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DAILY NEWS ANALYSIS

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FOREWORD









We, at Team Vedhik is happy to introduce a new initiative - "Daily Current Affairs_The Hindu" compilations to help you with UPSC Civil Services Examination preparation. We believe this initiative - "Daily Current Affairs_The Hindu" would help students, especially beginners save time and streamline their preparations with regard to Current Affairs. A content page and an Appendix has been added segregating and mapping the content to the syllabus.



It is an appreciable efforts by Vedhik IAS Academy helping aspirants of UPSC Civil Services Examinations. I would like to express my sincere gratitude to Dr. Babu Sebastian, former VC - MG University in extending all support to this endeavour. Finally I also extend my thanks to thank Ms. Shilpa Sasidharan and Mr. Shahul Hameed for their assistance in the preparing the compilations.

We welcome your valuable comments so that further improvement may be made in the forthcoming material. We look forward to feedback, comments and suggestions on how to improve and add value for students. Every care has been taken to avoid typing errors and if any reader comes across any such error, the authors shall feel obliged if they are informed at their Email ID.



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A probe into the Nehruvian pledge

The inequality of opportunities which Nehru wanted to eradicate has only systematically widened



M.A. OOMMEN

Bliss was in that dawn to be alive, But to be young was very Heaven! O Times" –William Wordsworth

Bliss was the night when I, along with the hostel students of St. Berchmans College, Kerala, proudly donning Gandhi caps and carrying crackers, waited to ring in August 15, 1947. With no radio around, we missed the historic speech of Jawaharlal Nehru, who said: "Long years ago, we made a tryst with destiny and now the time comes when we shall redeem our pledge... of dedication to the service of India and her people and to the still larger cause of humanity... The service of India means the service of the millions who suffer. It means the ending of poverty and ignorance and disease and inequality of opportunity."

Seventy-five years on, it is instructive to ask how far we have redeemed the pledge. Economists in general have not examined this question. But three books by Jean Dreze and Amartya Sen, written over 18 years, comprehensively examined the transformative process within their freedom-capability perspective keeping in mind the larger context of the demands of democracy and social justice. This article reviews the pledge of ending inequality of opportunity made at the time of Independence under three broad heads: gender inequality, social inequality and the practice of democracy. Let me hasten to add, I do not berate India's achievements as an economic power, its progress in literature, science, technology, knowledge diffusion, innovation achievements, distinctions in music, films, market sophistication, and so on. But the compulsions of our history and public reason demand clarity regarding objectives and instruments, ends and means.

Men, women and equality

At midnight, we shouted the slogan, 'Bolo Bharat Mata Ki Jai', blissfully unaware of the unfreedoms of women in those days. Today, one will be shocked to find that the maternal



mortality ratio (MMR) in 456 out of 640 districts is above 140 per lakh live births; in Assam, it is 215. That it is eminently better in the southern States shows not only the vast disparities in the health systems of States, but also the loss of freedom of millions to live long. Considering the global Sustainable Development Goals target, all countries are expected to have a MMR that is below 70.

Reducing the inequality between men and women in their access to resources and opportunity is an important metric of civilisation. The Global Gender Gap Index, produced by the World Economic Forum, with a stable methodology using four sub-indices – economic participation, educational attainment, health and survival, and political empowerment – based on 14 indicators, provides a snapshot of where men and women in India stand globally. In 2006, India's rank was 98 as against 13 for Sri Lanka and 91 for Bangladesh. India's position fell to 135 in 2022, whereas Bangladesh improved its position to 71. Comparisons with Pakistan's 145 or Afghanistan's 146 can offer only cold comfort. In the sub-index of economic participation, India fell from 110 in 2006 to 151 in 2021. Worse, in health and survival, it slipped from 103 in 2006 to 155 in 2021. That the reported Indian Penal Code (IPC) crimes against women as a proportion of total IPC crimes increased steadily between 1990 and 2019 is an ominous portent. It does not speak highly of our democracy that this happened despite 20 States reserving 50%, and others one-third, of local government seats for women.

Unless serious public interventions are made, inequality of opportunity will only widen where social

disparities in gender, caste and class coexist. There are constitutional guarantees of reservation in employment and education for historically marginalised communities to expand their opportunities, but because these groups have had to contend with powerful groups with great initial endowments and an early start, these guarantees have proved to be largely ineffective. Moreover, India has failed to seriously implement land reforms. The resounding slogan 'land to the tiller' of the pre-Independence struggle has quietly vanished. While the property-owning class have been winners, the landless Dalits, Adivasis and the poor have not been able to go forward.

In a 2019 paper, Thomas Piketty and Lucas Chancel trace India's journey 'From British Raj to Billionaire Raj' and show that the egalitarian achievements up to the early 1980s have been lost following the liberalisation turnaround. They estimate that the top 1% earners captured less than 21% of the total income in the late 1930s, 6% in the early 1980s and 22% in recent times. On the other hand, the share of the bottom 50% remained below 14%. This is but inevitable because the share of the bottom 50% income group grew 90% in the 1980-2015 period, while that of the top 10% grew 435% (Review of Income and Wealth, Series 65, Number S1, 2019). We cannot forget that the number of billionaires in India grew from 102 in 2020 to 142 in 2021, while the share of the bottom 50% in national wealth shrank to a low 6% in the worst pandemic times (Oxfam).

These striking numbers clearly prove that the sustained gains of economic growth have not been channeled to widen the access to education, health care, social security and

so on. This could have substantially expanded India's opportunities and freedom. The country that once chose a socialist pattern of society is not even a good social democratic variant now.

The practice of democracy

With growing social and economic inequality, Indian democracy is emerging into what Shankkar Aiyar calls the "Gated Republic". His book under this phrase narrates why the privileged classes do not demand key public goods such as drinking water, electricity, and law and order; it is because they have bottled water, storage tanks, water purifiers, inverters, private security and the like. Many of the avoidable deaths, and disease, that happen in India are due to the public failure in providing water, public hygiene, education and the rule of law. It is paradoxical that India, which successfully launched the Mars Orbiter and Chandrayaan missions, could not eradicate mass poverty, especially of the Adivasis, fisherfolk and Dalits. The Economic Survey 2021 (Chapter 4) asserts that economic growth and inequality will converge in terms of their effects on socioeconomic outcomes. The trickle-down thesis is an insult to the poor. Only the rich who finance the political parties can have their quid pro quo, while social rights get drowned. Look at the promotion of electoral bonds on the grounds of 'donor's anonymity' while the Election Commission and other democratic institutions get throttled? Corruption is pervasive and undermines democratic practice. The moral turpitude of the Opposition makes adversarial politics toothless and timid. The local democracy, heralded 30 years ago with great hopes to build India on a plank of economic development and social justice from the grass-roots level, faces utter neglect. The Mission Antyodaya project to eradicate mass poverty is in the backburner.

After 75 years of Independence, the inequality of opportunities, which Nehru wanted to eradicate, has only systematically widened. When will the "soul of a nation, long suppressed" find "utterance"?

M.A. Oommen is Honorary Fellow at CDS and Distinguished Fellow at GIFT, Thiruvananthapuram

High points in science, technology and innovation

The Council of Scientific and Industrial Research has undertaken its mission effectively since Independence



SHEKHAR MANDE

Reflecting on 75 years of Independence makes one proud of the socio-economic developments of our country. The long period of colonial rule had robbed India of most of its wealth, and, more importantly, the skills required to sustain economic growth. Starting off as a poor country in 1947, with its GDP a mere ₹2.7 lakh crore, and food grain production a meagre 50 million tonnes, the challenges of educating the people, feeding the population, implementing democracy, promoting industry and trade, and ensuring the country's security remained daunting. It is against this backdrop that the responsibility of developing the science, technology and innovation ecosystem fell upon the Council of Scientific and Industrial Research (CSIR), which had been founded in 1942.

The immediate priority of the CSIR was to establish a number of national laboratories under its umbrella, and also promote similar organisations independently. The CSIR started five of its own laboratories with support from the government and industry and raising resources through crowdsourcing. Similarly, in collaboration with the Sir Dorabji Tata Trust and the Government of Bombay, the Government of India (through the CSIR) started the Tata Institute of Fundamental Research, with the CSIR providing substantial financial support in the initial years.

Among the first examples of

finding science and technology-based solutions was the harmonisation of existing varied calendar systems. A committee under the Chairmanship of Meghnad Saha was formed to address this issue. The committee's report was published by the CSIR in 1955, which then led to its acceptance as the national calendar, now one of the national identity elements. Another example in the early years of Independence was to address the challenges in conducting democratic elections – preventing frauds, including double voting by the same person. The CSIR's National Physical Laboratory developed the indelible ink made up of silver nitrate to address this concern. The indelible ink is used even today and exported to many countries, undoubtedly remaining one of the prized gifts of the CSIR to the nation.

The leather story

At the time of Independence, India did not have well-established industries in many sectors. The informal work sector was also highly unorganised without their skills being developed for any particular industrial segment. A key mandate of the CSIR was, therefore, to help develop local industries by making contemporary technologies available and training requisite manpower. A prominent example of the CSIR's contributions in this context has been in developing the leather industry. The making of finished leather products had remained elusive in the absence of a well-established leather industry and relevant technologies. Consequently, the leather industry employed less than 25,000 people at the time of Independence. In the 1970s, the Government took the decision of banning the export of raw hides and skins, and also im-



THE HINDU PHOTO ARCHIVES

posing 25% export duty on semi-finished leather products. These decisions were a major turning point as far as the development of the leather industry in India was concerned.

In more than 50 years since then, the leather industry now has a workforce of more than 4.5 million, a large percentage of them being women, and a thriving market for Indian leather products around the world. Indian exports in this sector are close to \$6 billion. The CSIR's footprint in this sector has been transformative. First, when the CSIR-Central Leather Research Institute (CLRI) was established in 1948, it developed technologies for finished leather products, such as the first ever indigenous manufacture of leather chemicals, making the transition from semi-finished to finished leather possible. Further, the CSIR-CLRI routinely trained the next generation manpower for the leather industry. As a result, more than 40% personnel employed in the leather industry have been trained directly or indirectly in the CSIR-CLRI. Human resource development across all sectors, dominantly that in science, technology and innovation, has been the hallmark of CSIR.

Successes in technologies

The Green Revolution has been one of the crowning glories of science, technology and innovation. Similarly, the emergence of

the generic pharmaceutical industry in India also has a fascinating history.

During the Green Revolution, the CSIR's footprint could be seen in the development of agrochemicals and the mechanisation of agriculture. The chemicals industry needed the necessary thrust for its maturation although the Bengal Chemicals and Pharmaceuticals Ltd. had been formed by Acharya Prafulla Chandra Ray long before Independence. Two public sector companies were founded, post-Independence, based on technologies developed in the CSIR's laboratories – the Hindustan Insecticides Ltd. and Hindustan Organic Chemicals Ltd., the former to make agrochemicals. Similarly, production of anti-HIV drugs by processes developed in CSIR laboratories provided the necessary impetus to the growth of generic pharmaceutical companies. These indeed represent fine examples of academia-industry interactions from the early days of Independence.

The mechanisation of agriculture was achieved through the indigenous development of the Swaraj tractor at the CSIR-Central Mechanical Engineering Research Institute (CMERI), leading to the formation of Punjab Tractors Ltd. in 1970. Notably, the technical team of CSIR-CMERI shifted to this company, presenting one of the first successful models of a spin-off company from academia in the country.

Path to self-reliance

A significant impact of the CSIR is also seen in the food and nutrition industry, in the aerospace sector, in the health and biotechnology industry, in protecting India's traditional knowledge systems, and in promoting crops for enhancing

farmers' incomes. For example, in the 1950s, when solving the infant food problem appeared impossible, the CSIR successfully developed technologies to convert buffalo milk into powder and commercialised it with the help of Amul Industries. The Aroma Mission of the CSIR in recent times has been transforming the lives of thousands of farmers across the country. The cultivation of lavender in the Union Territory of Jammu and Kashmir has been attracting attention worldwide as India's 'Purple Revolution'. Thus, there are many examples of science, technology and innovation, which have allowed India to take definitive steps towards becoming an Atmanirbhar country. True Atmanirbharta will however emerge only if we remain at the forefront of futuristic technology development – a task clearly cut out for the CSIR.

Even as we attribute the growing affluence of Indian society to science, technology and innovation-led developments, the challenges for the future remain intimidating. Reducing dependence on natural resources, making all industrial processes circular so that no footprint of human activity is left, making technologies environmentally friendly, providing sufficient opportunities to all for living either in cities or in villages will remain priorities of science and technology. Moreover, the ancient wisdom of integrating science and spirituality by enhancing our understanding of nature in association with that of the human mind and spirit will be the fond hope of the science and technology community of India.

Dr. Shekhar Mande is former Director-General, Council of Scientific and Industrial Research (CSIR)

The coming 75 years

A higher standard of living is possible if India shifts its focus to science and technology



BINAY PANDA

As India celebrates 75 years of Independence, it is apt to imagine what the next 75 years will look like. Can our nation, obsessed with politics, Bollywood, and cricket, aspire to make the next 75 years an enviable era with a higher standard of living for every citizen? Yes, India can, and will, provided there is a shift in focus to science and technology. But how will India make this happen, given that it spends a meagre 0.7% of its GDP on research and development (R&D)? It needs to make some fundamental policy changes to facilitate the transition. These include increasing the R&D budget to 4% of the nation's GDP, ensuring that individual institutions implement processes to accommodate the large budget, encouraging individual entrepreneurs and linking science with society.

Strengthening infrastructure

First, spending 4% of the national GDP on R&D is required to drive science and innovation. Israel and South Korea are prime examples that drive their respective economies by spending nearly 5% of their GDP on R&D. However, an increase in the science budget to innovate must precede appropriate macro-level policy changes on how and where the money needs to be spent. A part of this increase needs to be earmarked for building physical and intellectual infrastructure across the country, especially in the universities. A first-class infrastructure must be accompanied by well-trained, globally competitive institutional administrators and processes. India cannot compete on a global stage unless the dwindling infrastructure of its universities is upgraded.

Second, before any policy changes take effect, individual institutions must implement processes to accommodate the large budget. This requires standardising procedures across institutions and borrowing the best practices from some global counterparts. For example, when the government encourages public-private partnerships, each grant-receiving institution must have internal procedures to handle their scientists' requests to facilitate effective academia-industry collaboration. Although there is a well-defined

system to disburse research grants to scientists through their institutions, it is mired in inefficiencies. Inadequate staffing at funding agencies, lack of transparency in fund disbursement, lack of a rigorous international standard review and feedback process, excessive delay in fund disbursement, and an outdated appraisal system are holding our scientists back. Everyone knows about the lacking, but what is the way out? Part of the solution is to bring and implement best practices from the industry and some of the best-run science grant administrations abroad. The involvement of the IT major, Tata Consulting Services, and technology use in transforming passport services across the globe gives us hope. This is not to hand over the crucial decision-making process of science grant administration to the industry, but to facilitate the process of paper submission and to make the decision-making process easier, faster, and with complete transparency.

Science for the masses

Third, it is time to bring the fruits of science and technology closer to the masses. There is no better way to do this than by promoting and facilitating individual entrepreneurs. This has received increased attention from the government with many positive policy changes. However, without proper nutrition, the plants cannot produce greener leaves. There are no better cradles for creative ideas than our university labs. A robust system to link the labs with the entrepreneurs to funnel innovative ideas, products, and solutions to our society needs to be in place. To make this happen, the universities must encourage scientists to innovate and place standardised procedures to take ideas out of labs. Entrepreneurship will only succeed in India if it is backed by a funnel of ideas and a liberal process of taking those ideas out of our university labs.

Where does India find \$125 billion or nearly ₹10 lakh crore to fund science? India cannot do that by taking money away from social infrastructure, rural development or important welfare schemes. This is only possible if India cuts the defence budget. No nation can claim to win wars in the 21st century with increased defence spending. Even the mighty U.S., with an excess of \$750 billion dollars in the defence budget, could not defeat the Taliban. We must realise that the next generation of war is economic, not military, and only a science and technology-driven economy can prepare us for that.

Binay Panda is a Professor at JNU, New Delhi



STATE OF PLAY

Questioning a colonial legacy

It is hoped that the constabulary will go back to policing instead of running errands for officers

S. VIJAY KUMAR

As the country celebrates 75 years of Independence, the Madras High Court is seeking to rid the police force of the colonial legacy of employing police personnel as orderlies at the homes of senior police officers. "Such uniformed trained police personnel are performing the household work and menial jobs in the residence of higher officials at the cost of the taxpayers' funds. Public has a right to question the mindset of the higher officials," observed Justice S.M. Subramaniam in his recent interim orders. The court had taken suo motu cognisance of the issue.

Last month, the judge had directed the State Home Secretary to take steps to remove uniformed personnel engaged as 'orderlies'. The court has said the "slavery system" must be abolished, failing which it will take some other course of action. It has posted the case for August 18.

The orderly system was officially banned in 1979. Yet, it is common practice to see men in khaki trousers and white crew neck banians running household errands for senior police officers and their family members. In some instances, even retired top officers have retained orderlies.

Going by rough estimates, a few hundreds of police personnel are deployed in the residences of serving and retired police officers. They don't perform any police duty, but get a travelling allowance and extra time remuneration. These extra perks without performing any particularly difficult chores keep them happy.

But the orderlies are technically on the rolls of police stations, armed reserve or battalion strength. Their absence from official duties only adds to the burden of the already understaffed police force. The use of a few hundreds of vehicles for personal use again leaves Inspectors and

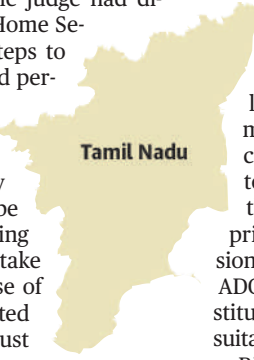
Sub-Inspectors without vehicles. This leads to allegations that they force complainants to hire private vehicles for investigation purposes.

When the High Court took up the issue of the orderly system in 2018, the then DGP gave an affidavit claiming that it has been abolished. With the court bracing to pronounce its verdict, incumbent DGP C. Sylendra Babu recently called for an urgent meeting of senior police officers in Chennai and urged them to send back police constables, head constables and other rank personnel working as orderlies in their camp offices or residences for police duties. He also asked police officers above the rank of SP to give an undertaking that there are no orderlies at their residences.

However, officers engaged in law-and-order duties may be permitted to have a couple of police constables at the camp office to attend phone calls, visitors, etc. A three-member committee comprising the Chennai Police Commissioner, ADGP (Administration) and ADGP (Armed Police) has been constituted to study the issue and take suitable action at the earliest.

Rights activists have also argued that the use of uniformed personnel and police vehicles for personal use amounts to criminal misconduct as the officers draw an allowance of ₹10,000 for engaging servants at home without actually engaging them. Their contention stems from Section 13 of the Prevention of Corruption Act, 1988. This states that a public servant is said to commit the offence of criminal misconduct if he/she dishonestly or fraudulently misappropriates or otherwise converts for his/her own use any property entrusted to him/her or any property under his/her control as a public servant or allows any other person so to do or if he/she intentionally enriches himself/herself illicitly during the period of office. It is hoped that on the court's watch, the constabulary will go back to doing its job of policing instead of running errands for officers.

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Practice of *talaq-e-hasan* not so improper: Supreme Court

Justice Sanjay Kishan Kaul observes that Muslim women can opt for *khula*

KRISHNADAS RAJAGOPAL
NEW DELHI

The Supreme Court on Tuesday *prima facie* observed that the Muslim personal law practice of *talaq-e-hasan* is “not so improper”.

Talaq-e-hasan is a form of divorce by which a Muslim man can divorce his wife by pronouncing *talaq* once every month over a three-month period.

A Bench led by Justice Sanjay Kishan Kaul said a Muslim woman has the option to divorce by the process of *khula* by returning the dower (*mahr*) or something else that she received from her husband or without returning anything, as agreed by the spouses or *Qadi's* (court) decree depending on the circumstances.

“*Prima facie* this (*talaq-e-hasan*) is not so improper. Women also have an option. *Khula* is there. *Prima facie* I do not agree with the petitioner. I do not want this to become an agenda for any other reason,” Justice Kaul remarked orally.



Concerns aplenty: *Talaq-e-hasan* defies principles of human rights and is not an integral part of Islam, the petition said. ■PTI

The court's remarks came while hearing a petition filed by journalist Benazeer Heena, represented by senior advocate Pinky Anand and advocate Ashwani Kumar Dubey.

Petitioner's contention

The petitioner argued that *talaq-e-hasan* and “other forms of unilateral extra judicial *talaq* is an evil plague similar to *sati*”.

“*Talaq-e-hasan* is arbitrary, irrational and contrary to Articles 14, 15, 21 and 25 and international conventions on civil rights and hu-

man rights,” the petition submitted. There should be a “gender neutral, religion neutral, uniform grounds of divorce and uniform procedure of divorce for all citizens”, it read.

The petitioner argued that the practice in question was “neither harmonious with the modern principles of human rights and gender equality nor an integral part of Islamic faith”.

Ms. Anand said the apex court, while striking down triple *talaq* in the Shayara Bano case, did not address the issue of *talaq-e-hasan*.

She said the practice discriminated against Muslim women as they cannot resort to it against their husbands. Ms. Anand said the unilateral practice of divorce was “abominable”.

The Bench, however, said the court has granted couples who cannot live with each other divorce on the ground of irretrievable breakdown of marriage. It asked whether the petitioner was willing to explore this option if the issue of *mahr* was taken care of.

The court said the issue under question was not instantaneous triple *talaq* or *talaq-e-biddat*. It repeated that the petitioner could opt for divorce through the *khula* procedure.

“Would the petitioner be willing for a settlement on amounts being paid over and above *mahr* being fixed?” the court asked the petitioner side.

Ms. Anand sought time to get instructions. The court adjourned the case to August 29.

Inflation expected to stabilise by Sept. end, says SBI's Khara

'Rates moving to next level but not to impact home market'

SPECIAL CORRESPONDENT
BENGALURU

Inflation may stabilise as things are expected to look good by the end of September, according to SBI Chairman Dinesh Kumar Khara.

Inflation had eased to 6.71% in July and going forward, although supply-side constraints were still there, they were getting addressed, and therefore, the situation was improving, Mr. Khara told the media here.

"The falling crude oil prices will also play a key role in bringing inflation down and overall, the inflationary scene in the country will look better by the end of September," he added.



Dinesh Kumar Khara

He said interest rates were moving to the next level; however, it would not have any significant impact on the home markets.

Mr. Khara was in the city in connection with the opening of SBI's first exclusive branch for start-ups in Kar-

nataka. The bank has plans to open start-up branches across the country.

Funding via debt

Commenting on the start-up funding scenario, the SBI Chairman said some 50% of the start-ups in the country were supported through equity funding today while the share of debt could grow now on through SBI's dedicated branches for start-ups.

"Some start-ups have reached out to us as they had no source of funds. We thought we could fund and save them from sharing their equities. We have already invested in over 100 such start-ups," he added.

July wholesale inflation slows to 13.9%

WPI-based inflation eases below 14% for the first time since February; diesel inflation zooms to 72.4%

SPECIAL CORRESPONDENT

NEW DELHI

Wholesale price inflation moderated to a five-month low of 13.93% in July from 15.18% in June, driven by a lower pace of price gains in primary products, food items and manufactured products, even though fuel and power inflation resurged to 43.75% last month, from June's 40.38%.

While this was the 16th month in a row that wholesale inflation was above 10%, the reading marked the first dip below 14%-plus levels since February. The Commerce and Industry Ministry also revised May's inflation upwards to a fresh high of 16.63%, from the earlier estimated record of 15.88%.

Despite the paring of the headline inflation rate, the Wholesale Price Index (WPI)



Stubbornly high: This is the 16th straight month WPI inflation has been above 10%. ■SUSHIL KUMAR VERMA

dropped only 0.13% on a month-on-month basis between June and July, as fuel and power inflation jumped 6.56% sequentially, offsetting the moderation in other categories. Within fuel and power, diesel inflation soared again to hit 72.4%,

from a four-month low of 54.9% in June. Petrol moderated marginally from 57.8% to 55.3%. The pace of price rise in LPG eased to 32% from 53.2% in June.

"Inflation in July, 2022 is primarily contributed by rise in prices of mineral oils, food

articles, crude petroleum & natural gas, basic metals, electricity, chemicals & chemical products, food products etc. as compared to the corresponding month of the previous year," noted the Department for Promotion of Industry and Internal Trade in the Commerce Ministry.

Pace slows for food items

The pace of wholesale price rise in food items dropped from 12.41% in June to 9.41% in July. This was led by a sharp drop in vegetable inflation to 18.25%, the lowest rate in at least six months, and less than a third of the 56.75% recorded in June.

Inflation in milk dropped to a four-month low of 5.45%, while eggs, meat and fish prices rose at the slowest pace in three months at 5.55%. However, cereals

(9.76%), potato (53.5%), fruits (29.44%) and paddy (3.1%) hit their highest level of inflation in at least six months. Wheat inflation hit a four-month high of 13.61%, from 10.34% in June. Manufactured products saw a broad-based dip in price rise to 8.16%, from 9.19% in July.

"The easing of wholesale inflation is primarily led by lower food, metals and chemical prices," said CARE Ratings chief economist Rajani Sinha. "If not for a sharp sequential rise in mineral oil prices and hike in electricity tariff, the fall would have been sharper," she added.

"We see a likelihood of the first single-digit WPI inflation print by October 2022, after a gap of 18 months, if the downtrend in commodity prices sustains," credit ratings firm ICRA said in a note.

EXPLAINER

Understanding ethanol blending

How is ethanol extracted? What are the environmental concerns with respect to this process?

K. BHARAT KUMAR

The story so far: Prime Minister Narendra Modi announced that India has achieved its target of blending 10% sugarcane-extracted ethanol in petrol, ahead of schedule. Addressing the nation from the Red Fort on the 76th Independence Day, he rooted for energy independence stating that, “we need to be Aatmanirbhar (self-sufficient) in our energy sector”. India is one of the world’s biggest oil importing nations.

What is ethanol blending?

Blending ethanol with petrol to burn less fossil fuel while running vehicles is called ethanol blending. Ethanol is an agricultural by-product which is mainly obtained from the processing of sugar from sugarcane, but also from other sources such as rice husk or maize. Currently, 10% of the petrol that powers your vehicle is ethanol. Though we have had an E10 – or 10% ethanol as policy for a while, it is only this year that we have achieved that proportion. India’s aim is to increase this ratio to 20% originally by 2030 but in 2021, when NITI Aayog put out the ethanol roadmap, that deadline was advanced to 2025.

Ethanol blending will help bring down our share of oil imports (almost 85%) on which we spend a considerable amount of our precious foreign exchange. Secondly, more ethanol output would help increase farmers’ incomes.

The NITI Aayog report of June 2021 says, “India’s net import of petroleum was 185 million tonnes at a cost of \$55 billion in 2020-21,” and that a successful ethanol blending programme can save the country \$4 billion per annum.

What are first generation and second generation ethanol?

With an aim to augment ethanol supplies, the government has allowed procurement of ethanol produced from other sources besides molasses – which is first generation ethanol or 1G. Other than molasses, ethanol can be extracted from materials such as rice straw, wheat straw, corn cobs, corn stover, bagasse, bamboo and woody biomass, which are second generation ethanol sources or 2G.

While inaugurating the Indian Oil Corporation’s (IOC) 2G ethanol plant last week, Mr. Modi referred to not only the prospect of higher farmer income but also dwelt upon the advantages of farmers selling the residual stubble – left behind after rice is harvested – to help make biofuels. This means lesser stubble burning and therefore, lesser air pollution.

How have other countries fared?

Though the U.S., China, Canada and Brazil all have ethanol blending programmes, as a developing country, Brazil stands out. It had legislated that the ethanol content in petrol should be in the 18-27.5% range, and it finally touched the 27% target in 2021.

How does it impact the auto industry?

At the time of the NITI Aayog report in June last year, the industry had committed to the government to make all vehicles E20 material compliant by 2023. This meant that the petrol points, plastics, rubber, steel and other components in vehicles would need to be compliant to hold/store fuel that is 20% ethanol. Without such a change, rusting is an obvious impediment.

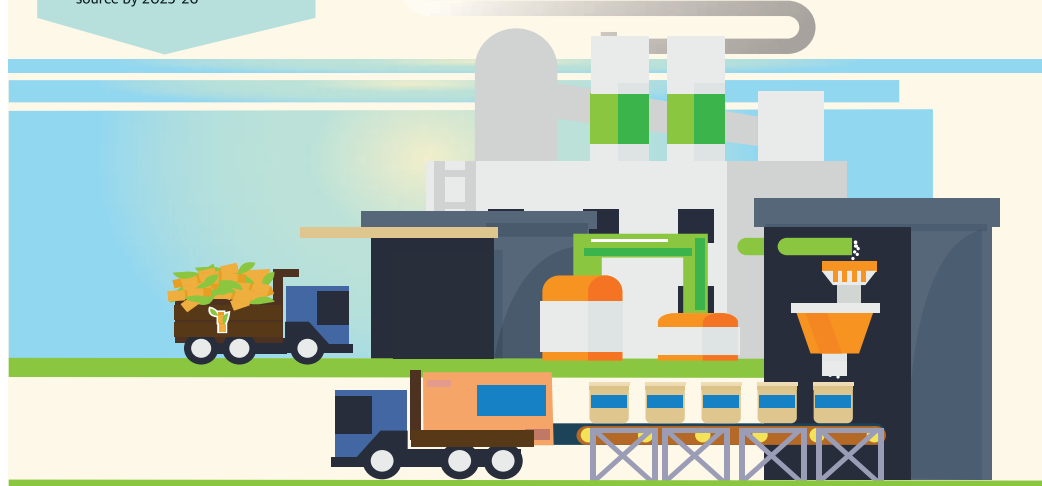
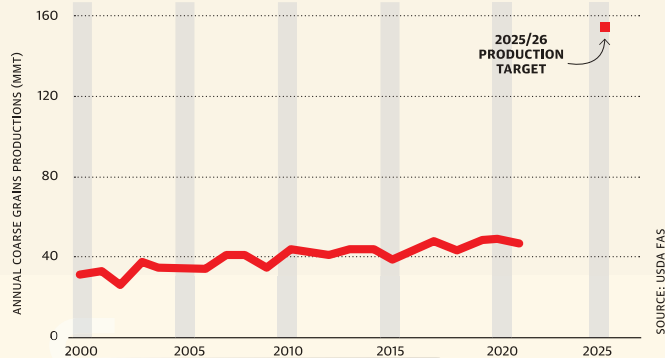
Rajesh Menon, director-general of the Society of Indian Automobile Manufacturers says that the industry has committed to becoming E20 engine compliant by 2025, which means that engines would need to be tweaked so as to process petrol which has been blended with 20% ethanol.

Are there other alternatives?

Sources in the auto industry state that they prefer the use of biofuels as the next step, compared to other options such as electric vehicles (EV), hydrogen power and compressed natural gas. This is mainly because biofuels demand the least incremental investment for manufacturers.

Projections too optimistic?

While the NITI Aayog has advanced the E20 goal to 2025, consistent supply of raw material for ethanol production may prove to be a challenge. A graphic by the International Council on Clean Transportation (ICCT) gives us a visual sense of the steep increase needed in coarse grains output in the coming years to meet the target of ethanol production from this source by 2025-26.



Even though the industry is recovering from the economic losses bought on by the pandemic, it is bound to make some change to comply with India’s promise for net-zero emissions by 2070.

What are the challenges before the industry when it comes to 20% ethanol blended fuel?

The Niti Aayog report points out that the challenges before the industry are: “optimisation of engine for higher ethanol blends and the conduct of durability studies on engines and field trials before introducing E20 compliant vehicles.”

Ethanol blending will help bring down India’s share of oil imports (almost 85%) on which the government spends a considerable amount of foreign exchange. Secondly, more ethanol output would help increase farmers’ incomes

Sources say that the auto industry is in talks with the government to plan this transition. There are multiple issues at stake for this endeavour. Storage is going to be the main concern, for if E10 supply has to continue in tandem with E20 supply, storage would have to be separate which then raises costs.

What have been the objections against this transition?

Ethanol burns completely emitting nil carbon dioxide. By using the left-over residue from rice harvests to make ethanol, stubble burning will also reduce. The 2G ethanol project inaugurated last week will reduce greenhouse gases equivalent to about three lakh tonnes of CO2 emissions per annum, which is the same as replacing

almost 63,000 cars annually on our roads. However, it does not reduce the emission of another key pollutant – nitrous oxide.

The Institute for Energy Economics and Financial Analysis (IEEFA) in a report in March talks about the inefficient land use in ethanol production. The report’s author Charles Worthingham said that we can use land far more efficiently by generating renewable power for EV batteries. For example, to match the annual travel distance of EVs recharged from one hectare generating solar energy, 187 hectares of maize-derived ethanol are required, even when one accounts for the losses from electricity transmission, battery charging and grid storage.

The water needed to grow crops for ethanol is another debating point. An explainer in *The Hindu* in May states that for India, sugarcane is the cheapest source of ethanol. On average, a tonne of sugarcane can produce 100 kg of sugar and 70 litres of ethanol – meaning, a litre of ethanol from sugar requires 2,860 litres of water.

There has been, therefore, a move toward waste-based extraction, such as through coarse grains. But supply may still be a problem, though the Niti Aayog report sounds sanguine on this count – “the roadmap estimates ethanol production from domestic grains will increase a whopping fourfold by 2025.” The abnormally wet monsoon seasons may have helped in recent years to raise grain output, but in its August 2021 analysis The International Council on Clean Transportation (ICCT) is sceptical that those production increases can be sustained.

Mr. Worthingham states that sugar cane would likely continue to be the primary source for ethanol even with the 12 planned farm waste – or 2G ethanol – distilleries. The first, inaugurated last week, has a capacity to produce 100 kilo litres a day, or

3.65 crore litres a year. The 2021 Ethanol Roadmap forecasts that an additional 800 crore litres of ethanol is needed annually to meet the target. He points out that “assuming the other 11 planned farm waste distilleries have similar rates of production, their combined input would barely produce 5% of the additional annual ethanol requirement.”

What about food security concerns?

Mr. Worthingham also flags the impact on crop output meant for food and fodder. “There are already indications that more sugarcane is being grown and that the Government of India encouraged more corn production at the India Maize Summit in May, with its use for ethanol production cited as a reason for this push. Sugar and cane production that end up in the petrol tank cannot also appear on the dinner plate, in animal fodder, be stored in warehouses, or be exported. As was evident in India’s wheat harvest earlier this year, climate change-induced heatwaves are a worrying factor and can lead to lower-than-expected harvests with little notice,” he says.

Global corn, or maize, production is down, and this adds an incentive for India to try and export more. In France, the corn harvest has dipped 19%, and reductions in forecast production have been seen for at least seven other countries in Europe. U.S. production expectations have also been revised slightly downward.

“Given the uncertainty about future production, India may not find it easy to simultaneously strengthen domestic food supply systems, set aside adequate stocks for lean years, maintain an export market for grains, and divert grain to ethanol at the expected rate in coming years, and this is an issue that warrants continued monitoring,” he warns.

Stepping back from an ecological abyss

There is a need to balance India's developmental needs with the sustenance of its ecological foundations



ASHISH KOTHARI

Chipko. Silent Valley. Narmada. Koel-Karo. Growing up in the 1970s and the early 1980s, many of us who were passionate about environmental issues were inspired by these and other movements. As the government too responded with a series of forest, wildlife, environment-related laws and policies, there was hope that India would be able to balance its development needs with the sustenance of its ecological foundations. As India celebrates 75 years of Independence, has that hope been sustained?

An earth under stress

The prospects today seem far gloomier than they did in the 1980s. Four hundred and eighty million Indians face the world's most extreme air pollution levels. According to NITI Aayog, "600 million people in India face high to extreme water stress... with nearly 70% of water being contaminated; India is placed at 120th amongst 122 countries in the water quality index". Land degradation and desertification are taking place over 30% of our land, according to the Indian Space Research Organisation. Average levels of land productivity are one-fourth or one-fifth of what they could be; pumping in artificial fertilizers restores a bit, but at the cost of pushing the soil further towards death. Food items in most cities have pesticide residues well above human safety levels. The World Bank – itself partly responsible for pushing India into unsustainable pathways – reported in 2013 that India was losing 5.7% of GDP due to environmental damage. The latest global environmental ranking by Yale and Columbia Universities puts India at the bot-

tom among 180 countries; while flawed in many respects, including how it lets rich countries off the hook, it is nevertheless reflective of what is happening on the ground.

Favouring corporate access

All this evidence has still not penetrated the minds of politicians and economists setting development priorities. The obsession with economic growth – despite growing evidence of GDP being a very poor indicator of human well-being – treats the natural environment (and related livelihoods) as fodder for exploitation. Despite public posturing about the Sustainable Development Goals, the natural elements without which we would all be dead – land, water, biodiversity, air – continue to be ignored or mauled.

In fact, the Government is dismantling environmental and social security policies to favour corporate access to land and natural resources, such as the latest proposals to amend forest and environment laws, and the Environment Impact Assessment notification. Its priority programmes include building massive physical infrastructure that only disrupts the natural infrastructure we desperately need to protect. For instance, the 2022-23 Budget has an allocation for highways that alone is 40 times greater than the Budget of the Ministry for Environment, Forests and Climate Change. Of what use is faster and faster mobility, if at the end of the journey we still have air and water and food that are killing us?

Given the hopeful signs of the 1970s and the 1980s, how did we come to this pass? In our book *Churning the Earth*, Aseem Shrivastava and I analysed in detail a significant turning point – the economic 'reforms' beginning in 1991. With greater integration into the global economy, the entry of multinational (and big Indian) corporations into every sector, and increasing exports of natural



S. RAMESH KURUP

materials and imports of toxic waste, the issue of environmental sustainability was relegated to the background. Mining projects crept into previously safe areas including wildlife protected areas and Adivasi territories, the oceans became a target for major commercial extraction (and will be even more so with the new Deep Ocean Mission), and big infrastructure became a holy mantra.

India 75

While wildlife and biodiversity have been major sufferers, there are also severe socio-cultural costs. Over 60 million people have been physically displaced by 'development' projects in the last few decades with very poor (if any) rehabilitation, and according to the former Planning Commission, a disproportionately high percentage of these are Adivasis and Dalits. Ironically, a component of Prime Minister Narendra Modi's vision of Aatmanirbhar Bharat (self-reliant India) is new coal mining in central India, displacing already self-reliant Adivasi communities and rendering them dependent on government and corporations.

Extreme events

The climate crisis severely compounds all this. This year's super-hot summer should be a warning, even if we have not yet learnt from earlier events of extreme temperatures, erratic rainfall, cloudbursts and cyclones. In recent trips to La-

dakh, I learnt that many villages (e.g. in Zaskar) are being abandoned due to water shortages caused by receding glaciers. A *Lancet Planetary Health* journal article says that extreme temperatures in India are responsible for 7,40,000 excess deaths annually. The majority of these are likely to be labourers, farmers, and other vulnerable sections who have to work, live, and commute in these temperatures without access to air-conditioning, appropriate clothing, etc. And we are not at all prepared, with abysmally low budgets for adaptation measures. The Climate Action Plan got a meagre ₹30 crore in the 2022-23 Budget.

Enabling sustainability

So, India's biggest challenge: can ecological sustainability be ensured while generating livelihood security and dignity for more than a billion people? Answers do exist, in thousands of initiatives across the country, as documented in the Vikalp Sangam process. Five thousand Dalit women farmers of the Deccan Development Society have demonstrated how organic, rainfed farming with traditional seed diversity can provide full food security and sovereignty.

Several hundred handloom weavers in Kachchh (Gujarat) have shown how dignified, creative livelihoods can be revived based on organic Kala cotton and a mix of traditional and new skills. Indeed, India's crafts have sustained several hundred million people in the past, and can do so again if the incredible traditional and new skills in textiles, footwear, cleaning agents, vessels, pottery, furniture, architecture and construction, water-related technologies, and a range of household items are given priority. Community-led ecotourism, such as homestays in Uttarakhand and Ladakh and Sikkim, has combined increased earnings with ecologically sensitive visitation. Community conserved areas have shown a democratic approach to wildlife protection very

different from the top-down 'protected area' model. As advocated by the United Nations Environment Programme, public transportation, organic farming, land and water regeneration, renewable energy, community health, eco-friendly construction, ecotourism, and small-scale manufacturing can significantly enhance job creation. Linking programmes such as the Mahatma Gandhi National Rural Employment Guarantee Act with such activities, as happening in some States, also has huge potential.

Needed, a mobilisation

Such an orientation entails fundamental restructuring of economy and governance. It will mean a shift away from large infrastructure and industrialisation, replacing mega-corporations with producer cooperatives, ensuring community rights over the 'commons' (land, water, forest, coasts, knowledge), and direct decision-making powers to *gram sabhas* and urban area *sabhas* while tackling gender and caste inequities. It will entail respect for both human rights and the rights of nature. But since this will inevitably (and desirably) cut into the profits and consumerism of India's ultra-rich, and reduce the centralised power of the state, it will not happen through government action alone. It needs the collective mobilisation of industrial workers, farmers, fishers, craftpersons, pastoralists, urban and rural youth, women in all sectors, the 'disabled' and LGBTQ, and those speaking on behalf of wildlife, all of whom are marginalised by dominant elites. Then only will India finish its century of Independence as a nation that has achieved genuine well-being – a real '*amrit kaal*' and not the seductive but poisoned chimera promised by Finance Minister Nirmala Sitharaman in the Budget 2022-23 address.

Ashish Kothari is with Kalpvriksh, Pune. The views expressed are personal

African cheetahs still stuck in transit

Administrative hurdles delay work

JACOB KOSHY

NEW DELHI

India's ambitious project to translocate African cheetahs has missed an unofficial deadline of August 15, though sources say the wild cats are likely to arrive here within this year.

Though agreements have been signed with both South Africa and Namibia, administrative delays, as well as the presence of leopards in the cheetahs' prospective destination – the Kuno Palpur forest reserve, Madhya Pradesh – are believed to be barriers to their arrival.

India's action plan, a long-term translocation project made public this February, on re-establishing the cheetah – extinct since 1952 in India – states that a cohort of around 10-12 young would be imported from Namibia or South Africa as a founder stock during the first year.

The animals' lineage and genetic history would be examined to ensure that they are not from an excessively inbred stock and were in the



African cheetahs, set to be translocated to India, being examined in Namibia.

■ [TWITTER/@INDIAINNAMIBIA](https://twitter.com/INDIAINNAMIBIA)

ideal, reproductive age group so that they constituted a suitable founding population. Around 35 cheetahs would be needed over time to establish a sustainable population.

The Indian High Commission in Namibia tweeted pictures on Monday of cheetahs, set to be translocated to India, being medically examined.

In the case of South Africa, a memorandum of understanding signed with the government awaited a signature from President Cyril Ramaphosa, said sources.

Chinese tracking vessel reaches Sri Lanka port

India and U.S. had objected to the presence of *Yuan Wang 5*

MEERA SRINIVASAN
ANANTH KRISHNAN
COLOMBO/ BEIJING

China's satellite tracking vessel *Yuan Wang 5* arrived at Sri Lanka's southern Hambantota port on Tuesday, despite India and the U.S. voicing concern with Colombo over the military ship's visit. Hours after the vessel reached the Sri Lankan port, China said the "marine scientific research" activities of the vessel were "consistent with international law" and did not impact "any other country's security interests".

According to Colombo-based official sources, both India and the U.S. had conveyed their apprehensions to the Sri Lankan government at the highest level, citing the vessel's "military capabilities" while in the Indian Ocean Region.

Apparently addressing the concerns, Chinese Foreign Ministry spokesperson Wang Wenbin said on Tuesday: "I want to stress again that the marine scientific research activities of the *Yuan Wang 5* ship are consistent with international law and international common practice. They do not affect the security and the economic interests of any country and should not be obstructed by any third party."

China earlier slammed



Show of support: Workers waving China's and Sri Lanka's national flags on the arrival of Chinese vessel *Yuan Wang 5* at the Hambantota port in Sri Lanka on Tuesday ■ AFP

New Delhi's apprehensions as "unjustified" and "morally irresponsible", and "urged" New Delhi to "not disturb normal exchanges" between the two countries. New Delhi "rejected insinuations" that Sri Lanka was pressured.

Although the vessel's arrival was deferred by a few days subsequent to Colombo's request, the ship will be docked at Hambantota for a week as was earlier planned. "It will take some time for the *Yuan Wang 5* research ship to complete the replenishment of necessary supplies," Mr. Wang said at the daily briefing in Beijing.

China, he said, was ready to work with the Sri Lankan side to "consolidate political mutual trust, deepen win-

win cooperation and promote sound and steady development of bilateral relations".

Sri Lanka has maintained strong ties with China over the years. Colombo recently said it firmly backs the 'One China Policy', and asked countries to "refrain from provocations", just after U.S. House Speaker Nancy Pelosi's controversial visit to Taiwan. Further, the Sri Lankan government is counting on China to help in the island's efforts to restructure its external debt, to be eligible for crucial IMF support amid an agonising economic downturn. Chinese loans account for about 10% of Sri Lanka's total foreign debt.

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Chinese military vessel arrives in Sri Lanka

China extended about \$2.8 billion to Sri Lanka soon after the pandemic hit but has not stepped in much this year, even as the island's economy collapsed rapidly. Beijing, which announced a \$74 million grant in May, is yet to respond to Colombo's request for bridge financing, reportedly totally \$4 billion. India has extended about \$3.8 billion this year to help Sri Lanka cope with its economic crisis.

Responding to a query on Chinese assistance, the Foreign Ministry spokesman said, "We feel deeply for the economic and social difficulties that the Sri Lankan side

is currently facing. For quite some time, we have been providing active support to Sri Lanka for it to overcome the difficulties. That is what we did and what we will continue to do." A team of Sri Lankan MPs and Chinese officials were present at the ceremonial welcome to the vessel on Tuesday. "Long live China and Sri Lanka friendship," a red banner held by the crew on the upper deck of the vessel read.

The Chinese vessel arrived in Sri Lanka a day after India gifted a Dornier marine surveillance aircraft to the island nation to "enhance" its security capabilities.

General Studies Paper I	
A	History of Indian culture will cover the salient aspects of art forms, literature and architecture from ancient to modern times;
B	Modern Indian history from about the middle of the eighteenth century until the present-significant events, personalities, issues;
C	Freedom struggle-its various stages and important contributors / contributions from different parts of the country;
D	Post-independence consolidation and reorganization within the country;
E	History of the world will include events from 18 th century such as industrial revolution, world wars, re-drawing of national boundaries, colonization, decolonization,
F	Political philosophies like communism, capitalism, socialism etc.-their forms and effect on the society
G	Salient features of Indian Society, Diversity of India;
H	Effects of globalization on Indian society;
I	Role of women and women's organization;
J	Social empowerment, communalism, regionalism & secularism
K	Salient features of world's physical geography;
L	Geographical features and their location- changes in critical geographical features (including water bodies and ice-caps) and in flora and fauna and the effects of such changes;
M	Important Geophysical phenomena such as earthquakes, Tsunami, Volcanic activity, cyclone etc.
N	Distribution of key natural resources across the world (including South Asia and the Indian subcontinent);
O	Factors responsible for the location of primary, secondary, and tertiary sector industries in various parts of the world (including India);
P	Population and associated issues;
Q	Urbanization, their problems and their remedies
General Studies Paper II	
A	India and its neighbourhood- relations;
B	Important International institutions, agencies and fora- their structure, mandate;
C	Effect of policies and politics of developed and developing countries on India's interests;
D	Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.
E	Indian Constitution, historical underpinnings, evolution, features, amendments, significant provisions and basic structure;
F	Comparison of the Indian Constitutional scheme with other countries;
G	Functions and responsibilities of the Union and the States, issues and challenges pertaining to the federal structure, devolution of powers and finances up to local levels and challenges therein; Inclusive growth and issues arising from it;
H	Parliament and State Legislatures - structure, functioning, conduct of business, powers & privileges and issues arising out of these;
I	Structure, organization and functioning of the executive and the judiciary, Ministries and Departments;

J	Separation of powers between various organs dispute redressal mechanisms and institutions;
K	Appointment to various Constitutional posts, powers, functions and responsibilities of various Constitutional bodies;
L	Statutory, regulatory and various quasi-judicial bodies;
M	Mechanisms, laws, institutions and bodies constituted for the protection and betterment of these vulnerable sections;
N	Salient features of the Representation of People's Act;
O	Important aspects of governance, transparency and accountability, e-governance- applications, models, successes, limitations, and potential;
P	Citizens charters, transparency & accountability and institutional and other measures;
Q	Issues relating to poverty and hunger,
R	Welfare schemes for vulnerable sections of the population by the Centre and States, Performance of these schemes;
S	Issues relating to development and management of social sector / services relating to education and human resources;
T	Issues relating to development and management of social sector / services relating to health
General Studies Paper III	
A	Indian Economy and issues relating to planning, mobilization of resources, growth, development and employment;
B	Effects of liberalization on the economy, changes in industrial policy and their effects on industrial growth;
C	Inclusive growth and issues arising from it;
D	Infrastructure Energy, Ports, Roads, Airports, Railways etc. Government budgeting;
E	Land reforms in India
F	Major crops, cropping patterns in various parts of the country, different types of irrigation and irrigation systems;
G	Storage, transport and marketing of agricultural produce and issues and related constraints;
H	e-technology in the aid of farmers; Technology Missions; Economics of Animal-Rearing.
I	Issues of buffer stocks and food security, Public Distribution System- objectives, functioning, limitations, revamping;
J	Food processing and related industries in India – scope and significance, location, upstream and downstream requirements, supply chain management;
K	Issues related to direct and indirect farm subsidies and minimum support prices
L	Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-technology;
M	Indigenization of technology and developing new technology;
N	Developments and their applications and effects in everyday life;
O	Issues relating to intellectual property rights
P	Conservation, environmental pollution and degradation, environmental impact assessment
Q	Disaster and disaster management
R	Challenges to internal security through communication networks, role of media and social networking sites in internal security challenges, basics of cyber security;
S	Money-laundering and its prevention;

T	Various forces and their mandate;
U	Security challenges and their management in border areas;
V	Linkages of organized crime with terrorism;
W	Role of external state and non-state actors in creating challenges to internal security;
X	Linkages between development and spread of extremism.
General Studies Paper IV	
A	Ethics and Human Interface: Essence, determinants and consequences of Ethics in human actions;
B	Dimensions of ethics;
C	Ethics in private and public relationships. Human Values - lessons from the lives and teachings of great leaders, reformers and administrators;
D	Role of family, society and educational institutions in inculcating values.
E	Attitude: Content, structure, function; its influence and relation with thought and behaviour;
F	Moral and political attitudes;
G	Social influence and persuasion.
H	Aptitude and foundational values for Civil Service , integrity, impartiality and non-partisanship, objectivity, dedication to public service, empathy, tolerance and compassion towards the weaker sections.
I	Emotional intelligence-concepts, and their utilities and application in administration and governance.
J	Contributions of moral thinkers and philosophers from India and world.
K	Public/Civil service values and Ethics in Public administration: Status and problems;
L	Ethical concerns and dilemmas in government and private institutions;
M	Laws, rules, regulations and conscience as
N	sources of ethical guidance;
O	Accountability and ethical governance; strengthening of ethical and moral values in governance; ethical issues in international relations and funding;
P	Corporate governance.
Q	Probity in Governance: Concept of public service;
R	Philosophical basis of governance and probity;
S	Information sharing and transparency in government, Right to Information, Codes of Ethics, Codes of Conduct, Citizen's Charters, Work culture, Quality of service delivery, Utilization of public funds, challenges of corruption.
T	Case Studies on above issues.