

6. Examine the role of science and technology in poverty alleviation and mitigating inequality and ongoing Job crisis in India? Give suitable examples for your answers

Introduction: Mention data/ facts related to poverty in India

Body

- Role of science and technology in poverty alleviation
- Role of science and technology in mitigating inequality
- Role of science and technology in ongoing Job crisis

Conclusion: Brief about science and technology application in socio- economic development

Introduction:

As per the 'World Inequality Report 2022', India is among the most unequal countries in the world, with rising poverty and an 'affluent elite.' The report highlights that the top 10% and top 1% in India hold 57% and 22% of the total national income respectively while the bottom 50% share has gone down to 13%

Body

Role of science and technology in poverty alleviation

Information and Communication Technology:

- It can improve poor people's access to markets and health care, expand their use of government services and widen their access to micro-finance.
- Mobile (Smartphone and Text Phone) Solutions Make It Easier for People in Developing Countries to Enter the Market and Interact With the Formal Sector.

Internet of things:

- IoT-based Smart Agriculture Lifting Smallholder Farmers out of Poverty.
- 5G Wireless + IoT Connects the Rural Poor to Education. This helps in employment and monetary benefits.

Artificial intelligence and machine learning

- AI can help to identify the regions most in need of help. Through improving farming lands and agriculture, increasing education and helping inhabitants learning new skills to support communities.
- AI can also help with aid distribution in poorer and war-torn areas, or where natural disasters have caused devastation.
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Block chain technology

- Blockchain Helping Secure Land Registry and Economic Access for the Poor.
- Owing to the reliability of blockchain technologies like Bitcoin, information and transactions are a lot more secure. On the macroeconomic scale, people can channel taxes, loans and funds a lot more efficiently. This can also help improve accountability and transparency of important government funds.
- If many are given access to banking and financial services, most importantly access to money. If applied properly Bitcoin and other major cryptocurrencies can help eradicate poverty and elevate their living standards.

Space technology

- Satellites and Drones Can Provide Essential Information to Target Services for Smallholder Farmers, Improving Yields and Boosting Incomes
- Geospatial technology, including satellites and drones, can provide data to help target services for smallholder farmers, improving yields and incomes.
- E-Learning Platforms Help Small Business Owners Access Business Training and Advisory Services Online, Anywhere – Even From Difficult to Access or Remote Locations

- An abundance of images taken by satellites can lend a hand to identifying global activities that reflect poor and rich regions. For instance, areas with a high density of light at night are typically wealthier than those in darkness.

Big Data & Analytics

- Big Data is used in healthcare to find new cures for cancer, to optimize treatment and even predict diseases before any physical symptoms appear. This helps in health care of poor.

Role of science and technology in mitigating inequality**Information and Communication Technology**

- Digital divide: These inequalities relate to disparities in access, actual use and use efficacy of digital resources. Digital resources including transformative technologies, such as business analytics, big data and artificial intelligence are key for the transition of societies towards sustainability.
- Reduces social inequality: ICT empowers women and create opportunities for youth and disadvantaged communities for education, employment generation and skill development

Artificial intelligence and machine learning

- Area of research in machine learning is developing around what we call algorithmic equity. The objective of this work is to design algorithms that meet equity criterion, for example non-discrimination according to characteristics that are protected by law such as ethnic origin, gender, or sexual orientation.

Block chain technology

- Governments manage vast amounts of personal data from birth and death records to marriage certificates, passports and census data. Blockchain technology offers a streamlined solution for managing all of it securely.
- Registering government transactions in the blockchain helps create a trusted history for any transaction and significantly eases the auditing process. This would contribute to making public procurement more transparent.

Big Data & Analytics

- It describes the process of uncovering trends, patterns, and correlations in large amounts of raw data to help make data-informed decisions. This helps in analyzing data related to inequality.
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Role of science and technology in ongoing Job crisis**Information and Communication Technology**

- Help entrepreneurs in marketing their products which reaches any corner of the world.
- Content creation, making money from social media has been used by many people for monetary gains.
- Looking jobs with online job portals are easy, simple and cost-effective. You will easily find many portals on which you'll find potential jobs and corporations listed.
- Smartphones are a useful tool for job searching where almost every job seeker is using a mobile device in some way for job hunting. Also, more and more companies are using smartphones for recruitment because the youth are hooked on to the gadget.
- ICT helps in delivering a variety of electronic services to villages, to encourage digital and financial inclusivity, promote rural entrepreneurship and build rural livelihoods.
- New and improved technologies help farmers shift from input-intensive agriculture to knowledge-intensive agriculture.

Big Data & Analytics

- Big Data analytics can enhance customer segmentation, allowing for better scalability and mass personalization.

Conclusion:

Technology can be a powerful tool for improving lives in developing countries, but too often technology projects fail because there is a lack of understanding about local markets and user needs. Inequality is one of the most pressing issues of our time. Public policy and digital technology can complement each other to build a more inclusive society.

