

ICT Enabled Solutions to Challenges - Issues of Integrated Sustainable Tourism & Ecotourism in VIKSIT Madhya Pradesh of VIKSIT Bharat - A Review of Potential

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Abstract

The term "Viksit Bharat" translates to "Developed India," and the year 2047 is chosen strategically as it marks 100 years since India gained its independence. The core idea is to leverage the momentum gained over the past decades and propel India into a league of developed nations, ensuring a high quality of life for all its citizens. As per declaration this movement has been defined with four pillars of the system - The Poor (Garib), The Youth (Yuva), The Women Empowerment (Mahila Sashaktikaran) and The Farmer (Annadata).

Madhya Pradesh being a state of India has a lead role in this ongoing movement. It aims to increase the state's gross domestic product (GSDP) from the current ₹15.03 lakh crore to ₹250 lakh crore (US\$2 trillion) by 2047. In the course of development in country and state, ICT has become a strong support system that changes the way information and communication are delivered.

It has created endless opportunities where citizens can see more than what is happening in surroundings and regulators, policy formulators, administrators, developers & managers can be involved in their process like never before as the time limit chosen is very less. So far we have achieved 4.19 trillion dollar

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GDP from the year 1947 (during last 78 Years) & targeted to achieve 30-40 trillion dollar GDP in upcoming year 2047 (during upcoming 22 Years only). The only visible way out is achieving it to proceed with high end low cost ICT based decentralized technologies.

The essence of development is relationships; it is people (The Yuva - Youth, The Garid - Poor, The Mahila Shakti - Women and The Annadata - Farmer). An environment full of laughter, questions, and feelings best described as happiness cannot be created in a closed room with the help of a screen or a gadget. ICT is not here to make this disappear; ICT is here to expand on it. In this way, with the incorporation of technology into the development process of economic system, we can achieve a balance that develops overall growth and socio-economic well-being. After all, vikas (development) isn't a mere data-processing activity but a living process, which makes the future of technology and humanity intertwined.

This potential review reveals that there is an urgent need to strengthen the system of sustainable tourism & ecotourism by incorporating more cost effective - technology oriented automated services to minimize the operational cost of service providers and efficiency in delivery of it to tourists.

More detailed studies should be carried out on continuous basis and results may be shown in public domain. However, a deeper comprehensive studies (evaluation & research studies) by incorporating the sustainability aspects is the urgent need of the sector to carried out for customers' satisfaction and stakeholders' perspective. Besides this economics and scale of business to be organized in a better way to make tourism & eco-tourism more sustainable and effective. It also recommends the option of effective & economic customization for tourists and sites should be improved upon to optimize the satisfaction and sustainability.

Keywords: Viksit Bharat 2047, ICT-driven Development, Inclusive Growth, Sustainable Tourism & Ecotourism, Economic & Socio-economic Growth, Technology-enabled Citizen Participation.

1 INTRODUCTION

Viksit Bharat 2047: India's Vision for a Developed Future -

India got independence in the year 1947 and after that it is moving ahead towards its centenary of independence in 2047. The "Viksit Bharat" initiative stands as a monumental vision, aiming to transform the nation into a developed, prosperous, and self-reliant global powerhouse. More than just an economic target, Viksit Bharat encapsulates a holistic transformation, touching upon every facet of Indian society and economy.

The term "Viksit Bharat" translates to "Developed India," and the year 2047 is chosen strategically as it marks 100 years since India gained its independence. The core idea is to leverage the momentum gained over the past decades and propel India into a league of developed nations, ensuring a high quality of life for all its citizens.

Relevance of Viksit Bharat:

The relevance of Viksit Bharat cannot be overstated. India, despite being one of the fastest-growing major economies, still faces significant developmental challenges. The initiative provides a clear and ambitious roadmap to address these issues head-on. It aims to:

- **Elevate Economic Prosperity:** The primary objective is to achieve unprecedented economic growth, aiming for a \$30-40 trillion economy by 2047. This involves boosting manufacturing, increasing exports, fostering a thriving startup ecosystem, and attracting substantial investments.
- **Ensure Social Empowerment:** Viksit Bharat places a strong emphasis on inclusive development. Its four key pillars are **Yuva (Youth)**, **Garib (Poor)**, **Mahilayen (Women)**, and **Annadata (Farmers)**. The vision is to eradicate poverty, ensure universal access to quality education and healthcare, and empower women to participate fully in all spheres of life.
- **Drive Technological Advancement:** Innovation, science, and technology are crucial enablers. The initiative seeks to position India as a global leader in emerging technologies like AI, quantum computing, and chip manufacturing, while also leveraging digital public infrastructure (like UPI) for wider reach and efficiency.
- **Promote Environmental Sustainability:** Recognizing the imperative of climate action, Viksit Bharat aims for environmental stewardship. This includes a strong focus on renewable energy, achieving net-zero emissions, promoting sustainable practices, and conserving natural resources.
- **Strengthen Governance and Security:** Good governance, transparency, and a robust security apparatus are fundamental. The vision includes reforms to enhance ease of doing business, improve public service delivery, and ensure national security in a complex global landscape

Significance for India:

The significance of Viksit Bharat for India's future is profound:

- **National Aspiration & Unity:** It provides a unifying national goal, inspiring collective effort and fostering a shared sense of purpose among 1.4 billion Indians. It's a vision that encourages citizens, businesses, and government to work in tandem.
- **Global Leadership:** By becoming a developed nation, India is poised to assume a greater role on the global stage, contributing to global economic stability, addressing shared challenges, and showcasing its unique model of inclusive growth.
- **Improved Quality of Life:** At its heart, Viksit Bharat is about improving the lives of ordinary citizens. It envisions a future where every Indian has access to better opportunities, better living standards, and a secure and healthy environment.
- **Leveraging Demographic Dividend:** With a large young population, India has a unique demographic advantage. Viksit Bharat aims to skill, empower, and provide opportunities for this youth cohort, transforming it into a powerful engine of growth.
- **Resilience & Self-Reliance:** The initiative promotes "Atmanirbhar Bharat" (self-reliant India) by strengthening domestic capabilities across various sectors, making India less vulnerable

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to global shocks and more self-sufficient. Achieving Viksit Bharat by 2047 will require sustained high economic growth, significant investments in infrastructure and human capital, continued policy reforms, and overcoming challenges like uneven development, climate change impacts, and geopolitical shifts. However, with its clear vision and focused approach, Viksit Bharat represents India's determined stride towards a brighter, more prosperous, and equitable future

2 THE KEY PILLARS OF VIKSIT BHARAT

As per declaration of Prime Minister Narendra Modi the foundation of Viksit Bharat rests on four key pillars that are **the poor, farmers, youth, and women's empowerment**.

3 SUSTAINABLE TOURISM -

It refers to travel that minimizes negative environmental impacts, supports local economies, and respects the culture and well-being of host communities. It's a holistic approach that balances economic growth, social equity, and environmental protection.

Sustainable tourism aims to ensure that tourism resources are managed responsibly, so they can be enjoyed by future generations while also benefiting current ones.

Five P's of Sustainable Tourism -

The United Nations identified 5Ps, People, Plants, Poverty, Prosperity and Peace, that need to be focused on for achieving the objective of sustainable development by 2030.

Five Pillars of Sustainable Tourism -

Therefore, there are five key pillars based on Cooper et al. [24] and UNWTO & UNEP (2), i.e., a) Attraction, b) Accessibility, c) Amenity, d) Ancillary, and e) Community Involvement.

Five C's of Sustainable Tourism:

Consciousness - This refers to the awareness and understanding of the interconnectedness of all things and the impact of actions on the environment and society. It involves mindful living and responsible decision-making.

Conservation - This principle focuses on the responsible use and management of natural resources to ensure their availability for future generations. It includes protecting biodiversity, ecosystems, and minimizing environmental impact

Community - This pillar emphasizes the importance of social well-being and the involvement of local communities in sustainable initiatives. It involves fostering inclusivity, equity, and collaboration for the benefit of all.

Commerce - This aspect highlights the role of businesses in driving sustainable practices and contributing to a circular economy. It includes adopting ethical and environmentally responsible business models.

Culture - This element recognizes the importance of preserving cultural heritage and diversity in sustainable development. It emphasizes the role of culture in shaping values, beliefs, and behaviors related to sustainability.

These five Cs are not exhaustive but offer a comprehensive framework for understanding and implementing sustainability initiatives in various contexts, including business, community development, and personal life.



Figure 1: Wheel of Sustainable Tourism & Ecotourism

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4 CORE PRINCIPLES OF SUSTAINABLE TOURISM:

- **Environmental Protection** - Reducing pollution, conserving resources (water, energy), protecting ecosystems and biodiversity.
- **Social Equity** - Ensuring fair wages, respecting local cultures and traditions, promoting community participation in tourism development.
- **Economic Viability** - Supporting local businesses, creating jobs, and ensuring that tourism revenue benefits the local community.

5 EXAMPLES OF SUSTAINABLE TOURISM PRACTICES :

- **Supporting Local Businesses**- Choosing locally owned accommodations, restaurants, and tour operators.
- **Reducing Waste** - Minimizing single-use plastics, composting food waste, and properly disposing of trash.
- **Conserving Water and Energy** - Taking shorter showers, turning off lights and appliances when not in use.
- **Respecting Local Culture** - Learning about local customs and traditions, dressing respectfully, and avoiding actions that could be disrespectful.
- **Participating in Community-Based Tourism** - Engaging with local communities through activities like homestays or cultural exchange programs.

6 BENEFITS OF SUSTAINABLE TOURISM

- **Environmental Conservation** - Protecting natural habitats, reducing pollution, and promoting biodiversity.
- **Community Empowerment** - Providing economic opportunities, preserving cultural heritage, and fostering social well-being.
- **Enhanced Tourist Experiences** - Offering authentic and meaningful travel experiences that connect visitors with local communities.
- **Long-Term Sustainability** - Ensuring that tourism resources are available for future generations.

In essence, sustainable tourism is about traveling responsibly and making choices that benefit both the traveler and the destination.

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How can we achieve Viksit Bharat

Achieving Viksit Bharat by 2047 will require sustained high economic growth, significant investments in infrastructure and human capital, continued policy reforms, and overcoming challenges like uneven development, climate change impacts, and geopolitical shifts.

The role of agriculture in Viksit Bharat

India's agriculture sector plays a crucial role in employment, food security, and rural development, contributing to 18% of the GDP and employing 45.8% of the workforce. However, challenges like low productivity, climate vulnerability, and economic inequality persist.

Importance of financial for a Viksit Bharat - Developed India

Financial inclusion is key to achieving India's Viksit Bharat goal by 2047, ensuring growth is broad-based and equitable. Innovations in technology and policies like the JAM trinity have improved access to financial services, with a shift in focus from access to the quality and holistic well-being of financial health.

7 VIKSIT MADHYA PRADESH -

"Developed Madhya Pradesh @ 2047" is a vision of Madhya Pradesh Government to make the state developed by 2047. It aims to increase the state's gross domestic product (GSDP) from the current ₹15.03 lakh crore to ₹250 lakh crore (US\$2 trillion) by 2047. To achieve this vision, the government is conducting a comprehensive survey and formulating policies with the participation of citizens.

Madhya Pradesh's Gross State Domestic Product (GSDP) at current prices for the financial year 2024-25 is Rs 15,03,395 crore. This figure represents an 11.05% increase compared to the GSDP of Rs 13,53,809 crore in the previous financial year. The state's GSDP at constant prices for 2023-24 was Rs 6,60,363 crore, reflecting a 6.01% increase over the previous year.

This initiative sets an ambitious goal to make Madhya Pradesh a developed state by 2047. To achieve this goal, the government will focus on promoting growth in a variety of sectors, including:

- **Economic Development** - Increasing GSDP, attracting investments & creating employment opportunities.
- **Infrastructure development** - Expansion of roads, communication networks, and quality medical facilities.
- **Urban Development** - Promoting sustainable urban development.
- **Human Resource Development** - Improvement in education and health services.
- **Agricultural Development** - Making good use of natural resources.
- **Environmental Protection** - Promoting sustainable development.

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It is important to note that this is a long-term vision and will require continued efforts and collaboration.

Brief Review of Status of the Poors (Garib) in M P vis a vis India - Madhya Pradesh has a higher poverty rate than the national average, though it has shown significant progress in poverty reduction in recent years. While poverty levels in the state were comparable to the national average in the mid-1990s, poverty reduction has lagged behind the rest of India since then. Madhya Pradesh exists in the list of top ten poor states of the India. However, recent data indicates a substantial decline in both multidimensional and headcount poverty in Madhya Pradesh.

8 SOME KEY POINTS ABOUT THE STATUS OF THE POOR (GARIB) IN M P:

Higher Poverty Rate - Madhya Pradesh has a higher poverty rate compared to the national average.

- **Lagging Poverty Reduction**- While the state has seen progress, poverty reduction has lagged behind the rest of India since the mid-1990s.
- **Multidimensional Poverty** - A significant decline in multidimensional poverty has been observed, with a reduction from 36.57% to 20.63%.
- **Headcount Poverty** - The headcount poverty ratio also saw a substantial decrease, from 45.9% to 25.32% in rural areas and from 13.72% to 7.1% in urban areas between NFHS-4 and NFHS-5.
- **Poverty Intensity** - The intensity of poverty, which measures the severity of poverty, also declined.
- **Regional Disparities** - Poverty is more concentrated in specific regions, particularly the eastern and southern districts.
- **Social Groups** - Inequality persists among different social groups, with a higher proportion of the poor concentrated in less developed regions.
- **Factors Contributing to Poverty** - Factors contributing to poverty include low income, lack of access to education and healthcare, and poor infrastructure.
- **Government Initiatives** - The state government has implemented various schemes like Ladli Laxmi, Ladli Bahna, and Sambal Yojana to address poverty and improve living standards.
- **Poverty Decline** - According to data from Mpinfo.org, Madhya Pradesh saw a decline of 15.94% in poverty in the last five years.

We can see that while Madhya Pradesh has made strides in reducing poverty, it still faces challenges in terms of higher poverty rates and regional disparities compared to the national average. However, the recent significant decline in multidimensional and headcount poverty indicates progress towards poverty alleviation.

9 BRIEF REVIEW OF STATUS OF YOUTH (YUVA) IN M P VIS A VIS INDIA -

India has a large youth population, with 66% of its population under the age of

35. Several states, particularly in the northern and eastern regions, have a significant concentration of youth. For instance, Uttar Pradesh, Bihar, Maharashtra, Madhya Pradesh, and Rajasthan are projected to have over half the country's youth population. Specifically, Uttar Pradesh has the highest number of youth, followed by Bihar, West Bengal, and Maharashtra.

- **States with large youth populations** - Uttar Pradesh, Bihar, Maharashtra, Madhya Pradesh, and Rajasthan are projected to have over half the country's youth population.
- **States with high proportions of youth** - Bihar and Uttar Pradesh have seen a rise in the proportion of youth to the total population, although this is expected to decline after 2021.
- **States with lower proportions of youth** - Andhra Pradesh, Gujarat, Himachal Pradesh, Karnataka, Kerala, Maharashtra, Odisha, Punjab, Tamil Nadu, Telangana, and West Bengal have lower proportions of youth compared to the national average.
- **Regional variations** - The North Eastern Region, comprising eight states, has about 4% of the country's youth population.
- **Age group** - The age group 15-29 is often used to define youth, and states like Jammu & Kashmir, Punjab, Haryana, and Rajasthan have substantial populations within this group.

It's worth noting that the youth population is a dynamic factor, with projections indicating a decline in the proportion of youth to the total population in the coming years. This is influenced by factors like declining fertility rates and an aging population.

The "Mera Yuva Madhya Pradesh" web portal is a unique initiative launched by the Department of Sports and Youth Welfare, Government of Madhya Pradesh. This portal serves as a comprehensive platform to empower and make the youth of the state self-reliant. Through this portal, young individuals can access information and services related to government schemes, career guidance, skill development, employment opportunities, entrepreneurship, education, and health. This portal provides youth with essential resources and information to achieve success in their personal and professional lives. It also helps them realize their future goals and enhance their skills, enabling them to contribute to the development of the state and the nation.

Prime Minister Shri Narendra Modi's vision for India 2047 highlights four key pillars—farmers, youth, women, and the poor. Among these, it is the responsibility of the Sports and Youth Welfare Department to ensure the overall development of the youth of the state.

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Youth are the energy of the nation, and with the right direction and guidance, they can help bring the vision of a Developed India 2047 to life. Currently, our government is working on various programs and initiatives for the welfare and development of youth. However, there was not a single platform in the state that can connect all sections of youth—whether they are poor, farmers, women, athletes, unemployed, entrepreneurs, or educated—together. Through this platform aim to provide youth with access to career opportunities, self-employment prospects, and other resources related to their development.

What is Mera Yuva Portal -

Mera Yuva Web Portal is a digital platform designed to connect youth across various sectors and promote their overall development. Through this portal, youth will be provided with updated information about schemes, employment opportunities, and other benefits offered by the state government, central government, private sector, NGOs, and more. The portal aims to empower youth by introducing them to new opportunities in the fields of education, employment, skill development, and entrepreneurship, enabling them to make better decisions for their future and contribute positively to society.

Benefits for Youth - "Mera Yuva Madhya Pradesh" portal is a comprehensive and effective platform for the youth of the state to access information about government-run schemes, programs, and services and avail their benefits. Through this portal, young individuals can register for various schemes based on their interests and skills and directly participate in programs like the "Khelo Bado Abhiyan" and competitions such as "Khelo Madhya Pradesh."

10 BRIEF REVIEW OF STATUS OF WOMEN EMPOWERMENT (MAHILA SHAKTI) IN M P VIS A VIS INDIA -

In 2011, Madhya Pradesh had a female population of 35,014,503, according to Census data. This represented 48.30% of the state's total population of 72,626,809. The male population was 37,612,306, making up the remaining 51.70%. In India, the 2011 census recorded a female population of 587.45 million, compared to 623.12 million males, out of a total population of 1.21 billion.

Madhya Pradesh:

- Total Population: 72,626,809
- Female Population: 35,014,503
- Male Population: 37,612,306
- Sex Ratio (females per 1000 males): 931

India:

- Total Population: 1,210,569,573

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- Female Population: 587,450,000 (approximate)
- Male Population: 623,120,000 (approximate)
- Sex Ratio (females per 1000 males): 943

Women empowerment is crucial for both Madhya Pradesh and India to unlock their full potential and achieve sustainable development. While both regions face similar challenges like gender inequality and discrimination, Madhya Pradesh is actively implementing initiatives to address these issues and empower women. Madhya Pradesh is showing leadership in areas like reservation in local bodies and government jobs, as well as providing support for women entrepreneurs, making it a model for other states.

11 SOME ISSUES FOR WOMEN EMPOWERMENT IN MADHYA PRADESH & INDIA:

- **Equal Rights and Opportunities-** Women constitute half the population and deserve equal access to rights, facilities, and opportunities to contribute to development.
- **Social Justice-** Addressing issues like female infanticide, child marriage, dowry system, domestic violence, and sexual harassment are vital for a just and equitable society.
- **Economic Growth-** Empowering women through education, employment, and entrepreneurship leads to increased productivity and economic growth for families, communities, and the nation.
- **Social Progress -** Women's empowerment is intrinsically linked to improved health, education, and overall well-being of families and communities, leading to social progress.
- **Breaking Stereotypes -** Empowering women challenges traditional gender roles and stereotypes, fostering a more inclusive and progressive society.
- **Addressing Specific Challenges -** Madhya Pradesh has specific challenges like low sex ratio and literacy rates for women, making empowerment initiatives even more critical.

12 MADHYA PRADESH'S EFFORTS IN WOMEN EMPOWERMENT:

Increased Reservation - Madhya Pradesh was the first state to increase women's reservation in government services and has implemented 50% reservation in Panchayat and urban body elections.

Support for Women Entrepreneurs - The state government provides loans to women entrepreneurs at reduced interest rates and through the Livelihood Mission, connecting women to self-employment opportunities.

Safety and Security Measures - Madhya Pradesh has implemented initiatives like the Religious Freedom Act to prevent forced conversion and marriage, and has taken steps to ensure women's safety at work.

Empowerment Schemes - The state has various schemes like the Ladli Laxmi Yojana and the Chief Minister Women's Empowerment Scheme, aimed at promoting education and overall empowerment of women.

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Focus on Women in Police - Madhya Pradesh has seen a positive impact with increased representation of women officers in the police force, leading to reduced community disputes and increased trust in law enforcement.

Comparison with India - While India has made progress in women empowerment through various national programs, Madhya Pradesh is demonstrating a proactive approach through its state-specific initiatives and policies, setting an example for other states. Madhya Pradesh's efforts in reservation, entrepreneurship, and safety measures are noteworthy and contribute significantly to the broader national discourse on women empowerment.

13 BRIEF REVIEW OF STATUS OF FARMERS (ANNADATA) IN M P VIS A VIS INDIA

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In Madhya Pradesh and India, farmers, especially small and marginal ones, face numerous challenges despite the agricultural sector's importance. While Madhya Pradesh is a major food producer, land distribution is uneven, and many farmers struggle with low incomes and indebtedness. India's agriculture, heavily reliant on smallholder farmers, grapples with issues like declining landholding sizes, limited access to resources, and the impact of climate change.

14 SOME SPECIFIC FEATURES OF FARMERS OF MADHYA PRADESH:

- **Dominance of Small and Marginal Farmers** - A large proportion of farmers in Madhya Pradesh are small and marginal, holding less than 2 hectares of land, according to a report.
- **Land Distribution** - There's a significant disparity in land ownership, with a large percentage of small and marginal farmers controlling a smaller share of the total cultivable land, according to a report from Sage Journals.
- **Contribution to GVA** - Agriculture and allied sectors contribute significantly to Madhya Pradesh's Gross Value Added (GVA).
- **Production** - Madhya Pradesh is a major producer of food grains, pulses, and oilseeds.
- **Challenges** - Farmers in MP face challenges like low incomes, indebtedness, and the impact of climate change, including erratic rainfall and pest infestations.
- **Transition to Organic Farming** - There's a growing movement towards organic farming, but farmers face challenges like high certification costs and lack of support.

15 INDIA AS A NATION HAS FOLLOWING SPECIFIC FEATURES@ FARMERS :

- **Dominance of Smallholders** - A large percentage of Indian farmers are small and marginal, with less than 2 hectares of land.
- **Dependence on Agriculture** - Agriculture is a major source of livelihood for a significant portion of the Indian population and contributes to the country's GDP.

- **Challenges** - Smallholder farmers in India face numerous challenges, including declining landholding sizes, limited access to resources, and the impact of climate change.
- **Water and Power Issues** - Inadequate irrigation infrastructure and inefficient water management practices lead to water scarcity and unsustainable groundwater exploitation, according to an IOSR Journal article.
- **Need for Sustainable Practices** - There's a growing need for sustainable farming practices to address environmental concerns and ensure long-term food security.
- **Government Initiatives** - Government initiatives like the PM-KISAN scheme and Minimum Support Price (MSP) aim to support farmers, but implementation and effectiveness vary.
- **Brief Review of Status of Tourism & Ecotourism in M P vis a vis India** - Madhya Pradesh is experiencing a positive trend in both tourism and ecotourism, with increasing tourist arrivals and a growing focus on sustainable practices. The state, known for its rich biodiversity and cultural heritage, is actively promoting ecotourism to balance conservation efforts with economic development and community empowerment.

16 SOME IMPORTANT TRENDS OF TOURISM INDUSTRY IN MADHYA PRADESH:

Growing Tourist Arrivals- Madhya Pradesh has seen a steady increase in tourist numbers, especially after the lifting of pandemic-related restrictions.

- **Diverse Attractions** - The state offers a wide range of attractions, including:
- **UNESCO World Heritage Sites:** Khajuraho, Sanchi, and Bhimbetka are popular cultural destinations.
- **National Parks and Wildlife Sanctuaries:** Madhya Pradesh is known as the "Tiger State of India" due to its high tiger population and numerous wildlife reserves like Kanha, Bandhavgarh, and Satpura.
- **Hill Stations:** Pachmarhi, Amarkantak, and Shivpuri are popular for their natural beauty.
- **Fairs and Festivals:** The state hosts vibrant cultural events that attract tourists.
- **Focus on Sustainability** - There's a growing emphasis on responsible and sustainable tourism practices to minimize environmental impact and benefit local communities.

17 ECOTOURISM IN MADHYA PRADESH:

- **Government Initiatives** - The Madhya Pradesh Ecotourism Development Board (MPEDB) is actively involved in developing ecotourism destinations and promoting activities like camping, trekking, and nature trails.
- **Eco-friendly Accommodations** - Efforts are being made to provide eco-friendly accommodations and prioritize environmental education and conservation.

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- **Community Involvement** - Ecotourism initiatives aim to involve local communities in the benefits of tourism while promoting conservation.
- **Diverse Ecosystems** - Madhya Pradesh's diverse ecosystems, including plateaus, valleys, and riparian areas, provide ample opportunities for ecotourism experiences.

18 EXAMPLES OF ECOTOURISM ACTIVITIES:

- **Nature trails and watch towers** - For wildlife viewing and nature appreciation.
- **Camping and trekking** - In natural settings.
- **Adventure activities** - Such as rock climbing and rappelling.
- **Nature interpretation centers** - For educating visitors about the local environment.

19 SPECIFIC FEATURES OF TOURISM & ECOTOURISM IN INDIA:

- **Significant Growth** - India's tourism sector has seen substantial growth in recent years, with a significant increase in domestic tourist visits.
- **Focus on Sustainability** - The government and various organizations are promoting responsible and sustainable tourism practices across the country.
- **Ecotourism as a Strategy** - Ecotourism is recognized as a crucial strategy for sustainable development, balancing tourism growth with environmental conservation and community empowerment.
- **Global Recognition** - India's tourism and ecotourism efforts are gaining recognition internationally, with initiatives aimed at promoting responsible travel and sustainable practices.

ICTs Solutions in VIKSIT Madhya Pradesh - Bharat (INDIA)

As a result of technological advance, it becomes possible to produce more output with same resources or the same amount of product with less resources. The technological progress takes place through inventions and innovations. The process of economic growth involves the increase in the production of goods and services. Information and Communication Technology (ICT) refers to a system of communication and information within the educational context, dealing with the provision of access to information through telecommunications. It essentially involves technology used for communication.

It's not difficult to understand, from a layman's perspective, that it covers almost all aspects of gadgets and their uses — from computers and the internet to radios and televisions, and even mobile phones. Essentially, anything digitally driven and involved in the process of imparting education falls under ICT. However, incorporation of ICT as an essential technological tool in the process of economic development is an amazing concept.

Similarly, in the field of sustainable tourism, the use of ICT is a turning point that transforms conventional methods into educative, communicative, and shareable forms of information, making them accessible and transferable.

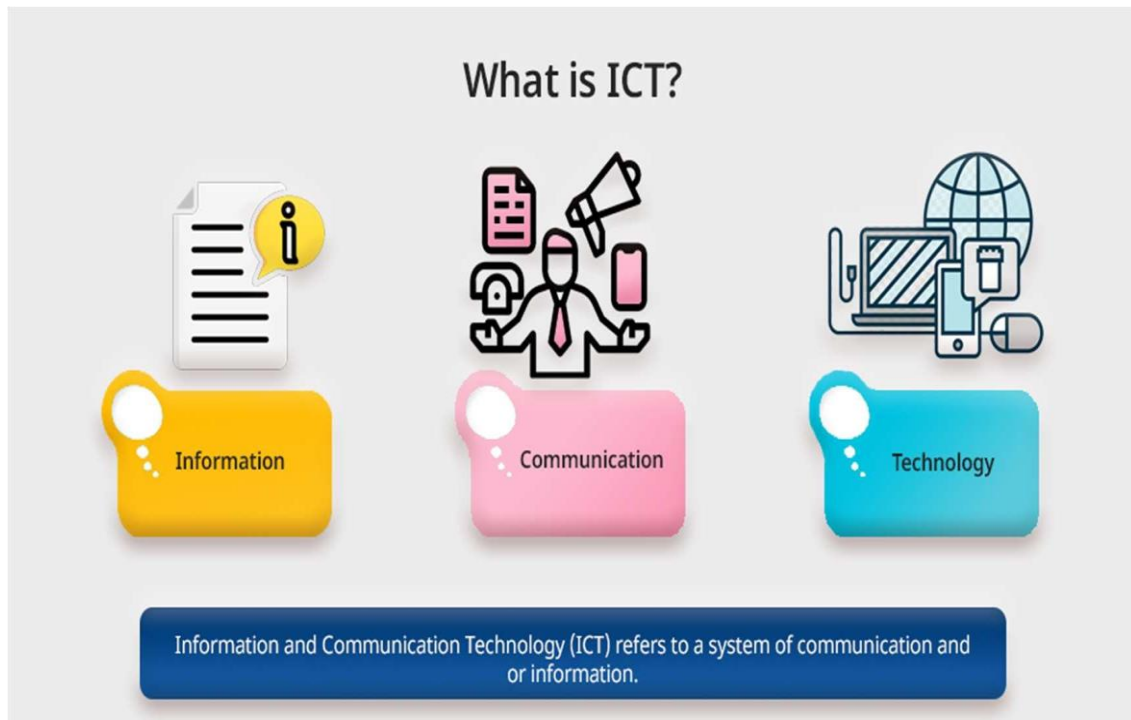


Figure 2: Information & Communication Technologies (ICTs)

With the help of five given basic elements of ICT, the positive and affirmative actions, the targets for Viksit Bharat and Viksit Madhya Pradesh are very much possible to achieve up to the year 2047 :

- Hardware
- Software
- Networks
- Data
- People

Although the existing set of above basic element needs to be strengthen in state as well as country both with a responsible & participatory approach. Although many of PPP (Public Private Partnership) projects can be seen as a successful case story for this purpose. But such stories cannot be a limit to it. The fruits of such ICT based technologies incorporation may result better performance in terms of efficiency and effectiveness.

20 AVAILABLE ICTS FOR SUSTAINABLE TOURISM & ECOTOURISM –

It includes tools like smartphones, computers, online platforms, cloud computing, Artificial Intelligence (AI), virtual reality (VR), and augmented reality (AR). They are readily available for use to transform sustainable tourism & eco-tourism through digital mode & e-learning, improve healthcare with telemedicine and advanced diagnostics, streamline business operations via e-commerce and data analytics, and enhance communication and entertainment at home & tourism destinations. ICTs facilitate remote work, enable better government services through e-governance, and provide up-to-date information for everything needed to boost up in economy of the state as well as country. Information and Communication Technologies (ICTs) is a broader term for Information Technology (IT), which refers to all communication technologies, including the internet, wireless networks, cell phones, computers, software, middleware, video-conferencing, social networking, and other media applications and services etc.

21 IN EDUCATION & TRAINING:

- **Digital Learning:** Online platforms, e-books, and virtual labs provide access to a vast array of educational resources.
- **Immersive Experiences:** VR and AR create interactive and immersive learning environments & realizations for subjects like archaeology, ecology, science, society & history.
- **Collaboration:** Cloud-based tools enable seamless communication, networking and collaborative projects between students and teachers.
- **Personalized Learning:** AI-powered assistants and personalized quizzes help tourists and all stakeholders learn at their own pace.

22 IN BUSINESS & INDUSTRY:

- **E-commerce & Marketing:** Online platforms expand business reach and improve customer experiences.
- **Operations & Automation:** ICT automates tasks, optimizes processes, and provides data for efficient decision-making
- **Communication & Collaboration:** Global teams can collaborate effectively through video conferencing and digital platforms.
- **Networking & Supply Chain Management:** Real-time monitoring of supply chains enhances efficiency.

23 IN HEALTHCARE:

- **Diagnosis:** Computerized equipment like MRI and CT scanners improve disease detection.

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- **Telemedicine:** Remote consultations and patient monitoring are made possible through ICT.
- **Health Information:** Access to updated medical information aids in developing new treatments.

24 IN EVERYDAY LIFE:

- **Communication:** Smartphones and social media enable instant communication with friends and family.
- **Entertainment:** Streaming platforms and online gaming provide various entertainment options.
- **Home Management:** Smart devices and apps assist with managing home chores and online bill payments.

25 OTHER KEY APPLICATIONS:

- **E-governance:** ICT provides efficient delivery of government services and information to citizens.
- **Agriculture:** Farmers receive real-time data on weather, pricing, and new farming techniques.
- **Defense & Security:** ICT is crucial for network-centric warfare and surveillance.

Table 1 : Advantages of ICT and Its Possible Impact

Advantage	Impact
Enhanced Opportunities to Contribute	Provides access to a vast array of information and resources, enriching the learning experience.
Personalized Learning, Realization & Skill Improvement	Tailors education to individual student needs, promoting better understanding and outcomes.
Improved Communication	Facilitates interaction between citizens and business through virtual platforms.
Increased Accessibility	Bridges gaps for remote or underserved citizens and supports those with special needs.
Skill Development	Equips citizens with digital literacy, critical thinking, and problem-solving skills.

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Efficient Management	Streamlines administrative tasks, saving time and resources for educators and institutions.
Global Exposure	Connects citizens with peers worldwide, fostering cultural awareness and collaboration.
Interactive Learning	Engages citizens with multimedia tools, making learning more dynamic and enjoyable.
Cost-Effectiveness	Reduces the need for physical materials, making actions and events more affordable and sustainable.
Continuous Professional Development/Monitoring & Evaluation	Keeps regulators and policy makers updated with the latest methods and tools through online resources.

26 CONCLUSIONS & RECOMMENDATIONS -

In the course of development in country and state, ICT has become a strong support system that has capabilities to make changes the way information and communication are delivered. In order to meet the deadlines of timeframe for Viksit Bharat and Viksit Madhya Pradesh, there is urgent need of an integration among low cost, high efficiency & effective, zero error based, automated, clean & green, people’s friendly technologies to remain intact with the committed objectives. As the decided timeframe for Viksit Bharat & Viksit Madhya Pradesh is very short, we must have to improve upon the existing growth rate of development in all sectors including of tourism and eco-tourism in accordance with the proposed one. It has created endless opportunities where citizens can see more than what is happening in surroundings and regulators, policy formulators, administrators, developers & managers can be involved in their process like never before.

However, it is crucial to note, before we leap into this technological world that is afoot, that the essence of development is relationships; it is people (The Yuva - Youth, The Garid - Poor, The Mahila Shakti - Women and The Annadata - Farmer). There must be an integration at all levels and lines of sustainable tourism & ecotourism stakeholders.

Madhya Pradesh being a centrally located biodiversity rich & land lock state of India has a lead role in this ongoing movement. It aims to increase the state's gross domestic product (GSDP) from the current ₹15.03 lakh crore to ₹250 lakh crore (US\$2 trillion) by 2047. In the course of development in country and state, ICT has become a strong support system that changes the way information and communication are delivered.

It has created endless opportunities where citizens can see more than what is happening in surroundings and regulators, policy formulators, administrators, developers & managers can be involved in their process like never before as the time limit chosen is very less. So far we have achieved 4.19 trillion dollar GDP from the year 1947 (during last 78 Years) & targeted to achieve 30-40 trillion dollar GDP in upcoming year 2047 (during upcoming 22 Years only). The only visible way out is achieving it to proceed with high end low cost ICT based decentralized technologies. An environment full of laughter, questions, and feelings best described as happiness cannot be created in a closed room with the help of a screen or a gadget. ICT is not here to make this disappear; ICT is here to expand on it. In this way, with the incorporation of technology into the development process of economic system, we can achieve a balance that develops overall growth and socio-economic well-being.

Therefore, as we progress forward, walking more and typing less, let us ensure we occasionally lift our heads from our devices, crack a smile, and take a moment to help a fellow human. After all, vikas (development) isn't a mere data-processing activity but a living process, which makes the future of technology and humanity intertwined. We need to strengthen the system of sustainable tourism & ecotourism by integrating & incorporating more cost effective ICT enabled tools & technology oriented automated services to minimize the operational cost of service providers and efficiency in delivery of it to tourists.

1. More focused relevant studies should be carried out on continuous basis and results may be shown in public domain for larger acceptance of its determined values & utilities. However, a deeper comprehensive studies (evaluation & research studies) by incorporating the sustainability aspects is the urgent need of the sector to carried out for customers' satisfaction and stakeholders' perspective.
2. Economics of scale & business to be organized in a better way to make tourism & ecotourism more sustainable, effective & remunerative.
3. It also recommends the option of effective & economic customization for tourists and sites should be improved upon to optimize the satisfaction and sustainability.

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