

ALL INDIA SURVEY ON HIGHER EDUCATION (AISHE) 2021-2022

The Ministry of Education, Government of India, released the All-India Survey on Higher Education (AISHE) 2021-2022 recently.

AISHE

All India Survey on Higher Education

About All India Survey on Higher Education (AISHE):

- The AISHE report has been published by the Ministry of Education since 2011.
- **Aim:** To portray the status of higher education in the country.
- The survey covers all the institutions in the country engaged in imparting higher education.
- Data is being collected on several parameters, such as teachers, student enrolment, programmes, examination results, education finance, and infrastructure.
- For the purpose of this survey, Higher Education is defined as education that is obtained after completing 12 years of schooling or equivalent.

Highlights of AISHE 2021-22:

- In 2021-22, the overall gross enrolment ratio (GER) in higher education for the age group 18-23 years increased to 28.4%, from 27.3% in 2020-21 and 23.7% in 2014-15, the base year.
- Female GER increased to 28.5% (2.07 crore) in 2021-22 from 27.9% (2.01 crore) in 2020-21 and 22.9% in 2014-15.
- Among disciplines at the undergraduate-level in AISHE 2021-22, enrolment is highest in Arts (34.2%), followed by science (14.8%), Commerce (13.3%), and Engineering and Technology (11.8%).
- Among streams at postgraduate-level in AISHE 2021-22, maximum students are enrolled in Social Science (21.1%), followed by science (14.7%).
- As per the survey, the total number of faculty/teachers in 2021-22 is 15.98 lakh, of which about 56.6% are male and 43.4% are female.

WHAT IS TASAR SILK?

Jharkhand's tableau in the recently held Republic Day parade showcased the skill of tribal women in the production of Tasar silk.



It is a type of **wild silk**, which is **made from silkworms that feed on plants like Asan and Arjun.**

- People from different parts of India call it **tusaar, tusser, tushar, tusa, tassore, and tasar etc.**
- **Producers:**
 - Globally, it is produced in **China, Sri Lanka, and Bangladesh.**
 - **India is the second-largest producer** of tussar silk and the **exclusive producer of Indian tussar** (also known as tropical tussar), which is largely **tended to by tribals.**
 - In India, it is primarily produced in **Madhya Pradesh, Jharkhand, and Chhattisgarh.** Currently, **Jharkhand is one of the largest producers.**

Features:

- It is known for its **distinctive texture**, which is often described as **being 'rough' or 'crinkly.'**
 - This is due to the fact that the **fibres of tasar silk are shorter** than those of other silks, such as mulberry silk.
- Tasar silk fabrics **have a characteristic weave** that is different from other types of silk.
 - **The threads of tasar silk are often thicker than those of other silks, and they are woven in a way that creates a 'checkerboard' pattern.**
- It is **lightweight yet surprisingly strong**, with a luxuriously soft feel often compared to that of cashmere or velvet.
- It **does not retain moisture**, and this quality makes it a delight to wear in warmer climates of the world.
- Tasar silk is **more porous**, which makes it more wearable.

WHAT IS THE FREE MOVEMENT REGIME (FMR)?

The Home Minister recently said the Free Movement Regime (FMR) agreement with Myanmar would be reconsidered to stop border residents from moving into each other's country without any paperwork.



About Free Movement Regime (FMR):

- Under the FMR, all the hill tribes, whether they are **citizens of India or Myanmar**, can **travel within 16 km on either side of the Indo-Myanmar Border (IMB)**.
- They can cross the border **by producing a border pass with a one-year validity** issued by the competent authority and **can stay up to two weeks per visit**.
- The FMR was **implemented in 2018** as part of the Central government's **Act East policy**.
- FMR is implemented by both governments **for the people living along the IMB**.
- This helps locals get more culturally assimilated with trans-border villages through weddings, celebrating common festivals together, and trans-border trade.
- It is a reflection of the physical, ethnic, linguistic, cultural, and fraternal linkages among the trans-border villagers.

Key Facts about Indo-Myanmar Border (IMB):

- It runs for **1,643 km** in the four states of **Mizoram, Manipur, Nagaland, and Arunachal Pradesh**.
- It runs **from the tripoint with China** in the north **to the tripoint with Bangladesh** in the south.
- **Assam Rifles** is tasked with **guarding the IMB**.

WHAT IS THE INTERNATIONAL COURT OF JUSTICE (ICJ)?



The International Court of Justice recently ruled that it will not throw away the genocide case against Israel.

About International Court of Justice (ICJ):

- The ICJ, also known as the **World Court**, is the **principal judicial organ of the United Nations (UN)**.
- It was **established in June 1945 by the Charter of the UN** and began work in April 1946.
- **The seat of the Court is at the Peace Palace in The Hague (Netherlands)**.
- **The hearings of the ICJ are always public.**
- **Official Languages: French and English**

Powers and Functions: The Court may entertain **two types of cases**:

- First, it can **act as a dispute settlement body between two member States** in what are called “**contentious cases.**” Such disputes may concern, in particular, land frontiers, maritime boundaries, territorial sovereignty, the non-use of force, violation of international humanitarian law, non-interference in the internal affairs of States and diplomatic relations.
- Second, it can accept requests to **issue an advisory opinion on a legal question referred to it by a UN body or specialised agency.**
- The court's **judgments in contentious cases are final and binding** on the parties to a case, and **without appeal.**
- Unlike the Court's judgments, **advisory opinions are not binding.**
- The ICJ **decides disputes in accordance with international law** as reflected in international conventions, international custom, general principles of law recognized by civilised nations, judicial decisions, and the writings of the most highly qualified experts on international law.
- **Composition:**
 - It consists of **15 judges, all from different countries**, who are **elected to nine-year terms by majority votes in the UN General Assembly and the Security Council.**

PRIME MINISTER'S CITIZEN ASSISTANCE AND RELIEF IN EMERGENCY SITUATIONS FUND (PM CARES FUND)

The Delhi High Court recently set aside an order of the Central Information Commission (CIC) directing the Income Tax (IT) department to provide details regarding the tax exemption granted to the PM Cares Fund under the Right to Information Act, 2005.



About PM CARES Fund:

- It was created on March 28, 2020, following the COVID-19 pandemic in India.
- It was set up to have a **dedicated national fund to deal with any emergency and provide relief** to the distressed.
- **Fund Constitution:**
 - It has been registered as a **Public Charitable Trust**.
 - **The Prime Minister is the ex-officio Chairman** of the PM CARES Fund, and the **Minister of Defence, Minister of Home Affairs, and Minister of Finance** of the Government of India are **ex-officio Trustees** of the Fund.
- **Objectives:**
 - To undertake and **support relief or assistance** of any kind relating to a **public health emergency** or any other kind of emergency, **calamity, or distress**, either **man-made or natural**, including the **creation or upgradation of healthcare** or pharmaceutical facilities, **other necessary infrastructure, funding relevant research**, or any other type of support.
- **Fund Finance:**
 - The fund consists **entirely of voluntary contributions** from individuals/organisations and **does not receive any budgetary support**.
 - Donations to PM CARES Fund would **qualify for 80G benefits for 100% exemption under the Income Tax Act, 1961**.
 - Donations to the PM CARES Fund will also **qualify to be counted as Corporate Social Responsibility (CSR) expenditure** under the Companies Act, 2013

WHAT IS K-SHAPED RECOVERY?



The Finance Minister recently rejected the theory that India's ongoing recovery is 'K-shaped'.

About K-Shaped Recovery:

- A K-shaped recovery occurs when, following a recession, different parts of the economy recover at different rates, times, or magnitudes.
- It leads to changes in the structure of the economy or the broader society as economic outcomes and relations are fundamentally changed before and after the recession.
- This type of recovery is called K-shaped because the **paths of different parts of the economy, when charted together, may diverge, resembling** the two arms of the Roman letter "K."
- The portion of the economy that recovers quickly is represented by the upper part of the K, while the lower part represents those groups that recover more slowly.

Reasons:

- K-shaped recoveries are generally caused by **disparities that existed before the recession** or by a recession that **impacts populations and groups differently**.
- It is possible due to the **creative destruction of old industries** due to the **development of new industries** and technologies during the recession.
- **Government strategies** like monetary and fiscal policies used to combat the recession can lead to a K-shaped recovery. Due to the nature of the economic policies, **certain industries will benefit more than others**.
- **Due to the nature of the recession**, it can exert a **unique impact on different parts of the economy**, especially when a recession is coupled with a negative real economic shock that results in a lasting negative impact on certain parts of the economy.
- **Example:** During the COVID-19 pandemic, North America saw a K-shaped recovery where the richer individuals and industries recovered faster compared to the poor.

LITHIUM-ION VS SOLID-STATE BATTERIES

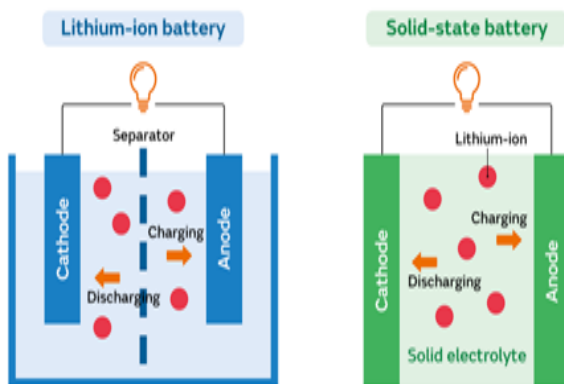
Why in News?

- Japan's Toyota Motor Corp, a late entrant into the battery electric vehicle race, is aiming to roll out next-generation solid-state batteries over the next three years.
- This will mark a milestone in the global race to commercialise this breakthrough technology that promises to double vehicle range and drastically lower charging time.

What is a Solid-State Battery?

- A solid-state battery is essentially battery technology that **uses a solid electrolyte** instead of liquid electrolytes which are instead behind lithium-ion technology.
- It is therefore important to take a step back and understand **how lithium-ion batteries** work in detail and their main differences compared with this new technology.

Lithium-Ion Battery vs Solid-State Battery:



Lithium-ion Battery	Solid State Battery
1. Electrolyte Material:	
Li-ion batteries use liquid or gel electrolytes that facilitate the movement of lithium ions between the electrodes during charging and discharging.	Solid-state batteries utilize solid electrolytes, which are typically ceramic or polymer-based materials that enable ion transport between the electrodes.
2. Safety:	
Li-ion batteries have a small risk of thermal runaway and potential for electrolyte leakage, which can lead to fire or explosion in extreme cases.	Solid-state batteries are generally considered safer because they eliminate the flammable liquid electrolytes, reducing the risk of leaks, spills, and thermal runaway.
3. Energy Density:	
Li-ion batteries have a mature technology base and currently offer relatively high energy density, allowing them to store a significant amount of energy in a given volume.	Solid-state batteries have the potential to achieve even higher energy density than Li-ion batteries, which could lead to longer-lasting batteries with extended runtimes.
4. Charging Speed:	
Li-ion batteries typically have slower charging rates due to limitations in ion mobility within the liquid electrolyte.	Solid-state batteries have the potential for faster charging due to improved ion conductivity in the solid electrolytes, allowing for quicker charge transfer.
5. Cycle Life:	
Li-ion batteries have a finite cycle life and gradually lose their capacity over time as they undergo charge and discharge cycles.	Solid-state batteries have the potential for a longer cycle life, enabling them to withstand more charge and discharge cycles without significant capacity degradation.
6. Commercial Availability:	
Li-ion batteries are well-established, widely used, and commercially available in various sizes and configurations for numerous applications.	Solid-state batteries are still in the research and development phase, with limited commercial availability. Large-scale production and market adoption are yet to be realized.

Advantage of the Solid-State Batteries:

- An advantage of solid-state batteries is that the **electrolyte is solid**. This allows ions, which convey electricity, to move faster.
- **This enables shorter charging times**, increased cruising ranges, and produces higher power output.
- Solid-state batteries are also characterised by being **highly stable** because they are resistant to changes in temperature and can robustly **endure high temperatures and high voltages**.

Issues with the Solid-State Batteries:

- A **longstanding technical issue** in solid state battery development has been that repeatedly charging and discharging the battery **causes cracks** between the cathodes and anodes and the solid electrolytes.
 - This degrades battery performance.
 - Producing solid-state batteries in large volumes is **costly** and difficult.
 - Other problems include -
 - **The extreme sensitivity** of the batteries to moisture and oxygen, as well as
 - **The mechanical pressure** needed to hold them together to prevent the formation of dendrites, the metal filaments that can cause short circuits.
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ACCREDITATION SYSTEM IN INDIA

Why in News?

- The Central government plans to overhaul the accreditation system for higher educational institutes by the end of the year.
- It aims to replace the current practice of assigning a score and corresponding grade with a binary system.

About National Assessment and Accreditation Council (NAAC):

- NAAC is an autonomous body established by the University Grants Commission (UGC).
- It was established in 1994 on the basis of recommendations made under the National Education Policy (1986).
- It is registered under the Karnataka Societies Registration Act of 1960, Karnataka Societies Registration Rules of 1961.
- **Vision:**
 - To make quality the defining element of higher education in India through a combination of self and external quality evaluation, promotion and sustenance initiatives.
- **Headquarters:** Bengaluru

Objectives of NAAC:

- To arrange for periodic assessment and accreditation of institutions of higher education or units thereof, or specific academic programmes or projects;
- To encourage self-evaluation, accountability, autonomy and innovations in higher education;
- To undertake quality-related research studies, consultancy and training programmes, and

Meaning of Assessment & Accreditation:

- **Assessment** is the performance evaluation of an institution or its units based on certain established criteria.
- **Accreditation** is the certification of quality for a fixed period, which in the case of NAAC is five years.
- The University Grants Commission (UGC) through a gazette notification in January 2013, has made it mandatory for Higher Educational Institutions (HEIs) to undergo accreditation.

Benefits of Being NAAC-Accredited:

- Through a multi-layered process steered by the NAAC, a higher education institution gets to know whether it meets certain standards of quality set by the evaluator in terms of curriculum, faculty, infrastructure, research and financial well-being among others.
- Based on these parameters, the NAAC gives institutions grades ranging from A++ to C. If an institution is graded D, it means it is not accredited.
- Apart from recognition, being accredited also helps institutions attract capital as funding agencies look for objective data for performance funding.
- It helps an institution know its strengths, weaknesses, and opportunities through an informed review process.
- NAAC accreditation helps students going for higher education abroad as many global higher education authorities insist on recognition and accreditation of the institution where the student has studied.
- Moreover, employers also look for reliable information on the quality of prospective recruits' education, and NAAC grading helps.