring active participation from the private sector and academia, for which bilateral and multilateral partnerships can be leveraged.



Disaster Management in Urban India

This editorial is based upon "Storm Warnings of A Megacity Collapse" which was published in The Hindu on 17/01/2022. It talks about the associated issues of poor disaster management in cities of India.

Tags: Governance, GS Paper 2, Government Policies & Interventions, Issues Relating to Development, GS Paper 3, Environmental Impact Assessment (EIA), Disaster Management

The recent unpredicted spell of staggering rain over Chennai capped a season of repeated monsoon inundation and urban paralysis, highlighting the risks of **urban collapse due to extreme weather events**.

In the past, the catastrophic 2015 flood in Chennai and the great flood of 2005 in Mumbai raised expectations of a major shift in priorities for urban development.

However, despite immense community support and active mobilisation for change, laws were just on paper, and unsustainable changes continued to occur in the urban environment. Permanent, elite constructions were favoured at the cost of ecology.

It is now time the government realises that what urban India needs today is not flashy retrofitted 'smart' enclaves but **sound, functional metropolitan cities**.

Urban Cities and Disaster Management

- **Disaster Susceptibility of India:** According to the **National Disaster Management Authority**, around 12% of the total land in India is exposed to floods, 68% is vulnerable to droughts, landslides and avalanches, 58.6% landmass is earthquake-prone.
 - Tsunamis and cyclones are a regular phenomenon for 5,700 km of the 7,516-km long coastline.
 - Such vulnerable conditions have placed **India amongst the top disaster-prone countries**.
- **NITI Aayog's Report for Cities:** In its report on **Reforms in Urban Planning Capacity in India**, **NITI Aayog** cites the Covid-19 pandemic as a revelatory moment that underscores the **dire need for all cities to become healthy cities by 2030**.
 - **Climate impacts are certain to affect cities even more** fundamentally and permanently.
 - It recommends **500 priority cities to be included** in a competitive framework, adopting participatory planning tools, surveys and focus group discussions to assess the needs and aspirations of citizens.
- **Impacts:**
 - The large-scale uprooting of trees caused by the Cyclones **affects the already depleting green cover** in the urban areas.
 - Disasters in **heavily populated urban areas** can lead to **high numbers of human casualties**.
 - Unsafe infrastructure which collapses in an earthquake or tsunami kills more people than any other type of natural hazard, such as a tornado or a storm.

- **Economic losses** from disasters that damage infrastructure can reach huge proportions.
 - The **World Bank** estimates that annual disaster losses are already close to \$520 billion and that **disasters push up to 24 million people a year into poverty**.

Challenges

- **Issues in Planning and Local Governance:** Less than half of all cities have master plans, and even these are **ruled by informality**, since both influential elites and the poor encroach upon commons such as wetlands and river banks.
 - **Neglect of municipal councils, lack of empowerment and failure to build capacity** among municipal authorities have produced frequent urban paralysis in extreme weather.
- **Encroaching Natural Spaces:** The number of wetlands has reduced to 123 in 2018 from 644 in 1956 and the green cover is only 9%, which ideally should have been at least 33%.
 - The encroachment of important commons **reflects the extreme dependence on market forces** to supply affordable urban houses.
 - Most of the suburban investments in housing do not reflect their true value, even if they are layouts 'approved' by the government, because outlying town **panchayats have little capacity or funds to create even basic infrastructure such as water supply, sanitation and roads**.
- **Inadequate Drainage Infrastructure:** Overburdened drainage, unregulated construction, **no regard to the natural topography** and hydro-geomorphology all **make urban floods a man-made disaster**.
 - Cities like Hyderabad, Mumbai **rely on a century-old drainage system**, covering only a small part of the core city.
 - As the city grew beyond its original limits, not much was done to address the absence of adequate drainage systems.
- **Lax Implementation:** Even with provisions of rainwater harvesting, sustainable urban drainage systems, etc, in regulatory mechanisms like the **Environmental Impact Assessment (EIA)**, adoption at user end as well as enforcement agencies remains weak.

Way Forward

- **Role of Local Self Governments:** What is needed is a central role for democratically-elected local governments, to **ensure greater inclusion and a sense of community**.

- A **top-level department for climate change adaptation** is best suited to serve as a unifier, bringing all relevant departments in a State, such as housing and urban development, transport, water supply, energy, land use, public works and irrigation to **work with elected local governments that set priorities and become accountable**.
- **Holistic Engagement:** Urban floods of large scale cannot be contained by the municipal authorities alone, without concerted and focused investments of energy and resources.
 - The **Metropolitan Development Authorities, NDMA, State revenue and irrigation departments** along with municipal corporations should be involved in such work together.
- **Better City Planning:** All dimensions of a city's growth, starting with **affordable housing, play a central role in adapting to future climate change**.
 - They can lower carbon emissions growth even during infrastructure creation if **biophilic design** and green materials are used.
 - **Planned urbanisation can withstand disasters**, the perfect example being Japan which faces earthquakes at regular intervals.
 - The **India Disaster Resource Network** should be institutionalised as a repository for organised information and equipment gathering.
- **Drainage Planning:** Watershed management and emergency drainage plan should be clearly **enunciated in policy and law**.
 - Urban watersheds are micro ecological drainage systems, shaped by contours of terrain.
 - Detailed documentation of these must be held by agencies which are not bound by municipal jurisdictions; instead, there is a need to **consider natural boundaries such as watersheds** instead of governance boundaries like electoral wards **for shaping a drainage plan**.

Conclusion

India's cities are the drivers of economic growth with significant production and consumption, however, this sunrise story is threatened by unsustainable urban development in the era of climate change. The need is to develop sound, functional metropolitan cities that can handle floods, heat waves, pollution and mass mobility to keep the engines of the economy running. Urban India would otherwise turn into a subprime investment.



Mobile Vet-Units for Livestock

This editorial is based on "Just What The Doctor Ordered For The Livestock Farmer" which was published in The Hindu on 18/01/2022. It talks about health-related issues of livestock in India.

Tags: Agriculture, GS Paper 1, Agricultural Resources, GS Paper 3, Growth & Development, Economics of Animal-Rearing

The **Twentieth Livestock Census** indicated that India today has a livestock population of approximately 537 million; of this, 95.8% is concentrated in rural areas.

Given the fact that most of the country's livestock is in rural and remote areas, **access to veterinary services is a major challenge**. Livestock farmers are often compelled to travel far from their villages whenever their animals need treatment. This **adversely impacts the longevity and the productivity of their livestock**.

To resolve the problem of access to vet-services, the government introduced the facility of **Mobile Veterinary Units (MVUs)** to provide doorstep services to the farmers.

Along with this significant step, the main focus in the near future shall be on upgradation of vet health-care services, disease surveillance and training (CVE), and disease reporting in real time.

Livestock Health and Related Initiatives

- **About: Animal husbandry** is an integral component of Indian agriculture, supporting the livelihood of almost 55% of the rural population. **India is the highest livestock owner of the world**.
 - Approximately **70% of India's milk supply** is sourced from farmers who own less than five animals.
 - However, problems such as **bovine mastitis** (alone) amount to a **milk loss of approximately 10 litres per day per farm** translating to about ₹300-₹350 per day.
 - Hence, for most farmers, death of or disease in livestock could mean the difference between sustenance and starvation.
 - The animal health issue is also compounded by the **growing presence of salesmen of drug distributors** in rural communities.
- **Government Initiatives for Livestock:**
 - **Rashtriya Gokul Mission:** To develop and conserve indigenous breeds of bovine population and enhance milk production and to make it more remunerative to the farmers.
 - **National Livestock Mission:** To ensure quantitative and qualitative improvement in livestock production systems and capacity building of all stakeholders.

- **National Artificial Insemination Programme:** To suggest novel methods of bringing about impregnation in female breeds.
 - To prevent the spread of certain diseases which are genital in nature, thereby enhancing the efficiency of the breed.
- **Reforms in Livestock Health and Disease Control Programme:** The Government revised provisions of this programme by including 'Establishment and Strengthening of Veterinary Services – Mobile Veterinary Units (MVUs)'.
 - A typical MVU is a four-wheeler van, with working space for one veterinarian, one para-veterinarian and a driver-cum-attendant.
 - It will be **built on the doorstep delivery model**
 - It also has space for essentials such as equipment for diagnosis, treatment and minor surgery, other basic requirements for the treatment of animals, audio-visual aids for awareness creation and GPS tracking of vehicles.

Challenges Associated to Livestock Health

- **Inadequate Testing:** The **Parliamentary Standing Committee** of the Ministry of Fisheries, Animal Husbandry and Dairying has observed that inadequate testing and treatment facilities for veterinary diseases pose a major challenge.
 - This problem is further exacerbated in the current scenario where there is a **drastic rise in cases of zoonotic diseases**.
- **Untrained Animal Health Workers:** Untrained animal health workers have been **popular in rural India as they charge less** for consultations and are easily accessible.
 - This has led to the **inappropriate administration of antibiotics** because of flawed prescriptions especially in cases of mastitis.
- **Increase in AMR:** Consequently, problems pertaining to **antimicrobial resistance (AMR)** occur when the animal no longer responds to a drug to which it was originally responsive.
 - AMR can be caused because of factors such as high or low dosages, incorrect duration of medication, and overprescription.
- **Issues in Accessing Credit:** The **M.K. Jain Committee Report** has highlighted that livestock farmers face **greater challenges in comparison to traditional agricultural farmers** especially while **accessing credit and livestock insurance**.
 - Lack of availability of credit further discourages the farmers from accessing vet services for their livestock.

Way Forward

- **Mitigating AMR:** The **World Health Organisation (WHO)** has listed antibiotic-resistant "priority pathogens" — a catalogue of 12 species/families of bacteria that pose the greatest threat to human health.
 - The **MVU model will mitigate the issue of antimicrobial resistance** and is in alignment with the 'One Health vision' laid down by the Global Action Plan of WHO.
- **MVUs for Livestock:** The LH&DC scheme envisages one MVU for one lakh animals; however, the number of vans in use could be higher in regions with difficult terrain.
 - The **availability of MVU's must be assured in sufficient numbers, even in difficult to reach areas**, so that merely geographical location does not hinder the reach of better veterinary services.
- **Private Sector Involvement:** There is a **great deal of scope for innovations and intervention by the private sector** in the context of animal health and MVUs.
 - The lockdowns during the Covid-19 pandemic have already witnessed innovations by start-ups, video consultation sessions between livestock farmers and veterinarians, along with apps that provide detailed information to farmers on livestock health and nutrition.
 - Further, with the growing prevalence of the **Public-Private Partnership (PPP) model**, the MVU model is poised to generate higher returns on investment.



India in Changing World Order

This editorial is based on "India's Watchwords In A Not So Bright 2022" which was published in The Hindu on 18/01/2022. It talks about the changing geopolitical dynamics of the world and the approach that India can follow to balance its relations with different nations.

Tags: International Relations, GS Paper 2, India and its Neighbourhood, Groupings & Agreements Involving India and/or Affecting India's Interests, Effect of Policies & Politics of Countries on India's Interests

The years 2020 and 2021 experienced globally transformational events. In fact, nowhere more than in the geopolitics of the **Indo-Pacific**, which is changing at multiple gears and levels.

The view is that a **rules based international order** is a **remote possibility** even in this upcoming year. Instead,

uncertainty and impermanence are likely to be the **dominant aspect in world affairs**.

With internal conflicts going on in the strategically important regions for India and on-going stand-offs between India and China, the right approach for India is to bring more flexibility in India's diplomatic approach along with leveraging the pre-existing groupings and excellent bilateral relations against China.

Challenges of the Changing World Order

- **Rise of Authoritarianism:** Admittedly, the world has recently seen the rise of authoritarian rulers in many countries. However, this can hardly be viewed as a new phenomenon.
 - **China has abandoned the 'one country two systems' policy**, stripping **Hong Kong** of its freedom and inviting international opprobrium.
 - Moreover, the **human rights violation of Uighur Muslims in Xinjiang** and **China's aggressive posture towards Taiwan** could well become one of the flash points of conflict.
 - The other major risk of a war in 2022, stems from the **ongoing conflict between Russia and Ukraine** — the latter being backed by the U.S. and **North Atlantic Treaty Organisation (NATO)** forces.
 - The current **unrest in Kazakhstan** further bodes ill for a world already wracked by a series of **coups or internecine strife as in Ethiopia, Libya and certain regions of West Asia and North Africa**.
 - **Taliban's return to power in Afghanistan** has led to a **material shift in the balance of power** in an already troubled region on India's periphery.
 - Developments in Afghanistan have fuelled the ambitions of quite a few **'anti-state militant groups'** across the region.
 - Adding to such concerns is new evidence that on India's eastern flank, viz. **Indonesia, a resurgence of radical Islamist activities** is taking place.
- **Expanding Chinese Dominance:** The role of China is possibly the most disrupting one, given the challenge it poses to the existing international order.
 - Militarily, China is openly challenging U.S. supremacy in many areas, including **'state-of-the-art weaponry'** such as **hyper-sonic technology**.
 - The dip in China's economic profile in the past year and more could also lead to new tensions in the Asia-Pacific region in 2022.
 - Moreover, **China's expansionist policies** via its **Belt and Road Initiative** is also being seen as a threat by other global powers such as the US, EU, the G7 Countries as well as by India.

➤ **India's Border Issues:** The persistent **two-front threat from Pakistan and China** set the stage for a tough continental dimension of India's security. There has been increased **militarisation of the borders with Pakistan and China**.

- The **transgressions across the Line of Actual Control** in different sectors in Ladakh could well be expanded in 2022.
- Hence, the year is **unlikely to witness any reduction in tensions** across Ladakh or in any other conflicted areas.

➤ **Challenges for India in West and Central Asia:** In **Central Asia**, India will be challenged on **how best to manage its traditional friendship with Russia** with the pronounced tilt seen more recently in India-U.S. relations.

- In **West Asia**, the challenge for India is **how to manage its membership of the Second Quad** (India, Israel, the UAE and the U.S.) with the conflicting interests of different players in the region.
- Indian diplomacy will be under severe test to manage the extant situation in both regions.

Way Forward

- **Flexibility in India's Foreign Policy:** What India and India's foreign policy need to do is to **demonstrate more flexibility to manage the contradictions that exist**.
 - It is important that India **finds rational answers to a rash of problems** that it cannot keep on the back burner for much longer.
 - India must **avoid blind spots** that arise due to **cognitive bias** and take care to read the signals properly.
 - India's leaders and diplomats must not only take stock of the dangers that exist but also be ready on how to **manage the risks that are well evident**.
- **Countering China's Military Strengths:** India will need to determine how best to respond to **China's sabre-rattling**.
 - India would need to **strengthen its military posture**, both as a means to deter China and also to **convince India's neighbours that it can stand up to China**.
 - Simultaneously, India should focus on **detering China's naval force projection in the Indian Ocean Region**. In the battle of wits and strength, much will depend on how India responds to the situation.
- **Leveraging Bilateral/Multilateral Links:** India should do what China simply cannot, i.e. **build regional links, open its markets, schools and services to the neighbours** and become a source of economic and political stability in the sub-continent.

- Partnerships like **Quad** can also be expanded to include **Singapore, Indonesia, and Vietnam**. This will certainly strengthen its capacity to counter China in the Indo-Pacific.
- The eastern and southern planks of **Africa and the Indian Ocean island states** need continued **high policy attention** and financial resources.
 - A clear economic and trade agenda, involving and incentivising corporate India to follow the flag in these vital regions, is certain to yield long-term dividends.
- **Role of EU and ASEAN:** The **European Union's** Indo-Pacific strategy aims at increasing its economic and security profile in, and linkages with, the region. By **being more candid and assertive with China**, and **more cooperative with partners such as India**, the EU as well as the EU and the UK can hope to become vital players in the Indo-Pacific.
- The **ASEAN nations** face the heat of China's aggression and the sharpening great power rivalry, and hence, have the most work to do. **Multilateral talks by the Quad powers with ASEAN governments is necessary.**
 - At an **individual level** too, India must enhance **cooperation with key Southeast Asian partners** Indonesia, Vietnam, Philippines and Thailand.

Conclusion

India has done well by fulfilling its humanitarian duties during the pandemic. Learning how to convert them smartly into economic and strategic opportunities in its periphery is the focused task for the nation in 2022.



Governance 4.0

This editorial is based on "Envisioning Governance 4.0 For a World that must not Fail its Kids" which was published in Livemint on 20/01/2022. It talks about the evolution in the model of governance.

Tags: Governance, GS Paper 2, Transparency & Accountability, GS Paper 3, Growth & Development

In the upcoming year, the **covid pandemic** and the myriad crises it spawned may start to recede but a bunch of other challenges ranging from the **failure of climate action to the erosion of social cohesion** do not seem to go anywhere.

Addressing these challenges will **need leaders to adopt a different and a more inclusive governance model**. However, in recent times, the faith of the people in their leaders seems to be fading away.

A good governance model is an invisible support for the economy and social order. It is time now that the world shifts from its previous, unsuitable models of governance to **Governance 4.0**, proposed in the **Davos Summit of World Economic Forum**, which focuses on rather long term strategic thinking with more inclusivity.

Governance and Models

- **About: 'Governance'** is the process of decision-making and the process by which decisions are (or are not) implemented. It can be used in several contexts such as corporate governance, international governance, national governance or local governance.
- **Models of Governance:**
 - **Governance 1.0:** In the Governance 1.0 period after **World War II**, both public and corporate governance were **marked by the rule of a "strong leader"**.
 - This type of leadership **worked well in a society where the cost of information was high**, hierarchical management functioned relatively smoothly, and **tech and economic advances benefited almost everyone**.
 - **Governance 2.0:** This model **emerged at the end of the 1960s** and affirmed the **primacy of material wealth**, and coincided with the rise of **"shareholder capitalism"** and **progressive global financialization**.
 - Managers accountable only to shareholders reigned supreme and had global reach. While the **global financial crisis of 2008 dealt this model a blow**, its narrow vision persisted.
 - **Governance 3.0: Crisis management dominates decision-making**, with leaders focusing on operational issues and showing a **relative disregard for possible unintended consequences**.
 - The covid shock ushered in Governance 3.0 and the **trial-and-error approach** of this model has led to haphazard management of the pandemic and its fallout.
- **Consequences of Poor Governance:** Poor or weak governance is a **driver of disaster risk**, and is linked to many other risk drivers such as **poverty and inequality**, and **poorly planned urban development**.
 - Bad governance often **results in the suffering of the most vulnerable**; the poor, the weak, women, children and environment.
- **Need for a New Governance Model:**
 - Global governance has an unresolved problem: both the **institutions and the leaders are no longer fit** for their purpose.

- As the **Fourth Industrial Revolution** and **climate change continue to disrupt the current lives**, public and corporate governance needs to change.
- A new governance model is crucial for the world that keeps the focus on the primacy of society and nature instead of **prioritizing the business and finance world**.

Approaches in Governance 4.0

- **Long-Term Strategic Planning:** Governance 4.0 must **replace the current short-term management** with long-term strategic thinking.
 - A focus on problems such as the **pandemic, socioeconomic crises and people's mental health** must be complemented with **action to tackle climate change, reverse biodiversity loss** and environment damage caused by human activity, and address related challenges such as **involuntary migration**.
- **Businesses to Take Responsibilities:** The new model shall **replace the tunnel vision and top-down approach** of the past. In the complex and interconnected world full of discontinuities, the roles of each stakeholder in society must change.
 - **Businesses shall no longer ignore their social and ecological impacts**, and also the governments must be held responsible for assuring that the businesses take accountability.
- **Evolving Priorities:** The emphasis on a narrow conception of economics and **short-term financial interests must cease**. Instead, the **primacy of society and nature** must be at the core of any new governance system.
 - Finance and business are vitally important but they must serve society and nature, not the other way around.
- **New Leaders:** Many leaders are keen to pioneer a new age of governance including **business executives advocating environmental, social and governance metrics**, and some political leaders.
 - Such **leaders should be welcomed who act outside of their narrow interest** as trailblazers and argue for specific action to fight climate change and address social injustice.
 - The best gauges of responsible and responsive governance today measure the extent to which leaders embrace and consent to stakeholder responsibility over shareholder responsibility.
 - Although the measurement of stakeholder accountability is still in its infancy, the development of consistent metrics will enable us

to judge whether leaders are **taking a broader view of their role and responsibility**.

■■■

Empowering City Governments

*This editorial is based on “**Democratise and Empower City Governments**” which was published in The Hindu on 21/01/2022. It talks about the challenges associated with urban local governments and the measures that can be taken to empower them.*

Tags: Governance, GS Paper 2, Separation of Powers, Local Self Governance

Urban Local Governments (along with **Panchayati Raj Institutions**) have been in existence in India for a long time as units of local government. They were established with the purpose of **democratic decentralisation**.

Even in the Covid-19 pandemic, the **third-tier governments in India played a frontline role** in implementing containment strategies, healthcare, quarantining and testing facilities, organising vaccination camps and maintaining the supply of essential goods and services.

However, with this, their **finances have come under severe strain**, forcing them to cut down expenditures and mobilise funding from various sources.

The **financial empowerment** of these civic bodies via **higher resource availability** is essential to **increase their functional autonomy** and strengthen their governance.

Urban Local Governments

- **Beginning of Urban Empowerment:** The general approach towards urban empowerment has **remained piecemeal** in India.
 - The first intervention to understand ‘the urban’ and plan with a pan-India vision took place in the 1980s when the **National Commission on Urbanisation (1988)** was formed with Charles Correa as its chairperson.
 - However, there were references in the earlier Five Year plans.
- **Other Provisions:** Another important intervention was made by the **74th Amendment to the India Constitution** which empowered urban local bodies to perform 18 functions listed in the **12th Schedule**.
 - The **15th Finance Commission** report on local bodies emphasised the city governance structures and the need for their financial empowerment.

Challenges

- **Draining Resources:** An RBI survey of 221 municipal corporations (2020-21) revealed that more than **70% of these corporations saw a decline in revenues** while in contrast, their **expenditure rose by almost 71.2%**.
 - The RBI report also highlights the **limited coverage of property tax** and its failure in shoring up municipal corporation revenues.
 - **Organisation for Economic Co-operation and Development (OECD)** data also shows that **India has the lowest property tax collection rate** (property tax to GDP ratio) in the world.
- **Lesser Functional Autonomy:** During the pandemic, the leaders at national, state and district level were seen taking a call on disaster mitigation strategies, however, the **heads of municipal corporations were not included** in this group.
 - Although, under the disaster management plan of action, cities are at the forefront to fight the pandemic, the elected leadership finds no place in them.
 - The old approach of **treating cities as adjuncts of State governments** continues to dominate the policy paradigm.
- **Decline in Grants:** Octroi (a duty levied on various goods entering a town or city) was **one of the major earnings of cities** which was **later replaced by the grants to urban local bodies** (recommended by FC) based on a formula of demographic profile.
 - Previously, while almost 55% of the total revenue expenditure of urban centres was met by octroi, now, the **grant covers only 15% of expenditure**.
 - This has resulted in a **vicious circle of burdening people more with taxes** and further privatisation/outsourcing of the services of the municipalities. The **GST further aggravated the problem**.
- **Structural Issues:** Some of the urban local governments do not have their own building or they exist but **without basic facilities like toilets, drinking water, and electricity connection**.
 - Moreover, there is a **lack of support staff and personnel** in local bodies such as secretaries, junior engineers, computer operators, and data entry operators. This **affects their functioning and delivery of services**.

Way Forward

- **The Three F's for City Governments:** The functional autonomy of city governments must be allowed and this should happen with three F's: the **transfer of 'functions, finances and functionaries'** to city

governments. Without these, functional autonomy would be empty rhetoric.

- In the **people's plan model of Kerala, 40% of the State's plan budget was for local bodies** (directly) with a transfer of important subjects such as planning, etc.
 - This paved the way for a new dimension to urban governance. Similar measures in other states are welcomed.
- Also, leadership in the cities must be elected for a term of five years. In some cities, the term of the mayor is for a year, the **functionaries must be transferred to the cities with a permanent cadre**.
- **Grants from Income Tax Collection:** The Scandinavian countries manage their functions well — from city planning to mobility to waste management by giving a chunk of the income-tax collected from citizens to city governments.
 - If the large urban agglomerates in India could get a **percentage of income tax for managing the affairs of urban places**, it would really help improve their situation.
 - Also, it was earlier recommended to **give 10% of income-tax collected from the cities back to them** as a direct revenue grant from the central government.
- **Need of Behavioural Change for Transformation:** Cities must be treated as **important centres of governance**, where democratic decentralisation can bring in amazing results.
 - There should be **transparency and adequate participation of the people**.
 - Cities should not be considered as entrepreneurship spaces where the sole driving force is to make them competitive to attract investments.
 - They must be considered as **spaces for planned development** by giving **adequate attention to resources**.

■■■

Indo-German Partnership for Indo-Pacific

This editorial is based on "Setting Sail For A Powerful India-German Partnership" which was published in The Hindu on 22/01/2022. It talks about the significance of the Indo-Pacific region from Germany's point of view and how India can prove as a key strategic partner for Germany in this field.

Tags: International Relations, GS Paper 2, Bilateral Groupings & Agreements, Groupings & Agreements Involving India and/or Affecting India's Interests, Effect of Policies & Politics of Countries on India's Interests

Germany has realised that the world's political and economic centre of gravity is, to a large degree, shifting to the **Indo-Pacific region**, with India as a key player, strategic partner and long-standing democratic friend at the hub.

After having visited Japan, Australia, Vietnam, Singapore and other countries in the Indo-Pacific region, the German Navy frigate **Bayern** recently landed in Mumbai. On close inspection, this marks a **remarkable step for Indo-German relations**. The visit of *Beyern* signifies a concrete outcome of the Indo-Pacific Policy Guidelines that Germany adopted in 2020.

India, Germany and Indo-Pacific Region

- **Indo-German Ties:** The **bilateral relations between India and Germany** are founded on common democratic principles. India was **amongst the first countries to establish diplomatic ties** with the Federal Republic of Germany after the **Second World War**.
 - Germany cooperates with India to the tune of **1.3 billion Euros a year in development projects**, 90% of which serves the purpose of **fighting climate change, saving natural resources** as well as promoting clean and green energy.
 - Germany has also been supporting the **construction of a huge solar plant in Maharashtra** with a capacity of 125 Megawatt which generates annual CO₂ savings of 155,000 tons.
 - After the appointment of new Chancellor of Germany in December 2021, India and Germany agreed that as major democracies and strategic partners, they will step up their **cooperation to tackle common challenges, with climate change on top of the agenda**.
- **Economic Cooperation - A Challenge:** There is a problem of the **lack of a separate bilateral investment treaty** between the two countries. Germany has a Bilateral Trade and Investment Agreement (BTIA) with India via EU, it **does not have the competence to negotiate it separately**.
 - Also, Germany is particularly **sceptical about India's trade liberalization measures**, it bats for more liberal labour regulations.
- **Indo-Pacific Region - Significance:** The Indo-Pacific, with India as its centrepiece, looms large in Germany's and the **European Union's** foreign policy.
 - The Indo-Pacific region is **home to around 65% of the global population** and 20 of the world's 33 megacities.

- The region **accounts for 62% of global GDP** and **46% of the world's merchandise trade**.
- It is also the source of **more than half of all global carbon emissions** which makes the region's countries key partners in tackling global challenges such as climate change and sustainable energy production and consumption.
- **Germany and Indo-Pacific:** Germany is determined to contribute to buttressing the rules-based international order.
 - Within the **German Indo-Pacific guidelines**, India is mentioned for the enhancement of engagement and fulfilment of objectives. India should now be an important node while discussing issues relating to international security.
 - **India is a maritime powerhouse** and a strong advocate for free and inclusive trade — and, therefore, **a primary partner for Germany** (eventually the EU) on this mission.

Way Forward

- **Strengthening Indo-German Relations:** Germany views **India as an important partner for resolving global issues**, including climate change, food security, energy and international peace and security.
 - Also, the **new coalition government formed in Germany** offers an opportunity for India to strengthen the strategic partnership between the two.
 - Germany is **keen to implement connectivity projects**, through the European Union, to **counter China**. The coalition sees the **conclusion of an India-EU BTIA as an important aspect** that will help develop relations.
- **Scope of Economic Cooperation:** India and Germany must realise the cooperative goals of the Intellectual Property guidelines and **must involve businesses**.
 - **German companies must be encouraged to use the liberalised PLI scheme** to establish manufacturing hubs in India.
 - Germany has committed 250 million euro in loans to Africa for a vaccine production facility, if implemented with India such a facility can be established in the underserved East African region.
- **Sharing Responsibilities in the Indo-Pacific Region:** As much as India, Germany is a trading nation. More than 20% of German trade is conducted in the Indo-Pacific neighbourhood.
 - This is why Germany and India share a **responsibility to maintain and support stability, prosperity and freedom** in this part of the world. Both India and

Europe's key interests are at stake when championing a free and open Indo-Pacific.

- **An Opportunity to Coordinate:** Germany recognises that no global problem can be solved without India's active involvement.
 - In 2022, **Germany will hold the G7 Presidency**, and from December 2022, **India will also assume the same role** for the **G20**. This is an **opportunity for joint and coordinated action**.
- **Together Towards Sustainable Development:** No country receives more financial support from Germany in tackling climate change than India.
 - What world leaders agreed upon at **COP26 in Glasgow**, Germany and India are putting into practice.
 - Together the two countries can **work on a sustainable path for India's growth that will benefit both of them**.

Conclusion

India and Germany are setting sail for a powerful partnership, in calm waters and heavy seas alike. The two must think afresh to engage more closely in areas of complementarity.



Challenges to a Federal India

This editorial is based on "The Missing Federal Spirit" which was published in Indian Express. It talks about the challenges associated with the federal spirit of India.

Tags: Indian Polity, GS Paper 2, Federalism, Co-operative Federalism, Separation of Powers, Centre-State Relations

On **January 26, 1950** when the Indian Constitution came into force, it was a big step for the nation that had longed to achieve the **ideals of justice, equality, liberty and fraternity**.

In a country of subcontinental proportions, it is necessary that the **ideals mentioned in the Preamble to the Constitution should extend to all levels of governance**. The overall emphasis on equality in the Constitution is visible in all arrangements made around the **federal spirit** and ideas.

Conscious of the differential needs of the populations of different states, the drafters of the Constitution made provisions for an equitable share of powers and responsibilities among different levels of governments. Unfortunately, India in recent years has been **witnessing the worst assault on the federal system** and on institutions.

The Federal Structure of India

- **Nature of Indian Federalism:** A Federal theorist **K.C. Wheare** has argued that the nature of Indian Constitution is quasi-federal in nature.
 - The SC in **Sat Pal v State of Punjab and Ors (1969)**, held that the Constitution of India is more Quasi-federal than federal or unitary.
- **Constitutional Provisions for Ensuring Federalism:** The respective legislative powers of states and Centre are traceable to Articles 245 to 254 of the Indian Constitution.
 - The **lists in the 7th Schedule** of the Constitution — Union, State and Concurrent also exemplify equitable share of powers, wherein each level of government has its own sphere, enabling context-sensitive decision-making.
 - **Article 263** provided for the **establishment of an Inter-State Council** for smooth transition of business between the Union and states and resolution of disputes.
 - **Article 280** provided for the constitution of the **Finance Commission** to define the financial relationship and terms between the Union and states.
 - Also, the institutions for **local self government** were added through the **73rd and 74th amendments**, to strengthen the grass roots democracy.
- **Institutions for Federalism:** The **Planning Commission** always had space for discussion on issues concerning the federal nature of the polity and was sensitive to the different developmental requirements of states.
 - The **inter-state tribunals, the National Development Council** and other informal bodies have **served as vehicles of consultations** between the Union, states and UTs.
 - These bodies have been instrumental in tackling difficult issues democratically through deliberations while upholding the cooperative spirit between the Union and states.

Challenges in

Maintaining the Federal Spirit of India

- **Ineffective Functioning of Several Bodies:** The **Planning Commission has been scrapped**, the Inter-State Council has **met only once in the last seven years** while the **National Development Council has not met at all**.
 - These events have led to obstructions in upholding the cooperative spirit between the Union and states.
- **Issues in Tax Regime:** The misconceived Goods & Services Tax (GST) has already taken away much of the autonomy available to states and has **made the country's indirect tax regime unitary in nature**.

- During the pandemic, the Union government **repeatedly violated the compensation guarantees to the States under the GST regime**. Delay in paying the States their due worsened the impact of the economic slowdown.
- **Encroachments Upon States' Autonomy in State Subjects:** Many important and politically sensitive decisions have been taken in the past few years, without reference to, and consultation with, the concerned states such as:
 - **Article 370** was removed without consulting the state legislature.
 - Parliament legislated on "agriculture" in the state list, to **enact the three contentious farm laws**, overstepping its jurisdiction and imposing a law on the states.
 - The **New Education Policy 2020** has also been flagged as encroaching on the federal nature of the polity.
 - Additionally, the **BSF's jurisdiction was extended** in Assam, West Bengal and Punjab **without any consultation** with the concerned states.
- **Impact of Covid-19:** The states were curtailed in aspects relating to Covid-19 management such as procurement of testing kits, vaccination, the use of the **Disaster Management Act, 2005**, and the unplanned national lockdown.
 - Moreover, the ill-prepared government during the **Second Wave** countered criticism by claiming health as a 'State subject'.

Way Forward

- **Recognition of Federalism:** It should be underlined that **Article 1** of the Constitution declares that "India that is Bharat is a union of states", and that **devolution of powers is necessary in such a setting**.
 - A conscious recognition of the federal character of India's polity is essential to protect its national character.
 - A struggle at all levels shall be waged against those who try to usurp the federal rights of the other, be it the local level government against the states or the state government against the centre.
- **Strengthening Inter-State Relations:** State governments shall consider **deploying human resources** to support them in preparing responses to the consultations initiated by the Union, especially with a **focus on the federalism angle**.
 - Instead of reaching out to each other only during crisis situations, **Chief Ministers may create forums for regular engagement** on this issue.

- This would be crucial in the advocacy of major demands like the extension of GST compensation to 2027 and inclusion of cess in the divisible pool of taxes.

- **Bringing Reforms while Balancing Federalism:** A diverse country India requires a proper **balance between the pillars of federalism** (autonomy of states, centralisation, regionalisation etc). **Extreme political centralisation or chaotic political decentralisation shall be avoided** as both lead to the weakening of Indian federalism.
 - Proper utilisation of the institutional mechanism of the Inter-state Council must be ensured to **develop political goodwill between the Centre and the States** on contentious policy issues.



Budget and Education

This editorial is based on "Budgeting For The Education Emergency" which was published in The Hindu on 24/01/2022. It talks about the challenge of low public spending on education in India.

Tags: Governance, GS Paper 2, Government Policies & Interventions, Education, GS Paper 3, Government Budgeting, Fiscal Policy

Since the onset of the Covid-19 pandemic, the already dismal condition of the education system of India has been exacerbated. Due to the pandemic, the **schools have remained shut for about 20 months now**, leading to **poor learning outcomes** for the children, especially the poor and disadvantaged.

The **comparatively lower public expenditure on education** in India and the **unavailability of data** on public expenditure on education from different Ministries further adds to the plight of India's education sector.

These challenges offer a vast scope of improvement for the upcoming **Budget** for FY 2022-23 vis-a-vis the education sector.

Education and Public Spending

- **India's Spending and Other Countries:** Even before the pandemic, public spending on education in most States was **below that of other middle-income countries**.
 - Most **major States spent in the range of 2.5% to 3.1% of State income** on education, according to the Ministry of Education's Analysis of Budgeted Expenditure on Education.
 - This compares with the **4.3% of GDP that lower-middle-income countries spent**, as a group, between 2010-11 and 2018-19.

- **Share of Education in Budget:** In the 2021-22 Budget, in the midst of the gravest education crisis, the **trend of increasing public spending on education was in the opposite direction** for the Central government and many State governments.
 - The Central government's allocation for the Education Department was **slashed compared to the previous year**, even though the size of the overall budget increased.
 - Of the major States and Delhi, **8 states either reduced or just about maintained their budget allocation** for education departments in 2021-22 compared to 2020-21.
 - **7 States marginally increased** their allocation by 2%-5%.
 - **Only 6 States increased their allocation by more than 5%**, though it remains to be seen how actual expenditures compare with budget allocation.
- **Need for Increasing Public Spending on Education:**
 - **Lower Expenditure than Countries with Similar GDP:** **UNESCO's** 2030 framework for action suggests public education spending levels of between **4% and 6% of GDP** and **15%-20% of public expenditure**.
 - A recent **World Bank** study notes that **India spent 14.1 % of its budget on education**, compared to 18.5% in Vietnam and 20.6% in Indonesia, countries with similar levels of GDP.
 - Since India has a higher share of population under the age of 19 years than these countries, it should actually be allocating a greater share of the budget than these countries.
 - **Lockdown Caused a Major Loss to the Disadvantaged:** The vast majority of the total children enrolled in preschool and school **did not have meaningful structured learning opportunities** during the 20 months of school closures.
 - They have **lost basic literacy and numeracy skills**, and even the habit of learning.
 - Millions have **disengaged from education**, due to **lack of contact with teachers**.
 - In anticipation of the **Omicron wave**, the schools were again rushed to be closed, **contrary to all international trends**.
 - **Failure of Technology in Replacing Teacher Training:** Many State governments and the Central government have been spending public resources to use technology in education, however, there is no clear idea about how much of public resources was/is being spent on technology.
 - Also, there are apprehensions about the efficacy

of online learning as **less than 20% of all students could access even pre recorded videos**.

- **Opacity of Expenditure Data - An Underlying Issue:** As per the **Economic Survey of 2020-21**, the combined Central and State government **spending on education was estimated to be 2.8% of GDP** (2018-19), whereas, the data from the Ministry of Education indicates that public spending on education had reached 4.3% of GDP in the same year, rising from 3.8% of GDP in 2011-12.
 - The difference in the figures is due to the **inclusion of expenditure on education by Ministries other than the Education Ministry**.
 - Such as the Ministry of Social Justice and Empowerment (on Anganwadis, scholarships, etc.) and the Ministry of Science and Technology (for higher education).
 - However, the **composition of these expenditures is not readily available** due to the fact that education expenditures of departments (other than the Education Ministry) are not shown by level.
 - The estimation of education expenditure by other departments of the State governments is even more crude, as they do not even provide separate expenditures on education.

Way Forward

- **Multi-Pronged Approach for Reviving Education System:** The disaster caused by the Covid-19 pandemic could be the **opportunity to reverse the chronic under-funding of India's public education system**.
 - The education system now needs not only an infusion of resources for multiple years, but also a **strengthened focus on the needs of the poor and disadvantaged children** who are most likely to be impacted adversely in such educational crises.
 - However, Increased public spending alone is a necessary but not sufficient condition to address all the problems. It is also necessary to **take account of what the public money is being spent on** and keeping record of **how effectively the resources are used** is also important.
- **Additional Resources:** The additional needs besides increased public spending include:
 - **Back-to-school campaigns** and re-enrolment drives
 - **Expanded nutrition programmes** to address malnutrition
 - **Reorganisation of the curriculum** to help children learn language and mathematics in particular
 - Support their **socio-emotional development**, especially in early grades
 - **Additional learning materials; teacher training and**

ongoing support; additional education programmes and increased instructional time during vacations and weekends

- **Expectations from the Upcoming Budget:** In an era of data deluge, it is astonishing that public expenditure data on the education sector are not easily available.
 - The opacity of expenditure data provides an opportunity for the upcoming Budget to **resolve the confusions regarding the additional funds** that will be allocated for different levels of education by the principal departments in 2021-22.
 - The budget must also have a **provision for the funds that will specifically address the issue of education emergency** faced by the children who have been deprived of learning opportunities.



III Consequences of Green Strategy

*This editorial is based on the article “**The consequences of an ill-considered green strategy**” which was published in The Indian Express on 27/01/2021. It talks about the issues of renewable energy and the importance of traditional sources of energy in the present time.*

Tags: Science and Technology, GS Paper - 3, Solar Energy, Renewable Energy, Growth & Development, Energy Security

Europe’s push for renewable energy at the cost of **conventional fuel** may end up causing a global food crisis. Since August 2021, Western Europe has faced a problem with renewable energy – the **wind doesn’t always blow when needed and the sun doesn’t always shine**.

Commodity markets across the world operate on a balance of demand and supply — even a small change in either side can push the prices up or down sharply. Europe’s sudden appetite for natural gas has pushed up the prices of **Liquefied Natural Gas (LNG)**, the form in which gas gets traded globally.

The LNG price published by the Australian Competition and Consumer Commission (Australia is one of the leading global LNG exporters) is around four times at present (January 2022) in comparison to a long-term average.

Advantages of Renewable Energy

- **Sustainable:** Energy generated from renewable sources will be cleaner and greener and more sustainable.
- **Employment opportunities:** Inclusion of a newer technology simply means more employment opportunities for the working population of the country.

- **Market assurance:** From the economy point of view, renewable sources provide the market and revenue assurance which no other resources can provide.
- **Non- exhaustive Source:** The renewable sources of energy like Solar, Wind, Geothermal energy sources are perpetual and non exhaustive in nature.

Issues That Emerge From Green Energy Adoption

- **More Challenges For Poor Countries:** What happens when renewable energy doesn’t deliver the goods, and rich economies scramble to buy gas to make up the shortfall?
 - E.g countries such as the UK, Spain and Germany are relying more on natural gas to make up the electricity shortfall which has led to price increase.
 - It will be difficult for the poor countries to be able to afford increased price rise.
- **Importance of Conventional Fuel:**
 - **Natural gas** is used to produce urea – if gas prices go up, fertiliser also becomes expensive. Expensive fertiliser means more expensive food – that will hurt the poor disproportionately.
 - The impact of expensive fertiliser will be felt some months down the line as expensive fertiliser and reduced harvests push up food prices.
 - India is relatively less affected as the share of natural gas in the country’s energy mix is low but will still face problems due to high food prices.
 - The food inflation will come at a time when the ongoing pandemic has disproportionately hurt lower income groups worldwide.
 - **Crude Oil:** In 2007-08, when oil prices were high, there was a push to use “biofuels” led by the US and Europe. Land was diverted to cultivate crops that could be converted to ethanol, leaving less for food crops.
 - The effects of the 2008 food price crisis were felt around the world, especially by the poor. High price of food was one of the proximate causes of political unrest in the Arab world in 2011 — Libya and Syria continue to feel its aftereffects.
 - Thus, a blind push to demonise and shut down traditional sources of energy and move to less reliable “clean” energy can have numerous effects.
- **Installation Cost Issue:** The high initial cost of installation is one of the major hurdles in the development of renewable energy. Although the development of a coal plant requires high investment, it is known that wind and solar power plants also require huge investment.

- In addition to this, storage systems of the generated energy is expensive and represents a real challenge in terms of megawatt production
- **Resource Locator:** Most renewable energy plants that share their energy with the grid require large areas of space. In most cases, renewable energy sources are dictated by location which can be off-putting to users.
- Firstly, some renewable energy sources are simply not available in different regions. Secondly, the distance between the renewable energy source and the grid is a major aspect in terms of cost and efficiency.
- In addition to this, renewable energy sources depend on weather, climate and geographical location, therefore meaning that one type of energy generation is not appropriate for the region.

Way Forward

- Framework to avoid unnecessary delays in **policy decision making** and implementation.
- **Increasing efficiency** in extraction, production and uses of conventional energy sources.
- Strong financial measures are required to finance renewable projects, innovative steps like green bonds, institutional loans and clean energy funds, which should not affect the traditional sources (Coal, Natural gas) investment.
- Promotion of research and development in the renewable energy sector, especially in storage technology.
- India needs a Solar Waste Management and Manufacturing Standards Policy.

Conclusion

The crisis also holds lessons for India, which has ambitious plans for using renewable technologies but doesn't have the financial cushion available to the European nations. Cheap and reliable energy sources should not be abandoned until the alternatives have been stringently stress tested.

India will be especially hard hit if oil prices spike as it imports close to 1.4 billion barrels of oil annually. However, fresh investment in developing new oil and gas reserves has been slowing down globally, in part due to climate action — and crude oil price is at a multi-year high.



Economy and Informality

This editorial is based on "India's Economy and the Challenge Of Informality" which was published in The

Hindu on 28/01/2022. It talks about the prevalence of the informal sector in India's economy and the challenges associated with the formalization of the sector.

Tags: Indian Economy, GS Paper 1, Population and Associated Issues, GS Paper 3, Employment, Growth & Development, Inclusive Growth

In the last few years, the Government of India has made several efforts to formalize the Indian economy via the introduction of the **Goods and Services Tax (GST)**, **digitalisation of financial transactions** and enrolment of informal sector workers on government portals such as **E-Shram**.

Despite these well-intentioned efforts at formalization, the challenge of informality looms large for India. The novel coronavirus pandemic has only exacerbated this challenge.

Lack of job security, absence of social security benefits, tax evasion, all point towards the need for the formalization of the informal sector at a faster yet sustainable pace. Policy interventions, fiscal support, education and upskilling have a major role to play in the formalization of the economy.

Informal Sector and Formalization

- **Informal Economy in India:** An **Informal economy** represents enterprises that are not registered, where employers do not provide social security to employees.
 - In many parts of the developing world, including India, informality has reduced at a very sluggish pace, manifesting itself most visibly in urban squalor, poverty and unemployment.
 - Despite witnessing rapid economic growth over the last two decades, **90% of workers in India have remained informally employed**, producing about half of GDP.
 - Official **Periodic Labor Force Survey** data shows that **75% of informal workers are self-employed and casual wage workers** with average earnings lower than regular salaried workers.
 - Combining the ILO's widely agreed upon definition with India's official definition (of formal jobs as those providing at least one social security benefit — such as EPF), the **share of formal workers in India stood at only 9.7% (47.5 million)**.
- **Formal-Informal Linkage:** The fiscal perspective has a long lineage in India going back to tax reforms initiated in the mid-1980s.
 - Early on, in an attempt to promote employment, the Government of India protected small enterprises engaged in labor intensive manufacturing by

providing them with fiscal concessions and regulating large-scale industry by licensing.

- However, such measures led to many labor-intensive industries getting diffused into the informal/unorganized sectors.

➤ **Need of Formalization:**

- The **formal sector is more productive** than the informal sector, and formal workers have access to social security benefits.
- The persistence of a high share of informal employment in total employment **represents a lack of adequate growth or continuation of underdevelopment**.
- According to Oxfam's latest global report, out of the total 122 million people **who lost their jobs in 2020, 75% were lost in the informal sector**. This raises the need to **provide social protection to the vulnerable informal sector**.
- As the businesses of the informal economy are **not directly regulated**, they **usually avoid one or more taxes by hiding incomes** and expenses from the regulatory framework.
 - This poses a challenge for the government as a **major chunk of the economy remains out of the tax net**.

Challenges to Formalization

- Undoubtedly, widening the tax net and reducing tax evasion are necessary. However, global evidence suggests that the view that **legal and regulatory hurdles alone are mainly responsible for holding back formalization**.
- A recently released report- '**Ecowrap**' by the **State Bank of India (SBI)** recently reported shrinkage in the informal sector's share in the overall economy from 52% in 2017-18 to 15- 20%.
 - However, these findings **do not represent a sustained structural transformation** from informal to formal sector but a **temporary outcome of the severe lockdowns** imposed in 2020 and 2021.
- Policy efforts directed at bringing the informal sector into the fold of formality by alleviating legal and regulatory hurdles are laudable.
 - However, these **initiatives fail to appreciate that the bulk of the informal units** and their workers are essentially petty producers (self-employed and casual workers) eking their subsistence out of minimal resources. Therefore, **these attempts will yield limited results**.
- The registration of workers on the E-Shram portal is no indicator of formalization of jobs unless the workers

are able to get all the social security benefits listed on the portal as a matter of right.

- Increasing digitalization and registration in official records is neither a necessary **nor sufficient condition for any enterprise/worker to be classified as formal**.

Way Forward

- **Simpler regulatory framework:** The transition of the informal sector to the formal sector can only occur when the informal sector is given **relief from the burden of regulatory compliance** and is given enough time to adjust with the modern, digitized formal system.
 - It is believed that **simplifying registration processes, easing rules for business conduct, and lowering the standards of protection of formal sector** workers will bring informal enterprises and their workers into the fold of formality.
- **Education, Investment and Skilling:** The continued dominance of informality defines under-development. The economy will get formalized and the nation will develop when informal enterprises become more productive through **greater capital investment and increased education** and when **the skills are imparted to the workers**.
- **Strengthening MSME:** Nearly 40% of the informal workforce is employed with MSMEs. Therefore, it is **natural that the strengthening of MSME will lead to economic recovery, employment generation, and formalization of the economy**.
- **Financial Support for Formalisationx:** Giving financial support to **help small-scale industries stand on their own** is a crucial step in bringing them to the organized sector.
 - Schemes like **MUDRA loans** and **Start-up India** are **helping the youth carve a niche in the organized sector**.

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Boosting the Pharma Sector

*This editorial is based on "**Budgetary Support Could Propel Our Quest For Pharma Innovation**" which was published in Livemint on 28/01/2022. It talks about the steps that can be taken to boost the pharmaceutical industry of India.*

Tags: Indian Economy, GS Paper 2, Government Policies & Interventions, Issues Associated to Development, GS Paper 3, Inclusive Growth, Industrial Growth, Indigenization of Technology, Industrial Policy

The **Indian pharmaceutical industry** has been **playing a key role in improving global health** through its affordable and high-quality generic medicines.

However, the Indian pharma industry still faces numerous challenges, in terms of R&D, adequate funding, domestic manufacturing of raw materials for drugs etc. in becoming one of the world's largest pharmaceutical producers in terms of value.

For India to move into advanced therapies and biopharma products, the government needs to **incentivize the shift to a discovery-oriented and science-driven approach** by providing fiscal incentives and enabling policies.

It also **needs to build the necessary infrastructure** that supports breakthrough advances in science and technology to drive innovation and give the India pharma and biopharma industry its rightful place under the sun.

India's Pharma Sector

- **The World's Pharmacy:** India is the **world's third-largest pharmaceutical producer** and is considered '**pharmacy to the world**'. It is the largest provider of generic drugs globally.
 - The Indian pharmaceutical industry **meets over 50% of global demand for various vaccines**, 40% of generic demand in the U.S. and 25% of all medicine in the U.K.
 - Presently, over **80% of the antiretroviral drugs used globally to combat AIDS (Acquired Immune Deficiency Syndrome)** are supplied by Indian pharmaceutical firms.
- **Share in the Economy:** The Indian pharmaceutical industry is a strategic industry for the nation, with the advantage of scale (at \$37 billion in 2019-20, it contributed **1.5% to the GDP directly**, with another **3% coming indirectly**).
 - The industry also has global reach, and is a net **foreign exchange earner of more than \$10 billion annually**.
- **Progress in Global Share:** In 1969, Indian pharmaceuticals had a 5% share of the market in India, and global pharma had a 95% share. By 2020, it was the reverse, with Indian pharma having an **almost 85% share and global, 15%**.
 - India already contributes over **20% by value to the global generics market**, with Indian products contributing over 40% (by volume) of US drugs.

Challenges

- **Complex Drug Development Process:** Developing the new, cutting-edge therapies is a complex and lengthy process.

- The scientific, technical and regulatory bars are considerably higher, making drug development **difficult, more time-consuming and very expensive**.
- **Low R&D Expenditure:** India's current public expenditure on Research & Development (R&D) remains low, at less than 1% of gross domestic product (GDP). Whereas, among the BRICS countries - China spends 2.1% of its GDP on R&D, Brazil 1.3%, and Russia a little over 1%.
 - Moreover, R&D incentives only accounted for 7.5% of total tax incentives and those for **pharma were just 2.3% of this in 2018-19**.
- **Lack of Funding:** Despite the availability of several government instruments, many **brilliant ideas from entrepreneurs often do not come to fruition** because of their inability to access adequate funding.
- **Heavy Dependence on China:** Despite being a leading supplier of high-quality medicines to several countries, the Indian pharmaceutical industry is highly **dependent on China for pharmaceutical raw materials i.e Active Pharmaceutical Ingredients**.
 - Indian drug-makers **import around 70% of their total bulk drug requirements** from China.
- **Price Capping:** The Indian pharmaceutical Industry is facing pressure from both the government and the civil society to make generic medicines more affordable for a large section of the population of the country. However, it is important to note that the **medicine prices of India are already among the lowest in the world**.
 - The emphasis on low price of generic medicine **impacts the net profits of pharma companies**.

Way Forward

- **Increasing Value Share in Global Basket:** Besides the volume share, India now needs to capture value share as well. To move up the pharma value chain, it needs to focus on **emerging opportunities across novel biologics, biosimilars, mRNA and other new-generation vaccines**, orphan drugs, antimicrobials, precision medicines, cell and gene therapies, among others.
 - To rank among the top five countries in value terms and No. 1 in volume terms, the Indian pharma industry will need to **grow from \$44 billion currently to \$120-130 billion by 2030** and \$500 billion by 2047.
- **Boosting R&D Investments:** Studies suggest that a 1% increase in R&D investment, on average, leads to a rise in output of between 0.05-0.15%.

- India will need to make **exponential investments in R&D**, manufacturing and digital transformations to become a global pharmaceutical innovation hub.
- The government needs to urgently explore mechanisms to incentivize investment in R&D and evaluate various funding mechanisms that can help the industry. The **Budget for FY 2022-23 offers a great opportunity** to give the pharma industry a shot in the arm.
- **Research-linked incentives (RLIs)** can provide an impetus for the industry to increase R&D investments, as well as encourage it to forge much-needed linkages with academia to co-innovation.
- **Targeted Financial Incentives:** In order to increase production, the government needs to launch targeted financial incentives **to promote the manufacturing of diagnostic kits and other medical devices** — especially given that the raw material for manufacturing of these devices is heavily dependent on imports.
- This is also an **opportunity to bring a much larger proportion of manufacturing of APIs back into India**, so that the country is not dependent on imports of critical inputs.
- **Better Drug Pricing Policy:** The Indian pharma industry is now at the cusp of developing new molecules for treatment of various medical conditions at scale.
- Developing new drugs costs money, and the government needs to **provide the conditions for sufficient profits for investment in new molecules** while holding the firms accountable for producing new drugs for India and the world.
- At this time when Indian medicine prices are already amongst the lowest in the world, there is a need to **fine-tune the drug pricing policy** to generate enough surpluses to invent new molecules while **keeping the price levels reasonable** with the objective of providing affordable healthcare.



Killing Inequality

This editorial is based on “Show Commitment to Equity in the Budget” which was published in The Hindu on 31/01/2022. It talks about the key findings of Oxfam Inequality Report and the issues of socio-economic inequality in India.

Tags: Social Justice, Human Resource, GS Paper 2, Poverty, Issues Related to SCs & STs, Issues Related to Women, Issues Related to Minorities, GS Paper 3, Growth & Development, Inclusive Growth

Recently, **Oxfam International** presented its annual global Inequality Report titled **Inequality Kills** which presented the **quantum growth in wealth of a minuscule few**, and the **simultaneous impoverishment of millions** of working people. The findings of the report remain dismal for India as well.

Inequality can be corrected by a **rights-based policy framework** to be followed by the Indian state to **protect the poor and the marginalized**.

One of the most important places to show commitment to equity, is the **Union Budget**; and inequality should perhaps be discussed in India before and after every Union and State Budget.

Inequality in India

- **Constitutional Provisions to Tackle Inequality:** There is a constitutional mandate in India to reduce inequality - Articles 38 and 39 of the **Directive Principles of State Policy (DPSP)** mandate a policy path.
 - **Article 38(1):** “The State shall strive to **promote the welfare of the people** by securing and protecting as effectively as it may a social order in which **justice, social, economic and political**, shall inform all the institutions of national life.”
 - **Article 39 (c):** The State shall, in particular, direct its policy towards ensuring that the **operation of the economic system does not result in the concentration of wealth** and means of production to the common detriment.
- **India Specific Findings of Oxfam Report:**
 - **Inequality of Wealth:** During the Covid-19 pandemic, the report reveals, **more than half the world’s new poor are from India**; 84% Indian households have suffered a loss of income, with **4.6 crore people falling into extreme poverty**.
 - In this period, the richest 142 people have more than doubled their wealth to more than ₹53 lakh-crore.
 - **Decline in Social Security Expenditure:** As Covid continued to ravage India, the **country’s healthcare budget saw a 10% decline from RE** (Revised Estimates) of 2020-21.
 - The budgetary allocation for social security schemes declined from 1.5% of the total Union budget to 0.6%.
 - **Increasing Fiscal Deficit:** Lowering **corporate taxes from 30% to 22%** to attract investment last year (2020) resulted in a loss of Rs 1.5 lakh crore, which contributed to the increase in India’s **fiscal deficit**.
- **Factors of Inequality:**
 - **Budgetary Decline:** India is one of the few countries

in the world where **during the Covid pandemic the health Budget has declined** — and that too **by a huge 10%** in 2021.

- **Social security expenditure has declined** from an already low 1.5% in 2020-21 to 0.6% of the Union Budget in 2021-22.
 - It is at this end of Budget allocations where **people are deprived of the most basic services** and entitlements and are unable to survive.
- Even after increasing allocations in the first phase of the pandemic, **allocations were frozen, and budgets were slashed** in Budget 2021-22.
- **Inequality in Salaries and Allowances:** Social security pensions, for the elderly, for the disabled, and widows have been **frozen at ₹200-₹300 a month for almost 15 years**.
 - However, in contrast, there has been an increment in the salaries and pensions of the policymakers.
 - The increase for one crore central government employees and pensioners has cost the exchequer more than the total social security pension budget for 3.3 crore beneficiaries.
- **Unavailability of Subsidized Foodgrain:** The **priority list of households** under the **National Food Security Act (NFSA)** has been **frozen in absolute numbers**, based on a percentage **determined from the 2011 Census**.
 - In the last 11 years, population increases amounting to approximately **10 crore eligible beneficiaries have been kept out**.
 - Therefore, approximately 12% legally entitled people — even children of existing “priority households” — cannot get subsidized foodgrain.
- **Unequal Access to Education:** The pandemic has also produced a generation of children who have forgotten what formal education is. **Many teenagers from poor households have already joined the workforce**.
 - In this period, there has been a **6% cut in the education Budget**. Relying on online teaching, accompanied by Budget cuts, amounts to the

institutionalization of endemic multidimensional poverty.

Way Forward

- **Multi-Pronged Approach to Tackle Inequality:** Programs such as the National Food Security Act must receive the quantum of allocations needed. Also, the **People's Action for Employment Guarantee (PAEG)** has estimated that **approximately ₹2,64,000 crore will be needed to guarantee 100 days work for currently active job cards**.
 - The social security pensioners need to be protected from hunger, sickness and poverty. The **election season offers an opportunity** to fetch the basic rights of the unorganized and vulnerable people.
- **Gains from Tax:** All the governments should immediately **tax the gains made by the super-rich** during this pandemic period.
 - Jan Sarokar, a network of more than 30 social sector movements, has suggested that a **2% wealth tax, and a 33% inheritance tax** on the top 1% of our population **will fetch an estimated ₹11 lakh crore per annum**, to support basic social sector entitlements.
- **Increasing the Reach of Basic Necessities:** Given the growing inequality in India, the direction that public policy should now take is evident; there is a **need to spread health and education far more widely** amidst the population.
 - By ensuring **universal access to public funded high quality services** like **Public health and education, social security benefits, employment guarantee schemes**, inequality can be reduced to a great extent.
- **Employment Generation:** The **labor-intensive manufacturing sector** of India has the **potential to absorb millions of people** who are leaving farming while the service sector tends to benefit the urban middle class.
 - The **International Labor Organization (ILO)** also recommends that a **minimum wage floor should be set** in a manner that balances the needs of workers and their families with broader economic factors.

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Drishti Mains Questions

1. Discuss the role that India can play as a non-permanent member of the UNSC in bringing out reforms within the organisation.
2. "To fulfil India's commitment towards the Sustainable Development Goal of improving maternal health, the Pradhan Mantri Matru Vandana Yojana (PMMVY) is a promising initiative by the Centre. However, there is a need to revisit the procedural and implementation gaps of the scheme". Discuss.
3. "There is a need to strike a balance between safeguarding the forests and the right to livelihood of the local people". In the context of the threats being faced by the Western Ghats, justify this statement.
4. Discuss the steps that India can take to transform itself into an Open-Source Economy.
5. Discuss India's contribution towards net zero carbon emissions and what more India can do to achieve its goals of net-zero by 2070.
6. "Although increasing the legal age for marriage of women is a progressive step in achieving gender equality, it is more important to focus on the effective implementation of the existing policy frameworks and laws". Discuss.
7. It is imperative that India and China start an effective disengagement process and resolve the issue of border conflict in order to bring about an 'Asian Century'.
8. "The issue of inadequate and unaffordable urban housing is a major roadblock to good urbanisation". Discuss.
9. "Striking the right balance between continental and maritime security would be the best guarantor of India's long-term security interests in the central Asian region". Comment.
10. "Advancing human development is impossible if we continue to create planetary pressures for others". In the context of Planetary pressures-adjusted Human Development Index (PHDI), analyse the statement.
11. "The policies that we adopt, and their effective implementation will ensure that the demographic dividend, a time-limited opportunity, becomes a boon for India". Discuss.
12. "Deficiencies in the present system of appointment of Election Commissioners needs to be removed and adequate safeguards must be put into place to ensure that ethical and capable people head the concerned positions". Comment.
13. Discuss the steps that India can take to establish a suitable ecosystem for adoption of quantum technology and its applications within the country.
14. "India's cities are the drivers of economic growth with significant production and consumption, however, this sunrise story is threatened by unsustainable urban development in the era of climate change". Comment.
15. Discuss the challenges faced by the livestock farmers in rural India.
16. Discuss the foreign policy approaches that India can adopt in the changing world order.
17. "The world has changed and public and corporate governance must change with it. The post pandemic expects a new model of governance that is not only inclusive of environmental health but also focuses on long term planning for overcoming different socio-economic crises". Comment.
18. Discuss the key challenges that hinder the efficient functioning of the Urban Local Governments and the corresponding measures that can be taken.
19. Discuss how Indo-German collaboration can create a win-win situation for both the countries in fulfilling their respective visions for the Indo-Pacific region.
20. Discuss the challenges pertaining to the federal structure of India.
21. Discuss the challenges faced by the education sector of India with reference to lower public expenditure.
22. "Conventional energy sources are more reliable and should not be abandoned until the alternatives like clean energy have been stringently stress tested." Discuss.
23. Discuss the need for the formalization of the informal sector and the steps that can be taken for a smoother structural transformation of informal to formal economy.
24. Discuss the measures that can be taken to boost the pharmaceutical industry of India.
25. Discuss the opportunities that the upcoming Union Budget offers in terms of tackling socio-economic inequality in India.