WEEKLY

CURRENT AFFAIRS

Compilation

24 AUG TO 31AUG

SPACE SECTOR
CONTRIBUTED ₹20,000 CRORE
TO INDIA'S GDP IN THE LAST DECADE

ECONOMIC CONTRIBUTION

India's space sector has significantly boosted the country's economy, contributing nearly $24 billion (₹20,000 crore) to the gross domestic product (GDP) in the last decade. The sector has directly supported 96,000 jobs in the public and private sectors.

MULTIPLIER EFFECT AND PRODUCTIVITY

For every dollar generated by the space sector, there is a multiplier effect of $2.54 on the Indian economy. Moreover, the space workforce in India has proven to be 2.5 times more productive than the country's broader industrial workforce.

Report

These findings were presented by Steve Bochinger, associated executive advisor of Novaspace, during the National Space Day celebrations. The report, prepared by the Indian Space Research Organisation (ISRO), evaluates the socio-economic impact of the space sector from 2014 to 2023.

The study was conducted by Indian research firms IconOne and Novaspace, with inputs from representatives of 56 public and private organizations.

NARENDRA MODI'S UKRAINE VISIT WAS
MORE OF A BALANCING ATTEMPT THAN A PEACE EFFORT

Prime Minister Narendra Modi's recent visit to Kyiv and meeting with Ukrainian President Volodymyr Zelensky is being seen as an attempt to balance India's position on the Russia-Ukraine war.

Since Russia's invasion in February 2022, India has maintained a neutral stance, abstaining from UN resolutions criticising Russia and circumventing Western sanctions.

SIGNIFICANCE OF THE VISIT

The visit is the first by an Indian Prime Minister to Ukraine since Ukraine's independence in 1991. During the visit, Modi and Zelensky discussed the ongoing conflict and signed agreements on cooperation in agriculture, culture and medical products.

However, there was no significant progress on the strategic partnership or other key requests from Ukraine.

INDIA'S ROLE IN CONFLICT RESOLUTION

The big question is whether India will play a more active role in peace efforts. So far, India has limited its involvement to diplomatic messaging, without fundamentally changing its stance on the conflict.

UNIFIED
PENSION SCHEME

Context:-The unified pension scheme started by our prime minister on saturday,this scheme is related to government employees, this scheme aims to assured pension for government employee family it will be effective from 1April 2025

FEATURES
OF UNIFIED PENSION SCHEME

1• **Benefit:-**Those who work for 25 years or more will get full benefits.

2• **Investment:-**To decide the pension, the average of the basic part of the salary taken in the last 12 months at the time of retirement will be taken. Roughly, 50 percent of the basic will be given as pension.

3• **Benefit to family:-** If the employee dies while in service, his family or partner will get 60% of the family pension. At present, it is 50 percent. Family pension is half.

4• **Tenure:-** At least ten years of service will be mandatory to get pension. On retirement after a minimum of 10 years of service, the minimum pension will be Rs 10,000 per month.

5• **Nps and Ups:-** Employees will have the option to choose between NPS and UPS. Those who have already chosen NPS will also get its benefit. It is believed that NPS holders will benefit by going to UPS.

6• **State government:-**on the basis of the central scheme, state governments will also be able to implement this model.

7• **Contribution:-**For this, employees will not have to make a separate contribution. The central governmentvernment will bear its share, which will be about 18 percent. While the employee'smcontribution will be ten percent in this as in NPS.

8• **Inflation:-**They get the benefit of inflation indexation.

BENEFIT OF UNIFIED PENSION SCHEME

New-age gateway devices such as e-cigarettes, vaping pens, and other Electronic Nicotine Delivery Systems (ENDS), originally promoted as safer alternatives to traditional smoking, have instead triggered a new public health crisis. These devices have become popular among children and adolescents, leading to increased nicotine addiction and associated health risks. The targeted marketing of these products, often using appealing flavors and colorful imagery, lures young users by promising social acceptance and happiness. However, these devices contribute to physical harms like lung damage and psychological issues such as loneliness, social isolation, and mental health challenges. Studies have shown that e-cigarettes are highly addictive, particularly for adolescents, and may lead to other substance abuse issues. Despite being portrayed as tools to help quit smoking, these devices have instead created a new generation dependent on nicotine, highlighting the urgent need for awareness and regulation to protect vulnerable populations.

NICOBAR PROJECT

CONTEXT:- Recently ministry of environment given Statement On tribal issues because of Nicobar Project.

Purpose:- promote the holistic development of Greater Nicobar. The project involves the construction of an international container trans-shipment terminal, a greenfield international airport, a power plant and a township complex. In addition, offices of multinational corporations will be set up by felling one lakh trees in tropical rainforests.

NICOBAR:- The scheme involves the use of a total of 244 sq km of lush green forest and coastal areas within the boundaries of the biosphere reserve.

AREA:-The project area falls within a 10 km Standing radius of Galathea Bay National Park and Campbell Bay National Park. However, it lies outside the notified ecologically sensitive zone around the national parks.

INFRASTRUCTURE COMMITTEE:- of the National Board for Wildlife (NBWL) de-notified the entire Galathea Bay Wildlife Sanctuary for the construction of the port and other related infrastructure. Concerns about the Nicobar Project.

TREES:-The project will involve felling of millions of trees in pristine rainforests and destruction of about 12 to 20 hectares of mangrove cover. About 10 hectares of coral cover may be affected.

TRIBAL ISSUE:- local Shompen and Nicobari tribe natives will be affected.

IMPACT ON SPECIES:-Some rare species like the leatherback sea turtle, Nicobar megapode (a flightless bird of the Nicobar Islands), Nicobar macaque and saltwater crocodile will also be affected by the project.

SIGNIFICANCE OF THE NICOBAR PROJECT:-

Infrastructure development:-The creation of infrastructure (ports, airports, etc.), which will increase employment opportunities for local people.

Promote tourism:-It will help create tourism p otential in the region, leading to increased income generation.

Connectivity:-Development of world-class infr astructure will h elp improve inter- island connectivity.

Social security:- it will create affor dable state-of-the-art faci lities for healthcare, quality education, and adequate air, sea and web infrastructure.\

Geopolitical interest:-The Nicobar Islands, located near the Strait of Malacca, demand the building of strong infrastructure to membersrserset the geopolitical interests in the region. The islands also house India's only triservices command (Andaman & Nicobar Command).

TACKLING
FRICTIONS

IN CROSS-BORDER PAYMENTS

Why in News?

The global cross-border payments market, valued at $181.9 trillion in 2022, is projected to grow significantly, reaching $256.5 trillion by 2032. Cross-border payments, essential for international trade and economic activities, have historically been characterized by high costs, slow speeds, and complex regulatory environments. Despite advancements in technology, these payments continue to face significant challenges, which necessitate innovative solutions to improve efficiency and accessibility.

Historical Context and Evolution

Cross-border payments have evolved from manual processes involving letters of credit and checks to more advanced methods facilitated by banks through wire transfers. The integration of trade, currency exchange, and industrialization has been central to this evolution. However, the system remains fraught with inefficiencies, leading to high costs and delayed transactions, which pose barriers to financial inclusion and economic growth.

Emerging Technologies and Innovations

Technological advancements are introducing new methods for cross-border payments, such as distributed ledger technology (DLT), blockchain, and digital wallets. These innovations aim to reduce costs, increase speed, and enhance transparency. Central Bank Digital Currency (CBDC) projects and Instant Payment Systems (IPS) are also gaining prominence, offering more secure and efficient means of transferring funds across borders.

CHALLENGES IN CROSS-BORDER PAYMENTS

Regulatory and Compliance Issues:
One of the primary challenges in cross-border payments is navigating the complex regulatory landscape, which varies across jurisdictions. Legal and compliance costs are significant, particularly concerning anti-money laundering (AML) and counter-financing of terrorism (CFT) requirements. The inconsistency in regulations across countries creates friction, affecting the smooth flow of payments.

Technological Integration:
While new technologies promise efficiency, their integration with existing systems poses challenges. Issues such as interoperability, data sharing, and ensuring customer privacy are critical to the successful implementation of innovative payment solutions.

Operational Risks:
Operational risks, including cybersecurity threats and the need for robust dispute resolution mechanisms, are also major concerns in cross-border payments. Establishing secure, reliable, and transparent systems is essential to address these risks and enhance user trust.

GLOBAL INITIATIVES AND FUTURE DIRECTIONS
Bilateral and multilateral initiatives are being undertaken to streamline cross-border payment systems. The Financial Stability Board (FSB) and other global organizations are working towards creating frameworks that ensure security, transparency, and efficiency. Efforts are also being made to standardize Know Your Customer (KYC) processes and harmonize regulations to reduce friction in cross-border transactions.

CONCLUSION
Improving cross-border payments is crucial for global economic integration and financial inclusion. Addressing the challenges of high costs, slow processing times, and regulatory complexities requires innovative solutions and collaborative international efforts. The future of cross-border payments lies in leveraging emerging technologies, enhancing regulatory cooperation, and ensuring robust operational frameworks to meet the growing demand for efficient and secure transactions across borders.

NASA's Decision on Boeing Capsule
Why in News?
NASA has deemed the use of Boeing's Starliner capsule as too risky for the return of astronauts currently stationed at the International Space Station (ISS). The decision stems from a series of technical failures, including thruster issues and helium leaks, which occurred during the capsule's latest tests.

Current Situation

Two seasoned astronauts, who have been on the ISS since June, were initially scheduled to return to Earth using the Starliner capsule. However, due to safety concerns, NASA has postponed their return until February 2025, opting to use a SpaceX capsule instead. The astronauts will remain on the ISS until the next SpaceX flight, which is set to launch in late September, bringing additional crew members to the station.

Safety Concerns with Starliner

The decision not to use the Starliner capsule is based on the recent technical issues, which include problems with thrusters and helium leaks in the propulsion system. These issues have raised significant safety concerns, leading NASA to prioritize the safety of the crew over the schedule. Boeing, which developed the Starliner, has been working on resolving these issues but has faced multiple setbacks.

Implications for NASA and Boeing

NASA's decision reflects its commitment to crew safety, learning from past experiences such as the Space Shuttle disasters. The ongoing challenges with the Starliner capsule also highlight the difficulties faced by Boeing in delivering a reliable spacecraft. The delays in the Starliner program have implications for Boeing's reputation and its commercial partnerships with NASA.

Future Prospects

While the current situation poses challenges, NASA remains committed to finding a safe solution for the astronauts' return. The decision to rely on SpaceX's proven technology underscores the importance of reliability in space missions. The ongoing issues with the Starliner capsule will likely lead to further scrutiny and efforts to address the technical problems before it can be deemed safe for future missions.

CONCLUSION

NASA's cautious approach in handling the technical issues with Boeing's Starliner capsule highlights the agency's emphasis on crew safety. The decision to delay the astronauts' return and use alternative technology reflects the complexities of space missions and the critical importance of addressing safety concerns before proceeding with any high-risk operations.

VIGYAN DHARA
SCHEME

Context: Vigyan Dhara scheme is an initiative by the Indian government aimed at promoting agricultural productivity through scientific methods. Launched under the Department of Science & Technology (DST), it focuses on providing farmers with knowledge, technologies, and practices to improve crop yields and overall agricultural efficiency.

THE SCHEME TYPICALLY INVOLVES:

1. Knowledge Dissemination: Providing farmers with access to scientific information and techniques for better crop management.

2. Training Programs: Conducting workshops and training sessions to educate farmers on modern agricultural practices.

3. Technology Transfer: Facilitating the adoption of new technologies and innovations in farming. Overall, Vigyan Dhara aims to bridge the gap between scientific research and practical farming to enhance agricultural sustainability and productivity.

ISSUES

1. Implementation challenge: Inconsistent execution across different regions can lead to disparities in the quality and reach of the scheme's benefits.

2. Limited Outreach: The scheme may not adequately cover all areas, particularly remote or less developed regions where access to information and training is limited.

3. Farmer Engagement: Some farmers may be resistant to adopting new technologies or practices due to a lack of trust or perceived risk.

4. Resource Constraints: Insufficient funding or resources can hamper the ability to provide comprehensive training and support.

5. Coordination Issues: Effective coordination between different stakeholders, including government bodies and local organizations, is crucial but can sometimes be lacking. Addressing these issues involves improving implementation strategies, enhancing outreach efforts, and ensuring better resource allocation and coordination.

1. **Enhanced Implementation**: standardise procedures and practices to ensure uniformity in the execution of the scheme across different regions. Regular monitoring and evaluation can help identify and rectify inconsistencies.

2. **Broaden Outreach:** Develop targeted communication strategies and utilize local networks to reach remote or underserved areas. Partnerships with local organizations and community leaders can enhance coverage and engagement.

3. **Increase Farmer Engagement:** Build trust through participatory approaches, including involving farmers in the decision-making process and demonstrating the tangible benefits of new technologies. Providing incentives or support for early adopters can also encourage wider acceptance.

4. **Allocate Resources Effectively:** Ensure adequate funding and resources are allocated to the scheme. This includes investing in infrastructure, training materials, and personnel. Prioritize areas with the highest need to maximize impact.

5. **Improve Coordination:** Foster better coordination between various stakeholders, including government agencies, research institutions, and local organizations. Establish clear roles and communication channels to streamline efforts and avoid duplication.

6. **Feedback Mechanisms:** Implement robust feedback mechanisms to gather input from farmers and other stakeholders. This feedback can help refine the scheme and address any emerging challenges. By addressing these areas, the effectiveness of the Vigyan Dhara scheme can be significantly improved, leading to better outcomes for farmers and enhanced agricultural productivity.

CENSUS DELAY IN INDIA

Context:-Delays and challenges behind census in India.

REASON BEHIND CENSUS DELAY IN INDIA:-
ProductiviThe delay in the Indian census has been attributed to several factors:

1. **COVID-19 Pandemic:** The pandemic disrupted many aspects of administrative operations, including the census process. Fieldwork and data collection were significantly affected by lockdowns and health restrictions.

2. **Administrative and Logistical Challenges:** Conducting a census in a country as vast and diverse as India involves complex logistical planning and coordination. Issues such as inadequate infrastructure, bureaucratic delays, and the need for extensive training for enumerators can contribute to delays.

3. Funding and Resource Constraints: Budget constraints and resource allocation can impact the timely execution of the census. Financial and material resources are critical for conducting a comprehensive and accurate census.

4. Political and Social Factors: Political and social factors, including changes in government priorities, shifts in policies, and public concerns, can influence the timing and execution of the census. These factors combined have led to delays in the census, which is crucial for accurate demographic data and planning.

THE DELAY IN THE CENSUS POSES SEVERAL CHALLENGES:

1. Policy Planning and Allocation: Accurate demographic data is essential for effective policy-making and resource allocation. Delays hinder the ability of the government to make informed decisions about infrastructure, education, healthcare, and social services.

2. Representation and Political Impact: Census data affects the allocation of parliamentary seats and political representation. Delays can impact electoral boundaries and representation at various levels of government.

3. Economic and Social Programs: Programs and schemes targeted at specific population groups rely on up-to-date census data. Delays can affect the design and implementation of these programs, potentially leading to inefficiencies or inequities.

4. Research and Analysis: Researchers and analysts depend on census data for various studies and reports. Delayed data can slow down academic research, market analysis, and policy evaluations.

5. Administrative Challenges: Delays in the census can lead to issues in updating records and databases, complicating administrative processes and planning for future needs. Overall, timely census data is critical for effective governance and planning, and delays can have widespread implications across various sectors.

Way forward:- To address the challenges posed by the delay in the census in India, several steps can be taken:

1. Accelerated Data Collection: Implement measures to speed up data collection and processing. This could involve using advanced technology like digital data collection tools and mobile apps to streamline fieldwork and minimize delays.

2. Enhanced Coordination: Improve coordination between various government agencies and stakeholders involved in the census process. This includes better management of logistics, resources, and administrative tasks.

3. Increased Funding and Resources: Allocate sufficient funds and resources to support the census process. This includes investing in training for enumerators, upgrading infrastructure, and ensuring adequate support for data collection and analysis.

4. Public Awareness and Engagement: Launch campaigns to raise public awareness about the importance of the census and encourage participation. Ensuring that the public understands the significance of the census can improve response rates and data accuracy.

5. Addressing Technical and Logistical Issues: Identify and address any technical and logistical issues that may be causing delays. This could involve improving IT systems, enhancing data security, and ensuring reliable data collection methods.

6. Contingency Planning: Develop contingency plans to address any future disruptions or challenges. Having a flexible and adaptive strategy can help mitigate the impact of unforeseen issues on the census process. By focusing on these areas, India can work towards minimizing the impact of the census delay and ensure that the data collected is accurate and timely for effective planning and decision-making.

28-08-2024

HIMACHAL ASSEMBLY

PASSES BILL TO RAISE MARRIAGE

AGE OF WOMEN FROM 18 TO 21

The Himachal Pradesh Assembly has passed a bill that raises the minimum age of marriage for women from **18 to 21 years.**

The Prohibition of Child Marriage (Himachal Pradesh Amendment) Bill, 2024, introduced by Women Empowerment Minister Dhani Ram Shandil, was approved by voice vote. The bill amends the Prohibition of Child Marriage Act, 2006, which was originally aimed at preventing child marriages.

Focus on women's progress
The bill underlines the importance of delaying marriage to support women's career development and physical growth. It seeks to provide women with more opportunities to pursue higher education, thereby promoting gender equality.

Government's commitment to women's interests
Chief Minister Sukhwinder Singh Sukhu stressed that the bill reflects the government's commitment to serve the best interests of women.

He highlighted that Himachal Pradesh is the first state in India to enact such a law, with the Congress party leading the women empowerment initiative.

Cdsco approves manufacture of rt-pcr test kits for detecting mpox in india

The Central Drugs Standard Control Organisation has approved Siemens Healthineers to manufacture RT-PCR test kits for detecting mpox. The kits will be produced at the company's molecular diagnostics unit in Vadodara, which has an annual production capacity of one million units.

Faster test results with new RT-PCR kit

The new RT-PCR kit can deliver results in just 40 minutes, significantly reducing the turnaround time compared to conventional methods. This faster testing capability will enable faster response in detection and management of mpox cases.

Broad detection across viral strains

The IMDX Monkeypox Detection RT-PCR assay targets two regions in the viral genome, covering both Clade I and Clade II variants, ensuring broad detection.

The assay is compatible with existing lab workflows and can be used with existing COVID-19 testing infrastructure, thereby increasing overall efficiency.

Validated for accuracy

This test has been clinically validated by the Indian Council of Medical Research-National Institute of Virology, Pune with 100% sensitivity and specificity.

29-08-2024

THE FEDERAL
GOVERNMENT
DIRECTS STATES TO STRENGTHEN
HOSPITAL SECURITY PROTOCOLS

To stop violence against doctors and to protect their safety, the Center on Wednesday ordered the states to implement night patrols, security assessments of district hospitals, and access controls to large medical facilities

VIRTUAL GATHERING WITH IMPORTANT REPRESENTATIVES

Chief secretaries and director generals of police (DGPs) attended the virtual meeting, which was co-chaired by secretaries of the Union ministries of health and home.

THE NATIONAL TASK FORCE ON HEALTHCARE SAFETY AND HEALTH

The ten-member National Task Force (NTF), which was established by the Supreme Court, convened for the first time the day before this meeting to establish a policy for the protection and safety of healthcare workers. The task team made the decision to consult with other stakeholders more broadly.

REACTION TO ORDER OF THE SUPREME COURT

An official source stated that the meeting was held in response to the Supreme Court's order from August 22 to guarantee that certain fundamental minimum safeguards are implemented by state and union territory governments (UTs) while the NTF report is being received. The meeting was held to address the doctors' concerns regarding their safety at work.

UT AND STATE GOVERNMENTS' SECURITY PROTOCOLS

The representatives from the state and UT administrations briefed the Center during the meeting on the measures they had taken to improve security and create a safer working environment for healthcare professionals in public and private hospitals, medical schools, and other healthcare facilities.

IMPORTANT SECURITY MEASURES TALKED ABOUT

The source continued, "These included joint security audits at government district hospitals and medical colleges by district magistrates, the superintendent of police along with the dean or director of these institutions; police verification of contractual and outsourced employees working in government hospitals; and the provision of chief security officers in hospitals and medical colleges."

EXTRA SECURITY IMPROVEMENTS UNDER THE DIRECTION OF THE CENTER

The Center also asked officials from the state and union territory administrations to see to it that blind spots have CCTV cameras installed, that the revised locations under Bharatiya Nyaya Sanhita (BNS) are displayed, and that the "112" helpline for medical personnel in busy hospitals is integrated.

INDIA'S KNOWLEDGE OF
GEOGRAPHICALLY SPECIFIC NATURAL HAZARDS

India is becoming more conscious of the various location-specific natural risks it faces, each with a dynamic risk environment. These hazards stem from a confluence of local population vulnerabilities, weather events, and exposure. The greatest way to control and reduce risks is to respond with careful planning.

The role and challenges of the National Catastrophe Management Authority

The praise bestowed upon the National catastrophe Management Authority (NDMA) for its catastrophe response and assistance in mitigating casualties and property loss is well-earned. However, it also faces numerous knowledge gaps and obstacles in its efforts to enhance its operations in order to fulfill India's requirement of being climate-resilient and weather-ready.

Severe Meteorological Conditions in India

The majority of India's areas are already accustomed to expecting extreme weather conditions during all seasons, such as heatwaves, cyclones, torrential rains, wildfires, and landslides. Even though its forecasts of all meteorological risks are generally not as local (in scale) as necessary to plan catastrophe responses, the India Meteorological Department (IMD) makes an effort to stay up to date by improving them. Ability is continually improving.

Improving Predictive Skills via Investigation

Enhancing process and predictive understanding is crucial for bettering predictions, and this is facilitated by government research centers and academic institutions. Additionally, they keep creating and putting into practice cutting-edge methods for downscaling global, coarse-resolution forecasts to hyperlocal sizes for particular industries.

Trends in Regional Climate and Their Effects

Locally, the northern-central and peninsular regions of India experience trends in temperature that are cooler and warmer, respectively, due to climate change. However, this hardly indicates that heatwaves won't occur. In a similar vein, extremes in rainfall now happen not just during the June to September monsoon season but also in the days leading up to and following it. More landslides occur on poorly supported land as a result. There have also been reports of an increase in wildfires aggravated by harsh weather. It's not wholly normal to be vulnerable.

The Impact of Population and Economic Growth on Vulnerability

The demographic and economic growth of India is causing people to relocate into more dangerous areas, where they are setting up makeshift homes on shaky hillsides and in flood-prone areas. The state builds additional infrastructure in these areas and promotes other economic pursuits, such replacing forest cover with cash crops and plantations, as a result of the more exotic locations drawing more tourists.

Wayanad's Latest Landslides: A Deadly Mix of Factors

These variables together are extremely deadly, as demonstrated by the recent landslides in Wayanad.

The Effects of Inadequate Infrastructure and Poverty on Vulnerability

When poverty and high population density are combined with inadequate infrastructure in some areas and risky development in others, the result is vulnerability. Policies and/or insurance coverage may also be encouraging people to expand their exposure to climate dangers, which may be considered a moral hazard.

Challenges in Translating Forecasts into Action

India is still making significant investments in climate services, forecasting, and research. Forecasts are turned into support for decision-making in a variety of industries, including transportation, healthcare, agriculture, and the management of water and energy resources. However, because it is either not as sector- or location-specific as it needs to be, or because there aren't enough individuals with the necessary abilities to use it, the acceptance of this information has been astonishingly low.
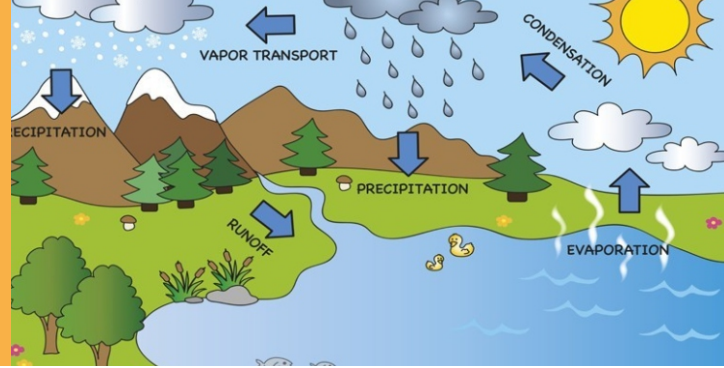
Extending the Limits of Hyperlocal Prediction

Scholars and numerous commercial enterprises persist in pushing the boundaries of converting IMD forecasts into hyperlocal scales and enhancing the abilities to provide users with value-added solutions. Operationalizing products or delivering them in a timely and regular manner remains a significant challenge, even in cases when they are produced at the scales and skill levels necessary.

An Illustration of Water Advisories and Their Effects

This issue is demonstrated by two instances

Advisories for irrigation: Weather forecasts are often converted into information relevant to farms, allowing for the management of irrigation from days 1 through 5 and water arrangements for up to 14 days. In order to use rainfall projections to determine whether there is enough water for irrigation and what the best schedule is, experts integrate data on soil conditions, crop types, water requirements, and crop stress with input from farmers regarding their irrigation techniques.

The Requirement for Irrigation Tool Operationalization at a Large Scale

One such decision-support tool that was created for grape growers in the Nashik district included the author.

It was discovered through co-developing this solution with farmers that up to 30% of water can be saved without affecting crop productivity in either the rabi or kharif seasons.
Large-scale operationalization is now necessary in order to develop the instrument.

Cooperation between Farmers and NGOs to Ensure Successful Implementation

Farmers must utilize this tool to record the effectiveness and suitability of irrigation advisories over a period of years. This is intended to take the shape of an app that will allow farmers to access data and give the researchers ongoing input. These comments will help the researchers upgrade the tool for use with different crops and geographical areas.
However, enlisting a sizable number of farmers and creating the app necessitates the cooperation of NGOs, local governments, and cooperatives or farmers' organizations.

Extension Services' Function in Linking Theory and Practice

This falls under the jurisdiction of extension services, which, if they exist, could apply research to farming practices on a daily, weekly, and seasonal basis.
However, neither such bodies exist nor are we educating or training anyone to work for them. In addition, we do not have the financial mechanisms needed to establish research-to-operation initiatives.

The Value of Giving Farmers Access to Vital Information

Simultaneously, there is an unfulfilled demand to provide impoverished farmers with the crop data and soil moisture they require to schedule irrigation. Any proposal to guarantee a minimum income for farmers or to treble their income will be impossible without these mechanisms and capabilities.

An Illustration of Urban Flood Prediction and Its Difficulties

(ii) Forecasts of urban flooding: In order to prevent flooding, forecasts of intense precipitation at street level in cities must be scaled back. Currently, data from weather stations and inputs from municipal sensors are used by municipalities to accomplish this.

Dependability in Flood Management Systems Is Essential

To ensure that a downscaled forecast is actionable, flood managers should, in the best case scenario, evaluate forecasts over a few seasons. They should then plan the allocation and operation of drainage pumps, traffic control units, bus/train routes, school closures, etc.

Obstacles in Urban Flood Control and Forecast Execution

In this case, the flood managers have to be dependable staff members of a government agency, non-governmental organization, or commercial company that monitors forecasts and their inherent biases in addition to human activities that worsen water-logging.

Once more, we are unable to fully apply downscaled forecasts to urban flood management and flood risk mitigation due to both academic setups and urban government structures.

From investigations to management

Currently, there is not enough study on climate change to inform operations in a timely manner. Its objectives have changed from being research papers and PhDs to meeting people's needs through integrating science into society. It is essential to governments and entities responsible for disaster management. As previously mentioned, we blatantly require extension agents with industry expertise to serve as a link between administrative businesses and research. These intermediaries will facilitate the joint development of practical solutions to prepare India for the weather.

Since the country will only be as prepared and resilient as its weakest link, weather readiness and climate resilience actually need to be hyperlocal. The research-to-operations systems needed at each location and in each sector must be continuously financed in order to achieve this.

Additionally, we must give capacity-building a high priority. This entails training extension agents with specialized knowledge of a certain industry to manage the impact of cultural quirks on risk reduction and catastrophe management while also speaking local languages. If you're thinking that this is a difficult undertaking, keep in mind that it's also vital to guarantee that India's development is sustainable and that everyone is safe and secure, even from the effects of climate change.

31st WMCC
CONFERENCE BETWEEN
CHINA AND INDIA
TO RESOLVE DIFFICULTIES

Beijing hosts the 31st WMCC meeting between China and India.

At the 31st meeting of the Working Mechanism for Consultation & Coordination on India-China Border Affairs (WMCC) in Beijing on Thursday, India and China engaged in a "frank, constructive and forward-looking exchange of views" regarding the situation along the Line of Actual Control (LAC) in an effort to "narrow down the differences" and find a "early resolution" of the outstanding issues, according to a statement from the Ministry of External Affairs (MEA).

Reaction to the Previous WMCC Meeting
Although there were no military discussions at the Corps Commander level in between the two meetings, the 30th WMCC conference, which took place on July 31, is held less than a month ago from this one.

Transparent and Prospective Conversations on LAC
"Building on the results of the WMCC meeting last month, and in accordance with the directives given by the two Foreign Ministers' meetings in Astana and Vientiane in July 2024 to expedite their discussion, the two sides engaged in an open, positive, and forward-looking exchange of views on the situation along the LAC in order to reduce disagreements and find an early resolution of outstanding issues. In light of this, they also decided to step up communication via military and diplomatic channels, according to the statement.

Dedicated to Maintaining Calm and Peace in Boundary Regions
Hong Liang, Director General of the Boundary & Ocean Affairs Department of the Chinese Ministry of Foreign Affairs, headed the Chinese mission, while Gourangalal Das, Joint Secretary (East Asia) in the MEA, led the Indian team. In compliance with pertinent bilateral agreements, protocols, and understandings achieved between the two governments, both parties resolved to "jointly uphold" peace and tranquility on the ground in border areas. According to the MEA, "it was emphasized that the restoration of calm and peace, as well as respect for the LAC, are the essential basis for the restoration of normalcy in bilateral relations."

High-Level Consultations Between the Foreign Ministers of China and India Lately

S. Jaishankar, the minister of external affairs, and Wang Yi, the counterpart from China, have met twice in the past two months: last week in Vientiane, Laos, and on the fringes of the Shanghai Cooperation Organization meeting in Kazakhstan in July. They emphasized that there is a four-year military standoff at the LAC that needs to be resolved with "purpose and urgency." The two nations have been engaged in WMCC and Corps Commander-level negotiations in an attempt to end the standoff near the Ladakh–Arunachal frontier.

Initiatives in biotechnology require long-term financial commitments.

Cabinet Authorizes BioE3: An Innovative Biotechnology Project

The Cabinet approved a proposal earlier this week dubbed BioE3, or Biotechnology for Economy, Environment, and Employment, however it did not include a budget. Its main goal is to increase biotechnology industry manufacturing.

India's Legacy and Contributions in Biotechnology

India has had a biotechnology department since 1986, and they deserve a lot of praise for that. For example, this department's efforts have led to advancements in biologicals, diagnostics, and vaccine research, which have strengthened India's standing as a "vaccine factory."

An Industrialized Biotechnology Sector Is Required

Still, biotechnology did not quite give rise to the IT revolution's equivalency. An industrialized biotechnology sector encompasses much more than just vaccinations. Today, high-value microorganisms, gene-modification technologies, bio-plastics, biomaterials, and high-precision medical devices form the foundation of multi billion dollar companies.

Indian Biotechnology Companies Face Difficulties

Nevertheless, despite their expertise and human resources, only a small number of Indian biotechs are well-known worldwide since there aren't many local producers willing to provide Indian labs and startups with the materials and equipment they need to produce goods. India's reliance on imports causes it to become less competitive globally. This is what the BioE3 policy seeks to address.

Public-Private Partnerships Can Help Increase Biotech Manufacturing

India has supported biotech research institutes for the past forty years, but it now realizes that in order to support biotechnology manufacturing, it must go above and beyond and establish businesses through public-private partnerships. This effort envisions six verticals: carbon capture, precision biotherapeutics, climate-resilient agriculture, functional foods and smart proteins, bio-based chemicals and enzymes, and futuristic marine and space research.

The Place of Biotechnology in a Post-Fossil Fuel Economy
According to futurists, the days of industrialization based on fossil fuels are coming to an end, and humans will once again need to rely on nature to produce goods for consumption and nourishment. This will address the worldwide issue of carbon emissions and non-biodegradable garbage. Environmentally friendly products are the foundation of future industries, and this cannot be achieved without advanced biotechnology.

Establishing Biotechnologists' Collaborative Environments
The policy aims to create spaces where different kinds of biotechnologists can gather by establishing bio-foundries and bio-artificial intelligence hubs. Despite its good intentions, there are long-term reasons for India's industrial problems. Top-down measures will not have much of an impact unless they create conditions that are favorable to long-term capital investment, and these conditions are not specifically related to biotechnology.

Implementing the BioE3 Policy Faces Difficulties

The Center and States must work closely together to develop the BioE3 policy. The government needs to invest in long-term infrastructure and financial support rather than expecting fast profits.