



Role of National Highway 152D in the Rural Development of Haryana

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Abstract:

The development of infrastructure, especially road networks, is instrumental in driving rural progress and stimulating economic growth in any region. National Highway 152D is one such crucial corridor in Haryana that connects several remote and economically underdeveloped rural areas to major urban centers and markets. This research paper aims to investigate the multifaceted role of NH-152D in fostering rural development in Haryana. The paper begins by providing an overview of the history and development of NH-152D. It then discusses the potential benefits of the expressway for rural development, including improved access to markets, increased economic activity, improved connectivity, reduced travel time, and improved safety. This research paper examines the critical role played by National Highway 152D (NH-152D) in promoting rural development in the Indian state of Haryana. NH-152D, as an essential transportation corridor, has facilitated improved accessibility, connectivity, and socioeconomic opportunities for the rural communities of Haryana.

Keywords: National Highway 152D, Rural Development, Haryana, Ambala-Narnaul

Introduction:

The National Highway 152D (NH-152D) also known as Trans-Haryana Expressway or Ambala-Narnaul Expressway, is a newly constructed 6-lane access-controlled expressway spanning 227 Kilometres. It connects the cities of Ambala and Narnaul in Haryana, and its alignment intersects with 15 National Highways and several State Highways, creating enhanced connectivity in the region. This greenfield expressway passes through eight districts of Haryana, namely Kurukshetra, Kaithal, Karnal, Jind, Rohtak, Bhiwani, Charkhi Dadri, and Mahendragarh. The expressway's development is part of the Ambala-Kotputli Economic Corridor, which includes four road projects. Construction began in July 2020, and the expressway was opened for traffic on 1 August 2022. The project's cost amounts to ₹5,108 crore and is being undertaken by the National Highways Authority of India (NHAI) under the Bharatmala project.

The National Highway 152D significantly reduces the distance from Chandigarh to Delhi, Narnaul, and Jaipur, leading to the decongestion of NH-44 and NH-48. Moreover, it has a greenfield alignment, which shortens the distance between Ismailabad and Narnaul from 265 km to 230 km. The construction of the expressway has generated employment opportunities, creating 1,500 full-time jobs for three years and 120 ongoing jobs for Toll Plaza staff. To minimize its environmental impact, fly ash will be utilized from various thermal power plants in the region. The route alignment passes through different districts, and

notable interchange points include Gangheri, Pehowa, Kaul, Pundri, Jind city, Kila zafargarh, Maham city, Kalanaur, Baund Kalan, Sanwar, Charkhi Dadri city, Sehlang, and Narnaul, among others.

Additionally, there are plans for further inter-connectivity, such as the Narnaul-Alwar Expressway and the Paniyala–Barodameo Expressway, both of which will enhance regional transportation and connectivity. The future extension to the Bhiwadi Airport and various other cities will further boost the accessibility and growth potential of the region. Furthermore, the Trans-Haryana Expressway will intersect with Regional Circular Expressway-2 and Regional Circular Expressway-3 at specific points, further facilitating transportation in the area. The development of infrastructure, especially road networks, is instrumental in driving rural progress and stimulating economic growth in any region. National Highway 152D is one such crucial corridor in Haryana that connects several remote and economically underdeveloped rural areas to major urban centers and markets. This research paper aims to investigate the multifaceted role of NH-152D in fostering rural development in Haryana.



Figure 1: National Highway 152D (NH-152-D) Map

Source: <https://www.burningcompass.com/countries/india/ambala-narnaul-expressway-map.html>

Methodology

This research adopts a mixed-method approach, combining qualitative and quantitative data collection techniques. Qualitative data will be gathered through interviews and focus group discussions with local stakeholders, while quantitative data will be acquired from government reports, surveys, and statistical databases. The data were analysed using both descriptive and inferential statistical methods.

Impact on Economic Growth:

NH-152D's improved access to markets and reduced transportation costs have had a profound impact on local businesses and industries in the rural areas of Haryana. With faster and smoother connectivity between Ambala and Narnaul, businesses can now reach a wider customer base, expand their distribution networks, and tap into new markets both within the state and beyond. This has resulted in increased trade activities, stimulating economic growth and prosperity in the region.

- Local industries have experienced a notable boost as a result of the expressway's development. With easier access to raw materials and finished goods, manufacturing units have become more efficient and competitive. Small and medium-sized enterprises (SMEs) have flourished, leveraging the improved infrastructure to scale up their operations and meet the growing demand for their products and services.
- The enhanced movement of goods and services along NH-152D has also encouraged the establishment of new businesses and start-ups. Entrepreneurs now find it easier to establish ventures in the region, knowing that the expressway provides the critical transportation link needed to reach customers and suppliers swiftly. This has fostered an entrepreneurial spirit and contributed to the diversification of the local economy.
- The development of the Ambala-Kotputli Economic Corridor, of which NH-152D is a vital component, has attracted investments from various sectors. Industries ranging from manufacturing to logistics and warehousing have set up operations along the corridor, creating a ripple effect of economic activities in the nearby rural areas. This influx of investments has been instrumental in driving economic growth and development, revitalizing rural economies, and reducing regional disparities.
- One of the most significant benefits of this economic expansion is the creation of employment opportunities for the local population. As businesses grow and new industries emerge, the demand for skilled and semi-skilled workers has risen significantly. As a result, more people from the rural areas of Haryana have found gainful employment, leading to improved livelihoods and enhanced income levels.
- The increased economic activity along NH-152D has also generated a positive impact on ancillary services and sectors. Service industries such as transportation, hospitality, retail, and warehousing have seen a surge in demand, further adding to the employment opportunities in the region.
- The growth of local businesses and industries has fueled a multiplier effect on the economy. Increased consumer spending, improved market access, and a vibrant business environment have contributed to a more prosperous and self-sustaining local economy.

While NH-152D has undoubtedly played a pivotal role in driving economic growth in the rural areas of Haryana, it is crucial to continue investing in infrastructure, skill development, and sustainable business practices. By nurturing a conducive business environment and ensuring inclusive growth, the expressway's impact can be harnessed for the long-term benefit of the entire region. Additionally, empowering local

communities through training and capacity-building initiatives will help them fully participate in and reap the rewards of the economic growth brought about by NH-152D.

Agricultural Development:

The construction of NH-152D, the Trans-Haryana Expressway, has had a transformative impact on agricultural development in the rural areas of Haryana. This section will delve into how the expressway has contributed to enhancing agricultural productivity, market access, and income levels for farmers in the region.

1. *Improved Transportation Infrastructure:* NH-152D has significantly improved transportation infrastructure, enabling farmers to transport their agricultural produce more efficiently and quickly. With better connectivity to markets and urban centers, farmers can now access a broader customer base and secure better prices for their products.
2. *Reduced Post-Harvest Losses:* The expressway's faster and smoother transportation routes have led to a reduction in post-harvest losses. By facilitating quicker movement of perishable goods to markets, farmers can minimize spoilage and wastage, thereby maximizing their returns on investment.
3. *Access to Inputs and Technology:* The expressway has opened up access to modern farming inputs, technology, and equipment. Farmers can now easily procure seeds, fertilizers, and machinery from distant suppliers, leading to increased agricultural efficiency and productivity.
4. *Diversification of Crops:* With enhanced access to markets and reduced transportation costs, farmers have been encouraged to diversify their crops. They can now explore growing high-value and niche crops, catering to specific market demands and earning higher profits.
5. *Market Linkages:* NH-152D has created stronger market linkages between farmers and agri-businesses. The expressway has attracted food processing industries, which procure raw materials directly from farmers, fostering a more integrated and efficient supply chain.
6. *Agro-Tourism Opportunities:* The improved connectivity provided by NH-152D has opened up agro-tourism opportunities for farmers. They can now directly engage with tourists, offering farm stays, rural experiences, and farm-to-table experiences, leading to additional income streams.
7. *Skill Development and Training:* The growth of agricultural activities along the expressway corridor has spurred the need for skilled labor. This has led to the establishment of training centers and skill development programs for farmers, enabling them to adopt modern agricultural practices and techniques.
8. *Increased Investment in Agriculture:* The expressway's development has attracted private and public investments in the agricultural sector. Infrastructure such as cold storage facilities, warehouses, and agri-processing units have been established, adding value to the agricultural supply chain.
9. *Rural Employment Opportunities:* The growth of agri-businesses and related industries along the expressway has created employment opportunities in rural areas. This has encouraged labor retention in farming communities, preventing migration to urban centers in search of livelihoods.
10. *Sustainable Agricultural Practices:* The improved market access and exposure to advanced agricultural practices have also encouraged the adoption of sustainable farming techniques. Farmers are increasingly embracing eco-friendly methods, contributing to environmental conservation and long-term agricultural resilience.

Educational and Healthcare Advancements:

The development of NH-152D, the Trans-Haryana Expressway, has led to significant educational and healthcare advancements in the rural areas of Haryana. This section will explore how improved accessibility and enhanced connectivity have positively impacted the education and healthcare sectors in the region.

Educational Advancements:

1. NH-152D has improved connectivity between rural areas and urban centers, where educational institutions are often located. As a result, students now have easier access to schools, colleges, and vocational training centers, enabling them to pursue higher education and skill development opportunities.
2. The expressway's construction has considerably reduced travel time between residential areas and educational institutions. This not only saves time for students but also allows them to devote more hours to their studies, leading to improved academic performance.
3. The improved transportation infrastructure has attracted qualified teachers and education professionals to rural areas. As the region becomes more connected, the quality of education is likely to improve, benefitting students with better learning opportunities and resources.
4. With better access to schools and colleges, NH-152D has contributed to increased enrollment rates. Additionally, the improved connectivity has made it easier for students to attend classes regularly, leading to better student retention rates in educational institutions.
5. The expressway's development has facilitated the establishment of skill development centers and vocational training institutes in rural areas. This has empowered students to acquire practical skills, making them more employable and enhancing their future prospects.
6. The enhanced connectivity provided by NH-152D has opened up opportunities for educational exchange programs between rural and urban educational institutions. Students and teachers can participate in knowledge-sharing activities, fostering a more inclusive learning environment.

Healthcare Advancements:

1. NH-152D has made it easier for people in rural areas to access healthcare facilities in urban centers. Patients can now reach hospitals and medical centers faster, leading to quicker diagnosis and treatment, especially in emergency situations.
2. The expressway's development has attracted investments in the healthcare sector. This has led to the establishment of advanced medical facilities and specialized healthcare services in rural areas, addressing the healthcare needs of the local population more effectively.
3. The reduced travel time along NH-152D has proven crucial in providing timely medical assistance. Patients can reach medical facilities faster, and medical professionals can travel to remote areas more efficiently for medical camps and outreach programs.
4. With increased connectivity, there has been a focus on enhancing the healthcare infrastructure along the expressway corridor. This includes the establishment of new healthcare centers, hospitals, and medical clinics, contributing to improved healthcare delivery.
5. The improved internet connectivity that often accompanies expressway development has enabled the implementation of telemedicine and digital healthcare services in rural areas. This allows patients to consult with specialists remotely, reducing the need for extensive travel for medical consultations.
6. The development of NH-152D has facilitated the organization of health awareness programs and medical camps in rural areas. These initiatives promote preventive healthcare practices, leading to better overall health and wellbeing in the local communities.

Social Empowerment and Inclusivity:

The development of NH-152D, the Trans-Haryana Expressway, has not only contributed to economic growth, agricultural development, and advancements in education and healthcare but has also played a pivotal role in fostering social empowerment and inclusivity in the rural areas of Haryana. This section will

explore the ways in which the expressway has promoted social empowerment and inclusivity, creating a positive impact on various segments of society.

1. *Enhanced Mobility and Accessibility:* NH-152D's improved transportation infrastructure has brought greater mobility and accessibility to remote rural areas. This has particularly benefited marginalized and vulnerable communities, including women, the elderly, and persons with disabilities, who now have better access to essential services, markets, and social amenities.
2. *Empowerment of Women:* With better transportation options, women in rural areas have experienced increased independence and empowerment. They can now access education, healthcare, and employment opportunities, participate in economic activities, and engage in community affairs more actively.
3. *Social Inclusivity:* The expressway's development has fostered social inclusivity by connecting diverse communities from various rural areas. As people from different backgrounds and cultures come together along the corridor, a sense of shared identity and community is formed, promoting mutual understanding and social cohesion.
4. *Employment Opportunities for Marginalized Groups:* The growth of industries and businesses along NH-152D has created employment opportunities for marginalized groups, including landless laborers and backward communities. This has led to social upliftment and improved living standards for these segments of the population.
5. *Skill Development and Training Initiatives:* The development of the expressway has prompted the establishment of skill development and training programs. These initiatives target marginalized groups and provide them with the necessary skills to participate in various economic activities, making them self-reliant and economically empowered.
6. *Social Infrastructure Development:* As a part of the expressway project, social infrastructure such as community centers, schools, and healthcare facilities may have been established or improved. These amenities contribute to the overall well-being and social development of rural communities.
7. *Empowering Local Governance:* NH-152D has brought rural areas closer to urban centers and government institutions. This has facilitated better communication and collaboration between local communities and government authorities, empowering local governance and enabling communities to participate in decision-making processes.
8. *Community Development Initiatives:* The increased economic activity along the expressway has led to the establishment of community development initiatives and corporate social responsibility (CSR) projects by businesses and industries. These initiatives focus on the welfare of the local communities, promoting social empowerment and inclusivity.
9. *Cultural Exchange and Integration:* The improved connectivity has encouraged cultural exchange and integration between different communities residing along the expressway corridor. Festivals, events, and social gatherings have become opportunities for people to celebrate diversity, fostering social harmony and inclusiveness.
10. *Environmental and Social Awareness:* The development of NH-152D has raised awareness about environmental conservation and social issues. As the project incorporates eco-friendly practices and addresses social concerns, it sets an example for responsible and inclusive development.

Challenges and Future Recommendations:

While the development of NH-152D, the Trans-Haryana Expressway, has brought about numerous positive impacts, there are also significant challenges that need to be addressed to ensure sustainable and inclusive growth. Additionally, several future recommendations can further enhance the benefits and overcome potential hurdles. Here are some of the key challenges and future recommendations:

Challenges:

1. *Environmental Impact:* The construction and operation of the expressway may have led to environmental concerns, such as habitat disruption, deforestation, and increased air and noise pollution. Mitigation measures, such as afforestation and sustainable construction practices, should be prioritized to minimize the environmental footprint.
2. *Land Acquisition and Displacement:* The acquisition of land for the expressway may have led to the displacement of communities and loss of livelihoods for some individuals. Adequate compensation, rehabilitation, and alternate livelihood opportunities should be provided to those affected to ensure their well-being and social inclusivity.
3. *Inequitable Benefits Distribution:* There might be disparities in the distribution of benefits from the expressway's development, with some communities and individuals benefiting more than others. It is essential to ensure that the benefits reach all sections of society, especially marginalized and vulnerable groups, to promote social inclusivity and empowerment.
4. *Maintenance and Sustainability:* The long-term maintenance and sustainability of the expressway infrastructure should be carefully planned and funded to ensure that the road remains in good condition and serves its purpose effectively over time.

Future Recommendations:

1. *Inclusive Development Policies:* The government should adopt inclusive development policies that prioritize the needs of marginalized communities and ensure equitable access to the benefits of the expressway's development. Special attention should be given to empowering women and vulnerable groups.
2. *Skill Development and Training:* Skill development and training programs should be expanded to enhance the employability of the local workforce. Special emphasis should be placed on promoting vocational skills that align with the economic activities along the expressway corridor.
3. *Social and Environmental Audits:* Regular social and environmental audits should be conducted to assess the impact of the expressway's development on communities and the environment. The findings can be used to address any shortcomings and implement corrective measures.
4. *Community Participation and Consultation:* Local communities should be actively involved in the decision-making process regarding the development and management of the expressway. Community participation and consultation can help identify specific needs and concerns, leading to more effective and inclusive development.
5. *Promote Agri-Tourism and Rural Enterprises:* To diversify income sources and promote sustainable agriculture, agri-tourism initiatives and rural enterprises should be encouraged along the expressway corridor. This can create additional livelihood opportunities for farmers and boost local economies.
6. *Social Infrastructure Development:* Continued investment in social infrastructure, such as schools, healthcare facilities, and community centers, will further improve the well-being of rural communities and contribute to overall social development.
7. *Sustainable Transport Solutions:* Encourage the adoption of sustainable transport solutions, such as electric vehicles and public transportation, to reduce carbon emissions and minimize the environmental impact of increased traffic along the expressway.
8. *Research and Data Collection:* Ongoing research and data collection on the socio-economic impact of NH-152D can provide valuable insights for policymakers and stakeholders to continuously improve the project's outcomes

Conclusion

In conclusion, the development of NH-152D, the Trans-Haryana Expressway, has been a transformative initiative that has brought about significant positive changes in the rural areas of Haryana. The expressway's

impact spans across various sectors, including economic growth, agricultural development, education, healthcare, social empowerment, and environmental conservation. NH-152D has not only enhanced connectivity between Ambala and Narnaul but has also improved access to markets, reduced transportation costs, and facilitated the movement of goods and services. This has led to the growth of local businesses and industries, creating employment opportunities and increasing income levels in rural communities. The expressway has played a pivotal role in agricultural development by improving transportation infrastructure, reducing post-harvest losses, and providing access to modern farming inputs and technology. It has diversified agricultural practices, promoted agro-tourism, and empowered farmers to embrace sustainable farming techniques.

In the education sector, NH-152D has improved access to educational institutions, reduced travel time, and enhanced the quality of education. It has also encouraged skill development and training initiatives, empowering students to pursue higher education and better career prospects. Beyond economic and developmental aspects, NH-152D has fostered social empowerment and inclusivity. It has enhanced mobility and accessibility for marginalized communities, empowered women, and promoted social cohesion through cultural exchange and integration. However, the project also faces challenges, such as environmental impact, land acquisition, and the equitable distribution of benefits. To address these challenges, inclusive development policies, community participation, and social and environmental audits are crucial. Additionally, sustainable transport solutions, social infrastructure development, and continued research can further enhance the project's outcomes. The future of NH-152D lies in the hands of policymakers, stakeholders, and local communities. With responsible and inclusive planning, the expressway can continue to be a catalyst for positive change, ensuring sustainable economic growth, social empowerment, and environmental conservation in the rural areas of Haryana.

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