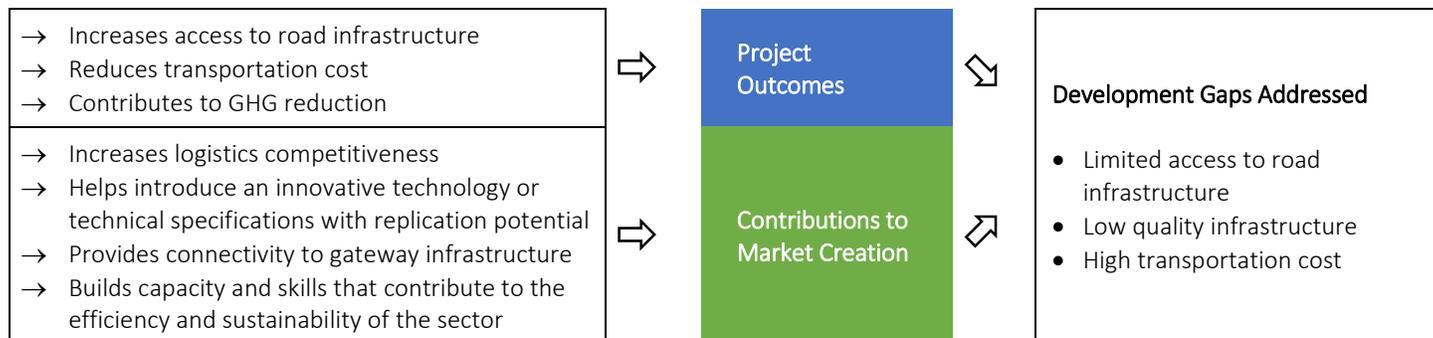


Development Impact Thesis – Road networks are the backbone of social and economic development, enabling the provision of transport and logistics services to passengers and cargo. Enhancing road infrastructure is a key priority for IFC and the World Bank Group. IFC provides financing and advisory services in the road sector, which:



Rating Construct – All AIMM sector frameworks include detailed guidance notes that help define project outcomes and contributions to market creation, aggregating to an overall assessment of development impact.

- For project outcomes, stakeholder effects are the key components for which industry-specific benchmarks define the context in which an IFC operation seeks to drive changes. This gap analysis is combined with a separate set of impact intensity estimates that specify the expected results using predefined indicators.
- For contributions to market creation, industry-specific market typologies define stages of development for five market attributes (or objectives): competitiveness, resilience, integration, inclusiveness, and sustainability. These market typologies, when combined with estimates of how much an intervention affects the development of a market attribute, provide the foundation for IFC’s assessment of an intervention’s market-level potential for delivering systemic changes.

PROJECT OUTCOME INDICATORS		CONTRIBUTION TO MARKET CREATION INDICATORS	
Stakeholders	<u>Customer access</u> <ul style="list-style-type: none"> • Average number of users per day in urban and/or non-urban areas 	Competitiveness	<u>Changes in market structure</u> <ul style="list-style-type: none"> • Market structure through composition, entry and exits
	<u>Customer affordability</u> <ul style="list-style-type: none"> • Change on VOC obtained from the comparison of a project and no project VOCs. 		<u>Innovation</u> <ul style="list-style-type: none"> • Adoption of innovative technology or technical specifications
	<u>Quality and effectiveness effects</u> <ul style="list-style-type: none"> • The project introduces design or technical characteristics that enable operability in all weather conditions 	Resilience	<ul style="list-style-type: none"> • Provide alternative routes that improves reliability of road network • Enhances disaster preparedness and response efforts • Cost recovery
	<u>Effects on suppliers</u> <ul style="list-style-type: none"> • Purchases from and/or technical assistance (tech transfer) to local suppliers, SMEs • Change in number of local suppliers, SMEs 	Integration	<u>Spatial integration</u> <ul style="list-style-type: none"> • International connection through gateway infrastructure
	<u>Effects on employees</u> <ul style="list-style-type: none"> • Job Quality (wage premium) 	Inclusiveness	<u>Financial integration</u> <ul style="list-style-type: none"> • Introduction of innovative financing terms
<u>Effects on the community</u> <ul style="list-style-type: none"> • Anticipated change in livelihoods for people physically displaced by the project • Anticipated impact on the shared infrastructure in the local community 	<ul style="list-style-type: none"> • Improve access to underserved regions and population 		
Economy-wide	<ul style="list-style-type: none"> • Value added and/or employment effects • GDP multiplier 	Sustainability	<ul style="list-style-type: none"> • Adoption of sustainability practices (eg climate, ESG) • Conducive legal/regulatory framework • Broad capacity and supporting institutions
Environment	<ul style="list-style-type: none"> • GHG emission reduced • Pollution decrease • Effects on biodiversity 		

IFC’s Environmental and Social Performance Standards define IFC clients’ responsibilities for managing their environmental and social risks. While meeting Performance Standards reflects improved environmental and social performance, effects from implementation of the standards are only claimed in the AIMM framework where a clear counterfactual can be established and where the investment intent is to improve environmental or social outcomes.

Sector Specific Principles or Issues – The following principles will be applied for projects rated under this framework:

Principle or Issue	Treatment Under Framework
Scope of assessment	Direct project and market effects are measured annually over the monitoring period of an investment. Economy-wide effects (including indirect and induced project effects) are measured over the “life of the project” defined as the economic life of the assets or timeframe adopted in the financial model. For the market impact assessment, a market is defined as the industry/sub-sector in which the project is taking place (excluding markets affected by the project through economic linkages). For the road sector the market identified is road transportation services for cargo and passengers. This definition includes services provided in urban and non-urban areas. The context of the project will determine if core effects to be analyzed are related to services for passengers or cargo. The assessment places emphasis on development impact that is clearly attributable to the project, measurable and monitorable. For market creation effects, contribution is established by identifying a clear channel linking the project to the anticipated effect and identifying measurable indicators of market creation that can be monitored.
Benchmarking	Anticipated development impact is rated based primarily on the size of the market gap being addressed. This methodology gives greater reward to projects addressing large deficits and those creating missing markets. Support to underserved markets is consistent with IFC’s aspirations to put itself in a leadership role in the “billions to trillions” effort, by leveraging its resources to expand and create markets where private capital has been less forthcoming. A secondary consideration in the rating scale is impact per million dollars invested. This benchmark ensures that deficits are addressed efficiently. The scaling of development impact by project cost also ensures that small but well-targeted projects are not penalized.
Treatment of negative effects	A project’s negative externalities are mentioned in the AIMM assessment only when significant enough to mitigate the overall rating. Roads sector projects could generate negative project level effects in the following areas: (i) considerable resettlement of affected populations (ii) significant environmental effects such as increase in gross GHG emissions (e.g. from induced traffic), pollution, or (iii) need for additional subsidies to the sector. Fiscal implications (revenues or subsidies) are captured in economy-wide effect computations, therefore have a direct bearing on the size of the effects and the rating. Quantifiable negative GHG gross emissions have bearing on the project’s economic rate of return. Along the market dimension, for example, a negative effect on resilience could arise from projects that capture traffic from existing or planned alternative links connecting the same area of influence, making them not viable after the project starts operations. The proposed rating methodology mitigates overall market impact ratings if these effects represent significant risks.

Project Outcomes – The AIMM system considers the extent of the development gap and uses a gap analysis to classify project contexts according to the size of the deficit/gap being addressed. For each indicator (except environment), the size of the gap is measured in relation to development goals associated with the sector. Contexts are classified into very large, large, medium or low gap, for each performance dimension. Development gaps are defined using a combination of qualitative and quantitative benchmarks, which leaves room to consider context-specific attributes that drive investments in the sector.

COUNTRY CONTEXT	Low Gap	Medium Gap	Large Gap	Very Large Gap
Access -Length of roads per capita -Density of roads km per area	<ul style="list-style-type: none"> - There are only few or none rural areas located in remote areas with no road network coverage; these areas are served by intermittent, expensive and unreliable modes of transport - There are only few or none rural areas located in areas with a single link with the national roads network 	<ul style="list-style-type: none"> - There are large rural areas and minor urban settlements located in remote areas with poor network coverage; these areas are served by intermittent, expensive and unreliable modes of transport - There are large rural areas and minor urban settlements located in areas with a single link with the national roads network 	<ul style="list-style-type: none"> - There are large populations located in urban and rural areas with poor road network coverage; these areas are served by intermittent, expensive and unreliable modes of transport - There are large populations located in areas with a single link with the national roads network 	<ul style="list-style-type: none"> - There are large populations located in rural and urban areas with no road network coverage; these areas are served by intermittent, expensive and unreliable modes of transport

COUNTRY CONTEXT	Low Gap	Medium Gap	Large Gap	Very Large Gap
Quality -Share of paved roads of the national network	<ul style="list-style-type: none"> - The national road networks show no deterioration and congestion is sporadic 	<ul style="list-style-type: none"> - The secondary and tertiary road networks show deterioration - There are congestion bottlenecks in major urban areas - Speed averages along the primary road network are low 	<ul style="list-style-type: none"> - The primary road networks show increasing deterioration - There are major congestion bottlenecks along the primary road network serving major economic hubs and urban areas - Speed averages along the primary road network are low 	<ul style="list-style-type: none"> - The primary road network is not paved - There is low utilization of the network due to poor conditions and there are major congestion bottlenecks along the primary road network serving major economic hubs and urban areas - Speed averages along the primary road network are low
Economy-wide	<ul style="list-style-type: none"> - The country has a high level of labor market participation and a high absorption rate for its skilled labor force - The share of informal employment is low 	<ul style="list-style-type: none"> - The country has above average labor market participation, with skills for the roads sector although some gaps may exist - There is evidence of development-oriented policies and measures to improve productive employment as well as enhance the stock and relevance of technical skills - The share of informal employment is average 	<ul style="list-style-type: none"> - The country has a low level of labor market participation, including of its skilled labor force - Technical skills for the roads sector are typically imported - The share of informal employment is high 	<ul style="list-style-type: none"> - The country has very low labor market participation rates, including of its skilled labor force - Technical skills for the roads sector are typically imported - The share of informal employment is high
Employees	<ul style="list-style-type: none"> - The country has skills in the new technology introduced by the projects 	<ul style="list-style-type: none"> - The country has some skills in the new technology introduced by the project, but a skills gap still exists 	<ul style="list-style-type: none"> - The country has a skill gap in the new technology introduced by the projects 	<ul style="list-style-type: none"> - The country has a significant skill gap in the new technology introduced by the projects
Government	<ul style="list-style-type: none"> - Government current account balance is above -05% 	<ul style="list-style-type: none"> - Government current account balance is between -6 and -05% 	<ul style="list-style-type: none"> - Government current account balance is between -12 and -6% 	<ul style="list-style-type: none"> - Government current account balance is below -12%
Environment	<ul style="list-style-type: none"> - Environmental health and Ecosystem vitality, services as measured by Yale EPI, - Climate adaptation and resilience (GAIN index) - Environmental regulatory environment 	<ul style="list-style-type: none"> - Environmental health and Ecosystem vitality, services as measured by Yale EPI, - Climate adaptation and resilience (GAIN index) - Environmental regulatory environment 	<ul style="list-style-type: none"> - Environmental health and Ecosystem vitality, services as measured by Yale EPI, - Climate adaptation and resilience (GAIN index) - Environmental regulatory environment 	<ul style="list-style-type: none"> - Environmental health and Ecosystem vitality, services as measured by Yale EPI , - Climate adaptation and resilience (GAIN index) - Environmental regulatory environment

“Core outcomes” are defined as the main outcomes derived from projects within a sector. Core outcomes are expected to be seen in most projects within the sector and are central to the theory of change. For the roads sector, core outcomes include impacts on users, economy-wide effects as well as environmental impacts when the project generates substantial reductions, for instance reductions in GHG emissions. A project doesn’t need to deliver impact in all potential core dimensions but should do so in the intended area of focus. Occasionally, a project will deliver multiple direct impacts, e.g. a new interstate highway which reduces transportation costs, lowers transit times and reduces GHG emissions. Such a project can also deliver large economy-wide impact connecting labor markets and enabling economic clusters if, for example, it connects a major gateway port or industrial zone with large urban areas.

Impact on employees and community are considered “non-core” in road projects as they are typically secondary benefits associated with a roads sector project, rather than a project’s main development objective.

An IFC operation’s project-level impact is assessed based on the magnitude of its effects in relative terms: i.e., using a normalization rule that provides an indication of the intensity of impact. Intensity is qualified from significantly above average to below average. Some of the indicators used to assess project-level impact intensity are:

PROJECT INTENSITY	Below Average	Average	Above Average	Significantly Above Average
<u>Access</u> <ul style="list-style-type: none"> Average daily traffic (urban) Average daily traffic (non-urban) 	<ul style="list-style-type: none"> Yields positive access effects relative to the size of the investment and the expected traffic on the road is low (based on the US FHWA definition of Minor connector urban/rural corrected for regional/income relevance) 	<ul style="list-style-type: none"> Yields positive access effects relative to the size of the investment and the expected traffic on the road is medium to low (based on the US FHWA definition of Major connector urban/rural corrected for regional/income relevance) 	<ul style="list-style-type: none"> Yields positive access effects relative to the size of the investment and the expected traffic on the road is medium to high (based on the US FHWA definition of Minor arterial urban/rural corrected for regional/income relevance) 	<ul style="list-style-type: none"> Yields positive access effects relative to the size of the investment and the expected traffic on the road is high (based on the US FHWA definition of Major arterial urban/rural corrected for regional/income relevance)
<u>Quality</u> <ul style="list-style-type: none"> Vehicle average speed (urban) Vehicle average speed (non-urban) 	<ul style="list-style-type: none"> Yields positive quality effects that result in low average speeds. <0-15 Km/h (Urban) 0-50 Km/h (Non-urban) 	<ul style="list-style-type: none"> Yields positive quality effects that result in low to medium average speeds. 15-20 Km/h (Urban) 50-70 Km/h (Non-urban) 	<ul style="list-style-type: none"> Yields positive quality effects that result in medium to high average speeds. 20-30 Km/h (Urban) 70-90 Km/h (Non-urban) 	<ul style="list-style-type: none"> Yields positive quality effects that result in high average speeds. above 30 Km/h (Urban) above 90 Km/h (Non-urban)

The AIMM methodology considers the uncertainty around the realization of the potential development impact being claimed, making a distinction between the potential outcomes that a project could deliver and what could be realistically achievable in the project's development context. The table below presents an overview of the key types of risk factors for road projects.

PROJECT LIKELIHOOD	Operational Factors	Sector Factors
Assessment Considerations	<ul style="list-style-type: none"> Client track record of delivering impact in the proposed focus area Sponsor's technical strength and support to project Covenants assuring implementation of specific project components (e.g. commitments to extend of access to BoP populations) Project likelihood of reaching financial close at targeted level of capitalization (mostly relevant to Funds) Presence of funded plan for the development of complementary infrastructure 	<ul style="list-style-type: none"> Definition and realism of development impact targets Extent of political support and social buy-in Financial viability in the absence of subsidies Affordability in the absence of subsidies Resilience to exogenous shocks Alignment of monetary policy risk (currency of trade, currency convertibility, currency transferability, taxation) with project development objectives

Contribution to Market Creation – For the assessment of market creation outcomes under road projects, the markets assessed are road transportation services for cargo and passengers provided in urban and non-urban areas. AIMM assessment places emphasis on development impact that is clearly attributable to the project, measurable and monitorable. For market creation impact, attribution is established by identifying a clear channel linking the project to the anticipated impact and identifying measurable indicators of market creation impact that can be monitored.

Market typologies provide the building blocks in the AIMM system to construct a narrative for how much an IFC intervention is advancing a market objective. These typologies provide a description of the market gap based on various stages of development for a given sector from least developed to most advanced and enable the location of the market before and after IFC's intervention. The table below summarizes the characterizations of the market for the five market attributes.

MARKET TYPOLOGY	Highly Developed	Moderately Developed	Underdeveloped	Highly Underdeveloped
Competitiveness	<ul style="list-style-type: none"> – Concessions are widespread and functioning well. – There is a national level pipeline of projects that covers expansion and maintenance of primary, secondary and tertiary roads. – There are no delays or cost overruns in the implementation of the existing pipeline. – The budgets to expand and maintain the national and local road networks shows no deficits in the last 3 years. 	<ul style="list-style-type: none"> – There are a few experiences with concessions, mostly for roads connecting large economic hubs. – There is a national level pipeline of projects to expand and maintain the road network and public budget is insufficient for its implementation. – There are minor delays or cost overruns in the implementation of the existing pipeline. – The budgets to expand and maintain the national and local road networks shows sporadic deficits. 	<ul style="list-style-type: none"> – There are few concessions for roads in place, all heavily subsidized; there are multiple cases of failed concessions or arbitration disputes. – The budgets to develop and maintain the national and local road networks shows repeated deficits. – There are significant delays or cost overruns in the implementation of the existing pipeline. – No systematic planning of investments into the roads network to meet future needs. 	<ul style="list-style-type: none"> – There are no concessions for roads in place; there are multiple cases of failed concessions or arbitration disputes. – The budgets to develop and maintain the national and local road networks shows repeated deficits. – There are significant delays or cost overruns in the implementation of the existing pipeline. – No systematic planning of investments into the roads network to meet future needs.
Resilience	<ul style="list-style-type: none"> – Full cost recovery is in place with maintenance and operation cost covered by tolls and end user fees. No reliance on government subsidies. – Toll concessions are fully bankable. 	<ul style="list-style-type: none"> – The maintenance is stable and not heavily affected by weather. The level of subsidy in the sector has been decreasing but some subsidies remain to offset low traffic volumes. – Toll concessions are in place for high traffic roads. 	<ul style="list-style-type: none"> – (The cost of maintenance is high due to topographic or weather conditions. The sector heavily reliant on government subsidies to cover maintenance costs that cannot be recovered through the tariff. – Toll concessions are not bankable 	<ul style="list-style-type: none"> – The sector is fully reliant on government subsidies for development and maintenance of the network. Toll tariffs completely detached from system costs. – There are no toll/concession structures.
Integration	<ul style="list-style-type: none"> – Regional road networks and BPs crossings are efficient. – The country has adequate all-season road connectivity with all neighboring countries and special purpose zones. – Occasional congestion is observed during peak trade seasons – The country has an efficient network connecting gateway infrastructure and markets 	<ul style="list-style-type: none"> – Regional road networks show seasonal congestion and deterioration. BPs crossings are inefficient during peak seasons. – The country has road connectivity with neighboring countries (all neighboring countries have at least one BP connected to the primary roads network). – Connection between border posts and primary roads network is in poor condition but is generally operational all year round. – Connection between gateway infrastructure (e.g. ports, airports) and primary roads network is in good condition but is subject to occasional operational interruptions (e.g. due to weather). 	<ul style="list-style-type: none"> – Regional road networks show congestion and deterioration. BPs crossings are inefficient. – The country has limited road connectivity with neighboring countries (not all neighboring countries have at least one BP connected to the primary roads network). – Connection between border posts and primary roads network is in poor condition and is subject to operational interruptions (e.g. due to weather). – Connection between gateway infrastructure (e.g. ports, airports) and primary roads network is in poor condition and is subject to operational interruptions (e.g. due to weather). 	<ul style="list-style-type: none"> – N/A

MARKET TYPOLOGY	Highly Developed	Moderately Developed	Underdeveloped	Highly Underdeveloped
Inclusiveness	<ul style="list-style-type: none"> – BOP access to roads is adequate and improvement and expansion and rehabilitation is needed only to cope with future demand. 	<ul style="list-style-type: none"> – Country has BoP populations mostly in rural areas with no road network coverage. These areas are served by intermittent, expensive and unreliable modes of transport.). – There are BOP populations located in rural areas with a single link with the national roads network. – There are isolated or location specific gaps in roads access within country (underserved areas are remote, cannot be served cost-effectively through network extension, is located in a fragile part of country) 	<ul style="list-style-type: none"> – Country has significant number of areas with BoP populations with no road network coverage. These areas are served by intermittent, expensive and unreliable modes of transport.). – There are large BOP populations located in areas with a single link with the national roads network. 	<ul style="list-style-type: none"> – Majority of the underserved populations do not have access to reliable road infrastructure.
Sustainability	<ul style="list-style-type: none"> – Majority of industry participants follow global industry standards – Legal frameworks exist and are enforced to maintain high standards in road construction and operation that are aligned with global industry best practices (e.g. climate, ESG), – Verification mechanism are used in the industry – Capacity in the market to meet technical needs of industry participants in applying industry best practice standards 	<ul style="list-style-type: none"> – Voluntary sustainability industry frameworks exist with a number adopting firms. Standards in road construction partially aligned to global industry best practices and / or IFC Standards / OECD Principles as relevant – Regulations/laws are in place and enforced consistently – Verification mechanism being developed 	<ul style="list-style-type: none"> – Self-regulation promoted through leading companies that influence others to use sustainability standards relevant to road construction – Relevant laws for some ES standards are in place – Verification mechanisms do not exist 	<ul style="list-style-type: none"> – No voluntary or compulsory standards exist, no legal requirements for private sector related to ESG in roads sector.

The market component rating is based on the current market stage and movement along the market typologies. For each relevant market outcome, the individual market creation assessment will identify where the magnitude of the movement falls in the movement spectrum and will support one of the following movement options: “Marginal”, “Meaningful”, “Significant” or “Highly Significant”. In general, most individual projects are not expected to make a significant and immediate systemic market change, unless the project is a pioneer in a non-existent or nascent market. Instead, most projects are expected to have incremental effects on the market. In other words, it takes more than one intervention to move a market to the next stage. This means that integrated and concerted efforts are often needed to generate substantial market effects. For example, cumulative World Bank Group efforts over time will have a stronger effect on markets than non-integrated and non-concerted interventions. Where a project is explicitly part of a programmatic approach, the expected movement induced by the program should be the basis for the assessment where timebound movements, market effects, and indicators are available. Examples of market movements include:

MARKET MOVEMENT	Marginal	Meaningful	Significant	Highly Significant
Competitiveness	<ul style="list-style-type: none"> – Project supports entry of a new private investor into the market where roads development and maintenance is mainly a public responsibility. – Project leads to a concession of a state-owned and maintained road. – Project helps introduce an innovative technology or technical specification with replication potential across other components of the road network. 			
Resilience	<ul style="list-style-type: none"> – Project leads to adding roads to an area previously served only by other modes of transport (air, inland waterways) – The project adds road alternatives to connect an area. – Project improves the road infrastructure technical specifications enabling to operate in all weather conditions – Project replaces a road link affected by environmental issues like flooding, or landslides. 			

MARKET MOVEMENT	Marginal	Meaningful	Significant	Highly Significant
Integration	<ul style="list-style-type: none"> – Project provides road connection between gateway infrastructure (e.g. ports, airports) or special purpose zones and primary roads network. – Project alleviates congestion around gateway infrastructure (e.g. ports, airports) and facilitates the flows of commodities. – Project connects primary road networks of neighboring countries. 			
Inclusiveness	<ul style="list-style-type: none"> – Project supports reaching BoP and/or rural populations not connected to the roads network – Project lowers the cost for transport service providers and increases the incentive to expand their services and / or lower user tariffs – Project provides ancillary infrastructure to enable efficient low-cost transport alternatives for BOP populations. 			
Sustainability	<ul style="list-style-type: none"> – Project leads to improvement in sustainability practices that are replicable or will have significant impact on the sector, – Project leads to adoption of technologies or approaches that contribute to significant climate mitigation or adaptation. 			

The market likelihood adjustment follows the principles for the likelihood adjustment for project outcome potential. In general, the likelihood assessment includes sector-specific, as well as broad country risks that may prevent potential catalytic effects from occurring, plus political economy or policy/regulatory risks that may constrain market systemic change. Due to the diversity of market creation attributes and channels, most of the likelihood factors are expected to be sector, or intervention specific.

MARKET LIKELIHOOD	Sector Factors	Political / Regulatory / Policy Factors
Assessment Considerations	<ul style="list-style-type: none"> • Public partner track record in meeting contractual obligations • Extent of political support and social buy-in • Financial viability in the absence of subsidies • Track record of concessions success 	<ul style="list-style-type: none"> • Presence of established and well-tested regulatory and legal framework • Existence of a solvent and independent road agency • Government track record in upholding new policies (measuring risk of policy reversals)