



Mains Practice Question

Q. "The commercialization of traditional knowledge raises questions about intellectual property rights and cultural preservation." Analyze the ethical considerations in protecting indigenous knowledge systems while promoting scientific progress. **(150 words)**

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Approach

- Introduce the answer by mentioning complex ethical dilemma posed by commercialization of traditional knowledge
- Give key ethical considerations in protecting indigenous knowledge systems in India
- Conclude in a balanced manner.

Introduction

The **commercialization of traditional knowledge**, often passed down through generations within indigenous communities, presents a complex ethical dilemma. While it offers **opportunities for economic development and scientific advancement**, it also raises concerns about intellectual property rights and cultural preservation.

Body

Ethical Considerations in Protecting Indigenous Knowledge Systems in India:

- **Bioprospecting and Biopiracy Concerns:** Bioprospecting can turn into biopiracy if indigenous knowledge and resources are exploited without consent.
 - In **1997**, RiceTec Inc. was granted a patent on **basmati rice lines** in the U.S., leading to a legal battle by India to protect its traditional rice varieties.
- **Traditional Knowledge and Climate Change Adaptation:** Utilizing indigenous knowledge in climate change adaptation must be done ethically, ensuring proper recognition and benefit-sharing with local communities.
 - The **Khasi community** in Meghalaya **has built living root bridges for centuries**.
 - These structures are now being studied for sustainable infrastructure development, especially in flood-prone areas, raising concerns about **crediting the community**.
- **Genetic Resource Management and Benefit-Sharing:** Using genetic resources linked to indigenous knowledge necessitates **fair compensation and benefit-sharing**.
 - In the case of the **neem tree**, multiple patents were filed on neem-based products, leading to a legal battle that culminated in the **European Patent Office** revoking a U.S. patent, **affirming the traditional knowledge of Indian farmers**.
- **Digital Documentation and Knowledge Databases:** Digital repositories help protect traditional knowledge but pose challenges regarding access and control.
 - **India's Traditional Knowledge Digital Library (TKDL)** holds ample knowledge on traditional medicine.
 - While it has prevented the misappropriation of knowledge, questions remain about **who controls access and how the database should be governed**.

- **Intergenerational Knowledge Transfer vs. Formal Education:** Formal education systems often erode the transmission of traditional knowledge, creating generational gaps.
 - In the **Toda community** of the **Nilgiris**, youth engagement with traditional ecological knowledge has declined due to modern education and urbanization, threatening the continuity of cultural practices.
- **Medicinal Plant Conservation and Sustainable Use:** Commercialization of traditional medicines can lead to overexploitation of valuable plant resources.
 - The **overharvesting of Himalayan yew, used in cancer treatment**, led to conservation efforts that now focus on sustainable harvesting and cultivation in collaboration with local communities.
- **Historical Misrepresentation in Commercialization:** Commercializing traditional cultural elements can result in misrepresentation and loss of historical significance.
 - The **misuse of Hitler's image** in Indian branding highlights how misappropriation in commercialization can cause **harm when historical elements are trivialized or misrepresented**.

Conclusion

Commercializing indigenous knowledge can be ethical if it respects **cultural rights, fosters partnerships, and ensures fair benefits**. Governments, corporations, and researchers should work together to create a legal framework, involve **indigenous communities, and promote cultural preservation**. This approach can balance **economic development with cultural preservation**.

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