HDR 2025 & AI-Driven Human Development

This editorial is based on "[Signals from HDI ranking: Public delivery of social infra is key weakness](#)" which was published in Business Standard on 08/05/2025. The article highlights that India's HDI improved from rank 133 to 130 in 2023, yet inequality, gender disparities, and inadequate public spending on health and education remain major challenges.

For Prelims: [2025 Human Development Index (HDI) report](#), [United Nations Development Programme (UNDP)](#), [Human Development Report (HDR)](#), [Gross National Income (GNI)](#), [United Nations Sustainable Development Goals (SDGs)](#), [World Bank](#), [International Monetary Fund (IMF)](#), [United Nations (UN)](#), [National Health Mission](#), [Ayushman Bharat](#), [Janani Suraksha Yojana](#), [Poshan Abhiyaan](#), [Right to Education Act 2009](#), [National Education Policy 2020](#), [Samagra Shiksha Abhiyan](#), [106th Constitutional Amendment](#), [Economic Survey 2024-25](#), [Bhashini](#).

For Mains: India's Performance in Human Development Index and the Role of Artificial Intelligence in Overcoming Human Development Challenges.

India improved its **[Human Development Index (HDI)](#)** ranking from 133 in 2022 to 130 in 2023, marking steady progress. While still in the medium **human development category**, India's HDI value has risen over **53%** in recent decades, surpassing global and South Asian averages. The 2025 HDI report highlights **[Artificial Intelligence (AI)](#)** as a key driver for future growth, especially in **healthcare, education, and governance.** However, it emphasizes the need for **inclusive**, **human-centered AI policies** to ensure its benefits reach all sections of society **equitably and effectively**.

What is the Human Development Index (HDI)?

- **About HDI:** The **Human Development Index (HDI)** is a composite index developed by the **[United Nations Development Programme (UNDP)](#)** that measures and ranks countries based on three key dimensions of human development.
    - The HDI was introduced in **1990** as part of the first **[Human Development Report (HDR)](#)** published by the **UNDP**.
    - It was conceptualized by Pakistani economist **Mahbub ul Haq** and Indian Nobel Laureate **Amartya Sen** with the objective of shifting the focus from purely economic measures of development to a more inclusive understanding of human well-being.
- **Parameters of HDI:**
    - **Health Dimension:**
        - **Indicator:** Life Expectancy at Birth.
        - It measures the average number of years a newborn is expected to live, assuming current mortality rates remain constant.
    - **Education Dimension:**
        - **Indicators:**

- **Mean Years of Schooling:** Average number of years of education received by people aged 25 and older.
- **Expected Years of Schooling:** Total number of years of schooling a child entering the education system is expected to receive.
- It reflects the ability to acquire knowledge and skills necessary for development.
  - **Standard of Living Dimension:**
    - **Indicator: Gross National Income (GNI)** per capita (PPP adjusted).
    - It reflects the average income of citizens, adjusted for differences in the cost of living and inflation rates.

What is the Significance of HDI?

- **Holistic Measurement of Development:** HDI provides a broader perspective on development beyond economic growth, emphasizing **health, education, and living standards**.
  - Unlike GDP, which only measures economic performance, HDI evaluates the overall **quality of life and well-being of individuals**, offering a more inclusive picture of national progress.
- **Policy Formulation and Targeted Interventions:** Governments use HDI to **identify policy gaps** and strategize on improving social and economic indicators.
  - It enables policymakers to focus on critical areas like education, healthcare, and income distribution, allowing for **targeted welfare schemes** that can bridge developmental disparities.
- **International Comparisons and Benchmarking:** HDI facilitates the **comparison of developmental progress** between countries, highlighting global inequalities and areas needing improvement.
  - Countries can benchmark their performance against others, inspiring **competitive development and fostering international** cooperation in achieving higher human development standards.
- **Focus on Human Well-being and Quality of Life:** Shifts the focus from mere economic prosperity to **human well-being and quality of life**.
  - By integrating health and education indicators, HDI underscores that sustainable development must include the welfare of people, not just economic metrics.
- **Indicator for Sustainable Development Goals (SDGs):** HDI is a critical tool for monitoring progress towards achieving the **United Nations Sustainable Development Goals (SDGs)**, particularly goals related to **health, education, and poverty alleviation**.
  - It acts as a measure to evaluate how well nations are performing in creating inclusive and sustainable growth.
- **Guidance for International Aid and Investment:** Global organizations like the **World Bank, International Monetary Fund (IMF)** and **United Nations (UN)** often rely on HDI rankings to determine **aid allocation and investment strategies**.
  - A higher HDI ranking signifies better governance and human capital, attracting more international funding and cooperation.
- **Empowerment of Civil Society and Advocacy:**
  - HDI serves as a powerful tool for **civil society and advocacy groups** to hold governments accountable.
  - By providing transparent data on development, it enables public discourse on socio-economic inequalities and drives movements for better policy initiatives.

What are Key Highlights of the Human Development Report 2025?

- **Global Highlights:**
  - **Stalled Human Development Progress:** The global HDI experienced its smallest increase since 1990, excluding the 2020-2021 crisis years.
    - If pre-Covid trends had continued, most countries could have achieved very high human development by **2030**.
      - This projection is now delayed by decades.
  - **Top and Bottom Ranks: Iceland** topped the list with an **HDI of 0.972**, while **South Sudan** ranked last with an **HDI of 0.388**.

- European nations continued to dominate the top 10, reflecting high standards in education, healthcare, and income levels.
  - **Growing Inequality:** The disparity between the richest and poorest nations has been widening. High-HDI countries are making consistent progress, while low-HDI nations face stagnation and setbacks.
  - **AI and Future of Work:** The report highlights the rapid spread of **Artificial Intelligence (AI)**, with **1 in 5 people** globally already using AI tools.
    - About **60% of global respondents** believe AI will create new job opportunities, while **50% fear job displacement or transformation**.
    - The 2025 HDR emphasizes the need for **inclusive, human-centered AI policies** to harness AI's potential for positive human development.

- **India-Specific Highlights:**
  - **India's HDI Ranking:**India moved up from **133rd in 2022 to 130th in 2023**, with its HDI value rising from **0.676 to 0.685**.
    - It remains in the **"medium human development"** category, nearing the threshold for **high human development (HDI ≥ 0.700)**.
  - **Regional Comparison:**
    - Among neighbors, **China (78th)**, **Sri Lanka (89th)**, and **Bhutan (125th)** rank above India.
    - **Bangladesh** is on par at **130th**, while **Nepal (145th)**, **Myanmar (150th)**, and **Pakistan (168th)** rank below.
  - **Progress in Key Areas:**
    - **Life Expectancy:** Rose from **58.6 years in 1990 to 72 years in 2023**, marking the highest recorded, largely due to programs like the **National Health Mission , Ayushman Bharat, Janani Suraksha Yojana, and Poshan Abhiyaan**.
    - **Education:** Mean years of schooling increased from **8.2 years in 1990 to 13 years in 2023**. Major initiatives include the **Right to Education Act 2009, National Education Policy 2020, and Samagra Shiksha Abhiyan**.
    - **National Income:** India's **GNI per capita** rose over fourfold, from **USD 2,167 in 1990 to USD 9,046 in 2023** (PPP adjusted).
    - **Poverty Reduction:** About **135 million Indians** escaped **multidimensional poverty** between **2015-16 and 2019-21**.
  - **Role of AI:** India is emerging as a **global AI leader**, with the **highest self-reported AI skills penetration**.
    - **20% of Indian AI researchers** now stay domestically, a significant increase from nearly zero in 2019.
    - For instance, in India, AI is providing farmers with real-time assistance- such as access to insurance and subsidies in their local languages- by integrating data from multiple sources.

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HDI ranking and value (2023)

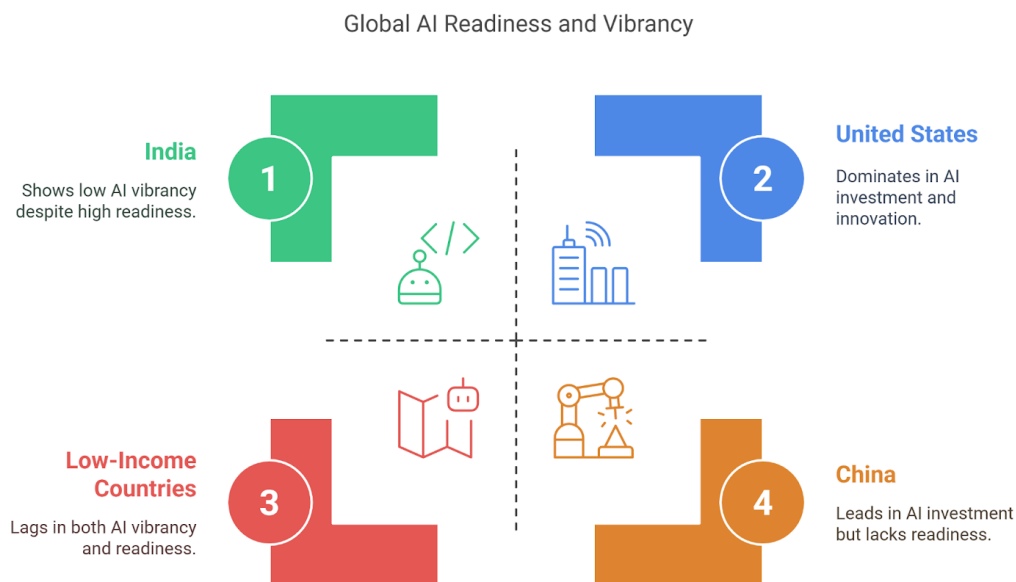| Rank	Country	HDI value
1	Iceland	0.972
2	Norway	0.970
2	Switzerland	0.970
4	Denmark	0.962
5	Germany	0.959
5	Sweden	0.959
7	Australia	0.958
8	Hong Kong, China (SAR)	0.955
8	Netherlands	0.955
17	United States	0.938
130	**India**	0.685

HDI: Human Development Index
Source: UNDP Human Development Report 2025

What are the Major Challenges Impacting India's Human

Development?

- **High Inequality Reduces HDI Value**: Inequality reduces India's HDI by **30.7%**, one of the highest losses in the region.
    - This reflects deep disparities in income, access to services, and opportunities, undermining overall human development progress.
- **Persistent Gender Disparities**: Female labour force participation in India stands at just **41.7%**, with limited political representation, curbing the potential for inclusive growth.
    - While the **106th Constitutional Amendment** proposes one-third reservation for women in legislatures, implementation remains critical.
- **Digital Skill Deficits and Technological Inequity**: Less than **5% of students in low HDI countries**, including India, possess the basic skills needed to engage with new technologies.
    - This digital skills gap limits India's ability to harness AI and digital tools for economic transformation and job creation.
- **Low Public Investment in Health and Education**: As per the **Economic Survey 2024-25**, India's Total Health Expenditure in FY22 was ₹9,04,461 crore, accounting for **3.8% of GDP and ₹6,602 per capita** at current prices.
    - While per capita spending has steadily increased since FY19, public health investment remains low compared to global standards.
    - Similarly, **education spending reaches up to 4.6% of GDP**, yet continues to lag behind countries that have achieved higher HDI rankings through greater investments in human capital.
    - This underfunding hampers access to quality services, reducing life expectancy and learning outcomes.
- **Limited Economic Diversification**: India, like other medium HDI countries, still relies heavily on **agriculture and low-tech sectors**, making the economy vulnerable to shocks.
    - Lack of diversification restricts the uptake of advanced technologies and impedes productivity growth.
- **Technosolutionism and Weak Institutions**: The rush to adopt digital solutions without robust institutional capacity leads to **context-blind "technosolutionism"**, where technology fails to address deeper social inequalities.

Global AI Readiness and Vibrancy

India
Shows low AI vibrancy despite high readiness.
1

United States
2
Dominates in AI investment and innovation.

Low-Income Countries
3
Lags in both AI vibrancy and readiness.

China
4
Leads in AI investment but lacks readiness.

Key Schemes for Human Development in India:

- **Health and Nutrition:**
    - **Ayushman Bharat – Pradhan Mantri Jan Arogya Yojana (AB-PMJAY)**

- National Health Mission (NHM)
- Poshan Abhiyaan (National Nutrition Mission)
- Mission Indradhanush
- **Education and Skill Development:**
  - Samagra Shiksha Abhiyan
  - PM e-Vidya & DIKSHA Platforms
  - Skill India Mission (Pradhan Mantri Kaushal Vikas Yojana - PMKVY)
- **Gender Empowerment and Social Welfare:**
  - Beti Bachao, Beti Padhao
  - Pradhan Mantri Matru Vandana Yojana (PMMVY)
  - One Stop Centre Scheme
- **Poverty Alleviation and Social Protection:**
  - Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)
  - National Social Assistance Programme (NSAP)
- **Digital Inclusion and AI Governance:**
  - MuleHunter.AI (by RBI)
  - Bhashini (National Language Translation Mission)
  - Digital India Programme

How Can AI Be Harnessed to Advance Inclusive Human Development?

- **AI as a Transformative Force for Human Development:** AI is recognized as a powerful enabler across **healthcare, education, and governance.**
  - HDR 2025 stresses that while AI can significantly enhance well-being, its deployment must be human-centric and risk-aware to ensure equitable outcomes for all.
- **AI to Augment, Not Replace Human Capabilities:** Contrary to fears of human obsolescence, HDR 2025 presents AI as a complementary tool that automates routine tasks, enabling people to focus on creativity, innovation, and expression.
  - This shift can unlock new dimensions of human potential and drive holistic development.
- **AI for Improved Healthcare Access and Outcomes:** AI applications in healthcare can optimize service delivery, enhance diagnostics, and expand reach in underserved areas.
  - For example, **HDR 2025** cites that **AI-assisted teaching tools** in Sierra Leone reduced costs by **90%**, illustrating the cost-effectiveness of smart tech in essential services.
- **AI to Personalize Education and Enhance Learning:** AI-powered learning systems can tailor instruction to individual needs, improving literacy and numeracy, particularly in low-resource settings.
  - According to HDR 2025, AI has the potential to **complement educators**, expand access, and create inclusive learning environments.
- **AI for Transparent and Efficient Governance:** Governments are deploying AI for better service delivery and fraud detection.
  - **HDR 2025** highlights **India's MuleHunter.AI** for digital banking fraud detection and the **Bhashini** initiative for multilingual communication, showcasing how AI can improve governance accessibility.
- **Bridging the Digital Divide with Inclusive AI:** The report warns that AI may exacerbate global inequalities if access remains uneven.
  - With only **15%** of the global population benefiting from **90% of AI innovation**, HDR 2025 urges investment in digital infrastructure and training to ensure marginalized groups are not left behind.
- **Fostering Global Collaboration in AI Research:** HDR 2025 calls for strengthened international cooperation, citing examples like **China–Singapore partnerships** that drive cross-border AI innovation.
  - Shared research agendas and pooled resources can accelerate equitable technological development for global benefit.
- **Adopting a Human-Centered AI Policy Approach:** To ensure AI contributes positively to HDI

goals, the report urges policymakers to prioritize inclusion, ethics, and equitable distribution of AI benefits.
- AI should be harnessed not just for innovation, but to **promote fairness, opportunity, and human dignity**.

How Can India Improve Its Human Development Outcomes?

- **Build Inclusive Digital Infrastructure:** Expanding digital infrastructure is essential to close the technological divide in low and medium HDI countries.
  - The 2025 HDR stresses that equitable access for marginalized communities to **digital tools and internet connectivity** is foundational to inclusive human development.
- **Invest in Human Capabilities and Skills:** Strengthening basic **education, vocational training, and digital literacy** is vital for preparing populations for the evolving AI-driven economy.
  - As highlighted in the 2025 HDR, this requires sustained investment in human capital to enable **adaptive resilience and upward mobility.**
- **Ensure Contextual Technology Adoption:** Technological solutions must be tailored to local socio-economic realities to avoid one-size-fits-all failures.
  - The HDR 2025 recommends aligning tech interventions with local capacities and needs, ensuring that innovations **foster empowerment** rather than exclusion.
- **Promote Economic Diversification:** Reducing over-reliance on agriculture and primary commodities is key to enhancing economic complexity in low HDI economies.
  - According to the HDR, economic diversification allows countries to better integrate into global value chains and absorb productivity gains from new technologies.
- **Strengthen Institutional Capacity and Governance:** Public institutions must be equipped to guide and regulate AI-led transitions effectively.
  - The 2025 HDR emphasizes building **administrative competence and regulatory frameworks** to ensure that technological adoption supports human development outcomes.
- **Implement Ethical AI Governance:**Establishing robust ethical guidelines for AI deployment is crucial to prevent deepening of existing inequalities.
  - As per HDR 2025, principles of **fairness, transparency, and accountability** must underpin all AI-related policies and applications to safeguard inclusive progress.

Conclusion:

While India's steady progress in the **HDI rankings** is commendable, the report underscores the critical role of **AI** in shaping future human development. To unlock AI's full potential, India must focus on **inclusive, ethical policies that ensure equitable access and benefits**. With continued investment in human capital and infrastructure, India can move closer to achieving higher levels of human development.

> ***Drishti Mains Question:***
>
> Examine the relationship between technological advancement and human development in India, emphasizing the role of AI in the HDI context.

UPSC Civil Services Examination Previous Year Question (PYQ)

Prelims:

Q. The Multi-dimensional Poverty Index developed by Oxford Poverty and Human Development Initiative with UNDP support covers which of the following? (2012)

1. Deprivation of education, health, assets and services at household level
2. Purchasing power parity at national level

3. Extent of budget deficit and GDP growth rate at national level

Select the correct answer using the codes given below:

(a) 1 only

(b) 2 and 3 only

(c) 1 and 3 only

(d) 1, 2 and 3

Ans: (a)

Mains:

Q. Despite consistent experience of high growth, India still goes with the lowest indicators of human development. Examine the issues that make balanced and inclusive development elusive. **(2019)**

PDF Refernece URL: https://www.drishtiias.com/printpdf/hdr-2025-ai-driven-human-development