

DAILY CURRENT AFFAIRS (DCA)

Time: 45 Min

Date: 22-11-2024

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EFFECTIVENESS OF GM CROPS IN COMBATING HUNGER

Context

- Genetically Modified (GM) crops have the potential to significantly alleviate hunger and food insecurity, but their impact largely depends on the farming practices employed.

About Genetically Modified Crops (aka Genetically Engineered Crops)

- These are plants whose genetic material has been **intentionally altered using specific DNA sequences**.
- These modifications aim to enhance desirable traits, such as resistance to pests, tolerance to environmental stresses (like drought or extreme temperatures), and improved yield.
- Scientists use techniques like Agrobacterium-mediated transformation and particle bombardment to introduce specific genes into crop plants. These genes may come from the same species or even other organisms.

Role of GM Crops in combating hunger

- Hunger is a recurring issue in developing countries, and genetic modification (GM) of crops is seen as a potential solution.
- GM crops could help alleviate food shortages because they are engineered to possess traits such as pest resistance, herbicide tolerance, and enhanced nutritional content.
- These modifications can lead to higher yields, reduced reliance on chemical pesticides, and improved resilience to environmental stresses.
- India's journey with GM crops** began in 2002 with the commercial release of **Bt cotton**, which contains a gene from the bacterium *Bacillus Thuringiensis*, produces a toxin that is harmful to specific pests, reducing the need for insecticides.

Regulatory Framework in India

- It is primarily governed by the **Genetic Engineering Appraisal Committee (GEAC)** under the Ministry of Environment, Forest and Climate Change (**MoEF&CC**).
- The GEAC is responsible for the assessment and approval of GM crops for commercial cultivation, ensuring that they meet stringent biosafety and environmental standards.
- Guidelines issued by the **Department of Biotechnology** and the **Ministry of Environment** ensure safety and proper monitoring.

- Despite these regulations, the introduction of GM crops has faced resistance from various stakeholders, including farmers, environmentalists, and civil society organisations.

Challenges and Considerations

- Pest Resistance:** Over-reliance on GM crops with pest-resistant traits can lead to the development of resistant pest populations.
- Biodiversity:** GM crops have been associated with potential risks to biodiversity and soil health. The introduction of foreign genes can disrupt local ecosystems and harm beneficial organisms.
- Economic Access:** Smallholder farmers may face barriers to accessing GM seeds due to high costs and intellectual property rights.
- Health Concerns:** There are ongoing debates about the long-term health impacts of consuming GM foods.
- Loss of Traditional Practices:** The adoption of GM crops may lead to the erosion of traditional farming practices and indigenous crop varieties, which are crucial for maintaining agricultural diversity.

Key Considerations for a National GM Policy

- GM Policy Must Be Farmer-Centric** like Empowering Farmers; Ensuring Safety and Sustainability with soil health, biodiversity, or human health; Protecting Biodiversity; and Inclusive Decision-Making.
- Transparent Regulatory Framework:** Establishing a transparent and accountable regulatory framework for the approval and monitoring of GM crops is crucial.
- Support for Non-GM Alternatives:** The policy should also promote research and development of non-GM alternatives that can achieve similar agricultural benefits without the associated risks.
- Economic Viability:** Ensuring that GM crops are economically viable for small and marginal farmers is essential.
 - It includes providing subsidies, access to credit, and insurance schemes to mitigate the financial risks associated with GM crop cultivation.
- Monitoring and Evaluation:** Continuous monitoring and evaluation of the impacts of GM crops on agriculture, environment, and health are necessary.

Way Forward: Sustainable Farming Practices

- Crop Rotation:** Rotating GM crops with non-GM crops can prevent the buildup of pest resistance and maintain soil health.

- **Conservation Tillage:** This practice reduces soil erosion and improves water retention, which is beneficial for GM crops that are designed to thrive in specific soil conditions.
- **Integrated Pest Management (IPM):** Combining GM crops with IPM strategies can reduce the reliance on chemical pesticides, promoting a healthier ecosystem.

Conclusion

- GM crops hold significant potential to combat hunger and improve food security, but their success hinges on sustainable farming practices and addressing associated challenges.
- By integrating GM crops with holistic agricultural strategies, we can harness their full potential to create a more food-secure world.

Source: TH

INDOOR AIR QUALITY AND PURIFICATION

Context

- In most of North India, PM2.5 levels exceed the World Health Organization's safe limits almost year-round, **making indoor air quality management essential.**

Indoor Air Pollution

- Indoor air pollution refers to the presence of harmful substances or pollutants in the air inside buildings and homes, which can pose health risks to the people.
- These pollutants can accumulate to harmful levels if proper ventilation or air filtration systems are not in place.

Common Sources of Indoor Air Pollution:

- **Household Products:** Cleaning agents, paints, and air fresheners can release chemicals like volatile organic compounds (VOCs) into the air.
- **Tobacco Smoke:** Cigarette smoke is a significant indoor air pollutant.
- **Cooking:** Stoves, particularly gas stoves, release nitrogen dioxide and particulate matter.
- **Dust and Pollen:** Accumulated dust and outdoor pollen can worsen respiratory conditions and allergies.

Impacts :

- **Indoor air pollution** is a big problem in developing countries, where people often burn wood, coal, dung, or other solid fuels indoors for cooking and heating.

- ♦ Burning these materials releases harmful pollutants into the air, including fine particulate matter, **carbon monoxide, and various other toxins.**
- It leads to **noncommunicable diseases** including stroke, ischaemic heart disease, chronic obstructive pulmonary disease (COPD) and lung cancer.
- Women and children, typically responsible for household chores such as cooking and collecting firewood, bear the greatest health burden from the use of polluting fuels and technologies in homes.
- Around 4.2 million people die prematurely due to indoor air pollution, according to the World Health Organization.

Measures

- Improving indoor air quality starts with **managing exposure to PM2.5**, the primary pollutant of concern which is linked to respiratory diseases, cardiovascular conditions, and neurological disorders.
- The first step is to **limit the entry of outdoor pollutants.**
 - ♦ Keeping windows and doors closed prevents polluted air from seeping inside, while sealing gaps around windows, doors, and vents reduces air leaks.
- **Indoor Plants:** Indoor plants help purify the air by absorbing contaminants and releasing oxygen.
- **Using an air purifier**, especially in spaces like bedrooms where significant time is spent, is key to reducing exposure.
- **Limiting the volume of air** the purifier needs to clean — by closing doors to other rooms — further **enhances efficiency.**

Importance of Air Purifiers

- An air purifier is essentially a fan paired with a **HEPA (High Efficiency Particulate Air) filter**, designed to **trap fine particulate matter like PM2.5.**
- Many modern purifiers come with sensors that **automatically adjust** fan speed based on air quality, improving efficiency.

Limitations of Air Purifiers:

- **Effectiveness :** Outdoor air purifiers (smog towers) are ineffective due to the vast volume of outdoor air.
 - ♦ Indoor purifiers are less effective in homes with poor sealing where outdoor pollutants easily infiltrate.
- **Ethical Issues :** Air purifiers are inequitable solutions, benefiting only those who can afford them.

- ◆ These individual measures address symptoms, not root causes, and risk exacerbating existing inequalities.
- ◆ Long-term solutions require improving outdoor air quality, not just individual mitigation efforts.

Conclusion

- As technology continues to evolve, new and more effective solutions for controlling indoor air pollution are emerging.
- Additionally, compact and more efficient air quality sensors can now be installed in homes to continuously monitor pollutant levels and provide alerts when air quality deteriorates.
- Nanotechnology is another promising area for future innovation.

Source: IE

INDIA'S INTERVENTION AT THE PLENARY SESSION OF THE UNFCCC-COP29

In News

India expressed disappointment at the shift in focus from enabling Climate Finance to an emphasis on mitigation at the Plenary Session at the CoP29 of the UN Climate Change Summit in Baku, Azerbaijan.

About India's Intervention at the Plenary Session of the UNFCCC-CoP29

- **Stance :** India aligned its stance with the statement made by Bolivia on behalf of Like-Minded Developing Countries (LMDCs) and reiterated that the process of the fight against Climate Change has to be guided by the UNFCCC and its Paris Agreement, as the Global South continues to face the intense impacts of Climate Change.
- **Concerns about Mitigation Focus:** India emphasized the need to address both how and what in relation to mitigation, urging that adequate finance and support must be provided for mitigation ambitions.
 - ◆ The shift away from discussions on Climate Finance to a sole focus on mitigation was rejected by India.
- **Climate Finance (New Collective Quantitative Goals (NCQG)):** India highlighted the importance of grant-based concessional Climate Finance for formulating and implementing Nationally Determined Contributions (NDCs).

- ◆ The proposal for a USD 1.3 trillion mobilization goal, with USD 600 billion as grants, was stressed to ensure successful implementation of climate actions in developing countries.
- ◆ India reiterated that climate actions must be country-driven in line with national circumstances and priorities.
- **Mitigation Work Programme (MWP):** India protested against changes in the scope of the Mitigation Work Programme (MWP) in the draft text.
 - ◆ India rejected the introduction of 2030, 2035, and 2050 targets in the preamble, calling them prescriptive and outside the Paris Agreement framework.
 - ◆ India urged the inclusion of concerns regarding Annex-I Parties' emission increases and negative impacts of unilateral measures on climate action.
- **Just Transition:** India rejected any renegotiation of the shared understanding on Just Transition established at CoP28.
 - ◆ India emphasized that Just Transitions must begin globally, with developed countries taking the lead in mitigation and providing the means of implementation to developing countries.
- **Global Stocktake (GST):** India disagreed with the follow-up process of the GST outcomes and the new draft text on the UAE dialogue.
 - ◆ India pointed out the lack of integration with the text under negotiation on finance and emphasized that the new chapeau text was mitigation-centric and unbalanced.
- **Adaptation:** India put forward five key points regarding the global goal on adaptation:
 - ◆ Indicators on means of implementation should be included to make adaptation work meaningful.
 - ◆ Incremental adaptation should be prioritized, with a focus on national circumstances.
 - ◆ Data should come from Party-submitted reports, not third-party databases.
 - ◆ The Baku Road Map should continue the work on the global adaptation goal.
 - ◆ No further segregation of adaptation progress indicators is needed.
- **Final Statement:** India reiterated that this CoP should focus on finance, enablement, and balancing.
 - ◆ It highlighted that failure in providing finance would undermine the fight against climate change.

Source: PIB

EVERY CHILD MATTERS: ADVOCATING FOR ADOPTION

Context

- Adoption Awareness Month is celebrated annually in November.

About

- It is an initiative led by the **Central Adoption Resource Authority (CARA)** to raise awareness about the legal adoption process.
- **Theme for 2024:** “Rehabilitation of Older Children through Foster Care and Foster Adoption.”

Adoption Data in India

- India has approximately **29.6 million** stranded, orphaned, and abandoned children, but only a small fraction ranging from **3,000 to 4,000**, are adopted annually.
- Over 16,000 prospective parents in India are waiting for adoption referrals, but the number of legally available children for adoption falls far short of this demand.

Laws Related to Child Adoption in India

- **Hindu Adoption and Maintenance Act, 1956:** This act applies to Hindus, Jains, Sikhs, and Buddhists. It specifies that only a child’s father, mother, or guardian can give the child up for adoption.
- **Juvenile Justice (JJ) Act, 2015:** This act applies to children who need care and protection and are eligible for adoption.
 - ♦ Introduces the concept of **Prospective Adoptive Parents (PAPs)** who must register through CARA’s CARINGS portal.
- **Guardianship and Wards Act of 1890:** This secular act applies to all citizens of India. It covers the process for petitioning the courts to appoint a guardian.

Central Adoption Resource Authority (CARA)

- It is a **statutory body** under the **Ministry of Women & Child Development**, oversees ethical and legal adoptions in India, prioritizing the best interests of children.
- As the **central authority for Indian adoptions**, CARA regulates and monitors both in-country and inter-country adoptions.
- It adhered to the **Hague Convention on Inter-country Adoption, 1993**, ratified by India in 2003.

CARINGS portal

- The **CARINGS (Child Adoption Resource Information and Guidance System) portal** was launched in **2011**.
- It serves as the sole platform for adoption, complying with the Hague Convention, international protocols, and national laws.
- The portal **integrates data of legally free children** with that of Prospective Adoptive Parents (PAPs), enabling automated matching based on preferences.

Challenges in the Adoption Process

- **Complex Procedures:** Lengthy and bureaucratic adoption processes deter many prospective adoptive parents (PAPs).
- **Low Awareness:** Limited knowledge about legal adoption and the CARINGS portal restricts participation.
- **Societal Stigma:** Adoptive families face prejudices, and the preference for infants over older children and those with special needs further narrows the adoption scope.
- **Foster Care Gaps:** India’s foster care system is still nascent, requiring robust policy frameworks and infrastructure for implementation.

Way Forward

- **Simplify Procedures:** CARA and other stakeholders must streamline legal formalities to make adoption more accessible.
- **Enhance Awareness:** Initiatives like media campaigns and community workshops should educate people about the benefits and processes of legal adoption.
- **Strengthen Foster Care:** A robust foster care system, focusing on older children and those with special needs, complement the adoption process.
- **Financial Support:** Providing incentives, counseling services, and post-adoption support can address challenges faced by adoptive families.

Concluding remark

- Adoption is not just a legal process; it is a life-changing act that prioritizes the welfare of children.
- Empowering CARA, promoting awareness, and addressing systemic barriers can ensure that every child finds a loving home, affirming the principle that “**Every Child Matters.**”

Source: PIB

GLOBAL ALLIANCE AGAINST HUNGER AND POVERTY

Context

- Recently, the Global Alliance Against Hunger and Poverty was launched at the G20 Leaders' Summit in Rio de Janeiro, Brazil.

About Alliance

- It aims** to accelerate efforts to eradicate hunger and poverty while promoting the **Sustainable Development Goals (SDGs)**.
- The goal is to eliminate all nations from the **Food and Agriculture Organization's (FAO)** hunger map by **2030**.
- Members:** It consists of **148 members**.
 - This includes **82 countries**, the **African Union**, the **European Union**, some international organizations, and non-governmental organizations.
 - The Alliance has been open to membership even for countries that are not part of the G20.
- Technical headquarters:** FAO headquarters in Rome.

Key pillars

- National:** Coordination of specific public policies.
- Knowledge:** Integration of data and technologies for evidence-based solutions.
- Financial:** Large-scale resource mobilization.

Strategic commitments of the Alliance

- Reach 500 million people** being part of income distribution programs by 2030;
- Expand school meals to 150 million children** in countries with high child hunger rates;
- Mobilize billions of dollars** through multilateral banks for effective anti-poverty programs.

What is Hunger?

- The **Food and Agriculture Organization (FAO)** defines hunger as food deprivation, or undernourishment, as the habitual consumption of too few calories to provide the minimum dietary energy an individual requires to live a healthy and productive life, given that person's sex, age, stature, and physical activity level.

Global Hunger Index (GHI) 2024

- The GHI is published by **Concern Worldwide and Welthungerhilfe** annually to measure and track hunger at global, regional, and national levels.
- GHI is calculated based on a **formula combining four indicators** that capture the multidimensional nature of hunger;

- Undernourishment, child stunting, child wasting, and child mortality.
- According to the GHI 2024**, the hunger levels in **42 countries are at alarming levels**, making the goal of Zero Hunger by 2030 unattainable.
 - India is ranked **105th among 127 countries**, indicating a 'serious' level of hunger.
- Six countries** – Somalia, Yemen, Chad, Madagascar, Burundi, and South Sudan- have levels of hunger considered alarming.

Source: IE

INDIA'S AMBITION TO BE AN EXPORT HUB OF GREEN HYDROGEN

Context

- Solar Energy Corporation of India Ltd (SECI), under the Ministry of New and Renewable Energy, signed a MoU with H2Global Stiftung to establish a collaborative framework **to promote Green Hydrogen initiatives**.

About MoU :Key Points

- Aim:**
 - to enhance knowledge exchange on market-based mechanisms,
 - foster cooperation between India and importing countries,
 - eventually contributing to the global advancement of the green hydrogen economy.
- This collaboration offers India the opportunity to structure joint tenders that aligns with **India's ambition to become export hub of Green Hydrogen and its derivatives**.
- India has announced a target of **energy independence by 2047 and a net-zero by 2070**.
 - Green Hydrogen is expected to play a substantial role towards achieving these goals.

Hydrogen Element

- Hydrogen is the chemical element with the **symbol H** and **atomic number 1**.
- Hydrogen is the **lightest element** and the most abundant chemical substance in the universe, **constituting roughly 75%** of all normal matter.
- It is colorless, odorless, tasteless, non-toxic, and highly combustible gas.

Extraction of Hydrogen

- Hydrogen exists in **combination with other elements**.

- Hence, for using it as a source of energy, it has to be **extracted from naturally occurring compounds** like water (which is a combination of two hydrogen atoms and one oxygen atom).
- Green hydrogen** refers to hydrogen that is produced **using renewable energy sources**, such as wind, solar, or hydropower, through a process called electrolysis.
 - Electrolysis involves splitting water (H₂O) into hydrogen (H₂) and oxygen (O₂) using an electric current.
 - When this electricity comes from renewable sources, the hydrogen produced is considered “green” because the overall process has a **minimal environmental impact**.
- Grey Hydrogen:** It involves extracting hydrogen from natural gas through a process called **steam methane reforming (SMR)**.
 - This process releases **carbon dioxide (CO₂)** as a byproduct, contributing to greenhouse gas emissions.
- Blue Hydrogen:** It involves **capturing and storing the CO₂ emissions** generated during the production of hydrogen from **natural gas**.

Color	GREY HYDROGEN	BLUE HYDROGEN	TURQUOISE HYDROGEN*	GREEN HYDROGEN
Process	SMR or gasification	SMR or gasification with carbon capture (85-95%)	Pyrolysis	Electrolysis
Source	Methane or coal	Methane or coal	Methane	Renewable electricity

Note: SMR = steam methane reforming.
* Turquoise hydrogen is an emerging decarbonisation option.

Significance of Green Hydrogen

- Zero Emissions:** The production emits no greenhouse gases or pollutants, making it a zero-emission energy carrier.
- Energy Storage:** Green hydrogen can serve as a means of storing excess renewable energy generated during periods of low demand for later use, helping to balance the grid and enhance energy security.
- Versatile Applications:** Hydrogen can be used as a fuel in various sectors including transportation, industry, and heating.
- Economic Opportunities:** The transition to green hydrogen presents significant economic opportunities, including job creation, investment in new infrastructure, and the growth of related industries such as electrolyzer manufacturing and hydrogen fuel cell technology.

- Climate Mitigation:** Replacing fossil fuels with green hydrogen can reduce carbon emissions and contribute to global efforts to mitigate climate change.

India's Progress and Goals Towards Green hydrogen

- India's commitment to achieving **net-zero emissions by 2070** includes a strong focus on **green hydrogen**.
- The country aims to produce 5 million metric tons of green hydrogen by 2030, requiring a \$100 billion investment and 125 gigawatts of new renewable energy capacity. This aligns with the Prime Minister's Panchamrit plan, which also targets 500 GW of non-fossil energy capacity by 2030.
 - Hydrogen demand in India is expected to grow to 29 million metric tons per year by 2050.
- Demand:** Green hydrogen demand in India is projected to exceed 27.2 million tonnes per annum (MTPA) by 2050, primarily led by industries such as steel, fertilisers, refineries and road transportation applications.
- Employment Generation:** According to the International Renewable Energy Agency (IRENA), the green sector employed 11 million people in 2018, with projections of over 42 million jobs by 2050, highlighting its potential to create new industries and jobs.

Factors Contributing to India's Vision of to be a Export Hub

- Easy to Transport:** Green hydrogen is easier to transport than gaseous hydrogen, and offers a practical solution for longdistance energy trade.
- Ports:** The strategic location of hydrogen production facilities along India's coastline — in states like Odisha, Maharashtra, and Gujarat — facilitates this export-oriented approach.
 - These facilities are advantageously near port infrastructure, simplifying the logistics of international trade while serving sizable domestic markets within the same geographic regions.
- This dual focus supports India's broader energy independence goals and integrates with global hydrogen supply chains.

Challenges

- Risks associated with the transportation:** Hydrogen in gaseous form is highly inflammable and difficult to transport, thereby making safety a primary concern.

- **Higher Cost:** Green hydrogen production is currently more expensive than conventional methods, primarily due to the high cost of renewable energy sources and electrolysis technology.
- **Lack of fuel station infrastructure:** India will need to compete with around 500 operational hydrogen stations in the world today which are mostly in Europe, followed by Japan and South Korea.

Green Hydrogen Initiatives

- The Bureau of Energy Efficiency (BEE), under the Union Ministry of Power, has been appointed as the **nodal authority for accrediting blending operations**.
- **The Global Biofuel Alliance** seeks to establish global standards for hydrogen from biomass.
 - ♦ It is an initiative by India as the G20 Chair, bringing together the biggest consumers and producers of biofuels to drive development and deployment of biofuels.
- **National Green Hydrogen Mission (NGHM):** It was launched in **2023**, it aims to increase production of green hydrogen to 5 million metric tonnes by 2030, meeting 40% of domestic demand.
- **National Hydrogen Energy Mission (NHEM):** NGHM is a part of National Hydrogen Mission (NHM).
 - ♦ **Objective:** To make India a global hub for the production and export of green hydrogen.
- **Production-Linked Incentive (PLI) Scheme for Green Hydrogen:** It aims to boost the production of green hydrogen in India and attract investments in the sector.
- **Green Hydrogen Policy:** Several states in India have been working on formulating green hydrogen policies to attract investments and promote the development of green hydrogen projects.
- **Hydrogen Energy Roadmap:** India's Hydrogen Energy Roadmap was developed by the Ministry of New and Renewable Energy (MNRE) and approved in 2021.
 - ♦ **Objective:** The roadmap aims to accelerate hydrogen production from renewable sources and make India a key player in the global hydrogen market.
- **Public-Private Partnerships (PPP):** Several PSUs (Public Sector Undertakings) like NTPC, Indian Oil Corporation (IOCL), and Indian

Renewable Energy Development Agency (IREDA) have been tasked with leading green hydrogen pilot projects and scaling up production.

- **International Collaboration:** Collaborations with countries and organizations that have advanced in hydrogen technologies aim to facilitate knowledge transfer and technology adoption.

Future Prospects

- Looking forward, India's approach to integrating green hydrogen into its energy system is multi-faceted.
 - ♦ It involves enhancing production capabilities, building out infrastructure, establishing robust regulatory frameworks and market incentives to encourage adoption.
- By aligning these elements, India can effectively transition to a low-carbon economy, reducing its dependence on fossil fuels and positioning itself as a leader in the emerging global hydrogen economy.
- India's green hydrogen venture holds promising potential for energy transformation, both domestically and globally

Source: PIB

FACTS IN NEWS

COMPTROLLER AND AUDITOR GENERAL (CAG) OF INDIA

Context

- Senior Indian Administrative Service officer **K. Sanjay Murthy** has assumed office as the Comptroller and Auditor General (CAG) of India.
 - ♦ He replaced **Girish Chandra Murmu**, who was appointed as the CAG in August 2020.

About: Comptroller and Auditor General (CAG) of India

- **Mandate:** CAG is a **Constitutional Body**, and its mandates are covered in **Articles 148 to 151** of the Indian Constitution.
- **Term and appointment:** Appointed by the **President of India**, CAG holds office for **6 years** or up to the age of 65 years, whichever is earlier.
- **Status and removal:** It enjoys the same status as a **sitting judge of the Supreme Court of India** in order of precedence and can be removed by the **President of India** on the same grounds and in the same manner as a judge of the Supreme Court.

- **Duties and powers:** CAG heads the **Indian Audit and Accounts Department**, serves as the **guardian of the public purse**, and oversees the entire financial system of the country at both the central and state levels.
 - ♦ The CAG submits audit reports to the **President or the Governor**, who then places them before the Parliament or the State Legislature.

Do you know?

- CAG traces **its origin** to the office of the Accountant General to the Government of India **set up in 1858** in British India. The **first Auditor General** was appointed in 1860.
- The auditing functions of the **Auditor General of India** were detailed in the **Audit and Accounts Order, 1936** which largely forms the basis of the audit mandate of the Comptroller and Auditor General of India post-independence.
- The **first Indian Comptroller and Auditor General** of independent India took over in 1948.

Source: AIR

USTAD BISMILLAH KHAN YUVA PURASKAR

In News

The Ustad Bismillah Khan Yuva Puraskar will be conferred on 82 young artists for the years 2022 and 2023 in a special ceremony on 22nd November 2024

About the award

- The Ustad Bismillah Khan Yuva Puraskar, instituted by the Sangeet Natak Akademi in 2006, is awarded annually to young artists up to 40 years of age who have demonstrated exceptional talent in the fields of music, dance, and drama.
 - ♦ The award aims to recognize outstanding practitioners in these areas.
- **Eligibility:** Artists up to 40 years old (age as of April 1 of the year of nomination) are eligible.
- **Award Categories:** Music, Dance, Theatre, Other Traditional/Folk/Tribal Music, Dance, Theatre, and Puppetry Contribution/Scholarship in Performing Arts
- **Award includes:** A cash prize of Rs. 25,000, a plaque, and an angavastram.
- **Annual Limit:** A maximum of 33 awards may be given each year.
- **The purpose** of the award is to encourage young talent and celebrate their contribution to the performing arts in India.

Source: Air

AMUR FALCON

Context

- The 9th Amur Falcon festival was celebrated in Tamenglong district of Manipur to raise awareness about the **Amur falcons**, the world's longest travelling birds.
 - ♦ These birds roost in Tamenglong during October and November each year as part of their migration to southern and eastern Africa.

About: Amur Falcon

- They are small raptors of the falcon family with the scientific name **Falco amurensis**.
- The species is named after the **Amur River** that forms the border between **Russia and China**.
- It breeds in **southeastern Siberia and northern China**, and migrates in millions across India and then over the Indian Ocean to Africa before returning to **Mongolia and Siberia**.
- **Conservation Status:**
 - ♦ IUCN Red List: Least Concerned
 - ♦ Indian Wildlife Protection Act, 1972: Protected
 - ♦ The Convention on Migratory Species (CMS): Protected

Source: AIR

PACE PROGRAM

In News

The Department of Scientific & Industrial Research (DSIR) signed Project Agreements under the Patent Acquisition and Collaborative Research and Technology Development (PACE) Programme.

About PACE program

- The PACE program by the Department of Scientific & Industrial Research (DSIR) promotes collaborative research between Indian industries and R&D organizations, academic institutions, or universities.
- It focuses on innovative work and the development of new technologies for commercializing products and processes to address unmet industrial needs.
- Projects with practical applications and demonstrating proof-of-concept are supported, typically for durations of 1 to 3 years.

Source: PIB

RUSSIA FIRES INTERCONTINENTAL BALLISTIC MISSILE AT UKRAINE

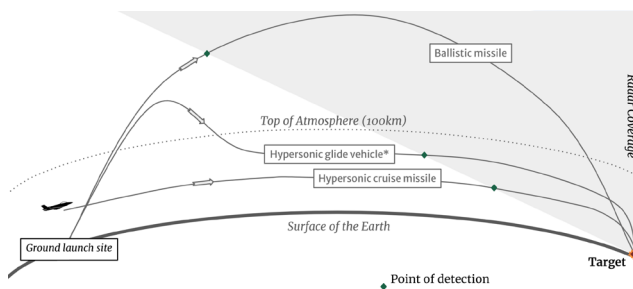
Context

- Russia launched an **intercontinental ballistic missile (ICBM)** during an attack on Ukraine,

marking the first use of such a powerful, nuclear-capable weapon in the ongoing conflict.

About ICBM

- ICBM is a type of long-range missile designed to carry nuclear or conventional warheads.
- **Range:** More than 5,500 kilometers (about 3,400 miles), enabling them to travel across oceans and strike targets in distant countries.
- **Speed:** It can reach a speed of up to 24,000 km/h (about 15,000 mph).
- **Payload:** ICBMs are usually equipped with nuclear warheads, but some may carry conventional warheads or other types of payloads.
- A ballistic missile follows a **parabolic trajectory** with a boost, mid-course and terminal stage.
 - ♦ The highest point where the missile reaches is called **apogee** and for ICBMs, it is over 4,000 km.
- **Precision:** ICBMs are equipped with advanced guidance systems, ensuring accuracy in hitting their intended targets, even over intercontinental distances.



Source: HT

ANDHRA PRADESH SCRAPPED TWO-CHILD POLICY FOR LOCAL BODY ELECTIONS

Context

- The Andhra Pradesh government has repealed the **two-child norm for candidates contesting local body elections**.

About

- The move comes amid concerns over the **state's declining fertility rate**.
- The latest National Family Health Survey (NFHS-5) for 2019-21 reveals that Andhra Pradesh's total fertility rate is **1.7 children per woman**, significantly below the **replacement level of 2.1**.

Two-child Policy

- The two-child policy was introduced in **1994**, mandating that candidates seeking election to

Gram Panchayats, Mandal Praja Parishads, and Zilla Parishads should not have more than two children.

- ♦ The rule aimed to **curb population growth**, disqualifying contenders who exceeded the limit.
- **Rajasthan** became the first state to adopt the "two-child policy" at the panchayat level in 1992, followed by Andhra Pradesh (then undivided) and Haryana in 1994.
 - ♦ Subsequently many Indian States adopted the policy.
- Of the 13 states and UTs that adopted the policy, **Chhattisgarh, Haryana, Himachal Pradesh, and Madhya Pradesh rolled it back in 2005**.

Source: IE

BUDDHIST DOCTRINES

Context

- At a regional security conclave in Laos, India's Defence Minister emphasized the relevance of Buddhist doctrines in addressing modern-day conflicts and challenges to the global order.

Buddhist Doctrines

- **The Four Noble Truths;**
 - ♦ Life is suffering (dukkha).
 - ♦ Suffering arises from attachment and desire.
 - ♦ Suffering ceases when attachment and desire are overcome.
 - ♦ The path to cessation is the Noble Eightfold Path.
- **The Noble Eightfold Path;**
 - ♦ **Ethical Conduct:** Right Speech, Right Action, Right Livelihood.
 - ♦ **Mental Discipline:** Right Effort, Right Mindfulness, Right Concentration.
 - ♦ **Wisdom:** Right Understanding, Right Intention.
- **Nonviolence (Ahimsa):** A commitment to avoid harm to all living beings.
- **Interdependence (Pratītyasamutpāda):** The understanding that all phenomena arise in dependence upon other phenomena.

Significance in Contemporary world

- **The doctrine of Right Speech** encourages constructive communication and avoidance of hostility.
- **Compassion**, guides nations toward humane policies and humanitarian interventions.
- **Middle Path:** It addresses polarizing global issues, such as climate negotiations or trade disputes.

- **Nonviolence:** Offers a framework for peaceful coexistence and arms control agreements.

Do you know ?

Five Events in Buddha's Life

Events	Symbol
1. Janma (Birth)	Elephant
2. Mahabhinishkramana (Renunciation)	Horse
3. Nirvana/Sambodhi (Enlightenment)	Bodhi tree
4. Dharmachakra pravartana (1 st sermon)	Wheel
5. Mahaparinirvana (Death)	Stupa

Source: TH

ARMENIA BECOMES MEMBER OF INTERNATIONAL SOLAR ALLIANCE

Context

- Armenia has become the **104th member** of the International Solar Alliance.

About

- **India and France jointly launched** the International Solar Alliance (ISA) during 21st Conference of Parties (COP21) to the **United Nations Framework Convention on Climate Change (UNFCCC)** held in Paris in 2015.

- **The ISA aims** to contribute to the implementation of the Paris Climate Agreement through the rapid and massive deployment of solar energy.
- **Secretariat:** Gurugram.
- **Members:** Member Countries are countries which have signed and ratified the Framework Agreement of the ISA.
 - ♦ At present, **120 countries** are signatories to the ISA Framework Agreement.

Do you know ?



- Armenia is a landlocked country
- Neighboring Countries : in the North: Georgia; in the East: Azerbaijan; in the South: Iran; in the West: Turkey.
- **Highest Mountain Peak:** Aragats (4,090 meters)

Source: ANI

