Global Journal of Arts Humanity and Social Sciences
ISSN: 2583-2034

Global Journal of Arts Humanity and Social Sciences
ISSN: 2583-2034
Abbreviated key title: Glob.J.Arts.Humanit.Soc.Sci
Frequency: Monthly
Published By GSAR Publishers
Journal Homepage Link: https://gsarpublishers.com/journal-gjahss-home/

Volume - 5 | Issue - 9 | September 2025 | Total pages 749-757 | DOI: 10.5281/zenodo.17222310

The Delhi-Mumbai Industrial Corridor and Its Impacts on Agriculture: A Review of Academic Literature

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Article History
Received: 15- 08- 2025
Accepted: 20- 09- 2025
Published: 26- 09- 2025

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Abstract

The Delhi-Mumbai Industrial Corridor (DMIC) is a flagship infrastructure megaproject envisioned by the Government of India to lead the country's economic transformation. With estimated investment of up to US$100 billion, the plan seeks to build a globally competitive centre for manufacturing and trade served with world-class infrastructure and interconnected "smart cities." As the official discourse proposes DMIC as a panacea for India's jobs and infrastructure gap, a very different and critical picture is found through review of the academic and policy literatures.

The research identifies a major and multifaceted impact on the agricultural sector, like socio-economic disparity, rising regional inequity, and escalating environmental challenges. At the centre of the problem lies the forced acquisition of holdings of farmland, resulting in the dislocation of farming communities which results to the loss of tradition livelihoods. Researchers have pointed out the shortcomings of the project's capital-intensive proposals in absorbing the dislocated communities, most of whom are unskilled, thereby causing a huge gap between the original intentions of the project and on-the-ground realities. Adding to that, the pilot project of the DMIC is often criticized as a fragmented and incoherent process, whose outcome hinges on the varied institutional capacities of various states. Such differential growth, along with a lack of proper public consultation and the sidelining of land laws, has resulted in social reluctance and litigations. The water and land requirements of the project lead urbanisations pose added stress on a very vulnerable agrarian ecosystem.

In contrast to the recorded advantages for agriculture—in the form of expanded Agri-logistics and supply chains—the advantages are systemically theoretical and promotional in nature, with a conspicuous lack of experimental evidence supporting practical benefit for small and marginal farmers. Such a gap in proposed desirable benefits to relative identified undesirable effects is a key finding and a primary gap in the literature. As such, the DMIC is a salutary case study exposing the pressing dilemma between top-down infrastructure-led growth and the principle of fair, inclusive, and sustainable growth.

Keywords: *Delhi-Mumbai Industrial Corridor (DMIC), Socio-economic Dislocation, Environmental Challenges, Infrastructure-led Growth, Agrarian Ecosystems, Regional Inequity, Inclusive and Sustainable Development.*

1. The Delhi-Mumbai Industrial Corridor: Vision, Scope, and Implementation

The Delhi-Mumbai Industrial Corridor is a central element in India's national plan of development as a whole, thought of originally as a forward-looking initiative for boosting industry growth and triggering economic growth. Its general vision, broad parameters, and implementation plan are outlined in numerous academic works and government reports, both revealing an exhaustive picture of its high admirations and aims.

1.1. Methodology

This paper is a structured literature review of academic and policy sources on the DMIC and agriculture. Searches were carried out in Scopus, Web of Science, Google Scholar and major institutional repositories (FAO, ADB, ORF) for publications between 2007–

2025 using the terms 'DMIC', 'Delhi–Mumbai Industrial Corridor', 'industrial corridors and agriculture', 'land acquisition India', and 'industrial corridor water impacts. After screening titles/abstracts and full texts for relevance, 42 items were retained for thematic synthesis.

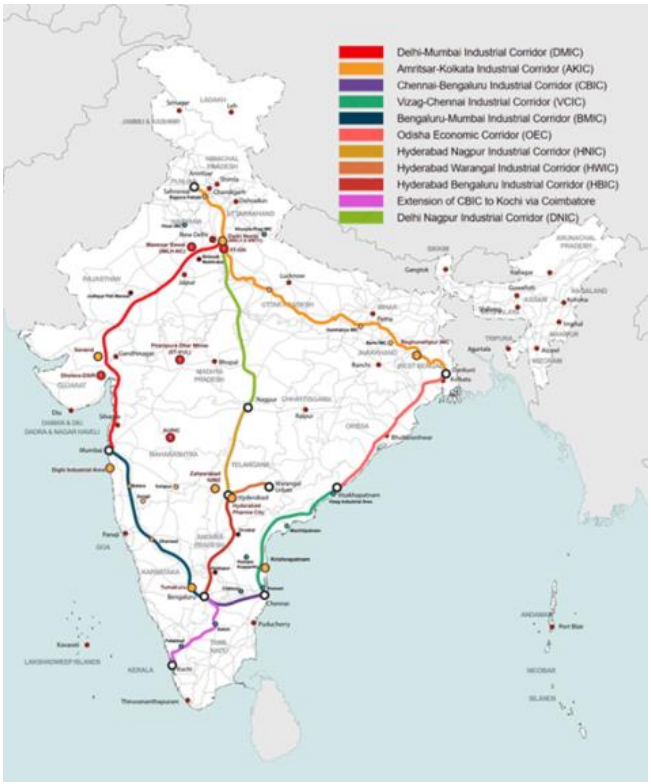

Figure 1 The Delhi–Mumbai Industrial Corridor: DFC alignment (Authors' map, data from DMICDC/NICDC).

1.2. Conceptualizing a Megaproject

DMIC is a mega infrastructure project spanning 1,483 kilometres from India's political centre, Delhi to Mumbai, the country's financial centre.(Macomber et al., 2014) Its total estimated outlay stands at US$90-100 billion, for which it is regarded as one of the biggest infrastructure projects globally and a symbol of Indo-Japan strategic cooperation.(Agrawal, 2018) Its infrastructure spine is the Western Dedicated Freight Corridor (DFC), a high-speed freight corridor aimed at minimizing freight travel time from 50 hours to 17 hours.(Dwivedi, 2020) DMIC's "influence area" covers an area within 150-200 kilometres on either side of the DFC where it covers around 14% of India's entire land area and impacts 17% of the country's population.(Dwivedi, 2020)

In this expansive region of influence, the DMIC seeks to build interconnected industrial mega-regions, townships, and new "smart cities".(Chattaraj, 2018) These centres of growth, consisting of nine mega industrial regions of around 200-250 sq. km. in size, are projected to make India a "global manufacturing and trading hub"(DIPP Gov India, 2007). The plan is in alignment with the national strategy of getting the manufacturing sector's contribution to GDP to 25% and transforming the country into a key participant in world value chain (India's National Industrial Corridor Development Programme (NICDP) | IBEF, n.d.) s. Government reports highlight the project's purpose as an instrument for planned, systematic urbanization and economic growth for inviting foreign investments and drive socio-economic growth.(Kaur, 2017)

1.3. The Institutional and Financial Framework

This implementation of the DMIC is managed through a multi-levelled institutional and financial structure.(Bhalaki, 2013) At the highest level, a high-level monitoring body headed by the Union Finance Minister and consisting of state Chief Ministers is in place.(Bhalaki, 2013) Delhi Mumbai Industrial Corridor Development Corporation (DMICDC), renamed later as National Industrial Corridor Development Corporation (NICDC), was established as the vertical implementing agency for the purpose of carrying out master planning, preparation of projects, and consultation with the central government ministries and the state government (Our Journey | NICDC, n.d.).

This project is carried out under a system of a Public-Private Partnership (PPP), whose initial financing comes from the Government of India in cooperation with Japanese loans. However, much of the estimated investment of US$90 billion is expected to come from private organizations through share capital, equity inputs, and sales of land plots. Specific endeavours in the Delhi-Mumbai Industrial Corridor (DMIC) are carried out on a project-specific basis through Special Purpose Vehicles (SPVs), limited liability companies. Such a system, though envisioning oversight of a very complex project, was criticized on the part of some quarters for its potential for "funds mismanagement" and for focusing more on generating earnings for investors rather than responding to the needs of indigenous communities.(Dwivedi, 2020)

1.4. Stated Objectives and Aspirations

DMIC was conceived with a clear set of developmental objectives to overcome a series of system deficiencies in India's industry sector, including various infrastructure deficiencies and a lack of readily available, serviced land for industry units. It is a high-growth initiative with aspirations to double employment opportunities, triple industry production, and quadruple region's export in a period of five years. It was specially designed to overcome India's "jobs growth crisis" through a creation of millions of jobs, particularly for India's young, mostly unskilled workforce. It is the primary assumption for planned investment in world-class infrastructure and enhanced connectivity to boost manufacturing, generate jobs, and place the country on a higher growth trajectory (Agrawal, 2018) and (Chattaraj, 2018)

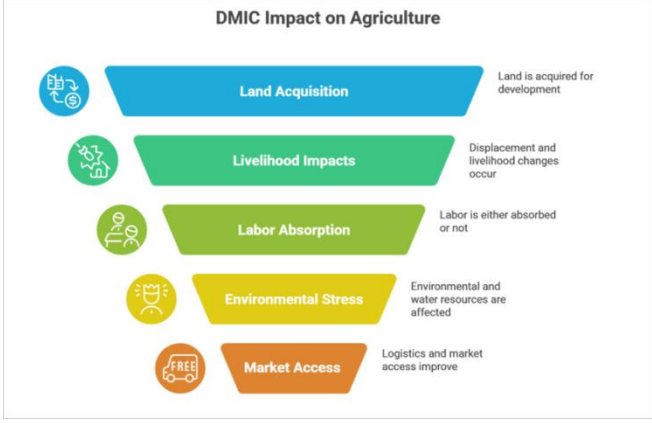

Figure 1 Conceptual framework of DMIC impacts on agriculture, Source: Authors

1.5. Foundational Analysis of Project Design and Implementation

A critical examination of the DMIC's stated goals and its documented implementation reveals a significant disjunction. The project's central justification is to create jobs for India's abundant unskilled labour force, many of whom are migrating from the agricultural sector. However, a key observation from the literature is that the developments along the DMIC are "capital intensive" and therefore "unlikely to expand employment opportunities for the poor and unskilled". This constitutes a fundamental mismatch at the heart of the project's design. The DMIC attempts to solve a labour crisis with a capital-intensive solution, which may ultimately fail to absorb the very population it is meant to serve. This is not just a project flaw but a profound systemic contradiction that could create a social and economic vacuum for the agricultural labour displaced by the project. (Agrawal, 2018) and (Chattaraj, 2018)

Additionally, where initially conceptualized as a cohesive and contiguous "corridor" purposefully seeking to foster regional integration, academic studies repeatedly characterize the DMIC as a "collection of disjointed and fragmented territories." Achievement of the project's objectives is not secured through the physical infrastructure alone; on the contrary, its developmental impacts "are likely to differ in accord with the strength of state-level systems of planning and coordination." Achievement of success in the DMIC depends on "unprecedented levels of coordination" taking place among various governmental authorities, yet high-scale megaprojects are not uncommon in presenting "low network density," situation academics relate to higher coordination complexity. A comparative analysis of implementation procedures in Gujarat and Uttar Pradesh reveals the gap starkly. While Gujarat's successes owe much to its efficient institutional systems, the DMIC in Uttar Pradesh is described as a "scattering of uncoordinated Central and State government initiatives," where the state's inputs are almost entirely limited to land development. Such disintegration in governance and planning fosters an added likelihood of such situations delivering only "land speculation and social conflict" and potentially ending up delivering a string of "white elephant projects with minimal public value." DMIC's failure to integrate with pre-existing settlement plans and master plans, coupled with a lack of vertical and horizontal policy cohesion, reveals a significant gap in governance that threatens the very objectives of the project.

2. Land and Livelihoods: The Core of Agrarian Transformation

Immediate and most intense impact of DMIC on agriculture derives from the acquisition procedure of lands. It is the very root cause wherein the developmental objective of the project directly confronts the very foundation of India's agricultural economy.

2.1. Land Acquisition and Conversion Dynamics

Land is unequivocally the "main means of livelihood in any agricultural economy"(Parwez & Sen, 2016). The sheer scale of the DMIC necessitates the compulsory conversion of immense amounts of this critical resource. For its 11 Investment Regions and 13 Industrial Areas, the project is projected to acquire at least 350,000 hectares of land (Japan Center for a Sustainable Environment and Society (JACSES), 2013). This process is recognized as a major driver of the structural shift from a rural-agricultural economy to an industrial one, similar to historical precedents in other developing nations.(Parwez & Sen, 2016) The conversion is particularly disruptive because it targets "extensive agricultural land," including fertile black cotton soil near Indore in Madhya Pradesh and extremely fertile land near Aurangabad in Maharashtra, which yields at least two crops a year (Japan Center for a Sustainable Environment and Society (JACSES), 2013). This land-use change, driven by the creation of industrial parks and "land banks" for urbanization, poses an existential threat to farming communities.(Dwivedi, 2020)

2.2. Dispossession and Livelihood Disruption

Due to such a high level of land conversion, the impact is the "large-scale unemployment and displacement" of farmers alongside their families (Parwez & Sen, 2016). Cited in literature is a vast detrimental impact on local communities where the loss of access to lands and natural resources was identified as having the most detrimental impact. Case studies reveal a very detrimental impact on livelihood where loss of lands led to a loss of agricultural produce and a loss in the value of productive assets such as livestock. A piece of research on the acquisition of lands and reconstruction of livelihood revealed that up to 53% of the households who lost lands had lowered incomes relative to previously, and on an average basis, every household had 1.5 unemployed workers (Parwez & Sen, 2016).

Additionally, the jobs generated through the DMIC projects are routinely too few to make up for the loss of income from small-scale farming. The work is often seasonal, low-skilled, and low-paying, especially in the labor-intensive setting up phase (SCHINDLER & SHARMA, 2017). This generates a sad picture where displaced agricultural laborers are pushed towards industrial

work they may not be qualified for or that does not offer a stable, equivalent income (SCHINDLER & SHARMA, 2017). As a part of a larger, extended pattern, for instance, in the past 20 years, more than 2,000 farmers per day were losing their "Main Cultivator" classification and had nowhere to go but to lowly ends of service industry (Japan Center for a Sustainable Environment and Society (JACSES), 2013). It appears in this light that the DMIC, far from reversing such a trend, might actually be accelerating it.

2.3. The Legal and Institutional Landscape of Land Governance

Success in the project ultimately hinges on land acquisition (Macomber et al., 2014) Even though the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement (RFCTLARR) Act, 2013 was put in place to offer a shielding legal environment for displaced farmers, studies indicate state governments are actively evading this law (Mahadevia et al., 2019). In Gujarat, the state has insisted on inserting the Town Planning Scheme (TPS) mechanism into its Special Investment Region (SIR) Act in an attempt to evade the requirements for social and environmental impact studies and public hearings assigned in the national law (Mahadevia et al., 2019). Such a move enables the state to procure land at a cheaper price from farmers and gather segregated pieces for industry use, but is deemed "expensive and cumbersome" for the private sector and state governments who are used to acquiring lands quickly and with fewer regulations. Such institutional footwork has resulted in widespread ground-level opposition and judicial challenges from farmers who believe the future benefits of rising land values are mere fantasies (Mahadevia et al., 2019). Such legal and political pushback indicates the deep distrust and social strife sown through a top-down, non-consultative approach to growth (SIDDIQUI, 2018).

2.4. A Broader View of Involuntary Displacement

Forced displacement induced by the DMIC is no rare or unusual outcome but a worsening of a historicized socio-political problem in India. Scholarly commentaries observe that big-ticket development projects have been a primary agent of forced displacement in the country (SIDDIQUI, 2018). The DMIC, through sheer magnitude, brings such a problem center-stage, highlighting inadequacy in resettlement policies as well as institutional weaknesses in fairly orchestrating the process. The available research literature informs us that such a displacement is no mere economic setback but a "traumatic" experience causing a sense of "alienation from land and localities, from ethnic and community groups and from their access to public property". Such a loss of social and kin networks is especially damaging to a rural society's sense of collectivity and safety (SIDDIQUI, 2018). Protests and violence are a direct response to the "land dispossession" and the sense of injustice in a development paradigm where the abstract "greater good" takes preference over local economies and cultural heritage. The DMIC, then, is a recent case in point for a contentious and recurrent debate regarding the human price of India's own development paradigm.

3. Socio-Economic Dimensions and Regional Inequality

Besides the direct impact from land acquisition, the academic literature on the DMIC revolves around its broader socio-economic impacts, particularly with regards to structuring employment, and regional disparity. It seems from the evidence put forward that the project stands to expand prevailing differentials more than diminish them.

3.1. Employment, Skill Gaps, and the "Jobs Crisis"

One of the main arguments in favor of the DMIC is its promise of generating millions of jobs and solving India's "jobs crisis" (Chattaraj, 2018). Project objectives involve generating more than 109,000 jobs in designated areas and up to 3 million direct and indirect jobs in the corridor (Chattaraj, 2018). A close scrutiny, however, brings out a basic incompatibility in the desire and the nature of the project. The projects on the DMIC are very much "capital intensive" and hence "unlikely to widen employment prospects for the poor and unskilled" migrating from the farms. This is a major cause of concern for the "equitable absorption of the dispossessed due to land acquisition" who are likely to get "driven as laborers into industrial employment" (Agrawal, 2018).

Such jobs are normally seasonal and low-quality, not earning enough to offset the loss of means of living in farming. Such a challenge is put in further perspective by wider studies from institutions such as the Indian Council for Research on International Economic Relations (ICRIER), reporting a lack of "structural transformation" in India's urban labor market (SCHINDLER & SHARMA, 2017). As urban centers have expanded, there is a recorded loss of employment in industry and an unexpected growth in employment in agriculture in the urban centers, revealing a lack of progress in transforming the labor pool into higher-value occupations (ICRIER, 2024). DMIC, through infrastructure-intensive change, seems to be accelerating such a trend rather than correcting it.

3.2. Widening Disparities and Uneven Development

DMIC is a "re-centralisation of urban planning" and will only serve to "increase regional inequality" and not promote regional integration (SCHINDLER & SHARMA, 2017). It goes against the very opposite of the old Nehruvian model of decentralised growth. It is contended by scholars that the DMIC shall generate a "commodity frontier," in which the less developed regions of the east shall act as a provider of "cheap labour, agriculture products and natural resources" for the industries in the wealthier regions of the west (SCHINDLER & SHARMA, 2017).

Unequal project implementation throughout the states offers a perfect case example of this aspect. DMIC's developmental impact stands very much on the shoulders of the "effectiveness of state-

level systems for planning and coordination"(Chattaraj, 2018) themselves. As we see in a comparison between Gujarat and Uttar Pradesh, where the former exhibits efficient institutional frameworks and close industry linkages, and the latter projects are characterized as a set of "uncoordinated" and "fragmented" endeavors. Such a gap in state capacity implies that DMIC's impacts are set to very much concentrate in a small set of areas, thereby deepening prevailing intraregional and inter-state imbalances. (Chattaraj, 2018)

Table 1 Comparison of the DMIC's implementation in these two states, based on the research, Source: Author

State	Governance Model	Implementation Outcome
Gujarat	Effective institutional systems for planning and coordination, strong linkages with industry, local business associations, and communities.	Regional industrial development is more likely to depend on state capacity and policies; the DMIC model intensifies a pre-existing trend of "development dichotomy".
Uttar Pradesh	A "smattering of uncoordinated Central and State government projects" where the state's primary role is as a "land developer" with a lack of institutional mechanisms for coordination.	DMIC's projects alone are unlikely to result in regional industrialization, potentially leading to "land speculation and social conflict" and "white elephant projects with little public value".

3.3. Social and Political Fallout

DMIC is not only a technical and economic venture but a political one with deep social implications. Non-participation from local authorities and a lack of popular engagement in the plan and implementation procedure have been emphatically recorded (Japan Center for a Sustainable Environment and Society (JACSES), 2013). It does not cater to the essential needs of local people in the quest of the project for "profit making for domestic and international investors." Such a non-consultative practice along with dispossession of lands directly goes towards social unrest and protests (Dwivedi, 2020).

Scholars observe that the project has "over-written past institutions concerned with small-scale industrial development" and did not succeed in garnering consensus for its own "entrepreneurial vision"(SCHINDLER & SHARMA, 2017). The resultant strains, routinely spilling over into violence, are a direct consequence of the sense of injustice of a development regime ignoring local input and rights.

3.4. The DMIC as an Instrument of State Restructuring

More critically, in the scholarly literature, is the argument that the DMIC is not only an infrastructure initiative but an expression of the post-1990s neoliberal policy of India in having brought about a "creative destruction of institutional space" (SCHINDLER & SHARMA, 2017). It is proactively reshaping the system of governance at a sub-national scale, forcing the states to develop new skills in assembling large areas of land and in delivering projects. It is transforming the state from a classical provider of the works of the state to an entrepreneurial enabler of private investment through the use of private capital and project-specific Special Purpose Vehicles (SPVs) (Williams et al., 2023).

This change carries deep consequences for democracy and government. By skipping over local government and popular consultation, the state enforces a top-down, non-consultative approach to development. Those social conflicts we see are not only a response to the loss of land but a rejection of such a basic shift in the relationship of the state to citizens. DMIC accordingly represents the contradiction between fast economic growth and ideals of inclusive, Indian democracy.

4. Environmental and Ecological Pressures on the Agricultural Base

The impacts of the DMIC extend beyond the socio-economic sphere to impose significant and often externalized pressures on the environment. The agricultural sector, in particular, is positioned to bear the brunt of these ecological costs, which add to an already fragile ecosystem.

4.1. Water Stress and Competition

The DMIC megaproject requires a massive amount of water to service its industrial areas. This demand is a critical concern, as most of the project's influence zone is already in a state of "severe water distress" (Japan Center for a Sustainable Environment and

Society (JACSES), 2013) The development of new industrial water supply projects, such as the one planned from the Narmada River for the Pithampur Industrial Area, risks overdrawing water and negatively impacting the health of rivers and the livelihoods of surrounding agricultural communities who depend on these resources. This competition for a finite and stressed resource creates a direct and immediate conflict between industrial and agricultural needs, with the latter often being marginalized in the planning process. The provided research notes that these environmental impacts have not been considered appropriately by project authorities. (Japan Center for a Sustainable Environment and Society (JACSES), 2013)

4.2. Cropping Patterns and Food Security

The conversion of extensive and fertile agricultural land to industrial use has a direct and negative impact on the local food chain and subsistence farming. The loss of productive agricultural land inherently means a loss of food production, posing a direct threat to food security at the regional level (Japan Center for a Sustainable Environment and Society (JACSES), 2013). This land-use change is part of a broader set of pressures on the agricultural sector, which is already grappling with the unpredictable effects of climate change, such as drought, extreme temperatures, and soil erosion (Nguyen et al., 2019). The DMIC adds a new layer of stress to this complex and vulnerable system. Research suggests that a loss of even a small percentage of net sown area can raise concerns about food security, and the DMIC's scale ensures this loss is significant.

4.3. Externalities and Sustainability

Industrial development often generates a range of environmental externalities, including "greenhouse gas emissions, water pollution, or soil degradation," whose costs are often not absorbed by the industrial sector but are instead externalized and borne by others, most notably the agricultural sector (Reyes-García et al., 2025). The DMIC, with its focus on capital-intensive manufacturing hubs and "plug-and-play" infrastructure, risks creating these negative effects on a grand scale. Furthermore, large-scale industrial zone development can lead to biodiversity loss, habitat fragmentation, and the consumption of large volumes of resources. While the DMIC's official program document mentions a commitment to sustainability and "environmental stewardship," the documented realities of water competition and land degradation present a contradictory picture.

4.4. A Compounding Crisis for a Fragile Ecosystem

The DMIC's environmental impacts are not isolated but rather compound the existing agrarian crisis in India. This is a critical point of analysis; the DMIC is not a singular cause of decline but a new and powerful stressor on an already fragile system grappling with climate change, resource depletion, and economic pressures. The combination of land-use change, increased water competition, and industrial pollution creates a negative feedback loop that intensifies the multi-dimensional ecological challenge faced by the agricultural sector. The project's failure to appropriately consider these impacts during the planning stage, as highlighted in the literature, demonstrates a critical oversight that risks undermining the very sustainability it claims to champion (Lobell & Di Tommaso, 2025).

5. The Role of Logistics in Modernizing Agriculture

While the documented impacts on agriculture are predominantly negative, the DMIC's core infrastructure theoretically offers potential benefits to the sector, particularly in the realm of supply chains and logistics. However, a review of the provided research reveals a significant discrepancy between these potential benefits and the documented realities.

5.1. Enhancing Agri-Logistics and Supply Chains

From a logistics perspective, the DMIC's high-speed freight corridor, expressways, and multimodal hubs are designed to link production centres with consumer markets more efficiently. The project aims to improve transport efficiency, reduce logistics costs, and enhance supply chain reliability for various industries, including agriculture (Karthik, 2020). By strategically situating industrial clusters and providing world-class infrastructure, the DMIC could, in principle, provide agricultural businesses with "smooth access to raw material, labour & markets" and reduce transportation costs, thereby increasing competitiveness. The development of warehousing and cold storage facilities as part of this infrastructure could also directly benefit the agri-food industry (Karthik, 2020).

5.2. Digitalization and the Agri-Food Industry

The DMIC project and the broader National Industrial Corridor Development Programme are positioned as vehicles for "converging next generation technologies" and developing "smart cities". While the provided research does not directly connect this with agriculture, a separate body of literature on the agri-food industry suggests that digitalization can have a transformative effect on supply chains (Dong et al., 2023). Digitalization can empower small and marginal farmers by providing real-time information on market prices, connecting them directly with buyers, and improving inventory management and logistical processes. This can lead to increased profitability and sustainability by reducing waste and improving resource management (Dong et al., 2023). The DMIC's focus on high-tech infrastructure and digital logistics platforms could, in theory, support these advancements within the agricultural supply chain, although no empirical evidence for this specific outcome is present in the provided sources.

5.3. A Discrepancy Between Theoretical Benefits and Documented Reality

A critical observation that emerges from the provided body of literature is the stark contrast between the empirically validated negative impacts of the DMIC on agriculture and the largely

theoretical or aspirational positive benefits. The critiques related to land loss, displacement, water stress, and institutional failures are grounded in primary research, including field studies and interviews with affected communities (Japan Center for a Sustainable Environment and Society (JACSES), 2013). Conversely, the discussions of improved Agri-logistics and supply chains are framed in terms of potential, aims, and possibilities (Chattaraj, 2018). There is a significant absence of concrete, empirical studies or data points that demonstrate how the DMIC has actually improved the livelihoods of farmers or enhanced the competitiveness of agricultural products on the ground. This asymmetry in the academic discourse suggests a major gap in the available research and implies that the project's promoters have not yet been able to demonstrate a tangible return on investment for the agricultural communities most affected by the project. This is a crucial analytical finding, as it highlights that the negative consequences are immediate and real, while the touted benefits remain largely speculative.

6. Synthesizing the Discourse: Critiques and Future Directions

The academic literature on the DMIC's impacts on agriculture presents a clear and consistent narrative that contrasts sharply with the project's official vision. The discourse is characterized by several key findings and a set of shared critiques that point to a need for a fundamental re-evaluation of India's infrastructure-led development model.

6.1. Key Findings from the Academic Literature

The synthesis of the provided sources yields a multi-dimensional critique of the DMIC's impact on agriculture:

Delhi–Mumbai Industrial Corridor (DMIC) has been repeatedly conceptualised by academics as a disjointed series of projects rather than as a continuum, integrated corridor. Implementation is uneven across different states and is highly conditioned upon availability of local institutional endowments and governing institutions, thereby raising the likelihood of unstructured development, localized conflict, and "white elephant" projects (Williams et al., 2023) and (SCHINDLER & SHARMA, 2017). Such vulnerability in itself is exacerbated through an underlying-design incompatibility: whilst the corridor is planned as an instrument of inclusive industrialisation, as a capital-intensive undertaking it is poorly suited to the absorptive capacity of an agrarian workforce, especially unskilled labourers disconnected from agriculture (Chattaraj, 2018) and (Ramachandran, 2019). The DMIC is thus in turn vulnerable to reproducing regional and social inequalities and channelling growth along already industrially advanced western states such as Gujarat and Maharashtra, whilst overlooking and marginalising the east and less developed regions, thereby perpetuating what Schindler (2017) terms a "commodity frontier" of exclusion.

At the sub-national scale, the greatest socio-economic disruptions are the direct outcomes of dispossession and subsequent livelihood loses for agricultural households. Various research studies suggest that the taking of lands for Delhi-Mumbai Industrial Corridor (DMIC) townships and nodes regularly avoids currently protective legal arrangements, and with it, provokes community resistance, protest, and long-standing legal contentiousness (Jain et al., 2021) and (Williams et al., 2023)Besides such socio-political difficulties, the corridor generates enormous ecological demands. The huge requirements for land and water resource inputs amplify competition for scarce supplies in the arid regions of Rajasthan and Gujarat and disproportionately increase ecological vulnerability and agricultural volatility (Biswas & Dey, 2023) and (Shah, 2010). Furthermore, there is an evident shortage within the research literature: even as there is extensive empirical evidence available that highlights the negative socio-economic and ecological outcomes of the DMIC, systematic evidence for its future positive achievements—such as improvements in agricultural logistics, improvements in supply-chain efficiency, or realization of superior prices for farmers—is scarce and mostly speculative (Gálvez Nogales, 2014) and (Chattaraj, 2018)

Table 2 Comprehensive, multi-dimensional summary of these impacts, Source: Author

Impact Category	Stated Objective/Theoretical Benefit	Documented Impact
Economic	Job creation, increased industrial output, foreign investment.	Displacement and unemployment for agricultural labor, creation of low-skilled, low-wage jobs, capital-intensive developments unlikely to absorb the poor.
Social	Equitable development, poverty alleviation, and addressing the "jobs crisis".	Livelihood disruption, involuntary displacement, loss of cultural identity and social networks, social conflict and protest.

Environmental	Sustainable development, environmental stewardship, green technologies.	Water competition with the agricultural sector in water-stressed regions, pollution, land degradation, and a negative impact on food security.
Institutional	Planned and coordinated investment, integrated development across states.	Uneven and fragmented implementation, lack of public participation and institutional coordination, subversion of land acquisition laws.

6.2. Gaps in the Research

Despite the wealth of critical analysis, several significant gaps remain in the provided literature. There is a lack of long-term, empirical studies on the socio-economic outcomes of the displaced farming populations, including a detailed analysis of their income levels and well-being several years after land acquisition. The on-the-ground efficacy of compensation and resettlement schemes is also a key area requiring further investigation. A more fundamental gap is the absence of empirical research demonstrating how the DMIC's infrastructure and logistical improvements have actually benefited small and marginal farmers, beyond the realm of theoretical possibilities. Furthermore, while the general threat to food security is noted, more specific research on how the DMIC has affected cropping patterns and local food production in practice is needed.

6.3. Recommendations for Policy and Research

Based on the critiques and identified gaps, a more equitable approach to infrastructure-led development is required. For future projects of this scale, policy must prioritize genuine public participation and adherence to national legal frameworks for land acquisition, such as the RFCTLARR Act (SCHINDLER & SHARMA, 2017). Furthermore, there is a clear need to align project design with the skills and capacities of the local workforce. This could involve promoting labor-intensive technologies and implementing robust, corridor-centric skill development roadmaps to ensure that the displaced agricultural labor force can be meaningfully integrated into the new economic ecosystem (Mahadevia et al., 2019).

From a research perspective, a shift is needed from high-level, macro-economic analysis to grounded, empirical studies that follow the long-term socio-economic trajectory of affected communities. Future research should focus on gathering data on the tangible benefits of infrastructure and digitalization for small farmers, providing a more balanced and evidence-based assessment of the DMIC's full impact on agriculture. Finally, the establishment of empowered regional authorities is recommended to promote integrated spatial planning and equitable growth across the corridor, mitigating the risks of fragmented and uncoordinated implementation (Jain & Jehling, 2020).

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