

Bridging Local Challenges and Global Goals: an Economic Analysis of India's Sustainable Development Path

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ABSTRACT

This paper examines India's sustainable development trajectory from an economic perspective, addressing five critical challenges: air pollution, water scarcity, mental health awareness, sustainable urbanization, and gender equality. As India strives to meet the United Nations' Sustainable Development Goals (SDGs), the connection between local challenges and global sustainability becomes increasingly significant. The analysis highlights notable economic impacts: air pollution costs Indian businesses approximately \$95 billion annually (Dalberg Advisors, Clean Air Fund, & CII, 2021), while water supply in India is projected to fall 50% below demand by 2030, as forecasted by the Asian Development Bank. Gender inequality in the workforce, evidenced by the disparity between male (76.8%) and female (32.7%) labour force participation rates (World Bank, 2023), continues to hinder economic growth. Additionally, rapid urbanization and growing mental health challenges present both obstacles and opportunities for sustainable development. The data for this study is primarily sourced from secondary materials, including reputable websites, government reports, and international organizations. This paper concludes that a comprehensive approach integrating policy reforms, economic incentives, and community engagement is essential for addressing these challenges and aligning with India's 2030 SDG targets.

Keywords: *Sustainable Development Goals, Mental Health Awareness, Economic Analysis, Environmental Sustainability, Gender Equality, Urban Development*

INTRODUCTION

"Sustainable development is not just about fulfilling needs today; it's about ensuring opportunities for generations tomorrow." Similarly, "Development is not about what you accomplish individually; it's

about how your actions resonate globally.” This perspective perfectly aligns with India’s journey of balancing rapid growth with the pressing need for sustainable development. As one of the world’s largest democracies and fastest-growing economies, India holds immense potential to shape the global sustainable development agenda. Its vibrant culture, diverse population, and innovative spirit uniquely position it to lead by example. However, this promise comes with a set of critical challenges that demand immediate attention.

India, one of the world’s largest economies and an influential member of global forums like the G20 and BRICS, plays a crucial role in shaping the global sustainable development agenda. However, the country’s rapid growth also brings a range of challenges that threaten its long-term sustainability. Despite housing 18% of the world’s population, India has access to only 4% of global water resources, which places enormous pressure on its water supply. By 2031, per capita water availability is expected to drop to 1,367 cubic meters, already leading to water rationing, rising utility bills, and shifts in agricultural practices. In addition to the water crisis, India faces other urgent issues such as severe air pollution, widespread gender inequality, and unplanned urbanization. Farmers are struggling with unpredictable weather patterns, while urban residents cope with smog, water shortages, and overcrowded cities with insufficient infrastructure. These problems are worsened by long-standing gender inequality, with women’s participation in the workforce remaining significantly lower than men’s. Mental health issues are also on the rise, with increasing rates of anxiety and depression affecting productivity and raising medical costs. Together, these challenges not only hinder India’s progress but also threaten its ability to meet the global sustainability goals set by the United Nations. This paper looks at these important issues from an economic perspective, highlighting the need for changes in policy, involvement from local communities, and economic solutions. A comprehensive approach that combines these elements can help India achieve its SDG goals and create a more sustainable and inclusive future. By turning its challenges into opportunities for growth, India can lead the way in global sustainability efforts.

This paper uses secondary data from various reliable sources like government reports, international organizations, and research journals. Key sources include NITI Aayog’s SDG India Index (2023-24), which tracks India's progress on SDGs and reports from the National Clean Air Program (NCAP) and Jal Jeevan Mission, which address air pollution and water scarcity. Data from the World Bank, WHO, and Asian Development Bank on gender equality, mental health, and water resources are also used. Peer-reviewed articles from sources like Science Direct and Indian Journal of Public Health, along with

data from Statista and Hindustan Times, provide additional insights. The time period covered in this study is from 2010 to 2024, focusing on the period after India adopted the SDGs in 2015, with projections up to 2030.

The study uses three types of analysis. First, quantitative analysis looks at economic and environmental costs, such as those caused by air pollution and gender inequality. Second, comparative analysis compares state-level progress on SDGs, using indices like the NITI Aayog's SDG Index. Finally, a qualitative review explores policies, societal impacts, and potential solutions to India's sustainability challenges.

Economic Approach to SDGs

The Sustainable Development Goals (SDGs) are 17 global targets aimed at improving lives and protecting the planet. An economic approach to the SDGs means 'using financial and other resources wisely to benefit both people and the environment, ensuring a better future for all.' India has made progress in areas like healthcare and sanitation, but still faces challenges such as air pollution, water scarcity, and mental health issues. As of 2023-24, India's SDG score has improved to **71 out of 100**. Kerala and Uttarakhand are leading with 79 points, followed by Tamil Nadu at 78 points. On the other hand, Bihar and Jharkhand are behind, scoring 57 and 62 points, respectively (*Source: NITI Aayog's SDG India Index 2023-24*). To achieve sustainable development, India must address the challenges in each state, making sure that progress benefits the entire country.

Improving the SDGs in India is like building a strong foundation for a thriving future. By focusing on issues like clean air, clean water, and equal opportunities, we create a healthier, happier population. This leads to a more productive workforce, boosting economic growth. Investing in renewable energy and empowering women not only protects our planet but also creates new jobs and industries. This attracts global investment, making India a global leader in sustainable development. By achieving the SDGs, India can become a prosperous nation with a strong economy and a healthy environment.

Environmental Dimensions and Economic Impact

Air Pollution: A Silent Economic Burden

Air pollution is a major problem in India, especially in cities like Delhi and states like Punjab and Haryana. In these areas, burning crop residues contributes to worsening air quality. In 2023, stubble

burning increased by **24%** in Punjab and **137%** in Haryana. In Delhi, smog is common, especially in the mornings, making it difficult to breathe and leading to health problems like asthma and heart disease. Poor air quality also causes accidents due to low visibility. According to the World Health Organization, air pollution is responsible for over 7 million deaths every year in India. The economic cost is high too, with air pollution costing the country due to healthcare costs, lost work hours, and lower quality of life. Families spend an average of ₹8,000-12,000 annually on air purifiers and medical treatments. Airborne diseases are growing like mushrooms in India, leading to a surge in demand for air purifiers, especially in top cities like Delhi, Mumbai, and Bangalore. Despite efforts like the National Clean Air Program (NCAP), which aims to reduce pollution by **30%** by 2024, India is still far from achieving its Sustainable Development Goals (SDGs), especially in terms of air quality (***SDG 3: Good health and wellbeing, SDG 11: Sustainable cities and communities, and SDG 13: Climate action***). This ongoing pollution crisis is also causing significant sustainability challenges, threatening both the health of the population and the environment.

To improve air quality, India needs to take stronger action. Using alternatives to stubble burning, such as bio-decomposers and happy seeder machines, can help reduce pollution. Policies to enforce stricter pollution controls and encourage clean energy are also essential. On a local level, communities are taking steps like having car-free days, planting trees, and running campaigns to reduce firecracker pollution. People are also turning to technologies like air quality apps, air purifiers, electric vehicles, and smart home ventilation to protect them. However, the economic and health impacts of air pollution continue to affect the country, making it more challenging to achieve long-term sustainability. More work is needed to reduce these impacts and ensure a healthier, more sustainable future for all.

Water Scarcity and India's Path to Achieving SDG 6

India faces a serious water crisis that makes achieving ***SDG 6 (Clean Water and Sanitation)*** a ***challenging task***. Nearly **163 million** Indians lack access to safe drinking water, and groundwater levels are falling fast. In cities like Bengaluru and Chennai, people rely heavily on overused groundwater, while rural areas struggle with conflicts over shared water and unreliable rainfall. Poor infrastructure, excessive water use in farming, and outdated systems add to the problem, making water scarcity a nationwide issue.

Water scarcity in India has serious economic effects. It reduces agricultural output, limits industrial production, and increases healthcare costs from waterborne diseases. By February 2024, about 26% of

India was experiencing moderate drought, hurting farming and rural livelihoods. This growing water shortage is affecting both cities and villages.

Efforts are being made to tackle this crisis and move closer to SDG 6. The Jal Jeevan Mission aims to provide piped water to all rural households by 2024, and states like Karnataka and Maharashtra now require industries to recycle wastewater. Modern solutions like rainwater harvesting and community-led projects are reviving traditional systems such as step wells to conserve water. In agriculture, farmers are encouraged to use efficient methods like drip irrigation instead of wasting groundwater.

Still, inequalities remain. A recent study by *Biswas et al.* highlights disparities in **WASH(Water, Sanitation, and Hygiene)** coverage across Indian districts, emphasizing that while Goa, Sikkim, Andaman & Nicobar Islands, and Lakshadweep lead in WASH services, states like Jharkhand, Orissa, Tripura, Assam, and Rajasthan lag significantly behind. Studies also show that states like Goa and Sikkim lead in water and sanitation coverage, but others like Jharkhand, Orissa, and Assam are far behind. The gap highlights the need for focused government support and better planning at the local level.

The issue is also connected to **SDG 12 (Responsible Consumption and Production)**. In many parts of India, *'Day Zero'* has already arrived, meaning the regular water supply is gone, and people rely on tankers, wells, or buying water. The Asian Development Bank warns that by 2030, India could face a 50% water shortage unless action is taken. India has made progress, but there's still a long way to go. Achieving SDG 6 means ensuring that clean water is available to everyone, rich or poor, urban or rural. As the saying goes, *"Every drop counts,"* and every small effort from saving water at home to investing in better systems brings the country closer to a future where water is no longer a luxury but a basic right.

Social Dimensions and Economic Impact

Mental Health in India: An Overlooked Concern

Mental health in India is a serious issue that is often ignored, even though it has a major impact on the economy. Around 1 in 7 Indians suffer from mental health disorders, but the country has only 0.75 psychiatrists for every 100,000 people, which is much lower than the WHO's recommendation of 1 per 100,000. This shortage, along with cultural stigma, means that more than 80% of people with mental health issues do not get the help they need. The cost to the economy is huge, with mental health problems costing India about \$1.03 trillion annually, which is 4.3% of the country's GDP. This results in lost productivity, more absenteeism, and higher healthcare costs, making mental health a key issue, especially with India's growing young population.

Efforts are being made to tackle mental health problems. Many companies now offer mental health support as part of their employee well-being programs, including counselling and resources. Schools are starting to provide counselling to help students deal with stress. Family counselling continues to be common, but it often lacks professional support. In rural areas, mobile clinics and tele-health services have been introduced to bring mental health care to remote locations. In cities, many people in high-pressure jobs, such as in the IT sector, experience stress and burnout due to long working hours and tight deadlines. Students also face high academic pressure. In rural areas, farmers struggle with financial and environmental stress, and the shortage of mental health professionals makes it even harder for them to get help. Improving mental health support at all levels is essential for advancing individual well-being and plays a crucial role in achieving the Sustainable Development Goals. It helps create a healthier, more productive society, leading to a thriving economy and ensuring long-term sustainable development.

Challenges to India's Progress on SDGs due to Gender Inequality

Gender inequality in India is a significant challenge that remains a barrier to the country's sustainable development and economic growth. Although there have been improvements, the gap in gender equality, especially in the workplace and education, continues to hinder progress. As of 2024, women hold only **14.7%** of seats in parliament, and the female labour force participation rate is just **32.7%**, compared to **76.8%** for men, according to the World Bank Gender Data 2023. These disparities are not just about numbers; they represent untapped potential in the workforce that directly impacts India's GDP and limits innovation, productivity, and economic diversification. Cultural norms, societal expectations, and insufficient access to education and financial resources contribute to the gender inequality faced by women, especially in rural areas. Although initiatives like *Beti Bachao Beti Padhao* and *Mudra Yojana* have made strides in addressing gender bias and empowering women, much more needs to be done to bridge the gap.

India's traditional culture often makes it difficult to achieve gender equality, as social norms limit women's opportunities in the workforce and leadership roles. This inequality has serious economic consequences gender inequality costs India **6%** of its GDP each year. Women are underrepresented in decision-making positions and face barriers to education and career growth, preventing them from reaching their full potential. To promote gender equality, India must adopt policies such as gender-

responsive budgeting, skills training programs, and financial support for women. Equal pay for equal work and better representation in leadership will also help close the gender gap.

Achieving gender equality is essential not only for improving women's lives but also for boosting the country's economic growth and social progress. As the world moves toward the Sustainable Development Goals (SDGs), India needs to increase its efforts to address gender inequality. By creating policies that ensure women have equal access to education, jobs, and leadership positions, India can make great progress toward ***SDG 5 (Gender Equality), SDG 8 (Decent Work and Economic Growth), and SDG 10 (Reduced Inequalities)***. As *Malala Yousafzai* said, "We cannot all succeed when half of us are held back." Gender equality is crucial not just for women, but for the prosperity and future of the entire nation and for achieving sustainability.

Unsustainable Urbanization: A Critical Challenge for India's SDGs

India's rapid and often unplanned urbanization presents a significant barrier to achieving the Sustainable Development Goals (SDGs). With India's urban population projected to reach 600 million by 2031, the country is experiencing tremendous growth in cities like Mumbai, Delhi, Bengaluru, and Hyderabad. However, this urban expansion comes with numerous challenges, such as overcrowded cities, inadequate housing, severe traffic congestion, and strained public services. For example, Mumbai and Bengaluru are witnessing daily economic losses of over ₹3,500 crore due to traffic delays and fuel wastage, as per a 2021 study by NITI Aayog. This rapid urbanization is also contributing to environmental degradation, including deforestation, air pollution, and the loss of biodiversity.

In 2023, India's urban population was approximately 519.5 million, which showed a 2.19% increase from the previous year. Many urban residents live in slums with poor living conditions and limited access to clean water, sanitation, and healthcare. These challenges directly impact several SDGs, particularly ***SDG 11 (Sustainable Cities and Communities), SDG 3 (Good Health and Well-being), and SDG 13 (Climate Action)***. Urbanization has strained resources, caused environmental harm, and led to productivity losses due to congestion.

Despite the challenges posed by rapid urbanization, India is making significant progress toward sustainable urban development. Initiatives like the ***Smart Cities Mission and AMRUT (Atal Mission for Rejuvenation and Urban Transformation)*** are tackling urban issues with innovative infrastructure and renewal projects. Sustainable urban growth is essential to reducing the negative effects of overcrowding, pollution, and resource strain. India can overcome these obstacles by focusing on *green building standards, affordable housing, and efficient public transportation systems*.

Encouraging sustainable housing, community composting, and urban farming can reduce pollution, save resources, and improve living conditions. Urban planning with renewable energy, walkable neighbourhoods, and green spaces will not only enhance life quality but also attract investment, create jobs, and support long-term growth.

India urgently needs to tackle its unregulated urban sprawl, traffic jams, and infrastructure gaps. Sustainable urbanization is the way forward, but it requires cooperation from the government, businesses, and communities to ensure cities grow in a way that is inclusive, resilient, and environmentally responsible. In simple terms, India's urbanization needs immediate attention to create cities that are not only economically strong but also sustainable and liveable for generations to come. The future of Indian cities lies in building urban spaces that prioritize both growth and the well-being of its people.

India's path to sustainable development is closely linked, with challenges like air pollution, water scarcity, mental health, gender inequality, and urbanization all impacting the broader goals for sustainability. These issues are interconnected and affect each other, showing the need for a comprehensive approach. While these five challenges are critical, they are not the only problems India faces. As India moves forward, the government, businesses, the judiciary, and local communities all have important roles to play. Everyone from policymakers to individuals must contribute to building a more sustainable, fair, and viable future for all. Only through collective action can India reach its SDG targets by 2030, ensuring a better and stronger future for the next generations.

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