

HOW ICMR IS REWIRING THE HEALTH ECOSYSTEM

- As India marches toward Viksit Bharat 2047, the health sector faces a fundamental question: how to build a system that is not merely reactive, but **anticipatory, equitable, and innovation-driven**.
- The Indian Council of Medical Research (ICMR) — India's apex biomedical research body — has responded with a series of structural and strategic reforms, drawing lessons from COVID-19 and aligning science with national public health priorities.

Strategic Reorientation: From Silos to Systems

- **Institutional Restructuring**
 - ICMR has expanded the mandates of several of its institutes, repositioning them as interdisciplinary hubs rather than narrowly focused entities.
 - Key domains now include digital health and data science, child health, and women's health — areas that reflect India's evolving disease burden and technological capabilities.
- **Regional Research Network**
 - A network of **National Institutes of Health Research (NIHRs)** is being created across the country — from Dibrugarh in the Northeast to Jodhpur in the West.
 - These institutes will embed themselves within state and district health systems to conduct operational research that is both locally relevant and practically actionable.
- **From Projects to Solutions**
 - The funding ecosystem is being redesigned to move beyond piecemeal project support toward an integrated research continuum — one that funds solutions, not just studies.
 - The **National Health Research Programme (NHRP)** anchors this shift by identifying 13 priority areas including antimicrobial resistance (AMR), tuberculosis, mental health, nutrition, and emergency care.

Technology as a Transformative Force

- **AI in Diagnostics and Surveillance**
 - AI-enabled tools are already supporting frontline health workers — notably in **tuberculosis screening, diabetic retinopathy detection**, and nutritional monitoring. This is helping bridge the longstanding urban-rural healthcare divide.
- **Innovation at the Frontier**
 - The **i-Drone initiative** — initially used for vaccine delivery — has expanded to transport critical medical supplies, demonstrating how technology can overcome geographic barriers.
 - Advances across **medtech**, from medical devices to next-generation vaccines and therapeutics, are enabling more targeted, patient-centric interventions.
- **From Lab to Market**
 - Platforms like **MedTechMitra** and the **Medical Innovations-Patent Mitra** initiative are accelerating the journey from publicly funded research to affordable, accessible commercial products.
 - The integration of traditional knowledge systems with evidence-based models is also gaining international recognition.

The Road to 2047

- ICMR's vision is to serve as a catalyst — connecting researchers, clinicians, policymakers, and industry.
- The roadmap to 2047 will be defined by advances in digital health, biomanufacturing, and sustainable development, with strong emphasis on capacity building and global collaboration.

Conclusion

- ICMR's reimagination — from a research body to a **national health intelligence system** — reflects a mature understanding that science must serve society.
- When data meets decisions and innovation meets equity, the aspiration of a healthy, developed India becomes genuinely achievable.

ZOJILA TUNNEL BREAKTHROUGH - TRANSFORMING LADAKH CONNECTIVITY AND HIMALAYAN ENGINEERING

- It will be **India's longest** road tunnel and is expected to be Asia's longest bi-directional road tunnel, with a length of **14.15 km**. It is being constructed at an estimated cost of ₹6,500–6,800 crore.
- The project forms part of a larger 33-km connectivity corridor spanning Jammu & Kashmir and Ladakh.
- It includes expansion and development of the 18.475-km Z-Morh–Zojila highway stretch, two twin-tube tunnels, five bridges, and two snow galleries.
- The tunnel is one among 19 tunnels being built in the region under projects worth nearly ₹25,000 crore.

Overcoming seasonal isolation:

- The Srinagar–Leh route currently passes through the **Zojila Pass**, one of the most difficult mountain passes in the Himalayas.
- Heavy snowfall, avalanches, landslides, and slippery roads force closure of the pass for nearly five months annually.
- During winter, Ladakh remains dependent largely on air connectivity, leading to extremely high transportation costs.
- **Strategic importance:**
 - Ladakh shares **sensitive borders** with both China and Pakistan.
 - The tunnel will ensure uninterrupted movement of troops, military equipment, and essential supplies.
 - It strengthens India's **border management** and logistical preparedness.

Challenges of Tunnelling Through the Himalayas:

- **Extreme climatic conditions:** High altitude, where temperatures can plunge to -30°C , affecting both workers and machinery. Frequent avalanches pose serious risks to life and infrastructure.

- **Geological complexity of the Himalayas:**
 - **Young and active mountains:** The Himalayas are a young fold mountain system, formed by the collision of the Indian and Eurasian tectonic plates. They remain tectonically active and geologically unstable.
 - **Highly variable rock strata:** Rock formations can change dramatically within short distances. Engineers encounter soft sedimentary rocks, hard boulders, cavities, faults, shear zones, and water-bearing fractures.
 - **Water ingress risks:** The mountains contain large quantities of groundwater and snowmelt channels. Sudden water inflows can flood excavation sites, destabilize rock formations, and increase collapse risks.

Engineering Solution:

- **New Austrian Tunnelling Method (NATM):**
 - The Zojila Tunnel is being excavated using the NATM, widely regarded as suitable for difficult geological conditions.
 - **Key features:**
 - Selective and controlled blasting.
 - Excavation in stages (upper half first, lower half later).
 - Continuous monitoring of rock behaviour.
 - **Adaptive design approach:**
 - Tunnel alignment can be modified to bypass weak geological zones.
 - The number and spacing of rock bolts are adjusted according to rock quality.
 - Drainage pipes are installed to safely release groundwater pressure.

Conclusion:

- The Zojila Tunnel represents a **landmark achievement** in Himalayan infrastructure development, combining strategic necessity with advanced engineering.
- It is poised to become a **transformative asset** for both regional development and national integration.

RECORD REMITTANCES OF \$110 BILLION IN 2025-26

- Remittances are money transfers made by migrant workers and overseas nationals to their families and home countries.
- They represent one of the largest sources of foreign exchange for developing economies and play a vital role in supporting household consumption, savings, and investment.

Categories of Inflows

- In India's Balance of Payments (BoP) accounting, the term commonly referred to as "remittances" actually includes two distinct categories:
- **Workers' Remittances**
 - Money sent home by Indians working abroad.
 - These are part of the current account of the BoP.
 - Reflect the genuine flow of earned income from migrant workers.
- **Private Transfers (Broader Category)**
 - Includes workers' remittances (more than two-thirds of the total).
 - Plus withdrawals from non-resident deposits and redemptions.
 - Personal gifts and donations, including to religious and charitable institutions.
 - Gold and silver brought through passenger baggage.

Significance of Remittances for India

- Largest recipient globally: India has been the world's largest recipient of remittances for several years.
- Supports current account: Remittances help offset the trade deficit.
- Foreign exchange buffer: They cushion the economy against capital outflows.
- Household welfare: Support consumption, education, healthcare, and housing for millions of families.
- Rural economy: Significant contribution to states like Kerala, Tamil Nadu, Punjab, and Uttar Pradesh.

- **AI Threat to Remittances**

- A new concern emerging is the impact of Artificial Intelligence (AI) adoption on employment in advanced economies:
 - The US and UK, increasing contributors to India's remittances, are grappling with AI's impact on current and future employment.
 - Job displacement in skilled sectors could reduce future remittance flows.
 - Indian IT and white-collar workers abroad may face increased competition.

Significance

- **Resilience of the Indian Diaspora**

- The Indian diaspora, estimated at over 32 million worldwide, has proven to be a reliable source of foreign exchange. Their contributions reflect:
 - Strong family ties with India.
 - Cultural commitment to supporting families back home.
 - Confidence in the Indian economy.

- **Shift Toward Skilled Migration**

- The growing share of remittances from advanced economies indicates that:
 - More highly skilled Indians are working abroad in IT, finance, healthcare, and academia.
 - Higher earnings per worker translate to larger remittances.
 - However, this also reflects the brain drain challenge for India.

- **Geographic Diversification**

- The reduced dependence on the Gulf region:
 - Reduces vulnerability to oil price shocks and regional conflicts.
 - Aligns with India's diaspora policy to engage with diverse global communities.

C-295 AIRCRAFT



- It is a new-generation medium **tactical military transport aircraft**.
- It is a **reliable and highly versatile tactical transport** that is tailored for missions that range from carrying troops and cargo, maritime patrol, airborne warning, surveillance and reconnaissance to signals intelligence, armed close air support, medical evacuation, **Air-to-Air refueling**.
- **Features:**
 - The aircraft, with a **flight endurance of up to 11 hours**, can function under all weather conditions.
 - It is capable of carrying up to **nine tonnes of payload**.
 - The C295 is designed to provide outstanding low-level flight characteristics for tactical missions, flying at speeds as slow as 110 knots.
 - It is powered by two **turboprop engines**.
 - It has **short take-off and landing (STOL) characteristics** and the ability to use unprepared airstrips.

INTERNATIONAL LABOUR CONFERENCE



- It is the **supreme deliberative and decision making body** of the International Labour Organization.
- The **Conference meets annually**, bringing together **tripartite delegations** from the Organization's 187 Member States and a number of observers.
- **Tripartite Delegation:** Each national delegation has a minimal composition of two **Government one Employers' and one Worker delegates** (2-1-1). The Government, Employers' and Workers' delegates participate and vote independently.

Role of the International Labour Conference:

- **Crafting and adoption** of international labour standards (Conventions and Recommendations);
- **Supervision of the application** of standards through its Committee on the Application of Standards;
- **Approval of the biennial programme** and budget of the Organization and the allocation of expenses among Member States;
- Election of the members of the Governing Body;
- **Admission of new Member States** which are not members of the United Nations;
- Discussion on the reports of the Director-General and the Chairperson of the Governing Body;
- Adoption of resolutions that provide guidelines for the ILO's general policy and future activities.

WHAT IS RISA: TIMELESS TRIBAL?



- It is a dedicated premium brand for tribal textiles, embroideries, and handicrafts.
- It was launched by the Ministry of Tribal Affairs, through the Tribal Cooperative Marketing Development Federation of India (TRIFED).
- The RISA initiative has been conceptualized:
 - to create a **distinct brand identity for tribal products**
 - **strengthen market linkages** for tribal artisans
 - **facilitate design development** and product diversification, and
 - **promote tribal heritage in premium domestic and international markets.**

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- It seeks to generate enhanced livelihood opportunities for tribal artisans while ensuring the preservation of traditional crafts and indigenous knowledge.
 - As part of the **first phase** of implementation, **seven tribal textile and embroidery traditions** have been identified based on their cultural significance and market potential.
 - These include **Eri Silk and Muga Silk of Assam, Santal Cotton of Jharkhand, Changpa Pashmina of Ladakh, Kotpad Cotton and Dongria Embroidery of Odisha, and Toda Embroidery of Tamil Nadu.**
 - The **first phase** also includes focused promotion of selected **tribal handicrafts**, namely **Longpi Pottery of Manipur, Turtuk Brass Cutlery of Ladakh, and Dokhra Art of Chhattisgarh.**
 - To facilitate design interventions and product development, **eminent fashion designers have been associated** with the initiative.
 - The initiative is being **implemented through the National Design Centre (NDC)**, an **autonomous organisation under the Ministry of Textiles.**
 - The project encompasses **design development, creation of garment prototypes, capacity building** of tribal weavers and artisans, **establishment of stitching facilities**, strengthening of weaving and handicraft clusters, and **improvement of product presentation and packaging.**
 - The **National Institute of Design (NID), Haryana**, has been engaged for the **development** of premium and environmentally **sustainable packaging solutions** for products marketed under the RISA brand.
 - **First exclusive RISA Store:** Gallery No 2, Rajiv Gandhi Handicrafts Bhawan, Connaught Place, New Delhi.
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