



Official Recognition to E-Sports

For Prelims: E- Sports

For Mains: Opportunities and Challenges of E-Sports

Why in News?

Recently, the [President of India](#) amended the regulations governing eSports and requested that the Sports Ministry and the Ministry of Electronics and Information Technology include "eSports in multi-sport events."

- The President is empowered under [Article 77 \(3\) of the Constitution](#) to make rules for the more convenient transaction of the business of the Government of India, and for the allocation among Ministers of the said business.
- According to a gazette notification, **E-Sports will now be a part of the “multisports event” category in India.**

What is E-Sports?

- **About:**
 - Esports (Electronic Sports) is a **competitive sport where gamers use their physical and mental abilities** to compete in various games in a virtual, electronic environment.
 - **Example:** Counter Strike, League of Legends, Overwatch, Fortnite, DOTA 2.
 - There had been a growing demand for **Esports to be included in the curriculum of multi-discipline events after it was included in the 2018 Jakarta Asian Games.**
 - This, however, boosted E-sport enthusiasts and has come as a shot in the arm for Esports enthusiasts in India.
 - India won **a bronze medal in 2018 Asian Games, where esports was included as a demonstration title.**
 - It has received its **sporting recognition from the [International Olympic Committee \(IOC\)](#)**, which is the apex body of sports along with Olympic Council of Asia (OCA), Commonwealth Games etc.
 - IOC organized Virtual Olympic Series (Esports Tournament), before the Tokyo Olympics 2020;
 - Esports has been included in OCA events since 2007. Esports is a medal sports in Asian Games 2022.
 - In a similar effort to popularize e-Sport, the **International Olympic Committee (IOC)** has announced that Singapore will host the inaugural Olympic Esports Week in June, 2023.
- **Nodal Ministry:**
 - E-Sports will be taken care of by the **Department of Sports under the Ministry of Youth Affairs and Sports.**
 - While '[Online Gaming](#)' will be overseen by **MEITY (Ministry of Electronics and Information Technology)**.
- **Recognition of E-Sport as a Sport:**
 - By now, **countries such as the US, Finland, and even the somewhat reticent**

- Germany** have acknowledged esports as a sport.
- The very first few nations (**along with South Korea**) to recognise esports as a sport were **China and South Africa**. Russia, Italy, Denmark, and Nepal have also joined.
 - Ukraine officially recognized esports as a sport in September of 2020.

[Source: TH](#)

Prospect of Indian Economy in 2023

Prelims: Inflation, War in Ukraine, Oil Prices, Debt Distress.

Mains: Prospect of Indian Economy in 2023.

Why in News?

The Indian economy is projected to record relatively healthy **Gross Domestic Product (GDP) growth** of 6.9% in 2022-23 and **inflation** has started moderating.

- In 2020, the main event was the nationwide lockdown in the wake of the **first wave of the Covid-19 pandemic** that determined the shape of India's economy.
- In 2021, it was the **vicious second wave of Covid** that shaped our economy and recovery.
- In 2022, it was **Russia's invasion of Ukraine** that largely determined the fate of India's economy.
 - As a result, issues such as inflation, rupee's exchange rate and India's forex reserves dominated more than the **routine concerns about GDP growth**.

What are the Recap Highlights?

- **Inflation:**
 - Headline Retail inflation was already above 6% when 2022 started.
 - The **inflation situation flared up after Russia's invasion** of Ukraine.
 - In April 2022, retail inflation **hit an eight-year high**. By the time RBI decided to **raise Repo Rates in a hurriedly convened MPC (Monetary Policy Committee)** meeting in May 2022.
 - The **US and the actions of the US Federal Reserve** were cited as prime factors for global inflation.
- **Rupee's Exchange Rate and Forex Reserves:**
 - Many of India's macroeconomic indicators started getting adversely affected because of **higher crude oil prices**.
 - Trade deficits started rising as the financial year started and there were concerns **about India's Current Account Deficit (CAD), Forex Reserves and Balance of Payment**.
 - Eventually, the rupee hit the politically sensitive 80-to-a-dollar mark. But the rupee was not the **only currency losing ground against** the dollar. Dollar had risen against the **euro to achieve parity**.
- **All-round Monetary Tightening:**

- By the middle of the year, central banks across the world started **raising interest rates** in order to reduce liquidity and contain inflation.
- **GDP Growth Slides:**
 - **India had grown by almost 9% in the previous financial year (2021-22)** that ended in March 2022.
 - In September 2022 India had overtaken the **UK to become the world's 5th largest economy.**
 - India's growth rate is expected to slow down from almost 9% last financial year (2021-22) to under 7% in the current year (2022-23) and further to around **6% (or possibly lower) in the next financial year (2023-24).**
- **Budget, Unemployment and Poverty:**
 - In the run-up to the [Union Budget](#), the key concern was to figure out **whether the government can come up with a plan to boost employment** in the country. That's because India **had historically high levels of labour market stress even before Covid and the pandemic** had just made matters worse.
 - In the Budget 2022-23, Indian bet on significantly ramping up **capital expenditure to start a virtuous cycle of growth.**
 - But experts argued that while this strategy had obvious benefits in normal times, **India's economy was still scarred by Covid** and it was unclear if the Budget will do enough to boost employment.

How is the Global Economic Outlook for 2023?

- **Growth Forecast:**
 - In its '[State of the Economy](#)' update, the Reserve Bank of India warned of "a **darkening global outlook**", and emerging market economies (EMEs) appear to be "**more vulnerable**".
 - The expectation that **global growth could average around 3% in 2022** seems to be a **commendable achievement.**
- **Inflation:**
 - Global food, energy and other commodity prices may have eased moderately over the past few months, **but inflation continues to stay high.**
 - Global inflation, according to the [IMF \(International Monetary Fund\)](#), is forecast to decline from 8.8% in 2022 to 6.5% in 2023 to 4.1% by 2024 — still high by most yardsticks.
 - The problem going into 2023 is the implications of **stubbornly high inflation for the US Federal Reserve**, especially the fact that the American labour market remains red hot, defying the impact of the Fed's monetary tightening.
- **Impact of US Fed Rate Hikes:**
 - The difference between interest rates in the US and countries such as India **widens every time the Fed raises policy rates**, thus making the latter less attractive for the currency carry trade;
 - Higher returns in **US debt markets could trigger a churn in emerging market equities**, tempering foreign investor enthusiasm.
 - Currency markets would be potentially impacted **by the outflow of funds to the US**; sustained rate hikes by the Fed would also mean a lower impetus to growth in the US, which could be bad news for global growth, especially when China is facing a new Covid outbreak.

What are the Prospects of the Indian Economy 2023?

- **Positives:**
 - The near-term growth outlook for the Indian economy is **supported by domestic drivers**, some of which are reflected in the buoyant trends in high frequency indicators.
 - There has been significant deleveraging over the last five years, with the **corporate debt-to-GDP at its lowest in nearly a decade and a half**, and bank books have shed much of the legacy bad loans.
 - The lower the debt-to-GDP ratio, the more likely the country will pay back its debt and the lower its risk of default, which could cause financial stability in the domestic

and international markets.

- Waning input cost pressures, surging corporate sales, and a turn-up in investments in fixed assets **seem to be heralding the beginning of an upturn in the [Capex Cycle](#)**, which could potentially contribute to a **reboot of India's growth momentum**.
- Bank credit has been growing in **double digits for eight months now, reflecting in part an uptick in [investment appetite](#)**.
- The **China-plus-one strategy** being adopted by most multinational companies could be an opportunity, given that China is **vacating large amounts of space in low-skilled, unskilled labour intensive manufacturing** such as textiles, shoes, leather, and ceramics, and India has a chance to fill part of this vacuum.
- Agriculture has been a **sustained driver for overall GDP growth, with the [rabi](#) outlook** showing good prospects for wheat production with higher support prices, adequate reservoir levels, and climatic factors supporting higher acreage.

▪ **Negative:**

- The Ukraine war drags on, threatening an energy-linked downturn in the European Union, **India's biggest export market**.
- The US continues to grapple with cooling inflation pressure, and a let-up in the Fed's rate hikes is **unlikely until well into the second half of the year**.
- 2023 will see **higher [protectionism](#) worldwide**, greater fervor for de-globalisation, and more economic balkanisation: a worrying prospect for countries such as India that are keen to tap exports as a driver for growth.
 - Given that no country in the world has grown at over 7% for a decade without strong export growth, the **protectionist mood around the world is a major dampener for emerging economies**.
- In India, **manufacturing continues to be wobbly**. Factory output, as measured by the **[Index of Industrial Production \(IIP\)](#)**, slumped to a 26-month low in the festive month of October, 2022. Core sector growth for October was just 0.1%, the lowest for 20 months. **That has led to a rapid downward revision of India's growth projections** by analysts for the next fiscal.
- Capacity utilisation — the ratio of actual output to the potential output that can be produced under normal conditions — has shown a minor uptick but continues to hover around the 75% mark.
 - Unless this goes up on a **sustained basis, private investments are unlikely to pick up perceptibly**.
- There is continuing **distress** among the **[Micro, Small and Medium Enterprises \(MSME\)](#)** firms, reflecting the deep cleavages in industrial recovery where the bigger companies are doing far better than the smaller firms.
- Capital expenditure of the **states has remained weak**. Investments by states typically tend to have a higher multiplier effect.
- India's significant dependence on imported energy, at 4% of the country's GDP, is a **challenge that shows up on the balance of payments side**. A current account deficit of well over 3% is projected for FY23.
- The buoyancy in farm output notwithstanding, rural wages contracted for the ninth consecutive month in September, pointing to **continuing distress in the hinterland**.

UPSC Civil Services Examination Previous Year Question (PYQ)

Prelims

Q. A decrease in tax to GDP ratio of a country indicates which of the following? (2015)

1. Slowing economic growth rate
2. Less equitable distribution of national income

Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2

(d) Neither 1 nor 2

Ans: (a)

Exp:

- The tax-to-GDP ratio is a ratio of a nation's tax revenue relative to its Gross Domestic Product (GDP). For example, if India's tax-to-GDP ratio is 20%, it means that the government gets 20% of its GDP as tax contribution.
- The tax-to-GDP ratio is used to compare tax receipts from year to year. As taxes are related to economic activity, the ratio should stay relatively consistent. When the gross domestic product (GDP) grows, tax revenue should increase as well.
- Economic slowdown results in lower rates of growth, where unemployment usually rises, and consumer spending decreases. As a result, tax-to-GDP ratio declines. **Hence, statement 1 is correct.**
- The less equitable distribution of national income is not directly related to decrease in tax to GDP ratio.
- Equal distribution of national income and resource allocation generally depends upon the economic planning of a country. Hence, statement 2 is not correct.
- **Therefore, option (a) is the correct answer.**

Mains

Q. Do you agree with the view that steady GDP growth and low inflation have left the Indian economy in good shape? Give reasons in support of your arguments. **(2019)**

Q. Do you agree that the Indian economy has recently experienced V-shaped recovery? Give reasons in support of your answer. **(2021)**

[Source: IE](#)

India-Nepal Relations

For Prelims: India-Nepal Treaty of Peace and Friendship of 1950, Kalapani Boundary Issue

For Mains: India-Nepal Relations - Significance, Associated Challenges and Ways to Resolve the Challenges

Why in News?

Pushpa Kamal Dahal "Prachanda" was sworn in as Nepal's new Prime Minister.

- It is believed that **Deuba's predecessor - KP Sharma Oli was pro-China**, and the coming together of Communist forces is a turning back of the clock for India.
- After the bitterness in ties during Oli's terms in office from 2015-2016 and 2018-2021, **India-Nepal relations had improved after Deuba became PM in 2021.**

What are the Areas of Cooperation Between the Two Countries?

- **Trade and Economy:**
 - India remains **Nepal's largest trade partner**, with bilateral trade crossing USD 7 billion in FY 2019-20.
 - India provides transit for almost the entire third country trade of Nepal.
 - Indian firms are among the largest investors in Nepal, accounting for **more than 33% of the total [Foreign Direct Investment \(FDI\) stock in Nepal](#)**, worth nearly USD 500 million.
- **Connectivity:**
 - Nepal **being a landlocked country is surrounded by India from three sides** and one side is open towards Tibet which has very limited vehicular access.
 - India-Nepal has undertaken various connectivity programs to enhance people-to-people linkages and promote economic growth and development.
 - India is looking to develop the inland waterways for the movement of cargo, within the framework of trade and transit arrangements, providing additional access to sea for Nepal calling it linking **[Sagarmatha \(Mt. Everest\)](#) with [Sagar \(Indian Ocean\)](#)**.
- **Defence Cooperation:**
 - Bilateral defence cooperation includes assistance to the Nepalese Army in its modernisation through the provision of equipment and training.
 - The **[Gorkha Regiments of the Indian Army](#)** are raised partly by recruitment from hill districts of Nepal.
 - India from 2011, every year undertakes a joint military exercise with Nepal known as **[Surya Kiran](#)**.
- **Humanitarian Assistance:**
 - Nepal lies in the sensitive ecological fragile zone which is prone to **[earthquakes and floods](#)** causing massive damage to both life and money, whereby it remains the biggest recipient of India's humanitarian assistance.
- **Multilateral Partnership:**
 - India and Nepal share multiple multilateral forums such as BBIN (Bangladesh, Bhutan, India, and Nepal), **[BIMSTEC](#)** (Bay of Bengal Initiative for Multi Sectoral Technical and Economic Cooperation), **[Non Aligned Movement](#)**, and **[SAARC](#)** (South Asian Association for Regional Cooperation) etc.

What are the Challenges?

- **Territorial Disputes:** One of the main challenges in the Indo-Nepal ties is the **[Kalapani boundary issue](#)**. These boundaries had been fixed in 1816 by the British, and India inherited the areas over which the British had exercised territorial control in 1947.
- **Issues with Peace and Friendship Treaty:** The 1950 Treaty of Peace and Friendship was sought by the Nepali authorities in 1949 to continue the special links they had with British India and to provide them an open border and the right to work in India.
 - But today, it is viewed as a sign of an unequal relationship, and an Indian imposition.
- **China's Intervention:**
 - In recent years, Nepal has drifted away from India's influence, and China has gradually filled the space with investments, aid and loans.
 - China considers Nepal a key partner in its **[Belt and Road Initiative \(BRI\)](#)**, and wants to invest in Nepal's infrastructure as part of its grand plans to boost global trade
- **Internal Security:** It is a major concern for India as the Indo-Nepal border is virtually open and lightly policed which is exploited by terrorist outfits and insurgent groups from North Eastern part of India e.g., supply of trained cadres, fake Indian currency.

Way Forward

- The **need today is to avoid rhetoric on territorial nationalism** and lay the groundwork for quiet dialogue where both sides display sensitivity as they explore what is feasible. India needs to be a sensitive and generous partner for the **[neighbourhood first policy](#)** to take root.
- **India should engage more proactively with Nepal** in terms of people-to-people engagement, bureaucratic engagement as well as political interactions.

- The [Bilateral Investment Promotion and Protection Agreement \(BIPPA\)](#) signed between India and Nepal needs more attention from Nepal's side.

UPSC Civil Services Examination Previous Year Question (PYQ)

Q. Consider the following pairs: (2016)

Community sometimes In the affairs of mentioned in the news

1. Kurd — Bangladesh
2. Madhesi — Nepal
3. Rohingya — Myanmar

Which of the pairs given above is/are correctly matched?

- (a) 1 and 2
- (b) 2 only
- (c) 2 and 3
- (d) 3 only

Ans: (c)

[Source: IE](#)

Department of Drinking Water and Sanitation Year End Review 2022

For Prelims: Jal Jeevan Mission, Swachh Bharat Mission, Achievements of Department of Drinking Water and Sanitation

For Mains: Year End Review of Department of Drinking Water and Sanitation, Achievements of Jal Jeevan Mission and Swachh Bharat Mission

Why in News?

Recently, the year-end-review of the **Department of Drinking Water and Sanitation under the Ministry of Jal Shakti**, [Jal Jeevan Mission \(JJM\)](#) & [Swachh Bharat Mission - Grameen \(SBM - G\)](#) for the year 2022 was released.

What are the Key Achievements of the JJM?

- As on 21st December 2022, under the Jal Jeevan Mission, **more than 10.76 Crore (55.62 %) of rural households** are being provided with tap water connection in adequate quantity, of prescribed quality on a regular basis.
- Four States namely **Goa, Telangana, Gujarat, and Haryana** and 3 Union Territories of

Puducherry, Daman & Diu and Dadra & Nagar Haveli and Andaman & Nicobar Islands, reported as “**Har Ghar Jal**”, i.e. Every rural household has provision of tap water supply.

- Goa becomes the **First ‘Har Ghar Jal’ Certified State** & Dadra & Nagar Haveli and Daman & Diu becomes the **First ‘Har Ghar Jal’ Certified Union Territory (UT)** in India in August, 2022.
- **Burhanpur District of Madhya Pradesh** becomes the first ‘**Har Ghar Jal**’ certified district in India in July, 2022.

- Once a village is declared as “**Har Ghar Jal**”, the **Gram Panchayat** of that village conducts a special Gram Sabha and passes a resolution with the concurrence of all the village members that all the households, schools, Anganwadi, and public institutions in their village have functional tap connection and thus declare themselves as “**Har Ghar Jal Certified**”.

▪ **Har Ghar Jal Certification:**

- The government of India accords priority to **Japanese Encephalitis (JE)-Acute Encephalitis Syndrome (AES)** affected Districts to ensure potable tap water supply in all the households under Jal Jeevan Mission.
- In 61 districts affected with JE/AES across 5 states, tap water connection **increased from 8 lakh (2.69%) to 147.14 lakh (49.29%) households**, resulting in improvement in the health profile of the rural population of these areas.

▪ **Status of Water Quality Monitoring and Surveillance:**

- There are a total of **2,074 water testing laboratories** in the country. Of these, 1,005 are **National Accreditation Board for Testing and Calibration Laboratories (NABL)** accredited.

▪ **Implementation Support Agencies (ISAs):**

- The States/ UTs are extending support to the Panchayats by engaging **Implementation Support Agencies (ISAs)** to facilitate constitution of **Village Water Sanitation Committee (VWSC)**, under participatory rural appraisal for community mobilization, support in preparing Village Action Plan and carry out activities post infrastructure construction.
 - About 14 thousand ISAs have been engaged, which are actively working in the field.

▪ **National WASH Expert:**

- **National Centre for Drinking Water, Sanitation, and Quality** has been entrusted with the task of empanelment and deployment of **National WASH Experts** for ground truthing and technical assistance to States in the implementation of the **Jal Jeevan Mission (JJM)**.
- During 2022, 62 teams have visited around 1,035 villages for ground truthing of the implementation work done under JJM.

▪ **Use of Technologies for Drinking Water Supply and Water Quality:**

- JJM focuses on various technologies for the community-led implementation of:
 - **Source sustainability measures** such as aquifer recharge, **rainwater harvesting**, increased storage capacity of water bodies, reservoirs, desilting, etc. to improve the lifespan of water supply systems.
 - Technologies like **Internet of Things (IoT)** for **Supervisory Control and Data Acquisition (SCADA)**, remote sensing, and design software have been used in building **climate resilience through water accounting**, water quality control, water use efficiency, water resource planning, and impact assessment.

- **Grievance Redressal Mechanism:**
 - Grievance Redressal Cell has been constituted in the Department to address the grievances related to the water supply. People are lodging their complaint through the **Centralized Public Grievances Redress and Monitoring System (CPGRAMS)**.
- **Jeevan Survekshan (JJS) Toolkit:**
 - The [Vice President of India](#) launched '**Jal Jeevan Survekshan**' toolkit and dashboard on 21st October, 2022.
 - The purpose of Jal Jeevan Survekshan 2023 is to incentivize States/ Districts functionaries to strive for better performances and improved water service delivery in rural areas.

What are the Key Achievements of Swachh Bharat Mission (Grameen)?

- **About SBM (G):**
 - **Swachh Bharat Mission (Grameen)**, a [Centrally Sponsored Scheme](#), was launched by Prime Minister 2nd October, 2014, with the main aim to make the country **Open Defecation Free (ODF)** by 2nd October, 2019, the 150th birth anniversary of [Mahatma Gandhi](#), by providing access to toilets to all the rural households in the country.
 - All the villages in the country had declared themselves ODF by 2nd October, 2019.
- **Achievements:**
 - Around **1.25 lakhs villages declared Open Defecation Free (ODF)** Plus between 1st January, 2022 to 20th December, 2022.
 - To prioritize **Liquid Waste Management** "Sujlam" campaign was launched.
 - Under Sujlam 1.0 and Sujlam 2.0 campaigns, more than 23 lakh soak pits were constructed.
 - Under the ["GOBARdhan"](#) initiative of SBM(G), 96 community/cluster level Biogas Plants have been established since January 2022.
 - GOBARdhan's objective is to ensure cleanliness in villages and generate wealth and energy by converting bio-waste including animal waste, agri-residue into bio-slurry and biogas and to improve the lives of villagers.
 - The Department of Drinking Water and Sanitation (DDWS) is also coordinating the implementation of GOBARdhan: Waste to Wealth initiative involving various Departments/ Ministries to provide an enabling environment for the Biogas/Compressed Biogas (CBG) sector.
- **Retrofit to Twin Pit Abhiyan:**
 - Retrofit to Twin Pit Abhiyan was launched by Union Minister of Jal Shakti on 2nd October 2022.
 - The campaign will promote the safe disposal of faecal sludge through a simple on-site methodology of retrofitting single pit toilet to twin pit toilet.
 - During the first phase of the Campaign from 2nd October - 19th November 2022, States have completed the baseline assessment of 97% villages.
- **Swachh Survekshan Grameen 2023 (SSG 2023):**
 - DDWS has launched [Swachh Survekshan Grameen \(SSG\) 2023](#) on 2nd November 2022 with an objective to create **healthy competition amongst States, Districts and Gram Panchayats** and to ascertain progress of SBM-G Phase II.
 - Under SSG 2023, assessment will be undertaken at Gram Panchayat and District level.
 - To make SSG 2023 more participatory, Gram Panchayats will undertake village self-assessment on ODF Plus parameters.

UPSC Civil Services Examination Previous Year Question (PYQ)

Q. "To ensure effective implementation of policies addressing the water, sanitation and hygiene needs the identification of the beneficiary segments is to be synchronized with anticipated outcomes." Examine the statement in the context of the WASH scheme. (150 words) (2017)

State of Food Insecurity in 2022

For Prelims: Global Hunger Index (GHI) 2022, Pradhan Mantri Matru Vandana Yojana, Food Fortification, Micronutrient Deficiency, Mid-day Meal, Public Distribution System.

For Mains: Global Hunger Index (GHI), Factors Responsible for Hunger and Malnutrition in India, Recent Government Initiatives to Tackle Hunger.

Why in News?

Hunger has remained grisly in several parts of the world including India in 2022, so much so that the **United Nations [World Food Programme \(WFP\)](#) called 2022 ‘The year of Unprecedented Hunger’.**

- According to the [Food and Agriculture Organization \(FAO\)](#), about 307 crore people worldwide could not afford a healthy diet in 2020. India is home to almost a third of this global population.

What are the Highlights from Various Reports?

- **World Food Programme:**
 - The number of people facing acute food insecurity has **almost tripled since 2019 and as many as 828 million people go to bed hungry every night**, according to [WFP \(World Food Programme\)](#).
 - Food security shot past pre-pandemic levels, especially in war-torn places and those wrecked by climate disasters.
- **The Future of Food and Agriculture by FAO:**
 - According to FAO’s report [Future of Food and Agriculture – Drivers and triggers for transformation](#), the world will witness persistent [food insecurity](#) if agrifood systems remain the same.
 - The world will witness persistent food insecurity, degrading resources and unsustainable economic growth in the future if agrifood systems remain the same.
 - The world was **“tremendously off track” to meet the [Sustainable Development Goals \(SDG\)](#)**, including agrifood targets.
 - By 2050, there will be 10 billion people in the world to feed and this will be an unprecedented challenge if significant attempts are not made to reverse current trends.
- **Global Hunger Index (GHI):**
 - India ranked an abysmal 107 out of 121 countries on the [Global Hunger Index \(GHI\) 2022](#).
 - Among the South Asian countries, India (107) is ranked below Sri Lanka (64), Nepal (81), Bangladesh (84), and Pakistan (99).
 - **Globally, the progress against hunger has largely stagnated** in recent years, with a global score of 18.2 in 2022 as compared to 19.1 in 2014, there is only a slight improvement. However, the **2022 GHI score is still considered “moderate”.**
- **State Food Security Index (SFSI) by FSSAI:**
 - **Tamil Nadu scored the highest among major states** on all indicators, followed by **Gujarat and Maharashtra**.
 - **Tamil Nadu scored a total of 82.5 points** on a scale of 100 where the indicators included human resource and institutional data, compliance, food testing infrastructure and surveillance, training and capacity building and lastly, consumer empowerment.
 - **Among Union Territories (UT), Jammu and Kashmir topped** the list, performing better than the national capital with a score of 68.5, followed by National Capital Territory of Delhi (66) and Chandigarh (58).

▪ Promises and Reality Report:

- More than 90 million eligible people have been **excluded from legal entitlements under the Targeted [Public Distribution System \(TDPS\)](#)**, India's tool to combat food insecurity.
- The Census of India 2011 remains the source of data for arriving at the number of people to be covered by the scheme. As a consequence, **subsequent years have seen the exclusion of a large chunk of the population.**
- This in-built fallacy in the legal framework led to exclusion of at least 12% of the population from the legal entitlements in the most legitimized way.

What are the Suggestions given by the Various Reports?

▪ Systemic Policy Changes:

- Systemic policy changes and global concerted efforts are **necessary to alleviate the condition of these people and meet the UN-mandated Sustainable Development Goal of 'Zero Hunger' by 2030.**

▪ Sustainable Agricultural Systems:

- With the rapid growth of the human population, our demand for food has also risen.
- Agricultural systems **will need to produce more food in a sustainable manner in the future to cope with this.**

▪ Population Decline of Insects:

- Without an abundance of insect pollinators, humans face the mind-boggling challenge of growing food and other agricultural products at scale.
- Insects are **important because of their diversity, ecological role and influence on [agriculture](#)**, human health and natural resources.
- They create the biological foundation for all terrestrial ecosystems, further, they cycle nutrients, pollinate plants, disperse seeds, maintain soil structure and fertility, control populations of other organisms and provide a major food source for other taxa.

▪ Think Beyond Short Term Needs:

- Decision makers need to think beyond short-term needs. A lack of vision, piecemeal approaches and **quick fixes will come at a high cost for everyone**
- There is an urgent need to change **course so that a more sustainable and resilient future for agrifood systems** is created.

▪ Viewing Nutrition Through Different Lenses:

- Better nutrition involves more than just food, it includes health, water, sanitation, gender perspectives, and social norms. Therefore, **there is a need to look forward to comprehensive policy to fill the nutritional gap.**

▪ Bringing Social Audit Mechanism:

- States and Union Territories **should compulsorily carry out the social audit of the mid-day meal scheme in every district**, with the help of local authorities and simultaneously work on nutritional awareness.
- Use of **[information technology](#)** to improve program monitoring can be thought of too.

▪ Re-orienting PDS:

- There is a need to be re-orient and an up-scale **[Public Distribution System](#)** to make it more transparent and reliable and ensure availability, accessibility and **affordability of nutritious food, also making a positive impact on the purchasing power of the lower socio-economic** segment of the population

▪ Women-led SDG Mission:

- There is a need to redesign existing direct nutrition programs and linking it with **[women's self-help groups](#) can make India realise the [Sustainable Development Goal- 2](#)** to end hunger and all forms of malnutrition by 2030.

▪ Reducing Waste, Reducing Hunger:

- India wastes about 7% of its total annual food production and almost 30% of the fruits and vegetables **because of inadequate warehousing facilities and cold storages.**
- According to the **[International Institute of Refrigeration](#)**, if developing countries had the same level of refrigeration infrastructure as developed countries, they would save 200 million tonnes of food or around 14% of their food supply, which can help in tackling hunger and malnutrition.

What are India's Initiatives to Eradicate Hunger/Malnutrition?

- [Eat Right India Movement](#)
- [POSHAN Abhiyan](#)
- [Pradhan Mantri Matru Vandana Yojana](#)
- [Food Fortification](#)
- [National Food Security Act, 2013](#)
- [Mission Indradhanush](#)
- [Integrated Child Development Services \(ICDS\) Scheme](#)
- [Amendments in the Essential Commodities Act, 1955](#)
- [Make India Trans Fat free.](#)
- [International Year of Millets.](#)
- [Pradhan Mantri Garib Kalyan Anna Yojana \(PMGKAY\).](#)

UPSC Civil Services Examination Previous Year Question (PYQ)

Prelims

Q. With reference to the provisions made under the National Food Security Act, 2013, consider the following statements: (2018)

The families coming under the category of 'below poverty line (BPL)' only are eligible to receive subsidised food grains.

The eldest woman in a household, of age 18 years or above, shall be the head of the household for the purpose of issuance of a ration card.

Pregnant women and lactating mothers are entitled to a 'take-home ration' of 1600 calories per day during pregnancy and for six months thereafter.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 only
- (c) 1 and 3 only
- (d) 3 only

Ans: (b)

Exp:

- Issue of food security has been addressed by the Government through the Public Distribution System and the Targeted Public Distribution System (TPDS). The National Food Security Act (NFSA) enacted on July 5, 2013 marked a shift in the approach to food security from welfare to rights based approach.
- Salient features of National Food Security Act (NFSA), 2013
 - Upto 75% of the rural population and 50% of the urban population will be covered under TPDS with uniform entitlement of 5 kg per person per month.
 - Pregnant women, lactating mothers and children in the age group of 6 months to 14 years will be entitled to meals as per prescribed nutritional norms under Integrated Child Development Services (ICDS) and Mid-Day Meal (MDM) Schemes. Higher nutritional norms have been prescribed for malnourished children upto 6 years of age.
 - Pregnant women and lactating mothers will also be entitled to receive maternity benefit of not less than `6,000.
 - Prior to implementation of the NFSA, there were mainly three types of ration cards issued

by State Governments such as Above Poverty Line (APL), Below Poverty Line (BPL) and Antyodaya (AAY) ration cards distinguished by different colours opted by the concerned states Government. According to NFSA 2013, APL and BPL groups have been re-classified into two categories - Non-Priority and Priority. Hence, statement 1 is not correct.

- Eldest woman of the household of age 18 years or above is to be the head of the household for the purpose of issuing of ration cards. Hence, statement 2 is correct.
- Pregnant Women and Lactating Mothers are entitled to food supplement of 600 calories of energy and 18-20 gms of protein per day in the form of Micronutrient Fortified Food and/or energy dense food as take away home ration. Hence, statement 3 is not correct.

▪ **Therefore, option (b) is the correct answer.**

Mains

Q.1 In what way could replacement of price subsidy with Direct Benefit Transfer (DBT) change the scenario of subsidies in India? Discuss. **(2015)**

Q.2 What are the salient features of the National Food Security Act, 2013? How has the Food Security Bill helped in eliminating hunger and malnutrition in India? **(2021)**

Q.3 What are the major challenges of Public Distribution System (PDS) in India? How can it be made effective and transparent? **(2022)**

Source: DTE

Year-End- Review of CSIR

For Prelims: Council of Scientific and Industrial Research (CSIR), Key Achievements

For Mains: Key Achievements of CSIR, Achievements of Indians in Science & Technology

Why in News?

Recently, the year-end-review of the [Council of Scientific & Industrial Research \(CSIR\)](#) under the Ministry of Science & Technology was released.

What are the Key Achievements of CSIR?

▪ **First-Ever Biofuel-Powered Flight:**

- CSIR facilitated India's [First-Ever Biofuel-Powered Flight](#) paving the way for sustainable and alternative fuels when the first biofuel-powered **flight was flagged off from Dehradun to Delhi.**
 - The bio-aviation fuel was **produced indigenously by the CSIR-Indian Institute of Petroleum (IIP)** from Jatropha oil and was based on the patented technology of the institute.

▪ **Aroma Mission:**

- CSIR launched the [CSIR-Aroma Mission](#) in 2016 which **seeks to bring about transformative change in the aroma sector** through interventions in agriculture,

processing and product development for fuelling the growth of the aroma industry and **boosting rural employment.**

▪ **Indigenous Autoclave Technology:**

- CSIR-National Aerospace Laboratories (NAL) has successfully developed **state-of-art Indigenous Autoclave Technology** for processing advanced lightweight composites that are **integral to modern-day civil and military airframes.**

▪ **Conversion of Plastic into Diesel:**

- CSIR-IIP and GAIL (Petroleum Business Company) have **developed a technology that can convert 1 tonne of [plastic waste](#) and other Polyolefin products into 850 litres of the cleanest grade of [diesel](#).**

▪ **Anaerobic Gas Lift Reactor (AGR):**

- CSIR- Indian Institute of Chemical Technology (IICT) has developed and patented a **high-rate biomethanation technology known as AGR** for the generation of biogas and bio manure from organic solid waste like poultry litter, food waste, press mud, cattle manure, **Organic fraction of municipal solid waste (OFMSW)**, sewage sludge etc.

▪ **RENEU Technology:**

- CSIR- National Environmental Engineering Research Institute (NEERI) has **developed this technology for the construction of [wetlands](#)** that are sustainable wastewater treatment processes. Restoration of Nallah with Ecological Units (RENEU) was successfully implemented as a part of the **[National Mission to keep the Ganges clean](#)** for the pilgrims during the holy festival.

▪ **Drishti Transmissometer:**

- CSIR-NAL has developed and transferred the technology of **[Drishti Transmissometer](#)** that has been deployed in many airports in India. The transmissometer is a **visibility measuring system, useful for safe airport operations and landings.**

▪ **Head-Up Display:**

- A transfer agreement for the manufacturing of a **new variant of [Head-Up Display \(HUD\)](#) for the [Tejas Fighter Aircraft](#) for commercial production** has been signed between CSIR-Central Scientific Instruments Organisation (CSIO), Chandigarh and Bharat Electronics Limited (BEL).

▪ **Bharatiya Nirdeshak Dravya:**

- **[Bharatiya Nirdeshak Dravya \(BND 420\)](#) is India's first home-grown high purity gold reference standard** developed through a collaboration among the India Government Mint (IGM), **[Bhabha Atomic Research Centre \(BARC\)](#)**, CSIR-NPL and National Centre for Compositional Characterisation of Materials.

▪ **Shale Gas:**

- CSIR-CIMFR has discovered **[shale gas](#) in two areas in the Gondwana basin in Central India and [Godavari basin](#).** The total shale gas discovered so far in the country in these two basins is estimated to be about 63 trillion Cubic Feet (TCF).
 - It is **considered as one of the best sources of non-conventional [natural gas](#).**

▪ **Portable Reading Machine (PRM):**

- A reading device developed by CSIR-CSIO **helps the visually impaired by reading the text aloud.** The advanced reading machine named "**Divya Nayan**" is a stand-alone, PRM.

▪ **Dimethyl Ether:**

- CSIR-NCL has set-up an indigenous process technology to create **Dimethyl Ether (DME)** from **[methanol](#).**
 - DME is a **clean fuel with potential to replace diesel and will be a non-fossil additive to LPG gas.** This will also help the **[Pradhan Mantri Ujjwala Yojana program](#)**, by reducing LPG imports.

▪ **Earthquake Warning System:**

- A **first-of-its-kind earthquake warning system** has been developed by CSIR-CSIO. The system **can sense tremors, record them and generate an SMS** to the concerned action points, in real-time.

▪ **Sindhu Sadhana:**

- The first indigenously built research vessel **[Sindhu Sadhana](#)** to gather samples for **genome mapping of microorganisms in the [Indian Ocean](#).**
 - To understand the biochemistry and the response of the ocean to **[climate change](#)**, nutrient stress and **[increasing pollution](#).**

▪ **Green Crackers:**

- CSIR-NEERI developed [Green Crackers](#) in a bid to curb air pollution. A green logo and QR coding system **were also launched to track manufacture & sale of counterfeit crackers.**
- **Heeng Cultivation:**
 - For the first time, CSIR- Institute of Himalayan Bioresource Technology (IHBT) introduced [asafoetida \(Heeng\) cultivation in the Indian Himalayan region.](#)
- **Kisan Sabha App:**
 - [Kisan Sabha App](#) has been developed by CSIR- Central Road Research Institute (CRRRI) **to connect farmers to the supply chain and freight transportation management system.**
 - This portal acts as a **one-stop solution for farmers, transporters, and other entities** engaged in the [agriculture Industry.](#)
- **Ksheer Scanner:**
 - CSIR has developed a low-cost and portable **Ksheer Scanner, a technology to detect adulterated milk.**
- **Rice Variety:**
 - CSIR-Centre for Cellular and Molecular Biology (CCMB) in collaboration with the Indian Institute of Rice Research at Hyderabad has **released a new variety of rice that resists pests and is also beneficial for those with diabetes.**
 - The new Improved **Samba Masuri (ISM) rice variety** is resistant to [Bacterial Blight \(BB\).](#)
- **JIGYASA:**
 - It is **one of the major initiatives taken up by CSIR at national level** to widen and deepen CSIR's [Scientific Social Responsibility \(SSR\)](#) by connecting school students to scientists at CSIR.
- **Purple Revolution:**
 - CSIR enabled the famed [Purple Revolution](#) **by introducing Lavender Cultivation in J&K** benefiting farming families. India from being one of the importers of Lemongrass essential oil a few years back, now **becomes one of the largest exporters in the world.**
 - Indigenous development of Tulip bulb production under the [Floriculture mission](#) **helped reduce the import of planting material.**
- **Gaon Ka Pani Gaon Mein:**
 - CSIR has led a Mission mode project for developing **Village Level Water Management (VLWM) Plans** for augmenting water resources in selected villages.
 - Mission on **High-Resolution Aquifer Mapping & Management in Arid Regions of North-Western India** has also been launched and implemented in association **with the Ministry of Jal Shakti under [Jal Jeevan Mission.](#)**
- **India's First Indigenously Developed Hydrogen Fuel Cell Bus:**
 - The bus uses hydrogen fuel cells and air to generate electricity for power and can run for 600 km without stopping. **The only emission from the bus is water, thus making it the most environment friendly mode of transportation.**
- **Traditional Knowledge Digital Library (TKDL):**
 - Recently, the Cabinet approved widening access of the TKDL database to users, besides patent offices, The opening up of the TKDL database to users **will drive research & development, and innovation based on India's valued heritage across diverse fields.**
- **Steel Slag Roads:**
 - CSIR developed the **steel slag valorisation technology to convert waste steel slag as road-making aggregates.** Processed steel slag aggregates as developed through waste steel slag have been successfully utilized in the construction of **India's First Steel Slag Road in Surat.**
- **Maiden Flight of HANSA NG:**
 - CSIR-NAL designed and developed [Hansa NG aircraft](#) which is an all composite two seat light trainer aircraft to be used as an ab-initio flying training aircraft for the flying clubs in India, with significant modifications on Hansa 3 aircraft to make it more useful as a trainer aircraft.
 - **HANSA-NG is an upgraded version of HANSA, which saw the first flight in 1993, and was certified in 2000.**
- **3D-Printed Patient-Specific Medical Implants:**

- CSIR-CSIO developed a technology for manufacturing patient-specific medical implants **for several human body parts**. The technology has been transferred to industry **for commercial production and marketing of the product**.
- **Connect Global Indian Scientific Community on Digital Mode:**
 - CSIR has developed a virtual platform - **PRABHASS** (Pravasi Bharatiya Academic and Scientific Sampark) Portal **to connect with the global Indian S&T Diaspora** for jointly addressing societal challenges/ problems.
- **CSIR 'Skill India Initiative':**
 - This initiative **aims to equip young minds with the necessary technological skills through exposure to CSIR labs**. More than 2 lakh people have been trained under the initiative.

[Source: PIB](#)

CAG Audit Report on Assam's NRC

For Prelims: National Register of Citizens, CAG

For Mains: NRC - Significance and Challenges, Status of NRC in Northeast Indian states,

Why in News?

Recently, the [Comptroller and Auditor General of India \(CAG\)](#) has detected large-scale anomalies in the updating of the [National Register of Citizens \(NRC\)](#) in Assam.

What are the CAG's Concerns?

- **Irregularities in the Utilisation of Funds:**
 - At the time, **the process to update the NRC was started in December 2014 with a deadline for completion in February 2015** and the project cost was pegged at Rs. 288.18 crores.
 - There was, however, a **five-fold increase in the cost by March 2022** due to additional time to complete it and changes in the update software.
 - As for irregularities, the **CAG found that the number of wages paid to the outsourced staff was 45.59%-64.27% less** than what was approved by the NRC coordination committee.
- **Lack of Secure and Reliable Software:**
 - In the NRC update process, a **highly secure and reliable software was required to be developed**, however, lack of proper planning was observed in this regard to the extent of 215 software utilities were added in a haphazard manner to the core software.

What has the CAG Recommended?

- The **country's top auditor sought penal measures against Wipro Limited** for violating the provisions of the **Minimum Wages Act, 1948** and for paying data operators less than minimum wages.
 - Information technology firm Wipro Limited was entrusted with **one of the prime software installation companies** by the NRC Directorate.
- Secondly, the report **recommended action against the State Coordinator of National Registration (SCNR)** for "excess, irregular and inadmissible payments".

- The **CAG also recommended fixing accountability of the SCNR** as the principal employer for “not ensuring compliance with the Minimum Wage Act”.

What is the NRC Exercise?

- An NRC was **first created in 1951 in Assam** to identify those born in India and migrants from erstwhile East Pakistan, now Bangladesh.
- In 2013, the **Supreme Court issued directions to the Centre and State to initiate an exercise in Assam** to update the 1951 register.
- The order was based on a petition filed by an NGO named Assam Public Works.
- The first draft was released in 2018.
- The final list, published in 2019, included those **who could establish their Indian citizenship by being residents or descendants of people** living in Assam before March 25, 1971 (the cut-off date for deportation of foreigners as per the [Assam Accord](#) of August 1985).
- As many as 19.06 lakh people out of 3.3 crore applicants were excluded due to a lack of adequate documents to prove their citizenship. Several parties dismissed the final list as “faulty”.
- Three years later, the process is on pause as the [Registrar General of India \(RGI\)](#) is yet to notify the final list.

UPSC Civil Services Examination Previous Year Question (PYQ)

Prelims

Q. In India, other than ensuring that public funds are used efficiently and for intended purpose, what is the importance of the office of the Comptroller and Auditor General (CAG)? (2012)

1. CAG exercises exchequer control on behalf of the Parliament when the President of India declares national emergency/financial emergency
2. CAG reports on the execution of projects or programmes by the ministries are discussed by the Public Accounts Committee.
3. Information from CAG reports can be used by investigating agencies to press charges against those who have violated the law while managing public finances.
4. While dealing with the audit and accounting of government companies, CAG has certain judicial powers for prosecuting those who violate the law.

Which of the statements given above is/are correct?

- (a) 1, 3 and 4 only
- (b) 2 only
- (c) 2 and 3 only
- (d) 1, 2, 3 and 4

Ans: (c)

Mains

Q. Exercise of CAG’s powers in relation to the accounts of the Union and the States is derived from Article 149 of the Indian Constitution. Discuss whether audit of the Government’s policy implementation could amount to overstepping its own (CAG) jurisdiction. (2016)

[Source: TH](#)

Pralay Missile

Why in News?

Recently, the Ministry of Defense has procured indigenous **Short-Range Ballistic Surface-to-Surface (SRBM) Missile** [Pralay](#), giving Indian military the **heft to its war-fighting capabilities**.

What is Pralay?

▪ About:

- Pralay' is **India's first conventional quasi-ballistic missile** and is an answer to any conventional missile attack from northern or western borders.
 - A quasi-ballistic missile **has a low trajectory, and while it is largely ballistic, it can maneuver in flight.**
 - Ballistic missiles are initially powered by a rocket or series of rockets in stages, **but then follow an unpowered trajectory that arches upwards before descending to reach its intended target** at high speed.
- The missile has been developed in a way that it is **able to defeat the interceptor missiles** and also has the ability to change its path after covering a certain range mid-air.

▪ Features:

- It is powered with a solid propellant rocket motor and many new technologies.
- The missile guidance system includes state-of-the-art navigation system and integrated avionics.
- It can be compared to **China's Dong Feng 12 and the Russian Iskander missile** that has been used in the [ongoing war with Ukraine](#).
- It is capable of **carrying a conventional warhead of about 350 kg to 700 kg**, which gives it a deadly punitive capability.
- It can carry a **high explosive preformed fragmentation warhead**, penetration-cum-blast (PCB) and runaway denial penetration submunition (RDPS).

▪ Range:

- The missile has a range of 150-500 kilometre and can be launched from a mobile launcher.
- Pralay will be the **longest-range surface-to-surface missile in the inventory of the Army**.
 - The Army also has the [BrahMos supersonic cruise missile](#) in its arsenal, with a stated range of 290-plus kilometres.

▪ Significance:

- It is India's **first tactical quasi-ballistic missile** and will give the armed forces the capability to hit enemy positions and key installations in actual battlefield areas.
- Pralay, along with the BrahMos supersonic cruise missile, **will form the crux of India's planned Rocket Force**.
- It will completely **change the tactical battlefield dynamics** and India will have two conventional missiles with long range.
 - The BrahMos will be a **cruise option and this one will be the ballistic option**.

Ballistic Missile	Cruise Missile
<ul style="list-style-type: none"> Travel in projectile motion and trajectory depends on gravity, air resistance and Coriolis Force. 	<ul style="list-style-type: none"> Comparatively follows a straight trajectory of motion.
<ul style="list-style-type: none"> Leave the earth's atmosphere and re enter it. 	<ul style="list-style-type: none"> The flight path is within the earth's atmosphere.
<ul style="list-style-type: none"> Long-range missiles (300 km to 12,000 km) 	<ul style="list-style-type: none"> Short range missiles (range upto 1000 km)
<ul style="list-style-type: none"> E.g. Prithvi I, Prithvi II, Agni I, Agni II and Dhanush missiles. 	<ul style="list-style-type: none"> E.g. BrahMos missiles

UPSC Civil Services Examination Previous Year Question (PYQ)

Q. With reference to Agni-IV Missile, which of the following statements is/are correct? (2014)

1. It is a surface-to-surface missile.
2. It is fuelled by liquid propellant only.
3. It can deliver one-tonne nuclear warheads about 7500 km away.

Select the correct answer using the code given below:

- (a) 1 only
 (b) 2 and 3 only
 (c) 1 and 3 only
 (d) 1, 2 and 3

Ans: (a)

[Source: PRINT](#)

Rapid Fire Current Affairs

Peace Pact with Manipur Insurgent Group

Recently, a **tripartite agreement** was signed by the **Centre (Home Ministry)**, **Manipur** govt. and the **Zeliangrong United Front (ZUF)**. ZUF is a **Naga armed group operating mostly in Manipur** and has been demanding a **separate State for the Zeliangrong Naga tribe** (Mongolian race) for more than a decade. The armed group is the **follower of Rani Gaidinliu**, freedom fighter from Manipur, who was jailed by the British for 14 years.

The peace pact is significant in fulfilling the PM's vision of **'Insurgency free and prosperous North East'**.

Read More - [Insurgency in Manipur](#)

Indian National Congress Foundation Day

On **28th December 1885**, the **Indian National Congress (INC)** was founded in Bombay, with **Allan Octavian (A.O.) Hume** as its **General Secretary** (**Lord Dufferin** was the **erstwhile Viceroy** of

India). The **early leadership of INC included** - Dadabhai Naoroji, Pherozeshah Mehta, Badruddin Tyabji, W.C. Bonnerji, Surendranath Banerji, Romesh Chandra Dutt and S. Subramania Iyer, among others.

The first Session of INC (Bombay - 1885) was presided by W.C. Bannerjee. First Woman President of INC - **Annie Besant** (1917 - Calcutta). First Indian Woman President - **Sarojini Naidu** (1925 - Kanpur).

Read More - [Important Sessions of INC](#)

Vaccine for H9N2 Avian Influenza

Indian Council of Agricultural Research - National Institute of High Security Animal Diseases (ICAR - NIHSAD) has developed an '**inactivated low pathogenic avian influenza (H9N2) Vaccine** for chickens'. It is the **first indigenous vaccine for H9N2 virus**.

H9N2 is a **subtype of influenza A virus**, which causes human influenza as well as bird flu. It was **isolated for the first time in Wisconsin, US** in 1966 from turkey flocks. H9N2 virus **infections in humans are rare** or likely under-reported due to mild symptoms.

Read More - [Avian Influenza](#)

PDF Reference URL: <https://www.drishtias.com/current-affairs-news-analysis-editorials/news-analysis/28-12-2022/print>