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US-China Science and Technology Cooperation Agreement

Context: Recently, the United States and China renewed their Science and Technology Cooperation Agreement (STA) for an additional five years. The agreement was effective from August 27, 2024. This renewal signifies ongoing commitment to science and technology collaboration between the two countries despite tensions in other areas such as trade and technology.

- The renewal also addresses emerging concerns about intellectual property rights and national security. The STA, first signed in 1979, is a bilateral agreement aimed at fostering cooperation in various scientific and technological fields between the U.S. and China.
- Initially focused on agricultural research, the scope of the agreement has expanded to include multiple areas of research, promoting collaboration between researchers, universities, and institutions from both countries.

Key Changes in this new Agreement:

The amended agreement includes several key changes:

- **Limitation to basic research:** The collaboration will now be restricted to basic research, excluding critical and emerging technologies to avoid the risk of sensitive technologies benefiting military or strategic interests.
- **Enhanced provisions for researcher safety:** Measures have been introduced to ensure the safety and security of researchers engaged in cooperative projects.
- **Data reciprocity and transparency:** New provisions have been added to ensure fair and transparent sharing of data between the two countries.
- **Dispute resolution mechanism:** A mechanism for resolving disagreements or violations of the agreement has been included.
- **Termination clause:** The agreement now includes provisions to cancel projects if one party acts in "bad faith."

How has the agreement benefited both the U.S. and China?

- The STA has been mutually beneficial, facilitating U.S. access to China's rapidly growing research ecosystem, fostering joint research in fields such as agriculture,

health, and environmental science. For China, the agreement has provided access to U.S. technology, significantly contributing to its rise as a global science and technology leader.

- It has also fostered educational exchanges and joint research ventures, which have expanded the global reach of both nations' scientific communities.

Implications for India:

- **Increased Competition in R&D:**
 - » China's growing strength in science and technology makes it a bigger competitor for India.
 - » India will need to invest more in research and development to stay competitive and keep up with technological progress.
- **Geopolitical Leverage:**
 - » India's relationships with the U.S. and other countries may change as the U.S. deals with its ties to China.
 - » This could affect India's role in global politics and its partnerships with other countries.
- **Opportunity for Strategic Collaboration:**
 - » India's growing research and strong agreements with other countries can make it a good partner for the U.S. and other nations that want to work with someone other than China.
 - » This could help India improve its scientific reputation and provide access to new technologies and research opportunities.

Ken-Betwa River Linking Project

Context: On December 25, Prime Minister Narendra Modi laid the Foundation Stone for the Ken-Betwa River Interlinking Project at Khajuraho, Madhya Pradesh. The memorandum of agreement for the implementation of the Ken-Betwa River Linking Project was signed on March 22, 2021, among the Ministry of Jal Shakti and the governments of Madhya Pradesh and Uttar Pradesh.

About Ken-Betwa River Linking Project:

- The Ken-Betwa River Linking Project (KBLP) aims to transfer water from the Ken river to the Betwa river, both tributaries of the Yamuna. This project will involve the construction of a 221 km long canal, including a 2 km tunnel, and aims to provide irrigation, drinking

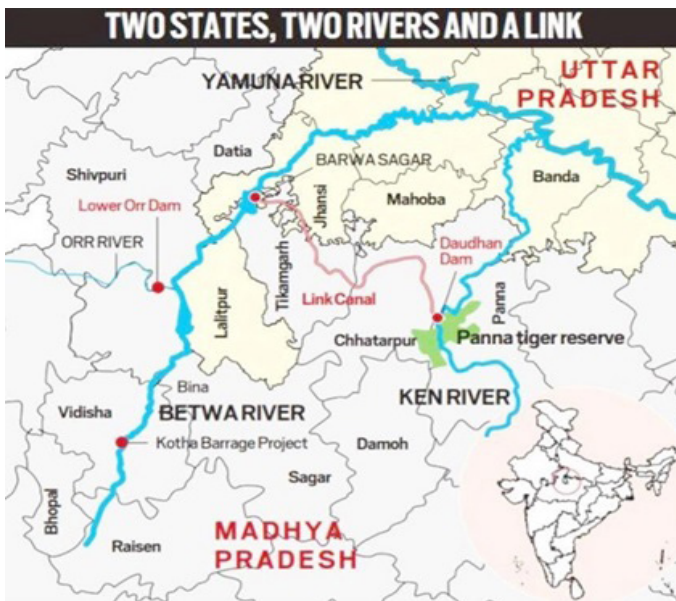
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water, and generate hydropower and solar energy.

- The Ken-Betwa project is part of the National Perspective Plan, aimed at addressing regional water scarcity through river interlinking. The project is seen as a step toward enhancing water availability in drought-prone regions and promoting equitable water distribution across states.



Components of the Ken-Betwa river linking project:

The project is divided into two phases:

- **Phase-I:** Involves the construction of the Daudhan Dam, Low and High-Level Tunnels, the Ken-Betwa Link Canal, and associated powerhouses.
- **Phase-II:** Includes the construction of the Lower Orr Dam, the Bina Complex Project, and the Kotha Barrage.

Benefits of Ken-Betwa project:

- The project is expected to benefit water-scarce regions in the Bundelkhand area, covering parts of Uttar Pradesh and Madhya Pradesh. It will provide irrigation for 10.62 lakh hectares of land, supply drinking water to around 62 lakh people, and generate 103 MW of hydropower and 27 MW of solar power.

Environmental concerns are associated with the Project:

- **Deforestation:** The construction of the Daudhan Dam

will require large-scale deforestation inside the Panna Tiger Reserve, impacting wildlife habitats.

- **Impact on Tigers:** The project could reverse the successful reintroduction of tigers in the Panna Tiger Reserve.
- **Impact on Gharials and other species:** The dam's construction is likely to affect the Gharial population in the Ken Gharial Sanctuary and vulture nesting sites.
- **Submergence of land:** The dam will submerge approximately 98 sq km of Panna National Park and affect local communities, displacing over 6,600 families.

Social impacts of the Ken-Betwa project

- The project will displace over 6,600 families from the Panna and Chhatarpur districts due to land submergence and acquisition. This has led to protests from local communities regarding inadequate compensation and the perceived lack of benefits for the affected regions.

Women-Led Startups in India

Context: India has made remarkable progress in promoting women's participation in the startup ecosystem. According to the Ministry of Commerce and Industry, over 73,000 startups in India have at least one woman director, accounting for nearly half of the 157,000 startups officially recognized under the Startup India initiative. This milestone highlights the growing influence of women entrepreneurs who are driving innovation and contributing to the country's economic growth.

Key Government Initiatives Supporting Women Entrepreneurs:

- The Indian government has implemented several initiatives to support women-led startups, ensuring that women entrepreneurs have the resources to succeed. Here are some key programs:
 - » **Startup India Seed Fund Scheme (SISFS):** Launched in April 2021, the SISFS has approved ₹227.12 crore in funding for 1,278 women-led startups. This initiative is crucial for providing early-stage capital to women entrepreneurs, enabling them to scale their businesses and create innovative solutions.
 - » **Credit Guarantee Scheme for Startups (CGSS):** The CGSS, launched in April 2023, has guaranteed

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₹24.6 crore in loans for women-led startups. This program makes it easier for women entrepreneurs to access financing by providing credit guarantees to lenders, ensuring that women-led ventures can secure the necessary capital to grow.

- » **Fund of Funds for Startups (FFS):** The FFS reserves 10% of its total allocation for women-led startups. This initiative is designed to promote growth and innovation in startups, particularly those led by women, by providing financial backing to promising ventures.
- Additionally, the Startup India Programme, launched in 2016, offers several benefits to women entrepreneurs, including tax exemptions, streamlined processes, and funding support. The SAMRIDH scheme, introduced in 2021, further bolsters support by allocating ₹99 crore to assist 300 software product startups over four years.



Factors Driving the Growth of Startups in India

- **Technological Advancements:** Innovations in AI, blockchain, and IoT are being harnessed by startups to solve local and global challenges.
- **Government Support:** The Startup India initiative provides tax benefits, sector-specific policies, and streamlined processes, helping startups thrive.
- **Demographic Advantage:** With a youthful workforce and widespread access to affordable internet, cities like Bengaluru, Hyderabad, and Delhi-NCR have become innovation hubs.

Impact on the Economy:

Indian startups, including those led by women, have significantly impacted the economy:

- **Job Creation:** Startups have created 1.6 million jobs nationwide.
- **GDP Growth:** They contribute to economic growth

through innovation and business activities.

- **Attracting Investments:** Indian startups continue to attract international VC and PE investments.
- **Rural Development:** Many startups, particularly social enterprises, have driven rural development, creating positive social change across India.

Malaria Free India

Context: India has made significant progress in combating malaria over the past 75 years. From 75 million cases at independence, the number of annual malaria cases has decreased to 20 lakh (2 million) in 2023. This decline highlights India's dedication to eradicating malaria, aiming for a malaria-free status within the next five years, as stated by the Union Ministry of Health and Family Welfare.

Decline in Malaria Deaths:

- The reduction in malaria cases has been accompanied by a drastic decrease in deaths. From 800,000 annual deaths at independence, the number has fallen to just 83 in 2023. This remarkable drop in mortality reflects the effectiveness of India's comprehensive approach to malaria control.

Key Success Factors:

- **Government Initiatives:** Central to India's success has been strong government action, including the launch of the National Framework for Malaria Elimination (2016-2030) and the National Strategic Plan for Malaria Elimination (2017-2022). These plans focused on strengthening surveillance, improving diagnostics, and scaling up treatment across the nation.
- **Increased Funding and Support:** The government has significantly increased funding for malaria control programs. International organizations like Malaria No More have also played a key role, partnering with India to accelerate malaria elimination efforts.
- **Improved Healthcare Access:** Better healthcare infrastructure and mobile health services, especially in rural and tribal areas, have ensured timely treatment and preventive measures, reducing malaria cases in high-risk regions.

States' Progress and WHO's Role:

- As of 2023, 24 states and UTs have reached Category 1,

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with less than 1 malaria case per 1,000 people. Ladakh, Lakshadweep, and Puducherry have achieved Category 0, reporting zero indigenous cases.

- The WHO recognized India's progress by removing it from the High Burden to High Impact (HBHI) group, marking a major milestone in the nation's fight against malaria.

About Malaria:

- Malaria is an acute illness caused by Plasmodium parasites, transmitted through bites of infected female Anopheles mosquitoes. It is a life-threatening disease common in tropical regions.
- **Transmission:** Malaria is not contagious. It spreads

through mosquito bites. The main parasites causing malaria are Plasmodium falciparum and Plasmodium vivax.

- **Symptoms:** Symptoms appear 10-15 days after a mosquito bite, including fever, headache, and chills. In endemic areas, people with partial immunity may have no symptoms despite infection.
- **Prevention:** Vector control is key to preventing malaria and reducing transmission.
- **Treatment:** Malaria is preventable and curable. Early diagnosis and treatment reduce disease, prevent deaths, and decrease transmission.

Power Packed News

Aisake Valu Eke becomes the new Prime Minister of Tonga

- Former Finance Minister Aisake Valu Eke has been elected as the new Prime Minister of Tonga. He will hold the post until November 2025.
- He was elected through a secret ballot in Parliament. Eke first entered Parliament in 2010 and served as Finance Minister between 2014 and 2017. Tonga, which has a population of about 105,000, is a small South Pacific island nation. The next general election will be held in November 2025.
- Siaosi Sowelani, who had been Prime Minister since 2021, resigned before facing a no-confidence motion tabled by Ake. Tonga changed its constitution in 2006 after pro-democracy protests, bringing transparency to the selection process for the post of Prime Minister.
- Eke's selection comes at a time when the country needs political stability and economic growth. Given his experience as Finance Minister and long tenure in Parliament, he is expected to take Tonga forward towards stability and development.



Appointment of new governors in five states

- President Draupadi Murmu has appointed new governors in five states. Ajay Kumar Bhalla, who was the former Home Secretary of India, has now been appointed as the Governor of Manipur.
- Mizoram Governor Dr. Hari Babu Kambhampati has been made the new Governor of Odisha, while the current Governor of Odisha Raghubar Das resigned.
- Former Union Minister General Vijay Kumar Singh has been appointed as the Governor of Mizoram. At the same time, Bihar Governor Rajendra Vishwanath Arlekar has been made the Governor of Kerala. Arlekar has replaced Arif Mohammad Khan, who has now been appointed as the Governor of Bihar.
- This reshuffle has been done with the aim of ensuring political balance and administrative efficiency in the federal structure of India. The new governors are expected to play a key role in maintaining law and order in their states, increasing cooperation between the central and state governments and accelerating development work.



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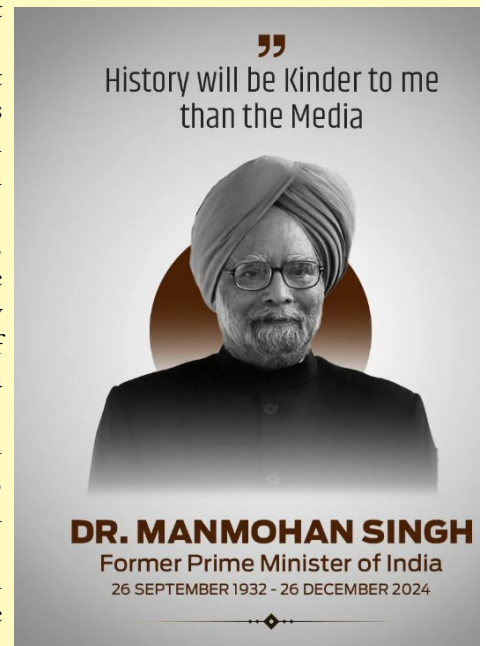
Arunish Chawla becomes Revenue Secretary

- Arunish Chawla has been appointed as the new Revenue Secretary of India. He is a Bihar cadre IAS officer and was earlier serving as the Pharmaceutical Secretary. He replaced Sanjay Malhotra, who is now the Governor of the Reserve Bank of India. Chawla will retire in July 2028.
- As Revenue Secretary, Chawla will now also be the ex-officio Secretary of the GST Council. His appointment comes at a time when the government needs to increase revenue collection and implement reforms in GST.
- Chawla's experience and administrative skills will help make the tax system more effective and transparent.
- Amit Agarwal has been appointed in place of Chawla as Pharmaceutical Secretary. Agarwal is currently the Chief Executive Officer of the Unique Identification Authority of India (UIDAI). His appointment is expected to give impetus to new schemes and policies in the health and medicine sector.



Former Prime Minister Dr. Manmohan Singh passed away

- Former Prime Minister Dr. Manmohan Singh passed away on the night of 26 December 2024. He was 92 years old. Manmohan Singh became the 14th Prime Minister of the country in 2004. He was the first Sikh and the fourth longest-serving Prime Minister of the country.
- Dr. Manmohan Singh was born on 26 September 1932 in village Gah, West Punjab, Punjab province of undivided India. In 1954, he received a master's degree in economics from Punjab University and in 1957, a first-class Tripos in economics from Cambridge University. In 1962, Oxford University awarded him the degree of D.Phil.
- Dr. Manmohan Singh started his career as a senior lecturer at Punjab University, Chandigarh and later became a professor of economics there. In 1969, he became a professor of international trade at the Delhi School of Economics, University of Delhi. After this, he took over the post of economic advisor in the Ministry of Foreign Trade in 1971. He was also the Governor of the Reserve Bank of India from 1982 to 1985.
- Dr. Manmohan Singh was the Finance Minister of India from 1991-1996, when he took major steps to improve the Indian economy. He devalued the rupee, reduced taxes and encouraged foreign investment. These reforms strengthened India's weak economy.
- Dr. Manmohan Singh was elected Prime Minister in 2004 after the Indian National Congress won the elections. His government focused on inclusive growth, poverty reduction and economic expansion. India's average GDP growth rate during his tenure was 7.7%.
- Dr. Singh received many prestigious awards, prominent among which are the Padma Vibhushan in 1987 and the Euromoney Award in 1993.



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