

The Hindu Important News Articles & Editorial For UPSC CSE Friday, 03 Jan, 2024

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Page 03: Prelims Fact

Shefiq Basheer Ahammed's 2017 wildlife photography trip to Mongolia, documenting rare species like Pallas's cat, inspired a Class 7 CBSE textbook chapter.

RTO official's Mongolia trip to click Pallas's cat find its way into textbook

M.P. Praveen

KOCHI

During his 15-day trip to Mongolia in the harsh winter of March 2017, Shefiq Basheer Ahammed, now serving as Malappuram Regional Transport Officer, had little inkling that his little adventure would become part of a school textbook years later.

Mr. Ahammed had no clue that his trip to photograph the hard-to-spot Pallas's cat, one of the smallest wildcats of the world, was included as a chapter in the Gul Mohar Language For Life English CBSE Course Book for Class 7.



Pallas's cat

Mr. Ahammed came to know about it only after one of his friends happened to accidentally overhear his daughter reading out the chapter aloud. "I was pleasantly surprised to hear that my passion has been found worthy of being included in a textbook," says Mr. Ahammed.

Incidentally, the story about the trip to Mongolia written by G. Shaheed, a senior journalist, along with Mr. Ahammed's photographs was carried by the *Frontline* magazine in the issue dated June 4, 2021. The chapter is named after the title of that story, *The Small Ghost of the Mountain*.

The Pallas's cat is named thus since it is nocturnal and with its white complexion blends seamlessly with its snowy habitat. "Pallas's cat was the primary focus of that trip, along with Bactrian or double-humped camel and Przewalski's horse, named after the Russian geographer Nikolay Przewalski," says Mr. Ahammed.

He first spent four days trekking and camping in the Hustai National Park and the next 11 days in the Altai Mountain areas to get a sighting of the cat, braving inclement weather when temperature dropped to as low as -20 degrees. Mr. Ahammed's passion for wildlife photography has taken him to 26 countries so far.

Species in news:

Pallas's Cat

- Small wildcat species native to Central Asia.
- Nown for its dense, silvery-grey fur and flat face with rounded ears.
- Lives in rocky steppes and cold deserts, at altitudes of up to 5,000 meters.
- Solitary and elusive, active mainly at night (nocturnal).
- Feeds on small mammals, birds, and insects.
- Conservation status: Near Threatened (IUCN Red List), due to habitat loss and hunting.

Bactrian Camel





- Double-humped camels adapted to the cold deserts of Central Asia.
- Can survive extreme temperatures, from -40°C to 40°C.
- Known for thick fur, storing fat in humps for energy.
- Domesticated species used for transport, milk, and wool.
- Wild Bactrian camels are critically endangered.

Przewalski's Horse

- Endangered wild horse, native to Central Asia's steppes.
- Stocky build with a short mane and no forelock.
- Last truly wild horse species; reintroduced into the wild after near extinction.
- Lives in grasslands and desert edges, feeding on grasses.
- Conservation efforts focus on captive breeding and rewilding programs.
- Conservation status: Endangered(IUCN Red List)







Page 06: GS 2 & 3: Governance & Agriculture

The Union Ministry of Environment, Forest, and Climate Change has amended rules governing the selection of experts for the Genetic Engineering Appraisal Committee (GEAC), which regulates genetically modified (GM) seeds in India.

Experts on GM crop panels to declare conflict of interest

Ministry of Environment amends rules governing selection of experts to the Genetic Engineering Appraisal Committee; it calls for details of professional affiliations in past 10 years to be declared

Jacob Koshy

NEW DELHI

he Union Ministry of Environment, Forest and Climate Change has amended the rules governing the selection of experts to the Genetic Engineering Appraisal Committee (GEAC), the apex technical body regulating genetically modified (GM) seeds in India.

Under the new rules, an "expert member" ought to disclose their "interest" that could conflict with their duties. The expert is also expected to take all steps necessary to ensure that any conflict of interest does not affect any decision of the GEAC.

An expert member with any direct or indirect association with a matter being discussed in a meeting of the committee is obliged to disclose this prior to the meeting. Unless specifically requested by the com-



Two judges had ruled differently on whether the Centre was right in according approval to genetically modified mustard. AFP

mittee, the expert is expected to recuse their selves from the meeting. All selected members would also have to fill out a form detailing their professional affiliations to a decade prior to joining the committee.

Split verdict

These rules come on the back of a Supreme Court

order in July 2023 requiring that the Centre form a national policy on GM crops.

In that order of July 2023, the SC delivered a split verdict on the validity of the Centre's 2022 decision granting conditional approval for environmental release of GM mustard crops, thus leaving a final resolution on the release of

the crop to a future Bench.

Two judges ruled differently on whether the Centre was right in according approval to GM mustard.

Among the directives that they concurred on was establishing a process for resolving issues around conflict of interest.

As far as the GM case is concerned, the question of such conflict arose following an allegation by an activist group, the Coalition for GM-Free India, in 2013, that one of the members of a Technical Expert Committee appointed by the court, ran an organisation that was funded by Monsanto, a multinational biotech and agricultural pesticides company, affiliated Indian organisations.

Monsanto has since been bought over by Bayer CropScience Limited, a company with similar interests.





Amendment to GEAC Rules

- ▶ Under the new rules, expert members are required to disclose any interests that might conflict with their duties.
- ► Experts must take measures to ensure that conflicts of interest do not influence the committee's decisions.

Genetic Engineering Appraisal Committee (GEAC)

- → GEAC (Genetic Engineering Appraisal Committee) is a statutory body under the Environment (Protection) Act, 1986.
- ▶ It appraises activities involving hazardous microorganisms and recombinants in research and industrial production.
- → The committee assesses proposals for the release of genetically engineered organisms and products, including experimental field trials.
- **▶ Functions** include approving or rejecting proposals, conducting risk and environmental impact assessments, and monitoring biotechnology applications.
- ▶ Composition: GEAC is chaired by a senior official from the Ministry of Environment, Forest and Climate Change (MoEF&CC) and co-chaired by a Department of Biotechnology (DBT) representative. It includes scientists, environmentalists, and policymakers to ensure diverse expertise in decision-making regarding GMOs and related technologies.

Conflict of Interest Provisions

- Expert members with direct or indirect associations with matters being discussed in committee meetings must disclose these associations prior to the meetings.
- ▶ Unless specifically requested by the committee, such members are expected to recuse themselves from the discussion.
- Selected members must submit a form detailing their professional affiliations over the past decade before joining the committee.

Supreme Court's Order on GM Crops

- In July 2023, the Supreme Court directed the Centre to form a national policy on GM crops.
- → The court delivered a split verdict on the Centre's 2022 conditional approval for the environmental release of GM mustard.
- ▶ The court concurred on the need for a process to address conflict of interest issues.





Allegations of Conflict of Interest

- Allegations of conflict of interest in GM crop regulation arose in 2013.
- → Activist group Coalition for GM-Free India alleged that a member of the Technical Expert Committee, appointed by the court, was associated with an organization funded by Monsanto, a major multinational biotech company.

Conflict of interest and its potential implications:

- ▶ Bias in Decision-Making: Experts with conflicts of interest may make biased recommendations that favor certain companies or technologies, undermining the fairness of decisions.
- ▶ Compromised Public Trust: If conflicts of interest are not disclosed, it can erode public trust in regulatory bodies and their decisions, especially in sensitive areas like genetically modified organisms (GMOs).
- ▶ **Regulatory Weakness:** Undisclosed conflicts can lead to ineffective regulations, as decisions may prioritize private interests over public health or environmental safety.
- ▶ **Legal and Ethical Concerns:** Conflict of interest issues can result in legal challenges or ethical violations, affecting the credibility of the regulatory framework.
- **► Economic Impacts:** Biased decisions could result in the promotion of products that benefit certain stakeholders but pose risks to public welfare or the environment.

UPSC Mains Practice Question

Ques : Examine the potential implications of conflicts of interest in the decision-making process of regulatory bodies like the Genetic Engineering Appraisal Committee (GEAC), with specific reference to the regulation of genetically modified organisms in India. **(250 Words /15 marks)**



Page 06: GS 2: Social Justice - Education

Recent government data from UDISE+ reveals significant gaps in electricity, drinking water, toilets, and disabled-friendly facilities across Indian schools.

Facility	Total	Schools with Functional	Schools without Functional
	Schools	Facility	Facility
Electricity	14.71 lakh	13.19 lakh	1.52 lakh
Drinking	14.71 lakh	14.11 lakh	67,000
Water			
Toilet Facility	14.71 lakh	14.04 lakh	67,000

Disabled-Friendly Facilities

- Only 3.37 lakh government schools have disabled-friendly toilets, highlighting inadequate provisions for differentlyabled students.
- The condition of disabled-friendly facilities is notably poor in the majority of schools across India.

Conclusion

This data highlights the gaps in basic infrastructure and facilities in schools, especially government-run ones, affecting the quality of education and student well-being.

UPSC Mains Practice Question

Ques: Examine the current status of basic infrastructure facilities such as electricity, drinking water, and toilets in schools in India, based on the latest UDISE+ data. Discuss the implications for education and the measures needed to address these gaps. (250 Words /15 marks)

Govt. report reveals stark infrastructure gap in Indian schools

Maitri Porecha NEW DELHI

Of the over 14.71 lakh schools in India, up to 1.52 lakh schools have no functional electricity, according to the latest data released by the Unified District Information Sys-Education for tem (UDISE+) maintained by the Ministry of Education. Of the 14.71 lakh schools, 10.17 lakh schools are government-run, of which 9.12 lakh schools have functional electricity, while 1.52 lakh schools do

Apart from the government-run schools, there are 4.54 lakh schools that are government-aided, private and unaided, and others, of which 4.07 lakh have functional electricity.

Of the total schools, 14.47 lakh schools have drinking water facilities, but in only 14.11 lakh schools is the drinking water facility functional.

Of the 10.17 lakh government schools, functional drinking water facility is available in 9.78 lakh schools. Of the 4.46 lakh



67,000 schools operate without functional toilets, of which a majority are government-run.

government-aided, private and other schools, 4.33 lakh have functional drinking water.

With regard to toilets, of the 14.71 lakh schools, 14.50 lakh schools have toilet facilities, but only 14.04 lakh toilets are functional.

The report says 67,000 schools operate without functional toilets, of which a majority (46,000) are government schools.

The condition is much worse when it comes to providing disabled-friendly facilities. Of the 10.17 lakh government schools, only 3.37 lakh schools have disabled-friendly toilets.



Page 06: Prelims Fact

Researchers from IIT-Guwahati and Bose Institute, Kolkata have developed an advanced injectable hydrogel for localized cancer treatment.

Indian researchers develop injectable hydrogel for targeted cancer treatment

The Hindu Bureau

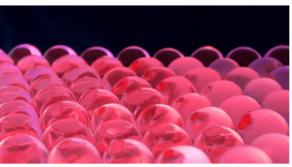
GUWAHATI

Researchers from the Indian Institute of Technology-Guwahati (IIT-G) and the Bose Institute, Kolkata have developed an advanced injectable hydrogel for localised cancer treatment. A statement issued by the IIT-G said this hydrogel serves as a stable reservoir for anti-cancer drugs, releasing it in a controlled manner while sparing healthy cells from harm

The findings of the research, expected to be revolutionary for breast cancer therapy, have been published in *Materials Horizons*, a journal of the Royal Society of Chemistry.

The paper is co-authored by Debapratim Das, along with his research scholars Tanushree Das and Ritvika Kushwaha from IIT-G's Department of Chemistry, and Kuldip Jana, Satyajit Halder, and Anup Kumar Misra from Bose Institute, Kolkata.

"Current treatments,



The hydrogel triggers a controlled drug release directly into the tumour, thus reducing systemic side effects. GETTY IMAGES

such as chemotherapy and surgical interventions, often have severe limitations. Chemotherapy's systemic delivery often results in harmful side effects by affecting both cancerous and healthy cells," the researchers said in the statement.

Localised treatment

The team addressed these challenges by designing a hydrogel that delivers drugs precisely to the tumour site, ensuring localised action. Hydrogels are water-based, polymer networks capable of absorbing and retaining fluids. Their unique structure

mimics living tissues, making them suitable for biomedical applications.

The hydrogel, composed of ultra-short peptides is designed to remain insoluble in biological fluids, ensuring it stays localised at the injection site. It responds to elevated levels of glutathione (GSH), a molecule abundant in tumour cells.

"This work exemplifies how scientific innovation can address the pressing needs of cancer treatment. The hydrogel's properties allow it to work harmoniously with the biological environment, offering precision," Prof. Das said.



Analysis of the news:





- ▶ The hydrogel is designed to deliver anti-cancer drugs directly to the tumor site, reducing the systemic side effects commonly associated with chemotherapy.
- ▶ It is composed of ultra-short peptides that remain insoluble in biological fluids, ensuring the hydrogel stays localized at the injection site.
- → The hydrogel responds to elevated levels of glutathione (GSH), a molecule found in high concentrations in tumors.
- ▶ It releases the drugs in a controlled manner, targeting the tumor while sparing healthy cells from damage.
- → This innovation is expected to revolutionize breast cancer therapy by offering more precise treatment.
- The findings were published in the journal Materials Horizons by the Royal Society of Chemistry.







Page 07: GS 2: Social Justice - Health

The article discusses how obesity is a significant contributor to non-communicable diseases, increasing the risk of conditions like diabetes, hypertension, heart disease, certain cancers, and negatively impacting overall quality of life.

Obesity: soft core of an epidemic of non-communicable diseases

Obesity is a chronic disease defined by excessive fat deposits that can impair an individual's health. Obesity increases risk of diabetes, hypertension, and heart disease. It also increases the risk of certain cancers and greatly influences quality of living factors, such as sleep and mobility

Anbarasu Mohanraj

t no point in the history of mankind has there been so much excess food on the table as there has been over the last few decades. Science and technology have led to massive increases in food production and preservation over the last 50-75 years. That has indeed helped in eliminating famines and improved the overall health of society. However, this has created its own perils. Throughout history, our ancestors

perils. Throughout history, our ancestors have been either wandering or physically active in some way right from our primate days. This has changed over the last few decades with man being cuffed to his chair. The average life expectancy of humans is at its peak, and the boomer generation is living into the eighties rather

generation is living into the eighties rather easily.

Excessive food on the table and the lack of mobility are taking their toll on humans. It is well and truly the age of non-communicable diseases (NCDs) like diabetes, hypertension, dyslipidemia, and obesity.

I see patients in their seventies coming up for heart surgery. Most of these patients are not overweight, but their children who accompany them to the hospital for consultations or for surgery are grossly obsee.

It's quite peculiar, but common now to see patients with heart issues at both ends of the age spectrum. With increasing age expectancy, we seel to 1 very elderly patients. With non-communicable diseases increasing, we also see a number of young and middle-aged patients coming in with heart issues.



Obesity
Obesity is a chronic, complex disease defined by excessive fat deposits that can impair the health of an individual. Obesity increases the risk of diabetes, hypertension, heart disease, and affects bone health. It also increases the risk of bone neatth. It also increases the risk of certain cancers and influences quality of living factors, such as sleep and mobility. The current incidence of obesity as per

ining factors, such as steep and monity.
The current incidence of obesity as per the World Health Organization across the globe is huge; one in eight in the world is obese, and one in three is overweight.
Worldwide, adult obesity has doubled since 1990, and adolescent obesity has quadrupleid: 37 million children under the age of five are overweight; over 390 million children and adolescents aged 5-19 years are overweight; and 160 million children and adolescents are obese.
So what do we mean by obesity? The diagnosis of overweight and obesity is based on body mass index (BMI) — weight(Kg)/height' (m)- For adults, overweight is a BMI greater than 20 kg/m² and obesity means a BMI greater than 30 kg/m².
In 2000, a WHO expert group proposed the BMI criteria for overweight as 23/24.8/gm²and obesity as

proposed the BMI Criteria for overweight as 23-24.9kg/m²nd obesity as -25kg/m² for individuals from the Asia-Pacific region as against the international criteria. So we need to take these values to define our level of obesity in India.

Childhood obesity Childhood obesity is a serious health hazard increasingly growing in India. Childhood obesity can lead to poor self-esteem and depression. Children who



One in eight in the world is obese, and one in three is

are obese are prone to developing adulthood obesity and, consequently, developing diabetes, hypertension, and other complications early in life. India ranks second in the world in terms of being home to the highest number of obese children.

Causes of childhood obesity include too little activity and consuming too many calories from food and drinks, but genetic calories from food and drinks, but genet and hormonal factors too need to be evaluated. Regular intake of high-calorie food such as fast foods, baked foods, and fizzy drinks, are the common causes of childhood obesity. Although candies and desserts can also cause obesity, more and more evidence is pointing towards sugary drinks and sports drinks as the culprits.

The Indian picture
Like any other nation, India is affected by
the epidemic of obesity. The Indian
incidence of obesity is around 13%, which
is much higher than in other
middle-income countries.
In addition to this issue, one other

In addition to this issue, one other worrying aspect of the Indian population is normal weight obesity, meaning the population has a higher body fat despite a normal body mass index (BM). Another variation of obesity in this population is sarcopenic obesity. These people have increased BMI or walst circumference along with sarcopenia (gross loss of muscle mass).

Waist circumference is a very important indicator of obesity, which is quite commonly ignored in our country. The incidence of increased waist circumference with normal weight is as

high as 65% in men and women. These individuals are called TOFI (Thin Outside and Fat Inside). TOFI individuals have a high fat deposition around their waist and have a high incidence of diabetes, hypertension, and heart diseases. An ideal waist circumference is 90 cm for men and 80 cm for women in this

population.

Overweight and obesity cause 3.4 million deaths annually worldwide. India ranks third after China and the USA There are economic burdens that can be attributed to overweight and obesity. Apart from the direct medical costs incurred by the country, the issue of overweight and obesity is also linked with indirect costs associated with the process of seeking medical healthcare, economic loss from premature mortality, absence from work, and negative inhuence on work productivity.

Obesity has a deleterious impact on the individual, family, society and country. One big challenge is that obesity can trigger mental health issues, including low self-esteem, mood disorders, smotivational disorder, eating problems, issues with body image, and negatively impact interpersonal communication. There are economic burdens that can be

Addressing obesity
Mere weight loss alone results in a
reduction in blood pressure, improves
cholesterol levels, and reduces diabetes
incidence, all in one shot without any
pills.
Treating obesity with newer medicines
is quite effective, but it is expensive and is
not without adverse effects. Metabolic
surgery, or bariatric surgery, is effective,

on the individual, family, society, and country. One challenge is that it can trigger mental health issues, including low self-esteem, motivational disorder, eating problems, and issues with body

but the cost involved and the long-term nutritional aspects and protein supplements needed, have to be taken into account. Awareness, attention, advocacy and addressing the issue are the pillars in the campaign to prevent and treat obesity.

Adhering to a healthy diet and cautiously avoiding high carb items, and junk food are the needs of the hour. Regular physical activity and simple changes in lifestyle are a must.

A goal of 6,000-8,000 steps every day, which is easy to track on smart watches or mobiles, with mild weight training, is recommended. Simple remedies like totally avoiding lifts, walking short distances instead of using automobiles; and avoiding long periods of inactivity using mobile phones, and inactivity using mobile phones, and watching TV also help.

watching TV also help,
Organisations and companies can give
enployees walking targets. Checking
weight and waist circumference regular
weight and waist circumference regular
bil by itself create modivation to address
the issue.
(Dr. Anbarasu Mohanrai js Director &
Clinical Lead, Cardiac Surgery, Kauwery
Hospital, Vadapalani. Chennai.
anbarasu.mohanraj@gmail.com)







- Obesity is a chronic disease characterized by excessive fat deposits that can harm an individual's health.
- It significantly increases the risk of several NCDs, including diabetes, hypertension, heart disease, and certain cancers.
- Additionally, obesity impacts quality of life factors such as sleep, mobility, and mental well-being.
- Obesity has been identified as a soft core for the epidemic of NCDs, exacerbating other health problems, and leading to early mortality.

Global and Childhood Obesity

- → The World Health Organization (WHO) states that one in eight people worldwide are obese, and one in three are overweight.
- ▶ Worldwide, obesity in adults has doubled since 1990, and adolescent obesity has quadrupled.
- As of now, 37 million children under five years are overweight, while 390 million children and adolescents aged 5-19 years are overweight, and 160 million are obese.
- Childhood obesity in India is a growing concern, with the country ranking second globally for the highest number of obese children.
- Factors contributing to childhood obesity include a lack of physical activity, high-calorie foods, sugary drinks, and genetic influences.

The Indian Scenario

- Obesity affects approximately 13% of India's population, which is higher than many other middle-income countries.
- In India, "normal weight obesity" and "sarcopenic obesity" (a combination of high fat and low muscle mass) are emerging problems.
- → The incidence of increased waist circumference, even in individuals with normal BMI, is a significant issue in India, with 65% of men and women being affected.
- ▶ A healthy waist circumference should be less than 90 cm for men and 80 cm for women.

Obesity and Its Impact

- Obesity causes 3.4 million deaths annually worldwide, and India ranks third after China and the USA in terms of obesity-related deaths.
- ▶ Beyond the medical costs, obesity has economic repercussions, including loss of productivity, absenteeism from work, and premature mortality.





→ The psychological effects of obesity are severe, leading to low self-esteem, mood disorders, and poor body image.

Addressing Obesity

- ➡ Weight loss is critical in preventing and treating obesity-related NCDs. Even modest weight reduction can lead to reduced blood pressure, improved cholesterol levels, and reduced diabetes risk.
- ➡ Treatments for obesity include newer medications and bariatric surgery, though they come with high costs and side effects.
- Prevention and treatment also focus on lifestyle changes like regular physical activity and avoiding unhealthy food.
- ▶ Recommendations include 6,000-8,000 steps daily, avoiding lifts, walking instead of driving, and limiting screen time.
- ► Employers can support by setting walking targets for their employees, and individuals should monitor their weight and waist circumference regularly.

Conclusion

- Addressing obesity requires a multifaceted approach, including awareness, advocacy, medical treatments, and changes in lifestyle.
- Simple interventions like regular exercise, balanced diets, and reducing sedentary behavior can significantly help in managing obesity and its related NCDs.

UPSC Mains Practice Question

Ques : Discuss the role of obesity in the rise of non-communicable diseases. How can India address the growing obesity epidemic to improve public health? (150 Words /10 marks)





Page : 08 Editorial Analysis Remembering the impactful legacy of wise leadership

he passing of Manmohan Singh should be an occasion for evaluating the lasting legacy of the work initiated in the 1991 economic reforms, by him as the Finance Minister, and his team of high-calibre economists, Ministers and professionals (Montek Singh Ahluwalia, C. Rangarajan, P. Chidambaram, Shankar Acharya, and many others), and continued during his term as Prime Minister. Much has already been written on the animal spirits released by the 1991 economic reforms. But the period 2004-14, and the decade that followed, stand in such contrast that it is worth investigating them using verifiable government data - not views that reflect the observer's ideological predilections.

Five outcomes stand out, affecting citizens' lives, and which laid the foundations of a hastened pace of structural change that could have led India to become a high-income/high-human development index country by the 2040s.

Appropriate macroeconomic policies

First, the savings rate had begun to rise ever since the demographic dividend set in in the early 1980s. The rise in savings/GDP ratio - and corresponding growth in the investment to GDP rate - was the basis for the ensuing rise in the GDP growth rate. Thus, by 2003-04, the savings rate had risen to 23% of GDP and investment to 24% of GDP. However, appropriate macroeconomic policies enabled this to be translated into raising the investment to GDP from 24% to 38% over the next six years. This was the highest ever that India had achieved nearing, though still below, Chinese investment rates. The resulting growth averaged 8.5% per annum over 2004-05 to 2008-09 (under the United Progressive Alliance I). Although helped by a booming international economy, export growth (15%-18% per annum) could not have been maintained without real effective exchange rates being maintained at stable levels.

Despite the global economic crisis of 2008-09, GDP growth dipped for a few quarters before recovering quickly, because of a well-designed fiscal/monetary policy stimulus so that the 2009-14 period also saw 7.5% p.a. Thus, the overall growth rate over 2004-14 averaged 7.8% p.a., which was unprecedented in India's history.

Second, the growth encompassed all sectors – the unorganised and organised. Not surprisingly, aggregate demand was sustained, as all growth engines were firing (public and private investment, final consumption, exports, and government). Hence, non-farm jobs grew at a rate of 7.5 million p.a., which itself was unprecedented. Except agriculture (where workers fell, a good thing), all sectors generated jobs. Construction jobs grew from 26 million in 2004 to 51 million in 2012 (or nearly doubled); manufacturing jobs increased by 8 million, especially, but not only in the labour-intensive sectors (that account for half of all manufacturing



Santosh Mehrotra

led divisions in the Planning Commission (2006-14), authored the 11th and 12th Plans, and was professor of economics at the Jawaharlal Nehru University, New Delhi

After 2015, not

transformations

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employment) from 52 million to 60 million; as did jobs in modern services (telecom, sale/distribution of cars, financial intermediation/banking, insurance and pensions, airlines, railways, and health and education). Structural change in the economy, slow for half a century, really gathered momentum.

Third, until 2004-05, non-farm jobs had grown so slowly that although migration from farm to non-farm occurred, never did the absolute number of workers in agriculture fall. But, for the first time in India's post-independence history, the absolute number of workers on farms actually fell after 2004, as non-farm job growth was high. This had the effect of tightening the labour market in rural areas over the entire period till 2014, helped by the government emerging as employer of last resort through the Mahatma Gandhi National Rural Employment Guarantee Act in 2005.

Fourth, the combined effect of new non-farm jobs and tightening rural labour market was to raise real wages, which rose all the way till 2015. This was true for casual wage work as well as regular/salaried work.

Finally, as real wages rose, private final consumption expenditure continued to rise, especially of simple consumer goods. For the first time in India's history, the absolute number of poor fell – which had never occurred from 1950. The incidence of poverty fell from 1973-74, but the absolute number of poor remained very sticky (due to population growth) till 2004-05. Between 2004-05 and 2011-12, the number of people who rose above the poverty line was 138 million – an achievement of staggering, almost Chinese, proportions.

Policy-induced shocks

Not one of these life-changing transformations in the lives of ordinary people was sustained after 2015. First, the growth rate averaged 5.8% p.a. over the last 10 years. This is hardly surprising, given three policy-induced shocks. The demonetisation damaged the unorganised sector and agriculture leading to Micro, Small and Medium Enterprises (MSMEs) closing on a vast scale (as demonstrated by the delayed NSS Annual Survey of Unorganized Sector Enterprises 2023).

The poorly designed and badly implemented Goods and Services Tax was another shock that MSMEs and the unorganised sector were unprepared for. For the next nine quarters, GDP growth rates fell. Finally, the unnecessary national, very strict lockdown led to the Indian economy contracting by 5.8% in FY21 when the global economy only contracted during COVID-19 by 3.1%.

Second, overall unemployment jumped from 2.2% in 2011-12 to a 45-year high of 6.1% in 2017-18 (NSSO). The number of those jobless tripled from one crore in 2011-12 to three crore in 2017-18. It rose again by at least 70 lakh by 2022. Jobs had grown by 75 lakh per year in industry and

services between 2004 and 2013, and only 29 lakh per year between 2013 and 2019. This is a 61% drop in jobs as the population of India grew by 10%. Youth unemployment is still double, from 6% in 2011-12 to 11% in 2022-23. The unemployment rate for graduates and postgraduates is about 33% – one in three looking unsuccessfully for a job. This is why engineers are becoming coolies and doctoral degree holders are applying for railway peon jobs.

Third, the process of structural change that had gathered momentum has been reversed, forcing India's youth back into farming. For 15 years (2004-19), the number of agricultural workers declined by 6.7 crore between 2004-05 and 2017-18. This entire progress has been fully reversed between 2020 and 2024 - with eight crore workers added to agriculture. Never in world history, perhaps, has such a retrogressive reverse migration occurred.

This is happening because manufacturing (especially unorganised) took the brunt of job losses. 'Make in India' failed. The share of manufacturing in the economy fell since 2015, falling from a consistent 17% of GVA for the previous 25 years, and hitting an all-time low of 13% in 2022. Assembling expensive iPhones using imported parts from China hardly generates jobs. Reviving labour intensive industries such as garments, textiles, furniture, leather goods and processed food does. These are precisely the industries that lost jobs - and also exports. The number of workers in manufacturing was 600 lakh in 2012; it fell to 567 lakh by 2019, the last year before COVID-19. By 2022, it had barely gone up to 629 lakh, in 2022, despite all the talk about 'Make in India'.

Distress and unpaid work

The Modi government has neglected exports. Merchandise exports grew four times, from \$77 billion in 2004 to \$323 billion in 2014. Between 2014 and 2022 they grew only one-and-a-half times to \$454 billion. With less production for global markets, there were fewer jobs.

Fourth, wage growth has also suffered. The share of regular salaried workers in total employment, which was 23.8% in 2019 before COVID-19, fell to 20.9%. Unpaid family workers, whose numbers had fallen from 11.1 crore in 2004 to 8.5 crore in 2012, and then by 2017 to 6.2 crore, have risen sharply to 10.4 crore by 2023. This showed that distress has driven these family members (mostly children and women) into work to support the family. But they are unpaid. This makes the unemployment rate look better than before, clearly misleading. Gold-based loans, and defaults on them, are rising daily today.

These reversals have put the earlier achievements under grave threat, and now give legitimate rise to concerns whether India will realise its demographic dividend before 2040. The growing inequality and constrained aggregate demand now may be putting paid to the prospects of India becoming 'Viksit Bharat'.





GS Paper 03: Indian Economy

UPSC Mains Practice Question: Critically evaluate the economic reforms initiated by Manmohan Singh in 1991 and their lasting impact on India's growth trajectory. How have subsequent policy-induced shocks, particularly after 2014, reversed the gains achieved during his tenure?

Context:

- The passing of former Prime Minister Manmohan Singh provides an opportunity to assess the lasting impact of the 1991 economic reforms and the policies during his tenure as Finance Minister and Prime Minister, which led to remarkable growth and transformation in India's economy.
- → The period from 2004-14 under Singh's leadership saw significant macroeconomic achievements, but the decade after 2014 witnessed considerable setbacks due to policy-induced shocks.

Economic Growth and Investment:

- ▶ Macroeconomic Policy Success: The period from 2004-14 saw an unprecedented rise in India's investment-to-GDP ratio, reaching 38%, with the GDP growing at an average rate of 7.8% annually. This was primarily due to appropriate fiscal and monetary policies.
- ▶ **Sectoral Growth**: Growth spanned across all sectors, with significant employment generation in the non-farm sector. Non-farm jobs grew at 7.5 million annually, creating new opportunities in construction, manufacturing, and services.
- ▶ **Poverty Reduction:** Between 2004-11, 138 million people were lifted out of poverty, marking a significant decline in the absolute number of poor, a milestone never achieved since India's independence.

Policy-Induced Shocks Post-2014:

- ▶ Impact of Demonetisation and GST: The demonetisation policy and poorly designed GST implementation created shocks in the unorganised sector, leading to closures of MSMEs and a slowdown in job creation.
- ▶ **Unemployment Crisis:** Unemployment rates increased sharply from 2.2% in 2011-12 to a 45-year high of 6.1% by 2017-18. Youth unemployment and graduate joblessness also reached alarming levels, with nearly 33% of graduates unable to secure employment.





▶ **Reversal of Structural Change**: The economic shift from agriculture to non-farm sectors reversed post-2015, with migration back to agriculture in 2020-24, signaling a retrogressive shift in the labor market, worsened by the decline in manufacturing jobs.

Distress, Inequality, and Economic Decline:

- ▶ **Declining Manufacturing Sector:** Despite efforts like 'Make in India', the share of manufacturing in GDP fell, and employment in manufacturing stagnated. The number of manufacturing workers barely increased from 2019 to 2022.
- ▶ Stagnant Wage Growth: Real wage growth stagnated post-2014, with the share of regular salaried workers declining, and the number of unpaid family workers sharply increasing due to economic distress.
- ▶ **Rising Inequality and Constrained Demand:** Economic inequality widened, and a constrained aggregate demand caused by poor job creation has delayed the realization of India's demographic dividend, risking the nation's long-term development prospects.

