

GOVERNANCE

Bodoland Statehood Movement

A new organisation (All India Bodo People's National League for Bodoland Statehood) has announced the revival of the Bodoland statehood movement ahead of the elections to the Bodoland Territorial Council (BTC).

Key Points

About Bodos:

- These are the single largest community among the notified Scheduled Tribes in Assam. Part of the larger umbrella of Bodo-Kachari, the Bodos constitute about 5-6% of Assam's population.

About Bodo Statehood Movement:

- 1967-68: First organised demand for a Bodo state came under the banner of the political party Plains Tribals Council of Assam.
- 1986: The armed group Bodo Security Force arose, which subsequently renamed itself 'National Democratic Front of Bodoland (NDFB)', an organisation that is known to be involved in attacks, killings, and extortions. It later split into factions.
- 1987: All Bodo Students Union (ABSU) renewed the demand.
- A fallout of the Assam Movement (1979-85), whose culmination - the Assam Accord - addressed the demands of protection and safeguards for the "Assamese people", leading the Bodos to launch a movement to protect their own identity.
- 1990s: Indian security forces launched extensive operations against the NDFB, causing the latter to flee to bordering Bhutan.
- In Bhutan, the group faced stiff counter-insurgency operations by the Indian Army and the Royal Bhutan Army in the early 2000s.

Government Interventions:

- 1993 Bodo Accord: The ABSU-led movement from 1987 culminated in a 1993 Bodo Accord, which paved the way for a Bodoland Autonomous Council (BAC), but ABSU withdrew its agreement and renewed its demand for a separate state.
- 2003 Bodo Accord: In 2003, the second Bodo Accord was signed by the extremist group Bodo Liberation Tiger Force (BLTF), the Centre and the state. This led to the Bodoland Territorial Council (BTC).
- BTC is an autonomous body under the Sixth Schedule of the Constitution.
- The area under the jurisdiction of BTC was called the Bodo Territorial Autonomous District (BTAD).

2020 Accord:

- The Central government signed a tripartite agreement with the state government and different Bodo groups, including four factions of the National Democratic Front of Bodoland (NDFB), for a "permanent" solution to the Bodo issue. Some features:
 - It provides for "alteration of area of BTAD" and "provisions for Bodos outside BTAD"
 - The BTAD was renamed Bodoland Territorial Region (BTR).
 - It provides for more legislative, executive, administrative and financial powers to BTC.
 - Provision for rehabilitation of surrendered militants of NDFB and bringing a special development package of Rs. 1,500 crore for the region.

Present Revival of the Bodoland Statehood Movement:

- According to the new organisation, the new (2020) accord has been a betrayal of the Bodo people. Besides being an inferior accord, it prescribes a reduction of the area currently under the BTC.
- The accord has a provision for excluding from the BTR villages with more than 50% non-Bodos and including villages with more than 50% Bodo people left out of the BTC map after the 2003 accord.

Way Forward

- The signatories of the accord will be under pressure to find a way out to ensure the successful implementation of the accord. Support of relevant organisations will be required.
- Further, the opposition to the latest accord voiced by organisations of non-Bodo communities, including Koch-Rajbangshis, Adivasis and religious and linguistic minorities, has given rise to fears that if their grievances are not addressed, the ethnic fault lines in Assam will deepen. Thus, the accord's success will lie in the stakeholders working out a power-sharing arrangement in the BTR that privileges equity over hegemony.

- Peace will continue to be fragile in Assam's Bodo heartland until an all-inclusive power sharing and governance model is evolved under the provisions of the Sixth Schedule.

SCIENCE AND TECHNOLOGY**Atomic Hydrogen Content of Galaxies**

In a significant discovery, the Pune-based Nationwide Centre for Radio Astrophysics (NCRA-TIFR) and Raman Analysis Institute (RRI), Bengaluru have used the Giant Metrewave Radio Telescope (GMRT) to measure the atomic hydrogen content (of 8 billion years ago) of galaxies when the universe was young.

- This will help in unveiling the reason behind declining star formation in the Milky Way in the present time.

Key Points

- The Study: For the first time the atomic hydrogen gas content of star forming galaxies for a past date (about 8 billion years ago) was measured with the help of the upgraded GMRT.
- Unlike stars which emit light strongly at optical wavelengths, the atomic hydrogen signal lies in the radio wavelengths, at a wavelength of 21 cm, and can only be detected with radio telescopes.
- Stacking: This 21 cm signal is intrinsically very weak, to overcome this limitation, the team used a technique called "stacking" to combine the 21 cm signals of nearly 8,000 galaxies that had earlier been identified with the help of optical telescopes.
- This method measures the average gas content of these galaxies.

Significance of Discovery:

- Galaxies in the universe are made up mostly of gas and stars, with gas being converted into stars throughout the life of a galaxy.
- Understanding galaxies requires us to determine how the amounts of both gas and stars change with time.
- The star formation activity in galaxies peaked about 8-10 billion years ago (galaxy was young) and has been declining steadily till today.
- The cause of this decline was unknown as there had been no information regarding the amount of atomic hydrogen gas — the primary fuel for star formation — in galaxies in these early times.
- The observed decline in star formation activity could thus be explained by the exhaustion of the atomic hydrogen. Given the intense star formation in these early galaxies, their atomic gas would be consumed by star formation in just one or two billion years.

Giant Metrewave Radio Telescope

- GMRT is an array of thirty fully steerable parabolic radio telescopes of 45 metre diameter. It is operated by the National Centre for Radio Astrophysics of the Tata Institute of Fundamental Research. It is an indigenous project.
- It functions at the metre wavelength part of the radio spectrum because man-made radio interference is considerably lower in this part of the spectrum in India and there are many outstanding astrophysics problems which are best studied at metre wavelengths.
- Detecting the 21 cm signal from the most distant galaxies in the universe was the main science goal of the GMRT, when it was designed and built by a team led by the late pioneering astrophysicist Govind Swarup in the 1980s and 1990s.
- The big jump in sensitivity was due to the upgrade of the GMRT with new wide band receivers and electronics in 2017.
- The location for GMRT, Pune meets several important criteria such as low man-made radio noise, availability of good communication, vicinity of industrial, educational and other infrastructure and, a geographical latitude sufficiently north of the geomagnetic equator in order to have a reasonably quiet ionosphere and yet be able to observe a good part of the southern sky as well.

SOCIAL JUSTICE**Global Hunger Index 2020**

- India has been ranked at 94 among 107 countries in the Global Hunger Index (GHI) 2020.

Global Hunger Index

- Annual Report: Jointly published by Concern Worldwide and Welthungerhilfe.
- It was first produced in 2006. It is published every October. The 2020 edition marks the 15th edition of the GHI.
- Aim: To comprehensively measure and track hunger at the global, regional, and country levels.
- Calculation: The GHI scores are calculated each year to assess progress and setbacks in combating hunger. It is calculated on the basis of four indicators:

- Undernourishment: Share of the population with insufficient caloric intake.
- Child Wasting: Share of children under age five who have low weight for their height, reflecting acute undernutrition.
- Child Stunting: Share of children under age five who have low height for their age, reflecting chronic undernutrition.
- Child Mortality: The mortality rate of children under the age of five.

Scoring:

- Based on the values of the four indicators, the GHI determines hunger on a 100-point scale where 0 is the best possible score (no hunger) and 100 is the worst.
- Each country's GHI score is classified by severity, from low to extremely alarming.

Key Points

Global Scenario:

- Worldwide Hunger: Represented by a GHI score of 18.2 (moderate level), down from a 2000 GHI score of 28.2 (serious).

Factors:

- The Covid-19 pandemic and the resulting economic downturn, as well as a massive outbreak of desert locusts in the Horn of Africa and other crises, are exacerbating food and nutrition insecurity for millions of people.
- It needs to be noted that 2020 GHI scores do not reflect the impact of Covid-19 on hunger and undernutrition.
- The above mentioned crises come on top of existing hunger caused by conflict, climate extremes, and economic shocks (random, unpredictable events).
- Region-wise Performance: Africa South of the Sahara and South Asia have the highest hunger and undernutrition levels among world regions, with 2020 GHI scores of 27.8 and 26.0, respectively—both considered serious.
- SDG 2 Progress: The world is not on track to achieve the second Sustainable Development Goal - known as Zero Hunger for short - by 2030.

Indian Scenario:

Overall Performance:

- With a score of 27.2, India has a level of hunger that is "serious".
- It ranks 94 out of 107 countries in the Index. In 2019, India's rank was 102 out of 117 countries.

Comparison with Other Countries:

- India features behind Nepal (73), Pakistan (88), Bangladesh (75), Indonesia (70) among others.
- Out of the total 107 countries, only 13 countries fare worse than India including countries like Rwanda (97), Nigeria (98), Afghanistan (99), Liberia (102), Mozambique (103), Chad (107) among others.

Performance on the Indicators:

- Undernourishment: 14% of India's population is undernourished (2017-19). It was 16.3% during 2011-13.
- Child Wasting: 17.3% (2015-19), it was 15.1% in 2010-14.
- Child Stunting: 34.7%, it has improved significantly, from 54% in 2000 to less than 35% now.
- Child Mortality: 3.7%, it was 5.2% in 2012.

Some Related Initiatives by India

- Eat Right India Movement: An outreach activity organised by the Food Safety and Standards Authority of India (FSSAI) for citizens to nudge them towards eating right.
- POSHAN Abhiyaan: Launched by the Ministry of Women and Child Development in 2018, it targets to reduce stunting, undernutrition, anemia (among young children, women and adolescent girls).
- Pradhan Mantri Matru Vandana Yojana: A centrally sponsored scheme executed by the Ministry of Women and Child Development, is a maternity benefit programme being implemented in all districts of the country with effect from 1st January, 2017.
- Food Fortification: Food Fortification or Food Enrichment is the addition of key vitamins and minerals such as iron, iodine, zinc, Vitamin A & D to staple foods such as rice, milk and salt to improve their nutritional content.
- National Food Security Act, 2013: The National Food Security Act, (NFSA) 2013 legally entitled up to 75% of the rural population and 50% of the urban population to receive subsidized food grains under the Targeted Public Distribution System.

- Mission Indradhanush: It targets children under 2 years of age and pregnant women for immunization against 12 Vaccine-Preventable Diseases (VPD).
- Integrated Child Development Services (ICDS) Scheme: Launched on 2nd October, 1975, the Integrated Child Development Services (ICDS) Scheme offers a package of six services (Supplementary Nutrition, Pre-school non-formal education, Nutrition & health education, Immunization, Health check-up and Referral services) to children in the age group of 0-6 years, pregnant women and lactating mothers.

Suggestions

- Governments, private actors, and NGOs should carefully coordinate their responses to overlapping food and health crises and work with community organizations to make sure interventions are culturally acceptable, reach the most vulnerable, and preserve local ecosystems.
- Food should be priced not only by its weight or volume but also by its nutrient density, its freedom from contamination, and its contribution to ecosystem services and social justice.
- Governments should expand access to maternal and child health care, as well as education on healthy diets and child feeding practices.
- Supporting smallholder farmers in becoming sustainable and diversified producers; governments and NGOs must seek to improve those farmers' access to agricultural inputs and extension services, coupling local and indigenous agricultural knowledge with new technologies.
- Existing human rights-based multilateral mechanisms and international standards—such as the Committee on World Food Security—must be strengthened to support inclusive policy making and sustainable food systems.

ENVIRONMENT AND DIVERSITY

Report on Food Consumption: WWF

Recently, the World Wildlife Fund (WWF) has published the report “Bending the Curve: The Restorative Power of Planet-Based Diets”.

- The report offered a detailed analysis of food consumption patterns in 147 countries and six regions and the national dietary guidelines (NDGs) across 75 countries. For each country and region, the impacts of diets were assessed on various environmental and health indicators.

Key Points

- Food consumption patterns vary widely and can best be characterised by massive inequality.
- Different consumption patterns are observed in the richest and poorest countries, with European countries consuming approximately 600 grams per day more food (1,800 g/day) than African countries (1,200 g/day).
- Although under-nutrition and obesity affect almost all countries, the rate of underweight people is up to 10 times higher in the poorest countries as compared to other countries.
- The rate of overweight/obese people is up to five times higher in the richest countries.

Major Concerns:

- Premature deaths in low- and middle-income countries due to unhealthy diets, under-consumption as well as over-consumption.
- India needs to be extra careful in figuring out the changes in the diet because there could be an increase in biodiversity loss due to a shift to a healthier and planet-friendly diet and extensively increased consumption.
- The country has to first increase consumption of fruits, vegetables and dairy to meet its nutritional requirements.

Suggestions:

- There is a need to strike a balance in how countries consume their food as well as a shift to a plant-based diet which is the need of the hour.
- However, this dietary shift will impact different countries differently. While some countries will need to reduce their consumption of animal-source foods, others may need to increase them.
- The shift will not only improve human health by preventing over-consumption of any food but will also reverse the biological loss that has occurred until now and improve environmental health.
- The shift to more plant-based diets will cut down carbon emissions by 30%, wildlife loss by 46%, agriculture land use by 41% and premature deaths by 20%.

A sustainable environment and human health can be achieved by following a few lifestyle changes that include eating foods which are:

- More sustainable.
- More plant-based food and less animal-based.
- Healthy and locally grown and minimally processed.
- More diverse instead of just one kind.
- Countries should not solely depend on the domestic production and biodiversity-rich countries, including India, should import food from higher-yielding and less biodiverse nations.

New Launch:

- The WWF has launched a new platform known as Planet-Based Diets Impact and Action Calculator.
- One can calculate their consumption and find out the impact caused by their diet on the environment.
- The platform also shows national level impacts. This will help people living anywhere in the world to make a conscious decision by finding out if their diet is good for them as well as their environment.

INTERNATIONAL AFFAIRS

ASEAN PhD Fellowship Programme

Recently, the students from ASEAN member states who have been selected for the prestigious ASEAN PhD Fellowship Programme (APFP) were virtually addressed.

- The program is funded by the Government of India.

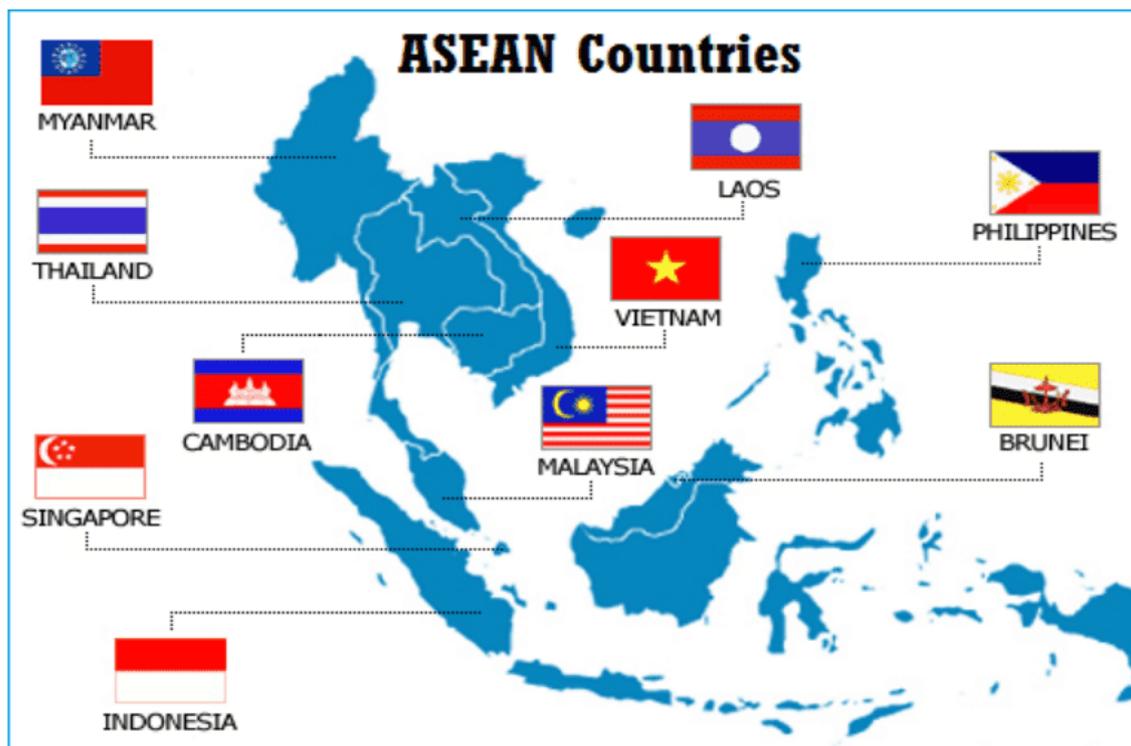
Important value additions

The ASEAN PhD Fellowship Programme (APFP) :

- It was announced on 25th January 2018, by Indian Prime Minister in the presence of leaders of ASEAN member states.
- Under the APFP, 1,000 fellowships will be provided exclusively to the ASEAN citizens.
- It is also the largest capacity development programme undertaken by the Government of India for foreign beneficiaries.
- It will open many doors in the field of technology and research for the academicians, researchers and the scientists from India and ASEAN.
- The students of the ASEAN member states have got the opportunity to study in the IITs.

ASEAN countries:

- Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam.



IMPORTANT FACTS FOR PRELIM

Kala Sanskriti Vikas Yojana

Recently, the Ministry of Culture has issued guidelines for holding cultural events/activities in virtual/online mode under various scheme components of Kala Sanskriti Vikas Yojana (KSVY).

Key Points

- The Covid-19 pandemic and the resultant lockdowns have had a substantial impact on the performing arts and cultural sector with in-person exhibitions, events, and performances either cancelled or postponed. Example: Behrupiyas.
- The guidelines will enable artists to avail benefits under KSVY even if they are not able to stage programs in the physical format as before and will ensure continued financial assistance.
- Kala Sanskriti Vikas Yojana (KSVY) is an umbrella scheme under the Ministry of Culture for the promotion of art and culture in the country.
- It is a central sector scheme.
- The ministry implements many schemes under KSVY, where the grants are sanctioned/ approved for holding programs/activities.
 - ❖ Scheme of Financial Assistance for Promotion of Art and Culture.
 - ❖ Scheme of Financial Assistance for Creation of Cultural Infrastructure.
 - ❖ Scheme for Safeguarding the Intangible Cultural Heritage, which aims to promote the 13 intangible cultural heritage of India, recognised by the United Nations Educational, Scientific and Cultural Organization (UNESCO).

DAILY ANSWER WRITING PRACTICE

Qns. The Industrial Revolution was not only a technological revolution but a socio-economic revolution that changed the way people live afterwards. (250 words)

Ans.

The Industrial Revolution, which took place from the 18th to 19th centuries, was a period during which predominantly agrarian, rural societies in Europe and America became industrial and urban.

- Industrialization marked a shift to powered, special-purpose machinery, factories and mass production. The iron and textile industries became the mainstay of the industrial revolution. From cooking appliances to ships, all had components of iron and steel. The process went into hyperdrive with the advent of steam engines and ships.

Technological changes that took place during the industrial revolution

- During the industrial revolution, acceleration in the processes of technological innovation brought about an array of new tools and machines.

The following are key technological changes that took place during the industrial revolution:

- **Textiles:** During the period, the organization of cotton production shifted from a small-scale cottage industry, in which rural families performed spinning and weaving tasks in their homes, to a large, mechanized, factory-based industry.
- The boom in productivity began with a few technical devices, including the spinning jenny, spinning mule, and power loom.
- **Agriculture:** Several factors came together in 18th-century Europe to bring about a substantial increase in agricultural productivity.
- These included new types of equipment, such as the seed drill developed by Jethro Tull around 1701. Progress was also made in crop rotation and land use, soil health, development of new crop varieties, and animal husbandry.
- The result was a sustained increase in yields, capable of feeding a rapidly growing population with improved nutrition.
- **Energy:** The mining and distribution of coal set in motion some of the dynamics that led to Britain's industrialization. The coal-fired steam engine was in many respects the decisive technology of the Industrial Revolution.
- **Transportation:** Concurrent with the increased output of agricultural produce and manufactured goods arose the need for more efficient means of delivering these products to market.
- Steam engines and railways became important features of the industrial revolution during the 19th century.

Social and economic changes that took place during the industrial revolution

- A lot of socio-economic change took place during the Industrial Revolution. It changed the character and culture of people in the whole world.

- **Population Explosion:** Advancement in technology and better agricultural production led to better medical facilities and greater employment which led to population explosion.
- **Development of Banking and Finance System:** the middle class began opening up new factories for which they required financing and therefore, the banking and finance system began developing.
- **Status of Women:** The Industrial Revolution marked a dramatic change for women as many of them entered the workforce for the first time. Women had to compete with men for jobs. Female factory workers often made only one-third as much as men.
- **Rising Middle Class:** The middle-class men started owning factories, sent their male children to school and rose up in society due to an increase in wealth.
- **Urbanisation:** People started moving to urban areas in search of better jobs in factories due to which these areas became highly populous with poor housing facilities.
- **The exploitation of resources:** industrial Revolution made the production of goods easy and ready in much less time. Therefore, more and more goods began to be produced which led to the exploitation of resources.

Conclusion

The Industrial Revolution was a revolutionary experience. It also increased material wealth, extended life, and was a powerful force for social change. And therefore, there was more to the Industrial Revolution than a bunch of machines, it was not only a technological revolution but a social-economic revolution that changed the way people lived afterwards.

DAILY QUIZ

1. Consider the following statements with respect to The Strengthening Teaching-Learning and Results for States (STARS) project:
 1. It is aided by World Bank.
 2. It is under the Department of School Education and Literacy.
 Which of the above statements is/are correct?
 - a) 1 only
 - b) 2 only
 - c) **Both 1 and 2**
 - d) Neither 1 nor 2
2. Consider the following Statements:
 1. 'Prevalence of Endoparasitic Infections in Free-Ranging Greater One-Horned Rhinoceros' report is released by Ministry of Environment, Forest and Climate Change
 2. Greater one-horned rhino is listed under the Schedule I of the Wildlife Protection Act, 1972.
 Which of the above statements is/are correct?
 - a) 1 only
 - b) **2 only**
 - c) Both 1 and 2
 - d) Neither 1 nor 2
3. Recently Madhuca diplostemon was in news it is related to which of the following?
 - a) **Species of endangered tree**
 - b) Newly found frog species
 - c) Species of fish which is declared as extinct
 - d) None of the above
4. Consider the following statements:
 1. United Nations Office for Disaster Risk Reduction is headquartered in Geneva, Switzerland.
 2. India is a signatory of Sendai Framework
 Which of the above statements is/are correct?
 - a) 1 only
 - b) 2 only
 - c) **Both 1 and 2**
 - d) Neither 1 nor 2
5. Consider the following statements:
 1. GST was introduced through the 100th Constitution Amendment Act, 2016.
 2. Alcohol and Petrol was not brought under the purview of GST regime
 Which of the above statements is/are correct?
 - a) 1 only
 - b) **2 only**
 - c) Both 1 and 2
 - d) Neither 1 nor 2