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G.S PAPER I

1. SOCIETY

Despite laws, workers in the field in India still face stigma and are devoid of essential rights. Do you agree with this view? Comment

KEY POINTS

- While civil society started a movement in the 1990s to abolish dry latrines, the focus now is on manhole deaths and provision of safety equipment to sanitation workers.
- If, on the one hand, the civil society has tended to approach this issue as a collective problem that needs to be addressed by the State, on the other, the current ruling dispensation seems to be framing the issue as a spectacle in the form of *Swachh Bharat Abhiyan*, and is addressing the problem in terms of an obstacle in the way of tourism promotion.
- In 1993, the then government promulgated an Act prohibiting the construction of unsanitary dry latrines and employing manual scavengers.
- The government's description of dry latrine was a problem, as it defined dry latrine as "latrine other than a water-seal latrine". Manual scavenging was not just a practice related to dry latrines, but also to insanitary latrines and open defecation.
- Until the introduction of the Employment of Manual Scavengers and Construction of Dry Latrines (Prohibition) Act in 1993, State governments had a post called 'scavengers'. A scavenger's job was to manually remove human excreta in households and designated places. The local authorities levied scavenging tax on houses for availing this service. But after the Act was introduced, State governments themselves became agencies that would enforce prohibition of the construction or usage of dry latrines.
- Ten years later, the Safai Karamchari Andolan, a social movement that campaigned against manual scavenging, along with other organisations, filed a public interest litigation in the Supreme Court.
- Workforce in sanitation departments is recruited via open competition. The local administration usually approaches particular caste members during such hiring. The situation is so dire that while we find volunteers to distribute food and undertake rescue operations during natural calamities, hardly any volunteer offers to do clean-up work or dispose of dead bodies.
- There are no vehicles for sanitation workers to travel to their designated workspaces, and they have to either walk for kilometres or use garbage vehicles. This is a forced choice and is connected to the dignity of a worker.

2. POLITY

For the future of Centre-state relations, the Centre should borrow to fund states' GST loss. Do you agree with this view? Comment

KEY POINTS

- Building the consensus which culminated in the creation of the GST Council in 2017 to levy GST — a unified domestic consumption tax — was hailed as a great example of cooperative federalism. The states had agreed to join in the reform even as it involved sacrificing their fiscal autonomy.



- Concerned with their Central Sales Tax compensation experience, states wanted a firm assurance from the Centre. The minutes of the 7th and 8th GST Council meeting show that most of the states wanted the Centre to commit on paying compensation from the Consolidated Fund of India (CFI) .
- The payment of compensation has plunged the Union-state relationship to a new low. Besides the issue of compensation itself, the way the entire episode has been managed smacks of gaming and strategy in a period of crisis which does not augur well for the future of the Union-state relationship.
- Giving selective press statements from time to time by “officials” and “sources” to pressurise the states into accepting one or the other option does not infuse confidence.
- The issue is one of compensation to be paid to the states for which a solution must be found. It is the Centre’s commitment to find the compensation mechanism and borrowing is one of the options that must be discussed in the Council.
- Furthermore, if the commitment of the Centre is recognised as admitted by the finance minister in the 7th GST council meeting, given the relative fiscal strength of the Centre and the states and as the interest rate of the Centre’s borrowing is lower than that of the states, the Centre should take the responsibility to borrow.

The inclusion of the word fraternity in Preamble is of historic importance and contemporary relevance. Discuss

KEY POINTS

- A major one was the 1931 “Fundamental Rights” resolution of the Indian National Congress.
- Furthermore, the resolution added, such a constitution should prohibit discrimination against persons of any “religion, caste or creed in regard to public employment, office of power, and the exercise of any trade or calling” and should rule out any “civic bar on account of sex”.
- There is evidence that close collaboration between Gandhi and Jawaharlal Nehru produced the text of this consequential resolution, which Gandhi moved in Karachi in 1931. But it had the approval also of Patel and of everyone else who counted.
- The “constitution” resolution, as this Karachi resolution may also be called, was thus adopted during a landmark moment in our journey towards independence.
- The Constituent Assembly passed its “Objectives Resolution”, which had been discussed from November 1946. This resolution declared: “All people of India shall be guaranteed and secured social, economic and political justice; equality of status and opportunities and equality before law; and fundamental freedoms — of speech, expression, belief, faith, worship, vocation, association and action...”
- While these words bear a clear resemblance to the Preamble to come, they do not include the word “fraternity”.
- If available, any record of discussions within the Drafting Committee that led to the inclusion of “fraternity” in the eventual Preamble might throw additional light on the inference that Gandhi may have contributed posthumously to it.
- Nearly two years later, in his famous speech of November 25, 1949, to the Constituent Assembly, Ambedkar would say: “Without fraternity, equality and liberty will be no deeper than coats of paint.”
- In any case, what the world’s present condition needs, namely bonding between humans, may be more important than the alphabet letters that make up “fraternity”.



Why is there a long downtrend observed in the proportion of job-holders among Indian women?

Examine

KEY POINTS

- The viral outbreak has exacted a heavy toll and thwarted our chance of achieving that ambitious target is undeniable. But what is less talked about is the opportunity cost we bear from having too low a proportion of women at work.
- According to World Bank data, that rate hovered above 30% after India's economy opened up in 1991, and then peaked at 31.8% in 2005, before slipping to 20.3% this year—among the lowest in the world.
- Though there has been the odd report of a trend reversal in recent years and months, attributable to a broad crunch in job availability since 2017 and worsened by our covid crisis, there is no getting away from the need to intervene in favour of raising female participation in the economy.
- As our government weighs a proposal to raise the age after which women can legally marry from 18 to 21, it is tempting to view such a move as a spur for greater female work participation through extended education and an associated delay in child-bearing. Yet, even the current age law is weakly followed.
- According to Unicef, with over 100 million females who got married before turning 15, India has more children in wedlock than any other nation. So, while longer educational exposure afforded by an upward age revision could help the cause, we also need an effective social campaign that directly addresses hold-backs.
- Without a shift in India's observable preference for male offspring, for example, raising women's minimum age of marriage might perversely also raise the perceived "burden" of a girl child among some families, pushing them to either opt for pre-natal sex selection or flout India's marital age bar. Social reforms and better law enforcement have far bigger roles to play.

3. GOVERNANCE

The crisis in the sugar industry can be solved through cooperation from the policies of the center and state. Comment

KEY POINTS

- The sugar industry, supposed to commence its crushing activities for the 2020-21 season this month, appears to be hamstrung by problems — some familiar and some new . In what has become a familiar story after every season of surplus, the industry has run up large arrears with farmers for the supply of cane.
- The industry's persistent working capital crunch has also been aggravated by the Centre delaying its promised payouts towards transport subsidy on sugar exports, relying on which the industry has shipped out over 60 lakh tonnes of sugar this year.
- The Centre has been tardy in reimbursing mills for the carrying costs on the 40-lakh tonne buffer-stock created at its behest. State governments, on their part, have been delaying payments on co-generated power.
- For instance, instead of desisting from hikes in the Fair and Remunerative Price (FRP) for cane, which would discourage farmers from planting excessive cane, the Centre has kept up FRP hikes and begun announcing a 'minimum selling price' for sugar.
- States like Uttar Pradesh have worsened the over-capacity situation with unrealistic State Advised Prices and capital subsidy schemes. The industry's own efforts at de-risking the business through forward integration moves such as the processing of molasses into ethanol and bagasse into power have come a cropper, too.
- Annual skirmishes between the sugar industry and oil marketing companies on the quantum and pricing of ethanol have ensured that the ethanol blending programme is a non-starter.

- The obvious solution to the sugar industry's woes lies in freeing both cane and sugar prices from the shackles of government control and allowing free market forces to dictate the demand-supply equation for sugarcane and its end-products.
- Many expert committees, including the C Rangarajan committee in 2012, have already put out well-thought-out policy prescriptions for untangling the mess that is the Indian sugar sector; the only thing required is the political will to implement these recommendations.
- The solution lies in freeing both cane and sugar prices from the shackles of government control and allowing free market forces to dictate the demand-supply equation for sugarcane and its end-products.

4. GOVERNMENT POLICIES

Kerosene and LPG subsidies need to be rationalized and special assistance should be provided to the BPL families when the prices of oil go up. Comment

KEY POINTS

- Indeed, BPL families can and should be helped when prices go up, but without having multiple prices. The current mechanism is misused to generate black money, even in developed countries.
- This is indeed an encouraging development, driven by the NDA's 100% electrification drive and the Ujjwala scheme, which promotes the use of LPG by BPL families by giving free connections. On the other hand, LPG consumption has increased from 13.1 mt in 2009-10 to 26.4 mt in 2019-20.
- In addition, the NDA government needs to be credited for initiating the process of decreasing the subsidy by increasing the price of subsidised kerosene and LPG in small increments.
- With a drop in international LPG prices, there has been a significant over-recovery of subsidies—this issue has not received media attention. In May, over-recovery was Rs 120 per cylinder.
- They must have expected backlash from consumers. Instead, they took recourse to increasing the price of LPG in small doses, which went unnoticed by consumers. Even more significantly, the opposition parties also did not protest.
- Adoption of direct benefit transfer for LPG has helped reduce the subsidy burden. The UPA started this, and the NDA later modified it. This has also helped minimise diversion and strike off duplicate or bogus LPG connections.
- When oil prices increase in the future, the government will come under pressure to support the poor to continue to buy LPG or kerosene.
- Instead of supplying LPG cylinders or kerosene below the market price, the government should adopt a modified policy of helping only the BPL families. They can be given a special fuel assistance grant when oil prices are above, say, \$75 per barrel.

Do you think that the Production Linked Incentive Scheme is a right step towards 'Atmanirbhar Bharat'? Explain

KEY POINTS

- A significant increase in global demand for consumer electronics has given India an opportunity to attract foreign investments as well as encourage domestic manufacturers to focus on manufacturing consumer electronics in India under the flagship 'Make in India' initiative of the Government.
- To achieve this objective, the Government has been increasing customs duty on consumer electronics and their components, so as to deter imports. However, in the absence on technological capabilities, mere deterrence to imports hasn't had the desired impact on domestic manufacturing.



- Under the National Policy on Electronics 2019, introduced to position India as a global hub for electronics system design and manufacturing, the Ministry of Electronics and Information Technology (MeitY) has introduced a Production Linked Incentive Scheme for Large Scale Electronics Manufacturing (Scheme).
- The scheme is available to all companies registered in India which meet the threshold requirement of a specified incremental investment (between ₹ 100 crore and ₹ 1,000 crore) in the next four years as well as incremental sales of manufactured goods.
- In case more applications are received, then companies having the highest consolidated global manufacturing revenues will be considered. Accordingly, the scheme is designed to select only the few top companies as the Government has limited funds to disburse.
- On the flip-side, if one company under-performs but another company over-performs in terms of its net incremental sales, then any unappropriated incentive amount will be transferred proportionately to the over-performing companies.
- In addition to the scheme for electronic sector, the Government could also look to implement similar incentive schemes for other sectors such as automobile, pharmaceuticals, FMCG, etc. Further, the government must also not lose sight of the service industry which has historically been India's strong point, as far as revenue and employment generation is concerned, but which has rarely been privy to any incentive from the Government.

Why Over the top telecommunication (OTT) services need to be regulated by The Telecom Regulatory Authority of India in the country? Examine

KEY POINTS

- In the absence of regulation, users' right to privacy may be endangered and most of the gains are likely to be appropriated by digital giants because of their monopoly power, first mover advantage and deep pockets
- The Telecom Regulatory Authority of India (TRAI) has come out with its recommendations on Regulatory Framework for Over-the-Top (OTT) Communication Services.
- OTT communications include services provided by WhatsApp, Facebook messenger, iMessage, Skype, etc. TRAI recommended that regulatory interventions are not required in respect of issues related with privacy and security of OTT services at the moment.
- Social network providers, search engines, e-mail service providers, messaging applications are examples of non-state actors. Due to technological developments, not only the state but also big corporations and private entities can behave like 'big brother'.
- First, an individual's right to privacy may be endangered by OTT communication services too. Hence, there is a need for state intervention. Second, private entities may act as 'big brothers'. This could also imply that market forces may not always act in the interests of consumers.
- There does not seem to be a universal definition of what OTT communication services are. As a result, the difference between OTT communication and non-communication services becomes thin and blurred.
- For instance, Facebook is a social media platform and hence may not be included on OTT communication services, but Facebook messenger provides communication services. Similarly, Google provides search engine and email services, but it also provides video call and online meeting facilities.
- The OTT service providers may store personal information of the end-users in their data servers located abroad. This may lead to issues relating to data protection and national security. These issues are mentioned in the TRAI recommendation note as views of some stakeholders.
- Provisions such as free flow of cross-border data, prohibition on data localisation and source code disclosure intend to curb the policy space available to the government for imposing any restrictions on big tech companies.

***The new labour codes do little to provide better pay and definitive rights to platform workers.******Comment*****KEY POINTS**

- The new Code on Social Security allows a platform worker to be defined by their vulnerability — not their labour, nor the vulnerabilities of platform work.
- The three new labour codes passed by Parliament recently acknowledge platform and gig workers as new occupational categories in the making, in a bid to keep India's young workforce secure as it embraces 'new kinds of work', like delivery, in the digital economy.

Defining an 'employee'

- The Code on Wages, 2019, tries to expand this idea by using 'wages' as the primary definition of who an 'employee' is. The wage relationship is an important relationship in the world of work, especially in the context of a large informal economy. Even so, the terms 'gig worker', 'platform worker' and 'gig economy' appear elsewhere in the Code on Social Security.
- Platform delivery people can claim benefits, but not labour rights. This distinction makes them beneficiaries of State programmes. This does not allow them to go to court to demand better and stable pay, or regulate the algorithms that assign the tasks. This also means that the government or courts cannot pull up platform companies for their choice of pay, or how long they ask people to work.

No guarantees

- In the Code on Social Security, 2020, platform workers are now eligible for benefits like maternity benefits, life and disability cover, old age protection, provident fund, employment injury benefits, and so on. However, eligibility does not mean that the benefits are guaranteed.
- None of these are secure benefits, which means that from time to time, the Central government can formulate welfare schemes that cover these aspects of personal and work security, but they are not guaranteed. Actualising these benefits will depend on the political will at the Central and State government-levels and how unions elicit political support.
- For some states like Karnataka, where a platform-focused social security scheme was in the making last year, this will possibly offer some financial assistance by the Centre. However, that is not assured.
- The language in the Code is open enough to imply that platform companies can be called upon to contribute either solely or with the government to some of these schemes. But it does not force the companies to contribute towards benefits or be responsible for workplace issues.

A small change in defining urban areas can have a far-reaching impact on the ease of living and economic development of the country. Analyse**KEY POINTS**

- There are two main ways to define urban areas. One is a statutory town, which includes all places with a municipality, corporation, cantonment board or notified town area committee. These towns are defined by state governments and place India's urbanisation rate at 26.7%.
- Census, however, adopts three criteria to define what is urban. The three criteria are: i) a minimum population of 5,000; ii) at least 75% of the male main working population engaged in non-agricultural pursuits, and iii) a density of population of at least 400 persons per sq km
- This definition skews the policy maker's attention and budgetary allocation, which is not in tandem with the ground realities. There is growing evidence—mostly from satellite imagery—that India is way more urban than the 2011 Census estimate.



- There are some clear benefits. First, the budgetary allocation will reflect the reality and scales will balance between rural and urban areas. Second, the urban areas will not be governed through rural governance structures of Panchayati Raj Institutions. Third, we can avoid the trap existing cities face, devoid of basic urban infrastructure.
- The sewerage networks, fire services, building regulations, high-density housing, transit-oriented development, piped drinking water supply, among others can be provided in areas which otherwise would continue to operate as rural areas. Post-Covid, there is an urgent need to expand our investments in the urban areas—housing, transport, medical facilities, among others.
- Fourth, these newly defined urban areas could act as a new source of revenue for funding local infrastructure development through municipal finance sources such as property tax and development rights. This would ease pressure on state finances. Lastly, the rethink of urban definition would have an impact on the regional and national economy.
- As more people continue to depend on non-farm incomes, this change in definition will usher in new economic opportunities. A rethink of urban definition in Census 2021, particularly with some degrowth in urban areas due to Covid, will bode well for India for coming decades in more ways than one.

The change in the definition of MSME now allows a larger pool of enterprises to get the benefits of the MSME Act 2006 and pandemic-induced reforms. Comment

KEY POINTS

- MSMEs have been inordinately affected by the Covid-induced lockdown, transport disruptions, severance of supply chains, social distancing measures owing to their dominant presence in economic sectors like retail, trading and services.
- This disruptive effect has been compounded due to their limited financial resources and borrowing capacity. The government has introduced a slew of legislative, regulatory and financial measures to support the MSME sector amidst this unprecedented crisis unleashed by the pandemic.
- The 2018-19 *Economic Survey* clearly established that MSMEs that grow not only create greater profits for their promoters but also contribute to job creation and productivity in the economy.
- As a basic step, we need a clear definition of what enterprise can be specified as an MSME. The definition of micro and small enterprises differs widely across countries and reflects the specific business environment and socio-cultural aspects in which they operate.
- Under the new definition, an enterprise qualifies as an MSME depending upon the broadened thresholds of amount of investment made with respect to (i) plant and machinery in case it undertakes manufacturing; or (ii) equipment in case it provides services (see Graphic). In addition to this existing investment conditionality, a new criterion for turnover has been introduced.
- The expanded ambit of the MSME Act has now allowed the larger pool of enterprises to get the benefits of the Act as well as of the reforms introduced by the government for the MSME sector during the pandemic, without any additional tax liability. It is likely to improve the ease of doing business in operation for MSMEs, and in the process make it easier for them to attract investments and create more jobs.
- The Wages Bill was enacted last year and the other three codes have been passed by the legislature. This is another step which will go a long way in promoting 'ease of doing business' and instil investor confidence in the MSME sector as it intends to reduce the burden of compliance of labour regulations.

Offering property cards is a good step, but the real need is to provide conclusive titles to the land.

Analyse

KEY POINTS

- One-lakh farmers receiving property cards under the Swamitva scheme is, without doubt, a step forward towards establishing clear land ownership in the country; as the prime minister highlighted in his speech at the distribution of the cards, this will help them secure credit against the land.
- In the late 1980s, the DC Wadhwa committee had pushed for titling based on the Torrens system in force in Australia, where the state provides compensation if a land title granted by it is successfully challenged.
- Despite the land record modernisation scheme—one of the first steps towards conclusive titling—starting in 1988, and being repurposed as National Land Records Modernization Programme (NLRMP) in 2008, full digitisation has not been achieved. The Digital India Land Records Modernization Programme dashboard shows that land records in 90.1% of villages across the country have been digitised across the country.
- As per the 2019-20 NCAER Land Records and Services Index, states that have implemented land reforms have done better on the digitisation of records, but lag in terms of quality of land records. Madhya Pradesh, which tops the table, scores 2.5 out of 5 in terms of updating ownership and 2 out of 5 for recording encumbrances (whether a property is free from legal and monetary liabilities or not).
- A property card may help secure credit, but without clear titles, the large-scale tenancy that is envisioned to happen under the new farm reforms may not happen till the time the Centre rolls out a comprehensive land titling law.
- The government can set up fast-track land-dispute courts (as done in Mexico) or can implement the Torrens model or follow through with the idea of title insurance under the RERA Act. NITI Aayog announced last year that it would be working on a model law, but enacting the law will be the onus of the Centre.

Registering MSMEs could help them access formal credit channels and formalization of workforce.

Explain

KEY POINTS

- The enterprise or the “Udyam” as it is termed under the new Udyam registration process will register itself online based on self-declaration.
- The endeavour to digitally register MSMEs is not new. In 2015, the government notified the Udyog Aadhaar Memorandum (UAM), an online filing system for MSMEs. The registration process was free, paperless and awarded instant registration.
- It was based on the self-declaration and self-certification of basic information regarding the enterprise’s existence and functioning. Reliable and updated information regarding small businesses in India is absent.
- Comparing the requirements of the UAM and Udyam registration, it is clear that the importance of generating a verified database of MSME units has been acknowledged.
- In its updated Priority Sector Lending (PSL) guidelines, the RBI has established that for the purposes of PSL, MSMEs will be identified as per the gazette notification laying down the new process of classification and registration.
- The slightest chance of the Udyam registration turning into an entry barrier must be rectified before April 2021. To this end, the government and RBI should consider whether the registration requirement can be exempted for units with investment and turnover that falls in the lower end of the criteria that presently defines micro-enterprises, for the purpose of accessing formal credit.
- In 2018, the International Finance Corporation estimated that the overall supply of finance from formal sources met only one-third of the credit demand of the MSME sector. These businesses prefer relying on



informal sources for financing due to their inability to meet documentation protocols, inadequate collateral, disorganised book-keeping, among others.

- Enabling strategies such as PSL could provide a fillip to priority sectors including MSMEs which require increased formal financing. It is imperative that such institutional lending initiatives continue to remain accessible for all businesses, formal and informal, and deliver on the promise of financing for inclusive development.

The SVAMITVA scheme will unleash productive forces in agriculture and non-farm rural activities. Elaborate

KEY POINTS

- A comprehensive digital mapping of rural land categories agricultural, residential and commons will help raise rural productivity and incomes in various ways. Individual farmers are not able to take land on lease, or confidently lease out land.
- Availability of institutional credit is constrained by the absence of proper land records. The digitisation of agricultural land records has contributed to the smooth implementation of the PM Kisan Samman Nidhi Yojana.
- The Economic Survey 2017-18 said that the house tax collections of 'rural local governments' or panchayats is 20 per cent "relative to potential" (all India), with the southern States doing better in this respect. With clear titles and transparent land valuations, these collections could improve.
- The Survey of Villages and Mapping with Improvised Technology in Village Areas (SVAMITVA) seeks to address these problems. The plan is to survey all rural properties using drones and prepare GIS-based maps for each village. The SoI will use technology for topographical mapping, including satellite imageries and drone platforms.
- Digitisation of personal identity and agriculture land, and now residential property in rural areas through SVAMITVA, will facilitate transparent transactions in land parcels. Non-farm related activities will benefit from clear title and the removal of land supply constraints.
- According to NITI Aayog's March 2016 report on land leasing, 36 per cent of the tenant farmers are landless and 56 per cent are marginal land owners. Clear title records, accompanied by legalisation of land leasing, will improve their access to credit, insurance and support services.
- With digital records, banks can lend freely without much documentation. Formal lease markets and digitisation of personal records can lead to improved implementation of schemes such as PM-KISAN, Fasal Bima Yojana and Rythu Bandhu. These can be directed towards the cultivators, instead of absentee landlords.

India needs policy intervention to uplift its urban poor from the abject poverty. Do you agree with this view? Comment

KEY POINTS

- Slum residents have been hit hard by the pandemic, arguably harder than people in similar circumstances in rural areas. Having exhausted their savings, piled on debt at ever-higher interest rates, and mortgaged or sold their meagre assets, slum families are finding it hard to cope.

Multiple informalities

- Informality of different kinds fill the lives of slum residents with risk and uncertainty. Only a tiny share of slum residents have formal jobs with written contracts. Most are liable to lose their jobs in an instant, as they did at the start of the pandemic.
- More than 70% have homes without titles, and 40% lack identity papers needed to access entitlements. Being liable to losing one's job without prior notice or seeing one's home demolished, with no access to official



assistance or political support (because you don't exist on paper), makes their lives enormously volatile and vulnerable.

- Policy interventions that help reduce the ill effects of informality are necessary. The Western experience holds a lesson. Recovery and resilience are much harder if there are dark clouds on slum residents' horizons because of rampant informality.

Few good jobs

- A different dynamic is in play now. As the urban labour forces grows, regular factory jobs are not growing alongside; there is a huge deficit. As automation progresses, and each new car requires fewer labour inputs, the growth of good jobs will become even slower, forcing people into the informal sector and the gig economy. These trends need to be countered by engendering various opportunities.

The need for policies

- Progressively reducing the worst effects of informality is essential, first, for reducing risks and stabilizing livelihoods.
- The conditions of employment must progressively be made more secure, with workplace protection, old-age support, and health care benefits. Similarly, the process of slum notification needs to be expedited, so the threat of demolition passes, even if individual titles are not given immediately.
- Since stories of the worst-off in slums almost invariably involve families ruined by high medical expenses, affordable and reliable health care is necessary, which the government seems to be pursuing, albeit haltingly, through Ayushman Bharat. Harlan Downs-Tepper and Sujeet Kumar contributed to the article.

5. HEALTH

Implementation of the National digital health mission will revolutionize the health care system in the country. Explain

KEY POINTS

- NPCI launched the Unified Payments Interface (UPI), which revolutionised India's payment industry. Today, UPI is the fastest-growing payment platform in the world, accounting for more than a billion monthly transactions.
- The prime minister launched the National Digital Health Mission (NDHM). NDHM will create an "open digital health ecosystem" like what UPI created in financial services.
- It will serve as a backbone for integrated digital health infrastructure and provide a platform for private innovations. Key features will include standardised health registries, unique patient IDs, patient health records, automatic claim settlement engines, etc.

Five themes will drive this transformation.

- **Information transparency:** Currently, there is no reliable repository of data to verify a health facility or a doctor. This promotes quackery. NDHM's "health registries" will act as a single source of truth for all health stakeholders. This will increase trust in the ecosystem and reduce administrative burden related to doctor onboarding, regulatory approvals and renewals, and hospital or payer empanelment.
- **Standardised claim processing:** Currently, the claim settlement process is time-consuming and expensive. It stretches the short-term capital requirements for providers and entails high administrative burden for insurers. NDHM's claims engine will enable faster validation of claims and easy fraud prevention, thereby driving improved unit economics.



- **Prescription digitisation:** NDHM will accelerate the digitisation of providers' treatment advice. This will re-balance the power. Players that can digitally engage prescribers consume e-prescriptions to up-sell or cross-sell, offer expanded services such as nudges for prescription adherence, will win.
- **Playground for innovations:** The government plays the role of a health provider, payer, and regulator. With NDHM, the government's role will expand to building common playgrounds, leveraged by all entities to build innovative solutions.

Promotion of nutri-cereals by the government is a rational decision that helps in alleviating malnutrition in India. Explain

KEY POINTS

- Food and Agriculture Organisation (FAO) has endorsed India's call for declaring 2023 as the "International Year of Millets".
- The three major millet crops currently growing in India are jowar (sorghum), bajra (pearl millet) and ragi (finger millet).
- High in dietary fibre, nutri-cereals are a powerhouse of nutrients including iron, folate, calcium, zinc, magnesium, phosphorous, copper, vitamins and antioxidants.
- They are not only important for the healthy growth and development of children but have also been shown to reduce the risk of heart disease and diabetes in adults.
- Usually grown by small and poor farmers on dry, low-fertile, mountainous, tribal and rain-fed areas, millets are good for the soil, have shorter cultivation cycles and require less cost-intensive cultivation.
- Moreover, unlike rice and wheat, millets are not water or input-intensive, making them a sustainable strategy for addressing climate change and building resilient agri-food systems.
- In parallel, India saw a jump in consumer demand for ultra-processed and ready-to-eat products, which are high in sodium, sugar, trans-fats and even some carcinogens. This need was again met by highly-refined grains.
- Contrary to the popular belief, this phenomenon was not restricted to urban areas. With the intense marketing of processed foods, even the rural population started perceiving mill-processed rice and wheat as more aspirational. This has led us to the double burden of mothers and children suffering from micronutrient deficiencies and the astounding prevalence of diabetes and obesity.
- The first strategy from a consumption and trade point of view was to re-brand coarse cereals/millets as nutri-cereals. As of 2018-19, millet production had been extended to over 112 districts across 14 states.
- Second, the government hiked the MSP of nutri-cereals, which came as a big price incentive for farmers. MSPs have been calculated so that the farmer is ensured at least a 50 per cent return on their cost of production.
- Third, to provide a steady market for the produce, the Modi government included millets in the public distribution system.
- Instead of working in silos, this multi-ministerial policy framework is a strategic move towards building an Atmanirbhar Bharat which resonates with the global call for self-sufficiency and sustainable development.

6. INTERNATIONAL RELATIONS

An India that puts its interests above the Non-Aligned Movement will find coalitions like the Quad critical for its international prospects. Examine

KEY POINTS

- Few of Delhi's bilateral relations get as much attention as its growing engagement with Washington and none of its many global groupings generate as much political heat as the so-called Quad – the quadrilateral framework that brings India together with the US and its Asian allies, Japan and Australia.
- The Quad, whose foreign ministers are meeting today in Tokyo could certainly emerge, at some point in the future, as a critical element not only for India's foreign and security policy but also a definitive moment in the evolution of post-War Asian economic and security architectures.
- Although they have a negative connotation in our foreign policy discourse, alliances are very much part of statecraft and as old as war and peace. They are a means to enhance one's power. They are about deterring or defeating one's adversaries.
- Alliances figure prominently in India's ancient strategic wisdom embodied in the Mahabharata, the Panchatantra and the Arthashastra. Contemporary Indian domestic politics is always about making and unmaking alliances – between different castes and communities. Yet, when it comes to India's foreign policy, alliances are seen as a taboo.
- Unlike Communist China, a democratic India can't be brutally transactional about its external partnerships. But Delhi could certainly learn from Beijing in not letting the theological debates about alliances cloud its judgements about the extraordinary economic and security challenges India confronts today.
- The infructuous obsession with non-alignment diverts Delhi's policy attention away from the urgent task of rapidly expanding India's national capabilities in partnership with like-minded partners. An India that puts its interests above the doctrine will find coalitions like the Quad critical for its international prospect.

There are many areas where the United Kingdom and India have complementary collaboration. Discuss

KEY POINTS

- India is the second largest investor into the UK, behind only the US. At the same time, the UK has been the second fastest growing G20 investor into India in the last decade.
- Trade between the two countries rose by nearly 10% (to £24 billion) in 2019—much faster than the growth in global trade. Indeed, the Indian government understands the importance of global economic inter-linkages.
- Ambitious reforms and a new approach were probably needed even before the pandemic, with the UK forging an independent trade policy after leaving the EU and the Indian economy facing challenges of its own.
- The pandemic, though, has added not just urgency, but also new and additional dimensions to the UK-India partnership. No wonder, taking on the role as the group CEO of the UKIBC at this time is particularly challenging and exciting.
- For example, the accelerated use of digital technology and the need to expand healthcare provision are two of the more obvious trends that will shape the future relationship. There are others and it was music to my ears that—when underlining the importance of global cooperation.
- These are all areas that are ripe for India-UK collaboration in creating atmanirbhar Bharat, underpinned by both the countries' strong track record in technology and innovation.
- With India fronting the International Solar Alliance and the UK hosting the UN climate conference in November 2021, both are taking leading roles and can support each other's domestic energy and climate goals.



- The UK and India must also look at opportunities emanating from the business sentiments worldwide to explore manufacturing supply chain possibilities as alternatives to China. And lastly, in defence, there are strong UK-India partnerships already in place and there is appetite in both the countries for more.
- The journey will start by focusing on incremental market access reforms that grow trade, investment and prosperity. This blend of pragmatism and vision is just what businesses want, and there is a great deal of enthusiasm to build on this announcement before ministers meet in autumn for the next round of JETCO discussions.

India should use the churn in the global economy to strengthen its economic competitiveness, and then enter agreements such as RCEP on a firm footing. Comment

KEY POINTS

- The economic downturn due to COVID-19 has forced countries to take aggressive measures to support households and businesses within their borders. Naturally, at such a time, commitments to market access have likely dropped in priority. India is no different as policymakers try to steer the economy from an expected contraction with an eye on “self-reliance”.
- The deep differential in value-added between imports from China (mostly manufactured products) and exports to that country (mostly primary or intermediate products) has also been a worry.
- What has also riled India often is restricted access to the Chinese market for India’s globally competitive sectors such as pharmaceuticals and services. This trade distortion, in India’s view, has happened even without an FTA with China.
- So, Indian policymakers’ fear that being part of any trade agreement involving China may lead to a further inflow of goods, thereby hurting Indian firms, is a genuine concern. While the RCEP has some safeguards, they fell far short of India’s demands such as on ‘country of origin’ rules and automatic tariff mechanisms.
- Despite efforts over the years, including the recent ‘Atmanirbhar Bharata Abhiyan’ initiative, the share of manufacturing in India’s economy has been on a broad downward trend since 2007 and was just 15.4 per cent in 2019. To raise this figure, India needs to link up with global value chains and then move up that value chain. And to do so, the country needs to get more competitive; shying away from competition will not help.
- In the World Economic Forum’s (WEF’s) global competitiveness index, India ranks 69 out of 141 countries, far below emerging market peers such as China (28) and advanced ones such as Singapore (1) and Japan (6).
- Efforts to enhance competitiveness should also go together with those to augment existing trade relations. Arguably, India has not had a great run with FTAs with the preference utilisation rate—a metric for the efficiency of trade agreements—moderate at best. That needs to change, starting with more trade and investment links with Japan and South Korea. It is also time to engage more with key democracies in Europe and the Americas.

Discuss the regional implications of Bangladesh’s economic success especially with respect to the South Asian region.

KEY POINTS

- The International Monetary Fund’s latest World Economic Outlook published last week has triggered much outrage in India. The provocation was the IMF’s prediction that Bangladesh’s per capita GDP will overtake that of India this year.
- The economic rise of Bangladesh is changing some of that. If there is no end to bad news from Pakistan, Bangladesh provides a positive narrative about the subcontinent’s prospects.
- The second implication is about the changing economic weights of Bangladesh and Pakistan in South Asia. This year, Bangladesh’s GDP is expected to reach about \$320 billion; the IMF did not have the 2020 numbers from Pakistan to report but in 2019, Pakistan’s economy was at \$275 billion.

- Even more consequently, while Bangladesh continues to grow, the IMF suggests that Pakistan's economy will contract further this year. A decade ago, Pakistan's economy was \$60 billion larger than Bangladesh. Today, Bangladesh's weight is bigger than Pakistan by the same margin.
- Third, Bangladesh's economic growth can accelerate regional integration in the eastern subcontinent. Whether one likes it or not, the region's prospects for a collective economic advance are rather dim.
- Thanks to Pakistan's opposition to economic cooperation with India and its support for cross-border terror, the main regional forum for the subcontinent, the South Asian Association for Regional Cooperation (Saarc), is in a coma.
- The BBIN sub-regional forum — involving the four, activated in the middle of last decade — has not advanced fast enough. It is time for Delhi and Dhaka to take a fresh look at the forum and find ways to widen the scope and pace of BBIN activity. Meanwhile, there is growing interest in Bhutan and Nepal for economic integration with Bangladesh.
- Fourth, the economic success of Bangladesh is drawing attention from a range of countries in East Asia, including China, Japan, South Korea, and Singapore. The US, which traditionally focused on India and Pakistan, has woken up to the possibilities in Bangladesh.
- Bangladesh is getting ready to celebrate the golden jubilee of its liberation from Pakistan. India must use the special occasion to jointly develop and pursue with Dhaka an ambitious framework for shared prosperity. That would help India consolidate the golden chapter in India-Bangla relations .

India pursuing an independent foreign policy is not only essential for the country or the South Asian region, it can have a bearing on deprived populations of the world. Analyse

KEY POINTS

- The 2008 global financial meltdown exposed the realities of the neoliberal world order. Most institutions of lending crumbled before the inevitable logic of capitalism the cycle of boom and bust. The crisis rendered thousands unemployed and destitute. The state had to bail out some of the largest financial corporations of the world with public funds.
- The western world soon came to understand the importance of sharing responsibility and adjusting to the new global realities such as the economic rise of China and India. G-20 nations replaced the elite G-8 of rich countries in deciding the economic course of the world, though within a neoliberal framework.
- This established mechanism is under threat. The rise of China as the workshop of the world has turned many western powers insecure. It has led to a trade war between China and the US. Of particular relevance is the route India will take in the evolving bipolar world with the US and China constituting the two poles.
- The US is trying to drag India into its conflict with China to protect US interests in the Asia-Pacific region. The trade deals done to please the US have resulted in the loss of livelihood, agricultural land and hard-won labour rights of Indian working classes.
- Privatised healthcare systems imploded under the weight of COVID whereas countries with a socialised or socialist public healthcare system fared better. The world needs to come together to build public health and education infrastructure. India must reject both the unipolarity of the 1990s and the bipolarity of the current system dominated by the US and China.
- India should live up to its independent non-aligned credentials and play a constructive role in evolving a more inclusive, multipolar and just world order.
- In his address to the 75th General Assembly of the United Nations, Prime Minister of India reiterated the demand of India's inclusion in the UN Security Council. This demand is justified considering India's history, size, economy and potential to play a constructive role in global affairs.



- However, under the current dispensation, these credentials have been tainted by multiple inconsistencies, especially in the neighbourhood. India should use its UNSC chair to represent nations hitherto unrepresented or underrepresented at the high table and continue the tradition of speaking for the marginalised. Unfortunately, the course of Indian foreign policy in the last few years does not correspond with this broad, inclusive worldview based on solidarity.
- In this context, India and China, as the world's two most populous countries and mega-economies, should engage in a meaningful dialogue to resolve the border dispute. India should strive to make the world more inclusive, just and sensitive to the environment.

The signing of the Basic Exchange and Cooperation Agreement (BECA) sets the stage for massive security cooperation between India and USA. Examine

KEY POINTS

- The signing of the Basic Exchange and Cooperation Agreement (BECA) at the 2+2 dialogue between the defence and foreign ministers of India and the United States in Delhi on Tuesday marks the end of the prolonged phase of mutual trust-building and sets the stage for more expansive security cooperation.
- The BECA is the last of the so-called “foundational agreements” that the US wants its defence partners to sign. The BECA, which lets the Indian and US armed forces exchange geospatial information, follows three other agreements that aim to protect the military information shared by the US (GSOMIA), provide mutual logistics support around the world (LEMOA), and facilitate communication between the weapons platforms of the two armed forces (COMCASA).
- Unlike the Congress leadership, Prime Minister of India agreed with the armed forces that saw major security gains from these agreements and even, more importantly, the political value of deeper strategic partnership with the US.
- That has helped clear the brush for more intensive engagement between the armed forces —from interoperability to intelligence-sharing and joint defence research to production of weapons.
- As the real possibilities for bilateral and multilateral defence and security cooperation open up now, it will be wrong to view the current developments as a tactical response to the immediate military challenges that India confronts vis-a-vis China. India's defence dialogue with the US has a longer history than either country's concerns about China.
- Substantive and institutionalised cooperation between the two defence establishments will serve the long-term interests of a rising India and an America that is restructuring its global security burden. Acting together, Delhi and Washington will be in a better position to shape the regional and global environment in favour of peace and stability.



G.S PAPER III

7. INDIAN ECONOMY

What is meant by Neo banks? Do you think that India must consider the introduction of digital-only bank licenses? Explain

KEY POINTS

- Even as Covid-19 takes a toll on the economy, it is catalysing the digital transformation of businesses. The financial sector is no exception, with policymakers emphasising on the digital delivery of financial services.
- This will have far-reaching implications for the future of the financial sector, including banking. It also provides a unique opportunity for reaching out to traditionally underserved segments such as MSMEs.
- The digital banking model operates as partnerships between licensed banks and non-banks, popularly referred to as 'neobanks'. Interestingly, MSMEs have emerged as a popular customer segment for such models.
- While policy initiatives tend to focus on MSME financing, such businesses often struggle with other financial and business needs throughout their lifecycle for which they have to depend on different players.
- Despite its value propositions, existing practices of these consumer-facing platforms give rise to consumer protection risks. Many platforms use terms like 'bank' or 'banking' to describe their services. This risks the violation of the Banking Regulation Act, 1949, which permits only licensed banks to use these terms.
- This coupled with the failure of many platforms to disclose their partner banks may misled consumers into thinking that these 'neobanks' are authorised and are regulated as licensed banks, when, in fact, their operations are carried out only through partnership with licensed banks.
- While an outsourcing arrangement may be relevant for a nascent industry, going forward as bank-fintech partnerships evolve, it will be a challenge for regulators to strike a balance between prudential risk management and promotion of innovation.
- This calls for a framework that can account for the complexities of bank-fintech partnerships and facilitate the evolution of such models into full licensing framework for digital banks. As a long-term measure, India should consider leveraging the regulatory sandbox testing model for the launch of digital-only banks.

For better protection to bond and mutual fund investors, SEBI must extend the requirement on making forensic audit reports. Comment

KEY POINTS

- SEBI's diktat requiring listed entities to disclose forensic audits will curb information asymmetry
- This is a welcome move because the very initiation of a forensic investigation and an explanation on whether it was initiated by the regulator or the company's own Board, is price-sensitive information and has a bearing on one's decision to invest in a stock.
- Making full public disclosures of forensic audit reports as soon as they are submitted is essential too, to do away with insider trading and stock price manipulation based on half-baked leaks from such reports.
- Disclosing forensic audit reports to the public would remove all scope for selective interpretations and allow analysts and investors in a company to make up their mind for themselves.
- Placing forensic audit reports in the public domain will also prove instructive to investors and policymakers on the modus operandi used by fraudsters to divert public money.
- In the DHFL and PMC Bank cases, forensic investigations brought to light the multitudes of fictitious accounts used to channel depositor funds to related parties in the form of loan disbursements.



- For better protection to bond and mutual fund investors, SEBI must extend the requirement on making forensic audit reports public not just to entities with listed shares, but also those with listed debentures and all entities dealing with public money in a fiduciary capacity.
- In fact, given that they commission scores of forensic audits on their constituents each year, it would be a good practise for regulators such as SEBI and RBI to set a good example by publishing the findings of these reports, instead of keeping them a closely guarded secret.

For extracting maximum value under Insolvency Bankruptcy Code, asset reconstruction companies must be allowed to turn around distressed businesses. Do you agree with this view? Comment

KEY POINTS

- Going by the stance taken by the RBI, an ARC can participate in resolutions under the Insolvency and Bankruptcy Code, 2016 (IBC) only if it partners with an equity investor, which is the resolution applicant.
- The RBI doesn't appear to favour such an extended role for ARCs. This hesitation is not without basis. In the aftermath of the Asian financial crisis, countries like Indonesia, Korea and Malaysia established centralised, typically state-owned, asset management companies (AMCs) for resolution or restructuring of distressed financial institutions. At that time, India's non-performing assets stood at a whopping 14.4 per cent.
- The maximum average recovery by ARCs as a percentage of total bank claims stood at 21.5 per cent in 2010. Since then, it has steadily declined and reached 2.3 per cent in 2018. Such low recovery is likely the outcome of a resolution model heavily dependent on collateral disposal rather than genuine business turnarounds.
- Now the IBC seeks to maximise the value of distressed businesses through a market for corporate control. ARCs should be able to fully participate in this market and attempt successful turnarounds by acquiring strategic control over distressed businesses.
- Currently, investors could potentially use three kinds of domestic investment vehicles – Alternative Investment Funds, Non-Banking Finance Companies and ARCs – to invest in companies undergoing IBC resolution.
- While AIFs can invest in debt as well as equity subject to certain limitations, they don't enjoy enforcement rights under SARFAESI Act, 2002. NBFCs enjoy the enforcement rights but are subject to provisioning norms for NPAs they purchase from banks. None of these limitations applies to ARCs.

If only ARCs are allowed to directly participate in IBC resolutions by infusing equity, they could emerge as the most efficient vehicle for turning around distressed Indian businesses.

Given the prevailing unholy mix of growth and inflation, it is tempting to categorize India's economic situation as one of stagflation. Comment

KEY POINTS

- After the Reserve Bank of India's (RBI's) adoption of a flexible inflation targeting framework from August 2016, the rules of monetary policy have changed in India, with the central bank becoming even more focused on anchoring inflation and inflation expectations than ever before.
- The mandate for following an inflation-targeting framework based on one narrow nominal consumer price index (CPI) anchor has highlighted the challenges of conducting monetary policy in a severe growth shock scenario, particularly if it coincides with a sharp increase in headline CPI inflation as in the current period, even if this is mostly due to one-off or/and temporary factors.
- While the shift in the monetary policy focus to CPI from the wholesale price index (WPI) has been a welcome development, the current framework has led to an excessive and obsessive emphasis on point CPI estimates, at the cost of ignoring other indicators, in our view.
- The success of the inflation-targeting framework should not only be judged by the actual CPI inflation trend, but also in terms of the convergence achieved between actual CPI inflation and inflation expectations.



- In the current cycle, investment growth is likely to be impacted more severely than consumption growth, even after the recovery starts gaining traction due to risk aversion, weak profitability and a tendency to preserve cash given the uncertain outlook.
- Given the acute weakness in the demand side of the economy, persistent problems in the real estate sector, continued deleveraging of the NBFC sector and significant job losses (thereby reducing bargaining power for wage growth), we think that risk of a secular increase in inflation is limited.
- While the scope for rate cuts remains dim in the near-term, we expect the RBI to remain active with a host of unconventional measures, which will likely include more proactive bond purchases to ensure that market interest rates do not rise significantly due to fiscal and market borrowing-related concerns.

Reviving private investment in infrastructure will be key in post-Covid recovery in the country.

Discuss

KEY POINTS

- Currently, the quantum of private financing flowing into the infrastructure sector has ebbed to around 20 per cent of the total funding, for reasons that are well known — the crisis in the non-banking finance sector, the financial challenges faced by infrastructure companies, and the inadequately developed Indian market for infrastructure financing.
- The Economic Survey 2017-18 has assessed India's infrastructure financing needs at \$4.5 trillion by 2040. Reviving private investment flows into infrastructure creation to more sustainable levels of around 40 per cent will be key to attaining this threshold.
- The challenge of ramping up private investments in infrastructure will need action on two fronts: Refreshing institutions and policies for channeling financing; and providing a stable, durable, and empowering ecosystem for private players to partner with government entities in the task of infrastructure-creation.
- The Vijay Kelkar committee had put out a timely, practical, and balanced report in 2015 on overhauling the PPP ecosystem, including governance reform, institutional redesign, and capacity-building
- Among the most difficult, but necessary initiatives, is the need to overhaul the culture and attitude towards the conjoining of government entities and private partners for creating specific pieces of infrastructure.
- This attitudinal change can be facilitated if laws like the Prevention of Corruption Act are further amended to encompass modern-day requirements, including factoring in the need for government agents to take calibrated risks while engaging with the private sector.
- Infrastructure projects typically have long-duration profitability cycles. The key to a successful PPP is to provide stable revenue flow assurances and a settled ecosystem to investors over long periods by means of policy stability, assurances possibly secured by law.
- PPP contracts also need to provide for mid-course corrections given that the ecosystem surrounding the infrastructure piece, including utilisation patterns, as well as the creation of competing infra assets may necessitate a dynamic approach to aspects like risk and revenue sharing.

Should the Reserve Bank of India be the debt manager of the Government of India? Comment

KEY POINTS

- It is important to mention in this context that the RBI has been extremely pro-active in its liquidity support to the financial system. According to the MPR October 2020, overall, total liquidity support announced by the RBI since February 6 (up to September 30, 2020) amounted to 11.1 lakh crore (5.5 per cent of GDP) in terms of various monetary policy instruments. This is huge firepower by any standards.



Printing money

- Such funding of market borrowings of the government has been facilitated by liquidity support from the RBI, which in ordinary parlance means printing money.
- To the extent the banks heavily funded the borrowing programme of the government, it has facilitated by keeping the government bond rates lower (the weighted average cost of borrowings by the Central government during the first half of 2020-21 at 5.82 per cent is the lowest in the last 16 years) as mentioned in the governor's statement.

Three-speed approach

- The governor, however, set out a three-speed approach to recovery and dipped into cricket to offer the view that sector-specific realities will come into play: a) agriculture, FMCG, two-wheelers, passenger vehicles, pharmaceuticals, tractors, etc., will "open their accounts earliest", (b) some other sectors will show slower normalisation and will "strike form" gradually, and (c) the sectors which will be in the "slog overs", which are essentially contact-intensive and most severely affected by social distancing.
- Notwithstanding this claim, the MPR has mentioned that near-term outlook remains hostage to virus and attendant uncertainties around the discovery of a vaccine to stop the spread of the Sars-Cov-2 virus.
- To the extent the virulence of the pandemic is yet to abate and a solution is critically dependent on a vaccine, all endeavours should be shifted to the health sector, both by public and private participation rather than the RBI engaging in the commission of the original sin.

Discuss various ways to revive local revenue-raising, and widen Urban Local Bodies' functional and fiscal space.

KEY POINTS

Five suggestions focused on how to make grant-in-aid work better, revive local revenue raising, and widen ULBs functional and fiscal space are presented here:

- Bring in a hard budget constraint for ULBs: There is enough global evidence to suggest that transfers do not function under conditions of a soft budget where local governments operate sub-optimally in matters of resource raising and service delivery. Setting benchmarks for local revenue raising—a kind of fiscal responsibility—is a prerequisite for a transfer-grant system to become effective;
- Use an index of local revenue effort with a substantial weightage as a key criterion in the interstate allocation of the recommended grant-in-aid: It should work as an incentive for states to provide ULBs autonomy in making choices about tax bases, tax rates, tax exemption, fixing surcharges on state taxes that have a strong local orientation, etc. It will be a major step towards self-governing ULBs;
- Provide a dedicated grant-in-aid window for ULBs to implement those 12th Schedule functions that are drawn from the Concurrent List of the Constitution, such as planning for economic and social development, urban forestry and protection of environment;
- Pull in the Reserve Bank of India (RBI) in the standardisation and publication of a volume on municipal finances, complementary to that on state finances. It is an essential step to assessing the fiscal health of ULBs;
- Initiate a process of amending Article 280(3)(c): In its existing format, this Article is discriminatory to local bodies in that it denies them access to the 'divisible pool of resources', and consequently a place in the country's intergovernmental fiscal framework. Under the existing arrangement, local governments are at best grantee institutions.
- Article 280(3)(c) is also an unusual and cumbersome provision that requires the FCs to make use of the reports of the state finance commission (SFCs) for assessing the requirements of ULBs.



Human capital must, therefore, acquire multidisciplinary skill-sets for survival in the ongoing crisis. Explain

KEY POINTS

- To attain cost-efficiencies in these Covid times, organisations are looking at multi-talented human capital to perform multiple roles
- Now teachers working in higher educational institutions are trying to become “consultants”, “researchers”, “trainers”, “fund mobilisers”, and “marketers” to generate new sources of revenue along with a mandate of achieving national (NIRF) and international (QS-World) rankings. Also, they are playing a pivotal role in the digital transformation of teaching.
- The teacher has become a “virtual teacher” by learning different technologies in the last six months. The learning curve of the teaching community to obtain multiple skill sets in the previous six months was a big surprise and truly commendable across schools and higher educational institutions.
- Of course, they are taking a massive risk while hiring, as they might not be able to assess personal attributes such as character, attitudes and behaviour accurately on virtual platforms. Covid-19 further extended HR managers’ role as counselors to manage employee stress-related issues and burnouts.
- Similarly, Covid-19 redefined the entire marketing function. In the pre-Covid phase, marketing function used to handle sales, advertising, branding, and market research. Due to this ongoing pandemic the sales manager’s job profile is entirely overhauled.
- Covid-19 is transforming management functions in a faster manner with the help of new available technologies. IITs and universities in the country offer courses across disciplines like engineering, technology, sciences, and humanities and social sciences.
- It is the time to collaborate across disciplines and customise multidisciplinary courses to train human capital for the future needs of the business community.

Incorporating a gender criterion in the tax-transfer formula is conceptually a solution for ‘engendering’ intergovernmental fiscal transfers. Discuss

KEY POINTS

- Gender budgeting is an approach that uses fiscal policy to promote gender equality by trying to translate gender commitments into fiscal commitments through processes, resources and institutional mechanisms.
- The frameworks for gender budgeting in India are confined only to fiscal fiat, inclusive of taxation and public expenditure policies and, to a limited extent, the intergovernmental fiscal transfers.
- There is a heterogeneity of stakeholders, from various stages of budget formulation to implementation at multiple levels of governance.
- Time-use surveys are conducted in India only in six states, though it is likely to be extended to all states.
- Higher Budget Estimates do not ensure higher spending. There is significant deviation between Budget Estimates and Revised Estimates and Actuals in India. We find that errors are high for different expenditure components of gender budgeting.
- In India, the mechanism of intergovernmental fiscal transfers plays a major role in providing states sufficient financial resources to carry out their expenditure assignments.
- In a multi-level governance system, designing conditional grants for gender budgeting should also have positive effects on gender equality.
- The 15th Financial Commission’s final report is due in October 2020. We will have to wait and see whether they design a conditional grant for strengthening gender budgeting at the state level.

- Designing a conditional transfer (specific purpose grant) to strengthen gender budgeting can be directly linked to gender equality outcomes. However, if the conditional grants are tied to a ‘menu of activities’ to be performed under this grant at the state level as “priorly-determined” by the Union (the top-down approach), it can adversely affect the gender equality outcomes due to the lack of flexibility in utilising such fiscal transfers.

Considering the current situation of the Indian economy, the inflation-targeting framework needs a relook. Analyse

KEY POINTS

Given India’s current conditions and stage of development, the implicit and explicit assumptions underlying Chapter III-F of the RBI Act are not valid and have become a hindrance to the achievement of India’s development goals, and this Chapter should be scrapped through an ordinance.

Inflation control provisions

- This provision also does not take into account the fact that for all objectives, including inflation control, the RBI is not the sole or even the principal actor and has to work as a member of the team of institutions managing the macro-economic policy of India.
- This gives predominance to the CPI in defining inflation. In India, other indicators of inflation such as the Wholesale Price Index are important for export performance. The Act goes on to say: “The Monetary Policy Committee shall determine the Policy Rate required to achieve the inflation target. The decision of the Monetary Policy Committee shall be binding on the Bank.”
- This implicitly assumes that the policy rate can determine the inflation rate. But in India, experience shows a weak link between the repo rate and the CPI. This is due to numerous factors: inadequate transmission of the repo rate, importance of externally determined prices such as food prices and fuel prices, and the role of administered prices such as wages and salaries as per the Pay Commission.

Investment rate

- Since March 2010, the RBI has been pursuing a policy of high repo rate with occasional minor cuts.
- During this period, the investment rate in India has been poor. One important indicator is funds raised for investment by the private corporate sector during 2011-2018. Soon after the massive increase in the repo rate in 2010-11, there was a massive decline in projects financed by various institutions; and during the period since 2011, the investment financed by these institutions has been at a low level with a small upturn in recent years. In Indian conditions, the repo rate is more powerful to depress private investment than to reduce the CPI.
- Thus under present conditions, the RBI may constrain achievement of the goals of increased GDP and employment via higher investment and exports.
- For re-tuning India’s monetary policy framework, India may learn from the practices of Asian countries, such as China, Japan and Singapore in the early phases of their development, when they achieved rapid growth with stability without following any rigid mechanical rules about inflation targeting and by integrating monetary policy in an overall framework for macro-economic management.

India must leverage the advantages of Special economic zones in the present geopolitical and trade context. Comment

KEY POINTS

- The government’s flip-flop approach took its toll on manufacturing SEZs that could never meaningfully take off. As of September 30, 2018, the actual employment in manufacturing SEZs was 84% short of the proposed numbers. However, the IT industry proved to be resilient and continued to hold the baton.
- Indonesia, for example, is offering tax breaks for up to 24 years in its SEZs (KEKs). In contrast, the government of India (GoI) is abandoning its direct role in economic policy. In industry, for instance, despite



the calls of Make in India and Atmanirbhar Bharat, there is no strategic blueprint as to how to promote industry.

- The focus has been on creating conducive business conditions in the whole country with a single-minded pursuit of improving 'Ease of Doing Business' (EoBD) ranking. Indeed, India has jumped several ranks from 142 in 2014 to 63 in 2020.

Some of the recommendations are as follows:

- Systematically discuss the recommendations of the Baba Kalyani Committee report and develop appropriate follow up action to implement them. Break the recommendations down into two-time frames—short-term actions that are incremental and do not require extensive debate; and medium-term strategic changes that require consensus building before they can be implemented.
- Build consensus for strategic changes in the SEZs to keep them relevant in the wake of WTO compliances. As proposed by the committee, reorient the objective of the SEZs from promoting exports to economic activity and employment generation, and focus on attracting large, foreign companies. Several developing countries are now following this strategy in their SEZs.
- Allow all those benefits to SEZ units/developers that are offered in the wider economy. Complement them with additional benefits. Thailand offers massive merit-based incentives to priority industries, yet makes sure to offer additional benefits in the SEZs.
- Ensure effective single-window clearances, stability in rules and regulations, and efficient administrative services. A lesson can be learned from the Philippines, where the SEZ authority (PEZA) offers 24×7 one-stop services to investors.
- Promote logistics zones to contribute to a significant reduction in logistics costs by offering effective solutions. All manufacturing SEZs, ports and airports should be integrated with logistics parks.

Do you think that the court-ordered interest waiver and bad loan recognition ban undermines economic justice? Examine

KEY POINTS

- Central banks have tough jobs in the best of times but the courts consistently choose borrowers over depositors; a court warned the RBI pursuing a loan defaulter to not twist arms so hard that they break. Courts taking depositors for granted combines with COVID-19, past banking sins and suspended bankruptcy to make financial stability harder when it is most important.
- The average Indian enterprise is small for many reasons but one of them is the availability and cost of credit. The availability of credit is more important than the cost of credit for entrepreneurs but availability will not rise and cost will not fall till our banking system has strong competition, consistent regulation, effective supervision and non-fiscal sustainability.
- Waiving interest dues or banning bad loan recognition is economically ignorant because more than 20 per cent of Indians are depositors while less than 2 per cent are borrowers.
- Government money for bad loan write-offs or interest payments is dysfunctional; the Rs 2 lakh crore fresh equity in the last two years for nationalised banks is 40 times the Ministry of Skills' budget; Bhushan Steel defaulted on more nationalised bank loans than the central government allocation to primary education; and the first 12 defaulters forced into IBC by RBI had nationalised bank loans equal to four times the central government allocation to healthcare.
- Private banks are not saints but their problems are borne by shareholders (crushing dilution by Rs 1 lakh crore fresh capital raising), management (removal) and market capitalisation calibration (differential price-to-book ratios capture important information).



- Institutional immunity needs balancing of independence and accountability; rising citizen concern about mandates and appointments should trigger court introspection.

India needs policy intervention to uplift its urban poor from the abject poverty. Do you agree with this view? Comment

KEY POINTS

- Slum residents have been hit hard by the pandemic, arguably harder than people in similar circumstances in rural areas. Having exhausted their savings, piled on debt at ever-higher interest rates, and mortgaged or sold their meagre assets, slum families are finding it hard to cope.

Multiple informalities

- Informality of different kinds fill the lives of slum residents with risk and uncertainty. Only a tiny share of slum residents have formal jobs with written contracts. Most are liable to lose their jobs in an instant, as they did at the start of the pandemic.
- More than 70% have homes without titles, and 40% lack identity papers needed to access entitlements. Being liable to losing one's job without prior notice or seeing one's home demolished, with no access to official assistance or political support (because you don't exist on paper), makes their lives enormously volatile and vulnerable.
- Policy interventions that help reduce the ill effects of informality are necessary. The Western experience holds a lesson. Recovery and resilience are much harder if there are dark clouds on slum residents' horizons because of rampant informality.

Few good jobs

- A different dynamic is in play now. As the urban labour forces grows, regular factory jobs are not growing alongside; there is a huge deficit. As automation progresses, and each new car requires fewer labour inputs, the growth of good jobs will become even slower, forcing people into the informal sector and the gig economy. These trends need to be countered by engendering various opportunities.

The need for policies

- Progressively reducing the worst effects of informality is essential, first, for reducing risks and stabilizing livelihoods.
- The conditions of employment must progressively be made more secure, with workplace protection, old-age support, and health care benefits. Similarly, the process of slum notification needs to be expedited, so the threat of demolition passes, even if individual titles are not given immediately.
- Since stories of the worst-off in slums almost invariably involve families ruined by high medical expenses, affordable and reliable health care is necessary, which the government seems to be pursuing, albeit haltingly, through Ayushman Bharat. Harlan Downs-Tepper and Sujeet Kumar contributed to the article.

8. AGRICULTURE

A sustainable solution to India's fertilizer woes lies in urea decontrol and giving subsidy directly to farmers. Explain

KEY POINTS

- The Centre is working on a plan to cap the number of subsidised fertiliser bags that individual farmers can buy in any cropping season. Currently, anybody, non-farmers included, can buy fertiliser through the PoS mode (they only need to furnish their Aadhaar unique identity number).
- The government suspects that a lot of black marketing is happening at this level, and believes it can be curbed by implementing its latest plan, as purchase above the cap will have to be at unsubsidised/full price.



- Currently, there is excessive use of urea—a dominant source of ‘N’—vis-à-vis complex fertilisers such as diammonium phosphate (DAP), the main source of ‘P’, and muriate of potash (MOP), the main source of ‘K’.
- This has led to increasing imbalance in the NPK-use ratio. On an all-India basis, currently, this ratio is 6.7:2.4:1 against the ideal of 4:2:1, with consequent adverse effects on crop yield, soil and human health.
- The lack of any progress on the goal set by the PM has a lot to do with archaic policies that are completely divorced from contemporary realities but continue to be pursued by bureaucrats working in silos.
- The Union government controls the MRP of urea—set at a low level, without any relation to the cost of production and distribution. Manufacturers get reimbursed for the shortfall in realisation from sales via the subsidy on a ‘unit-specific’ basis under the new pricing scheme (NPS).
- In the past, many committees had recommended that the policy dispensation for urea be brought on a par with that for P and K fertilisers—the last such recommendation was given by a committee under the chairmanship of then agriculture minister Sharad Pawar (2012).

Commercializing the emission of carbon from the agriculture can help farmers in various ways.

Discuss

KEY POINTS

- Bayer, a company specialising in seeds and crop protection products, says it is rewarding about 1,200 farmers in Brazil and the United States with half a million acres between them for climate-smart practices like no-tillage farming, precision nitrogen use.
- The market for agricultural carbon credit is in its infancy. The current carbon trading system is for reduction of GHGs produced by industry and the transport sector. Regulations have not caught up for mitigating agricultural carbon emissions.
- In India, Grow Indigo, a joint venture formed in 2017 between a subsidiary of Mahyco, a Maharashtra-based pioneer in the seeds business, and Indigo Ag is taking a shot at impounding carbon in soil. It is testing its concept in about 1,000 acres in Punjab, Haryana and parts of Maharashtra.
- These farms are geo-tagged. They will be monitored using remote sensing for regenerative farming practices like not burning paddy straw and stubble, adopting no- or low- tillage practices, rotating the crops and conserving water. The soil’s carbon content will be measured at the beginning and end of the crop cycle.
- Farms that produce rice and wheat with a lower carbon footprint will be geo-tagged, so that their produce gets purchase and price preferences from those who want to promote lower carbon agriculture.
- To measure carbon sequestered or abated, benchmarks have to be established based on CO₂ equivalents generated through conventional agricultural practices.
- These will vary as per soil type, crops cultivated, irrigation and other practices. Any reduction in emissions through improved farming practices will count as credits.
- Life cycle analysis using mitigation optimisation tools will have to be done not only to measure direct emissions, but also those produced during the production, transportation and application of inputs like fertilisers, pesticides and irrigation.



9. RENEWABLE ENERGY

Despite the generous capital and interest subsidy offered by the central government, roof-top solar energy is not expanding in the country. Analyse

KEY POINTS

- In India, in 2019-20, renewables, excluding large hydro, accounted for around 10 per cent of electricity generation (as opposed to installed capacity) and within this, solar accounted for 3.6 per cent, contributed mostly by utility scale solar PV such as solar parks, whereas the share of rooftop PV was negligible.
- In the case of gross metering, the discom pays the rooftop solar PV homeowner for the power injected into the grid at the PPA rate and charges the homeowner for the power drawn from the grid at rates applicable to all consumers in the category, offering little incentive to homeowners.
- Discoms have an issue with net-metering for valid reasons. Firstly, the homeowner generates power during off-peak hours when the sun shines, but consumes most of her power after sunset during peak hours when utility power tariff is steepest. During daylight hours, all the utility scale and other renewable power plants including big solar parks which generate power at no fuel cost, must be dispatched under the Centre's must-run policy.
- Second, there are inherent T&D losses in any discom network and these are factored into the tariff determined by State Electricity Regulatory Commissions whereas the rooftop prosumer gets full credit for all the power fed into the grid to be adjusted against her consumption, without accounting for T&D losses.
- During peak hours, the meter could be calibrated (or a new meter installed) to measure the power supplied to the household which will be charged at peak-hour tariffs, at par with the rest of the consumers in the same category allowing for slab benefits applicable to other consumers.
- This will also incentivise homeowners to use their gadgets during daylight hours to the extent possible to minimise their power bills. The homeowner can then decide whether to buy power from the discom in the evenings or install a storage battery, based on the economics.
- Restrictions such as ceiling based on connected load, etc., can be done away with. The way forward need not be a binary of gross or net metering, but an equitable and fair modification to utilise the substantial potential offered by rooftop solar PV.

10. S & T

Rooting out gender imbalance should be the major focus of science policy 2020. Comment

KEY POINTS

- Despite having one of the best showings globally on women's representation in undergraduate science education, just 13.9% of the total of 280,000 researchers holding
- STEM jobs in India are women, a 2019 analysis by Unesco shows. Contrast this with China, where women account for nearly 40% of the total pool of researchers.
- One of the reasons is the drying pipeline towards the doctoral end of STEM higher education in the country. As AISHE 2018-19 data shows, while women equal men in strength at the undergraduate level in the sciences, they outnumber men (3:2) at the post-graduate level.
- The pipeline for women in STEM research, thus, seems to thin out after PG. A 2017 NITI Aayog report shows that just 20% of the research and administrative staff in a select group of institutions, including the IITs, IISERs and NITs, are women.

- Some other factors behind the low representation of women in STEM employment, as documented across the globe through research, are unequal pay, dual responsibilities of managing home and work impacting career growth and becoming a serious disincentive, etc.
- Indian women in STEM have managed to hold their own in terms of published work despite their low strength in employment—a study analysing a sample of 27,000 papers published by Indian researchers in 2017, in the Journal of Informetrics, found that there was one woman author for every three male authors, across 186 streams.
- The science policy 2020, focusing on facilitating on women for STEM employment through measures such as more promotion opportunities, leadership positions and support facilities such as crèches solves part of the problem.

Innovation, in both products and processes, has the potential to be India's big-ticket to development in the field of science and technology. Explain

KEY POINTS

- India's continuous improvement to reach the 48th position (among 131 economies) in the recently released Global Innovation Index (GII) is indeed good news. GII uses a broad definition of innovation which includes both product and processes.
- It has two sub-indices with equal weightage, ie, inputs (pillars of institutions, human capital and research, infrastructure, market sophistication, business sophistication) and outputs (knowledge and technological outputs and creative outputs).
- INSPIRE scholarships, infrastructure support through FIST Scheme, incubation support, soft loans and tailored grants, goal-specific challenges such as Smart India Hackathons and sectoral schemes such as Biotechnology Ignition Grants have been beneficial in shaping the innovation landscape.
- That said, India has many grounds to work upon. Catching student innovators when young, through Atal Innovation Mission, Smart India Hackathons, Grand Challenges and making entrepreneurship a part of school curriculum, will foster an innovative and entrepreneurial culture.
- According to R&D Statistics and Indicators FY20, women participation in extramural R&D projects has increased significantly to 24% in 2016-17 from 13% in FY01.
- Policy support through schemes like KIRAN of DST has to be complemented with behavioural changes to promote female labour force participation and equitable sharing of household care services. Unleashing this "gender dividend" can help nurture innovations for women-centric issues.
- As per DST, gross domestic expenditure on R&D (GERD) as a percentage of GDP was 0.7% in FY19—low even if one accounts for India's income levels. To boost it to the targeted 2% by 2022 (recommended by PMEAC), both public and especially private sector expenditure on R&D need to rise. Indian brands do well in terms of international brand value, but industry R&D is limited to 40% of GERD (compared to 50% in other BRIC economies), that too for few firms and too few sectors.

India's investment in developing quantum computing and applications will reap rich dividends in the future. Explain

KEY POINTS

- Quantum Computing can accomplish tasks at a pace impossible for traditional computers. In classical computing, information stored in bits accepts the discrete values of either 0 or 1.
- QC derives from the principles of quantum mechanics. It can solve multiple problems simultaneously and produce numerous scenarios within a fraction of time. It can also coordinate computers that are physically away from each other, and thus, their effects can be applied in multiple geographies irrespective of their location.

- QC can make the entire process faster, cost-effective and enable pharma companies to get medicines to people more swiftly and effectively for a wide range of diseases and conditions.
- QC has the potential to solve the problems through quantum-based optimisation along with Artificial Intelligence (AI). Besides, QC has the capability to scale-up production scheduling in manufacturing a drug.
- Moreover, the quantum-inspired optimisation algorithm can help improve the efficiency of the supply chain by determining the number of carriers, types of carriers, size of carriers, warehouses or distribution centres to load items, their quantities, timing, frequency, unloading strategy, and so on.
- QC can be implemented in many exciting applications such as running simulations of future states, large-scale optimisation of processes in businesses and industries, DNA and other forms of molecular modelling, extensive database access, encryption and information security, stress analysis for mechanical systems, financial portfolio optimisation, detection of fraudulent transaction, amongst others. Researchers have analysed extensions of game theory through QC in detail as well.
- Another significant potential contribution of QC would be from a sustainability perspective. It will likely evolve to be tremendously energy efficient.

With the Chemistry Nobel prize thrusting CRISPR-Cas9 into the limelight, India needs guidelines for gene-editing research. Examine

KEY POINTS

- The discovery of CRISPR can be traced back to 1987. This was when a group of Japanese researchers observed an unusual homologous DNA sequence bearing direct repeats with spacing in a eubacterial gene. Several important discoveries followed.
- In the male-dominated world of science, this year's Nobel chemistry prize should be widely celebrated worldwide. The recognition that Charpentier and Doudna's work has received will encourage women to take up science as a career, despite the hard struggle to balance family life and an arduous life in a scientific career.
- Although CRISPR became a household name for its ease of use, other systems discovered before CRISPR can cleave DNA at specific sites, an example being the Zinc-finger nucleases. In this, Dana Carroll, who developed the system, is another notable exclusion from this year's chemistry prize. It would have been an excellent choice if the Nobel committee had named Carroll alongside Charpentier and Doudna.
- In India, there is a long way to go before realising the utility of gene editing for therapeutic applications. That said, we cannot be complacent and wait for a rogue individual or entity to try it out in humans.

Situation in India

- In India, several rules, guidelines, and policies backed by the "Rules for the Manufacture, Use, Import, Export and Storage of Hazardous Microorganisms/Genetically Engineered Organisms or Cells, 1989" notified under the Environment Protection Act, 1986, regulate genetically modified organisms.
- The above Act and the National Ethical Guidelines for Biomedical and Health Research involving human participants, 2017, by the Indian Council of Medical Research (ICMR), and the Biomedical and Health Research Regulation Bill implies regulation of the gene-editing process.
- This is especially so in the usage of its language "modification, deletion or removal of parts of heritable material". However, there is no explicit mention of the term gene editing. It is time that India came up with a specific law to ban germline editing and put out guidelines for conducting gene-editing research giving rise to modified organisms.



Considering the post-Covid realities there is a need to re-think about the approach on cyber security. Elaborate.

KEY POINTS

- The cyber threat is emerging as possibly the biggest danger posed to society. We are perhaps at a new stage in human experience and exploration.
- In a post-Covid world, Identity and Access Management (IAM) will thus become an even more critical tool to defeat cyber criminals. With business becoming highly reliant on technology, the potential risks have vastly increased. With the advent of the Corona virus pandemic, cyber challenges have taken on a new dynamic, with businesses having to adapt to a new situation.
- As more and more people work from home, securing end points such as laptops or smartphones has gained in importance, and elements in the network chain such as the home router, access points, IOT devices, a person connected, all have become vulnerable. Meantime, cyber criminals are finding new weaknesses to take advantage of the situation.
- Hackers are creating new malware, and one of the more recent innovations has been ‘file-less malware attacks’. Many organisations believe that to defeat cyber criminals, it is enough to improve encryption policies – and many new encryption policies have come up – but it must be recognised that while encryption might afford protection for data in transit, it does not provide security for data in storage.
- Conscious of the burgeoning cyber threat, the government of India is in the process of amending its National Cyber Security Policy 2013. The earlier Act envisioned a National Cyber Security Policy with an integrated vision and a set of sustained and coordinated strategies for implementation.
- Additionally, it proposed creating a 24x7 National level Computer Emergency Response Team (CERT -In) to function as a nodal agency for coordination of all efforts for cyber security emergency response and crisis management. Several changes/amendments to the 2013 Cyber Security Policy document are currently awaiting the final orders of the government.
- It is important, nevertheless, to recognise that advances in technology do tend to be double-edged in the world of cyber space. Hence, a successful cyber security policy demands a well focused approach.

11. ENVIRONMENT

For a better policy towards climate change, India needs a climate budget tagging. Do you agree with this view? Analyse

KEY POINTS

- Recently, Climate Policy Initiative (CPI), released a report commissioned by the Shakti Sustainable Energy Foundation, mapping green finance flows from source to end-use. It posits that although there are indications of an overall upward trend, India’s tracked green investment flows fall far short of its financing requirements.
- The estimated \$38 billion investments directed towards mitigation sectors between FY16-18 are paltry and disproportionately allocated between sectors. Since green finance is now an increasingly significant area of interest for government, these numbers are important from the policy and regulatory angles, especially as the report also identifies the challenges faced in defining and tracking green finance across its value chain in India.
- Since various countries, including neighbours like Nepal and Bangladesh, have already begun to assess and review their climate-related expenditures through Climate Public Expenditure and Institutional Review (CPEIR) based on UNDP’s methodology, India also needs to adopt a “Climate Budget Tagging (CBT)” tool.
- The CBT could be rolled out in a similar way that other social priorities are tagged. For example, the gender, scheduled castes & scheduled tribes, and child development component of the budget is a case in point that



has made it easier for the government to review and recognise the impact of budgetary support on these sections.

- However, in India, though there is a political will to push the green growth agenda, the state and Union budgets in their current format are not conducive to this “green transition”. The government needs to restructure the way it reports schemes and action plans to facilitate meaningful intra and inter-state comparison of the climate objectives achieved so far.
- The tracking exercise undertaken by CPI is a step in this direction. It presents a conservative picture of who finances what and the extent to which finance is aligned with the country’s policy objectives.

Why does National Green Tribunal want to re-examine the Kaleshwaram lift irrigation project?

Explain

KEY POINTS

- The Kaleshwaram Lift Irrigation System is unique because Telangana will harness water at the confluence of two rivers with Godavari by constructing a barrage at Medigadda in Jayashankar Bhupalpally district.
- The project has set many records with the world’s longest water tunnels, aqueducts, underground surge pools, and biggest pumps. The total length of the entire Kaleshwaram project is approximately 1,832 km of which 1,531 km is gravity canals and 203 km comprise water tunnels.

How important is KLIS to Telangana?

- Kaleshwaram will transform Telangana into an agricultural powerhouse. The project will enable farmers in Telangana to reap multiple crops with a year-round supply of water wherein earlier they were dependent on rains resulting in frequent crop failures. This year, Telangana farmers have already delivered bumper rabi crops of paddy and maize due to better irrigation facilities and an extended monsoon.
- KLIS covers several districts which used to face rainfall deficit and the groundwater is fluoride-contaminated. Apart from providing water for irrigation to 45 lakh acres, a main component of the project is supply of drinking water to several towns and villages and also to twin cities of Hyderabad and Secunderabad.

NGT order

- The NGT observed that by increasing its capacity to pump 3 TMC water from 2 TMC, which was originally planned, major changes were made in the project due to which large tracts of forest land and other land was taken over and massive infrastructure was built causing adverse impact on the environment.
- The NGT also directed the Union Ministry of Environment, Forests, and Climate Change to constitute a seven-member Expert Committee within a month to assess the extent of damage caused in going ahead with the project’s expansion and identify the restoration measures necessary.

Do you think that the bio-fuel is an alternative and sustainable solution to farm fires in the country?

Comment

KEY POINTS

- The MNRE supported ‘pilot projects’ of manure to bio-CNG. Task forces made recommendations on farm waste to advanced biofuels. It was only in 2018 that these morphed into the Galvanising Organic Bio-Agro Resources Dhan (GOBAR-DHAN) scheme and the National Policy on Biofuels, albeit with lacuna related to offtake agreements and financing instruments, which is impeding capacity creation.
- Furthermore, mulching carbon-rich stubble impacts soil’s carbon-to-nitrogen ratio, necessitating proper nitrogenous fertiliser management, apart from potential surface accumulation of potassium (which is less mobile than nitrogen).
- Processing to biofuels: The full spectrum of solid, liquid and gaseous biofuels would take reams to describe, so we will restrict to commercialised technologies across the full value chain.



- Solid biofuels: These comprise briquettes and pellets. Briquettes are fired in industrial boilers or combustors, but the demand in Punjab and Haryana is not high. Pellets can be co-fired in utility-range boilers, and the NTPC has issued Expression of Interest (EoI) for 5 million tonnes of pellets (at the rate of Rs 5,500-6,000 per tonne) for firing in 17 of their power plants.
- However, investor response has been muted, as the production of pellets is capital intensive, coupled with high energy and operation & maintenance costs, apart from stubble bale costs, for year-round operations. It's also a moot point as to whether the NTPC can better deploy the Rs 2,000 crore annual incremental cost (for displacing grade E coal by 5 million tonnes of pellets).
- Liquid biofuels: These encompass bioethanol, drop-in fuels, bio-oil and bio-methanol. The current focus is on 2G ethanol. Oil marketing companies (OMCs) have announced 12 2G ethanol projects, each rated at 100 kl per day, needing 1,50,000 tonnes/year stubble.
- Gaseous biofuels: These encompass producer gas, biogas, green hydrogen, etc. The current focus is on biogas upgraded to bio-CNG, with the co-product being compost.
- This matter requires serious consideration by the MoP&NG and the earliest revision of bio-CNG offtake rates as well as issuing 'bankable' offtake agreement for 15 years, to facilitate low-cost project financing. It's imperative that India adopts a technology-agnostic policy for promoting advanced biofuels.

PUSA Decomposer can be successful in tackling stubble burning and in creating a revolution in farming. Analyse

KEY POINTS

- Stubble burning is practised predominantly by farmers in north India. It releases harmful gases including nitrogen oxide and carbon monoxide into the atmosphere.
- As per a TERI (The Energy and Resources Institute) report, in 2019 the air pollution in New Delhi and other parts of north India was 20 times higher than the safe threshold level as prescribed by the World Health Organization.
- Stubble burning also has a deleterious impact on soil fertility, destroys organic fertilizers and reduces ground water levels. Stubble burning during a pandemic could worsen the situation by making lungs weaker and people more susceptible to disease. It could also impact those recovering from infection.
- In 2013, stubble burning was banned by the Punjab government. In 2015, the National Green Tribunal imposed a ban on stubble burning in Rajasthan, Uttar Pradesh, Haryana and Punjab and directed government to assist farmers by obtaining equipment like happy seeders and rotavator. Stubble burning is an offence under Section 188 of the Indian Penal Code and the Air (Prevention and Control of Pollution) Act of 1981.

New revolution

- A revolution in timely stubble removal is the need of the hour. The action plan of Punjab and Haryana appears to focus more on setting up Custom Hiring Centres which will facilitate farmers removing stubble by providing them with machinery such as the happy seeder, rotavator, paddy straw chopper, etc. on rent along with the supply of more balers.
- As per a study by the International Maize and Wheat Improvement Centre, the application of happy seeders and super SMS machines can improve agricultural productivity by 10% to 15% while reducing labour costs and allowing the soil to become more fertile.
- The PUSA Decomposer is a set of four tablets made by extracting fungi strains that help the paddy straw to decompose at a much faster rate than usual, giving farmers the option to shred the straw, spray a solution containing the fungal strains, and mix it with the soil for decomposition. If methods such as this become successful, it will be a new revolution in farming. This has the potential to both reduce air pollution and increase soil fertility.

12. DISASTER MANAGEMENT

Do you think that the devastating floods in Hyderabad are a fallout of poor urban planning?

Examine

KEY POINTS

- Hyderabad was lashed by the most rain in a century for the month of October in just a day (20 cm)resulting in the death of over 20 people. As climate experts have observed, extreme weather events have become the norm.
- Construction along river beds, wetlands and drainage pathways has blocked the flow of water to the sea in Mumbai and Chennai. Hyderabad's major city bus station is situated on the Musi riverbed, while its hundreds of lake beds, as in Bengaluru, have been converted into high rises.
- Besides, the drains and rivers are not cleaned or adequately de-silted before the monsoon. Hyderabad's Hi-Tec city had not planned for underground drainage — a telling commentary on skewed priorities in urban planning.
- India's cities must have a contingency plan that goes beyond using weather warning technologies to reviewing urban planning and administration.
- The Smart City concept and the National Infrastructure Pipeline focus on making roads, affordable houses and revamping drainage systems for cities, but do not recognise these as inter-connected objectives.
- Waste recycling should be accorded priority. It is a serious problem that municipal and urban infrastructure bodies do not function in tandem. Above all, the nexus between the politicians, bureaucracy and real estate interests, which leads to violation of zoning laws, needs to be checked.
- The Real Estate (Development and Regulation) Act can be re-examined to hold local bodies accountable for losses arising out of inappropriate location of properties. The insurance regulator can be consulted in this context.
- To improve urban governance, greater civic participation, envisaged under the 74th Constitutional Amendment, is a must.

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