SUSTAIN GLOBAL AGRICULTURAL INNOVATION - ECONOMY

NEWS: The International Maize and Wheat Improvement Center (CIMMYT) is currently facing a severe funding crisis and is turning to India for financial support to sustain its global agricultural research efforts.

WHAT'S IN THE NEWS?

USAID's Withdrawal and Funding Crisis for CIMMYT

- Major Financial Contributor:
 - In 2024, the United States Agency for International Development (USAID) contributed approximately \$83 million, which accounted for nearly 40% of CIMMYT's \$211 million annual budget.
- Crisis Triggered by USAID's Exit:
 - USAID's **cessation of operations** has created a substantial funding gap, threatening the continuity of global agricultural R&D, particularly in the Global South.
 - CIMMYT warns that the impact of this withdrawal will be **felt acutely after 2026**, potentially slowing innovation in climate-resilient crop research.
- Call for Global Contributions:
 - CIMMYT is now looking to **nations like India**, which have **directly benefited** from its research outputs, to **step up their financial contributions**.

About CIMMYT - Its History and Global Legacy

- Foundation and Evolution:
 - Established in **1966**, headquartered in **Mexico**, CIMMYT (International Maize and Wheat Improvement Center) evolved from a **Rockefeller Foundation–Mexican government collaboration** dating back to the 1940s.
- Leadership in the Green Revolution:
 - Under the leadership of **Dr. Norman Borlaug**, CIMMYT spearheaded the **Green Revolution**, introducing **semi-dwarf**, **high-yielding wheat varieties** like Lerma Rojo 64A, Sonora 64, and Mayo 64.
 - These innovations led to a dramatic rise in food grain production across Asia and helped avert famine.

CIMMYT's Contributions to Indian Agriculture

• Collaborative Breakthroughs:

- CIMMYT worked with Indian scientists to develop landmark wheat varieties:
 - Kalyan Sona (1967) and Sonalika (1968): Widely adopted during India's Green Revolution.
 - **PBW 343 (1995)**: Became the most widely grown wheat variety in north India for over a decade.

• Current Relevance:

- As of 2024, around 50% of wheat cultivated in India is based on varieties released post-2019 through CIMMYT-ICAR collaborations.
- CIMMYT-developed varieties are grown on over **60 million hectares globally**.

Borlaug Institute for South Asia (BISA)

- Institutional Partnership:
 - Established in 2011, BISA is a joint initiative between CIMMYT and the Indian Council of Agricultural Research (ICAR).
- Research Centres Across India:
 - Located in Ludhiana (Punjab), Jabalpur (Madhya Pradesh), and Samastipur (Bihar).
- Research Focus:
 - Specialises in climate-resilient agriculture, heat tolerance, nitrogen-use
 efficiency, disease resistance, and sustainable farming systems tailored for South
 Asian contexts.

Strategic Implications for Agricultural Research Post-USAID

- Loss of Stable Donor Support:
 - With USAID funding gone, **global agricultural innovation pipelines** are vulnerable, particularly in developing countries.
- Threat to Food Security Innovations:
 - A potential **slowdown in breeding programs and field trials** could affect efforts to address food insecurity, climate change adaptation, and disease resistance.
- Global South Vulnerability:

• Countries in **Africa and Asia**, which rely heavily on CIMMYT's non-commercial, science-backed innovations, face the greatest risk of setbacks.

Why Should India Increase Its Support?

a) Strategic Food Security Interests:

- India cultivated wheat on **32 million hectares** in 2024.
- Of the top 10 wheat varieties grown in India, 6 are CIMMYT-derived, covering over 15.3 million hectares.
- With **rising March temperatures** in north India, heat-tolerant wheat varieties are essential.
 - For example, a 1°C increase in night temperature can lead to 6% yield loss.

b) Role in Global South:

- India has **benefited historically** from CIMMYT's research.
- By increasing funding, India can project itself as a leader in South-South cooperation, setting the agenda for inclusive, climate-resilient agricultural innovation.

c) National and Global Reputation:

- Supporting CIMMYT enhances India's **diplomatic standing** and commitment to **global food security and sustainable development goals (SDGs)**.
- India can emerge as a standard-setter for agricultural R&D in developing nations.

d) Human Resource Linkages:

• Around 10% of CIMMYT's global workforce comprises Indian scientists, reinforcing India's deep institutional and technical connection with the organization.

Proposed Path Forward for India

a) Increase Public Funding:

• India should provide **stable and substantial financial support** to ensure CIMMYT's uninterrupted research operations and secure **decision-making roles** in the organisation's governance.

b) Promote Public-Private Partnerships (PPPs):

- Indian seed companies, agribusiness firms, and CSR arms of major corporations can cofinance CIMMYT-linked R&D.
- This model can bring **sustainable commercialisation** and expand technology adoption.

c) Lead in Regional Agri-Innovation:

- India can initiate and host a Global South Agricultural Innovation Forum with CIMMYT.
- This platform can:
 - Promote technology transfer to Africa and Asia.
 - Enable **joint breeding programs** for climate-resilient crops.
 - Foster sustainable practices and conservation agriculture.

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