Approach Paper

Sustainable Provision of Infrastructure Services
and the World Bank Group
Phase I—Transport Sector

1. Context and Motivation

1.1 The Independent Evaluation Group (IEG) will carry out an evaluation to review how the World Bank Group (WBG)\(^1\) has, through its various types of interventions, supported its client countries to establish institutional and financial mechanisms and build sector capacity to ensure proper operation, maintenance, and provision of infrastructure services.\(^2\) This evaluation will cover three sectors that account for most of the WBG’s assistance for infrastructure—transport, water, and energy.\(^3\) Given the complexity and range of the subject, IEG will adopt a programmatic approach. Using an evaluation framework that is broadly applicable to all three sectors, phase I of this evaluation will address the transport sector, while phase II will cover energy and water sectors.

1.2 According to a preparatory literature review and consultations carried out with sector stakeholders, including WBG managers and task team leaders, while major investments have been made in infrastructure stocks, in many developing countries these stocks are not delivering the quantity or quality of services as originally intended because of inadequate maintenance and low operating efficiency. The sharp increase in the WBG’s support for infrastructure over the past four years from around $13 billion in 2007 to $29 billion in 2010 makes it imperative that institutions and systems are in place to help sustain these investments. This evaluation therefore intends to review how the WBG has supported countries to establish institutional and financial mechanisms and to build sector capacity to carry out proper operations and maintenance of infrastructure investments, and to assess the effectiveness of such support to ensure the sustainable provision of infrastructure services while providing access to the poor. While environmental and social sustainability are important aspects of infrastructure development, they will not be covered in this evaluation because they have been the subject of recent IEG

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\(^1\) The World Bank Group includes International Bank of Reconstruction and Development (IBRD), International Development Association (IDA), International Finance Corporation (IFC), and Multilateral Investment Guarantee Agency (MIGA).

\(^2\) In the case of the transport sector, infrastructure services would include transport services that serve the public or commercial customers directly, and transport infrastructure that is used by the transport service providers (World Bank, 2004). As explained later under the section on scope, this evaluation will assess the sustainability of transport infrastructure for all six modes of transport, and sustainability of transport services for urban transport, railways, ports and waterborne transport, and air transport sub-modes.

\(^3\) Information and Communication Technologies (ICT) is the subject of a separate and ongoing IEG evaluation.
evaluations on environmental sustainability, environmental and social safeguard policies, and climate change.4

1.3 The objective of the evaluation is to draw lessons from WBG support at the country level and identify the types and scope of interventions that have been effective in ensuring the sustainable provision of the infrastructure and services while providing access to the poor. World Bank, IFC, and MIGA support to infrastructure sectors has increased over the past decade, demand for infrastructure investments has been growing, particularly for MIC countries, and the G20 put infrastructure high on its global agenda in 2010. The sustainability of such infrastructure investments and related services would be crucial for ensuring that WBG support translates into long-lasting impact on poverty alleviation and economic growth. It is envisaged that the results of the evaluation will benefit a wider audience, including WBG operations, client countries, other donors and financiers, non-governmental organizations, the private sector, and academia.

Infrastructure and Development

1.4 Infrastructure can deliver major benefits in economic growth and poverty alleviation but only when it provides services that effectively respond to demand. Service is the goal and measure of development in infrastructure (World Bank 1994). The effective and sustainable provision of infrastructure products and services is crucial for achieving the Millennium Development Goals (MDGs). Infrastructure services—transport, water, modern energy, and information and communication—directly contribute to getting children to schools, enhancing the access to health facilities, and broadening the geographical spread of public health programs (UNDP 2005). It is widely recognized that cost-effective, reliable, and affordable infrastructure services are critical for sustainable development, and a necessary condition for reaching economic, social, and environmental goals (Grigg 2010, Saeed 2006, Fan 2004).

1.5 The impact of infrastructure investments, either private or public, can be undermined by lack of proper maintenance often stemming from lack of funding, poor capacity of the service providers, and/or inadequate institutional or regulatory frameworks that provide the right incentives and enabling environment for the service providers to perform their duties and to meet the needs of the users, including the poor. Without sustainable infrastructure and service solutions, access would only be temporary, asset lives will be shortened, and the ultimate impact on poverty alleviation and economic growth may not be achieved.

1.6 While lack of sustainability of infrastructure service delivery is a widespread problem, it affects some countries more than others. For example, most low income countries spend less than one third of what is required for optimum maintenance. Macro-economic conditions also affect infrastructure sustainability; during the financial crises in Latin America and other regions in the early 2000s, many countries saw an overall decline in road sector maintenance and rehabilitation (Cuttarree and Mandri-Perrott 2010).

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4 These IEG evaluation studies include: (i) Environmental Sustainability (2008); (ii) The Challenge of Low Carbon Development (2010); (iii) Safeguards and Sustainability Policies in a Changing World (2010); and (iv) Climate Change and the World Bank Group (2010)
Box 1. Findings from WBG Evaluations on Financial and Institutional Issues in Infrastructure Sectors

Over the past five years, IEG has produced several evaluation reports covering different aspects of the WBG’s work in the infrastructure sectors. These reports (listed at the bottom of this box) cover infrastructure overall, transport, rural electrification, water, renewable energy, guarantee instruments, and linkages with environmental and social safeguards, and climate change.

These reports have several findings and recommendations on the institutional and financial aspects of infrastructure sectors as summarized below:

**Imbalance between investments and maintenance**
- During the prioritization of infrastructure lending options in a given country, the first issue that typically comes up is the choice between financing investments and maintenance. The 1994 World Development Report concluded that governments spent too much on new investments and not enough on infrastructure maintenance.
- In the transport sector, maintenance tends to have a lower priority for cash-strapped governments, despite good intentions, and in countries that are politically unstable civil unrest can quickly undo all the good work that has gone before.
- In rural electrification, by and large, Bank-supported projects have successfully created the physical infrastructure for rural electrification, although technical problems have often meant high system losses. These losses drive a wedge between the cost of generation and the cost of supply, thus undermining financial performance.

**Importance of improving institutional, policy, and regulatory capacity and governance**
- In the transport sector, the Bank has generally had a mixed performance in helping to strengthen client institutions, with mostly modest results in low income countries but better results in middle income countries. Effective governance and capacity building are integral to ensuring sustainability.
- In the transport sector, institutional change takes time, and the duration of the project intervention is relatively short. Institutional objectives therefore need to be more realistic and should be pursued incrementally through a continuing support program that extends beyond the transport sector itself.
- The Bank needs to consider a series of operations and suitable lending instruments that will accommodate the long gestation periods for new renewable energies, from institutional capacity building and policy/regulatory reform all the way to full commercialization. A policy and regulatory framework that is conducive to widespread adoption needs to be in place for projects to succeed. Evaluation findings show however that there has been less success with institutional development, with the majority of unsatisfactory projects being rated such for this reason.
- In the water sector, institutional reform, institutional strengthening, and capacity building have been the activities most frequently funded by Bank water-related lending. Yet these interventions have often been less than fully effective, and weak institutions have often been responsible for project shortcomings.
- In the context of climate change, the World Bank needs to focus its efforts strategically on areas of its comparative advantage. This would include supporting the provision of public goods and promoting policy and institutional reform at the country level.
- Governance and Corruption (GAC) guidance in the roads sector has focused on managing procurement risks rather than strengthening sector institutions overall.
- Improved performance in the social and infrastructure sectors typically involved strengthening both the supply side and demand side of governance. Supply side prerequisites of efficient and effective service provision have been long established: clearly defined roles and responsibilities,
inclusive decision making, adequate and predictable resources, and motivated staff.

- More than half of country programs reviewed in the governance study identified poor governance as an impediment to poverty reduction. Even more identified poor governance as a constraint to service delivery and the investment climate.

**Financial sustainability is still an issue in infrastructure sectors**

- In rural electrification, a more comprehensive approach to the issue of financial sustainability is required, focusing not just on tariff reform, but also on explicit recognition of the possible need for subsidies (including cross-subsidies) and improving system design and revenue collection.
- In the water sector, cost recovery in Bank-supported water projects has rarely been successful: only 15 percent of projects that attempted cost recovery achieved their goal.
- In the water and transport sectors limited commercially viable prospects have constrained the use of guarantees. In transport for example, high-profile private toll-road project failures have made investors and government cautious, and very few roads have adequate returns or legal and policy frameworks to attract private financing. Many utilities that could potentially be partial credit guarantee clients still operate with soft budgets and lack the commercial orientation or legal framework to borrow in capital markets.
- According to the climate change study, the Bank can achieve the greatest leverage by promoting policies that catalyze private sector investments in renewable energy and energy efficiency, including those supported by IFC and MIGA.


**The WBG’s Evolving Strategy for Infrastructure**

1.7 The WBG has supported infrastructure investments since the inception of the International Bank for Reconstruction and Development (IBRD). During the 1960s and 1970s governments in many developing countries undertook major investments in basic infrastructure facilities and created new public institutions to manage and operate these assets. The 1980s and 1990s saw growing concerns with the environmental and social impacts of infrastructure projects. In response, the WBG formulated and strengthened its environmental and social safeguard policies. There was also growing disillusionment with public sector delivery of infrastructure services during this period. In a number of developing countries, many large infrastructure investments did not translate into sustained service improvements. The costs of this failure, in forgone growth and poverty reduction, were increasingly seen as being unacceptably high (World Bank 2006).

1.8 The *World Development Report: Infrastructure for Development* (1994) called for a shift in focus from increasing the quantity of infrastructure stocks to improving the quality of infrastructure services, and identified low operating efficiency, inadequate maintenance, and lack of attention to the needs of users as the key factors reducing the development impact of infrastructure investments. This led to a more balanced strategy of complementing investments with policy and regulatory reforms and institutional capacity building. This shift reflected a
1.9. During the 1990s, there were widespread expectations that the private sector would play a major role in financing infrastructure in the developing world. However, private financing flows were concentrated in relatively few countries and sectors, peaking in 1997 and declining through the early part of the current decade. This decline was driven not only by the Asian and other regional financial crises but also by a significant slowdown in the privatization of government infrastructure assets. Thus, private investments in government assets fell by almost 80 percent between 1997 and 2001. An estimated 40 percent of the contracts for infrastructure projects (excluding telecommunications) were being renegotiated and many multinational investors reduced their exposure in developing countries. In a 2002 survey of 65 international investors in the power sector, about half reported being less interested in or retreating from developing countries (World Bank 2003b).

1.10. The overall IBRD/IDA lending for infrastructure especially in IBRD countries declined by 50 percent between 1993 and 2002, while other WBG activities in infrastructure increased over the same period: IFC investments rose by 83 percent, and the volume of MIGA guarantees increased from $15 million to $650 million, with concurrent increases in analytical and advisory activities (AAA). According to the World Bank Infrastructure Action Plan (IAP) (World Bank 2003a), the decline in IBRD/IDA lending was not only attributed to a shift in lending strategy but also to other internal WBG factors, such as a lack of clarity on the roles of the private and public sector and under-investment in country-level infrastructure diagnostic work. High preparation costs, risk aversion among staff, corporate signals on infrastructure, and a move towards programmatic lending contributed to a reluctance to take on infrastructure projects.

1.11. The growing demand for infrastructure investments and a lack of suitable public financing have reversed this downward trend since 2004, with investments that were perceived to have more effective risk allocation such as public-private partnerships (PPPs). Private sector participation can potentially offer increased efficiency, better quality, and lower-cost services. However, a number of failed PPPs in the infrastructure sector have also shown the challenges and risks of structuring such complex projects as they need to ensure financial sustainability at the same time as meeting the user needs and social objectives (IMF 2008). In the year 2000 the international development community established eight Millennium Development Goals (MDGs) and the growing awareness of the impact of infrastructure service deficit on developing countries’ poverty reduction and economic growth prospects prompted calls for the WBG to re-engage and scale up its assistance (World Bank 2003).

1.12. Following a request from the Board, World Bank Management launched the IAP in 2003 for the FY04-07 period with the objective of revitalizing World Bank engagement. Subsequently, the Board discussed the WBG’s Sustainable Infrastructure Action Plan (SIAP) for the FY09-11 period. This action plan outlined infrastructure funding guidelines and identified four core activities by all three WBG institutions, including IBRD/IDA, IFC, and MIGA and supported a

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5 Unless otherwise stated, MIGA’s volume refers to new guarantees issued (in gross volume).

6 IFC has made infrastructure a strategic priority since 1998 (IFC Beyond 2000, p31).
renewed commitment to client countries to improve the reach and quality of sustainable infrastructure service delivery. The four core activities in SIAP included: (i) meeting the access agenda of core infrastructure sectors; (ii) focusing on sustainability in services; (iii) addressing cross-sectoral issues such as PPPs and support for rural-urban integration; and (iv) leveraging WBG financing by supporting private financing.

1.13 In response to the global financial crisis, the WBG launched the Infrastructure Recovery and Assets (INFRA) platform and the Infrastructure Crisis Facility (ICF) in April 2009 under the broader Vulnerability Framework. The INFRA platform supports the design of sustainability by providing practical guidance notes on environmental and social dimensions to WB and development partners. The ICF, set up by IFC, ensures the availability of long-term debt to support private infrastructure projects affected by capital shortages during the crises.

1.14 The 2010 G20 meeting in Korea put infrastructure on the global agenda as one of the pillars for the Development Framework for Shared Growth, and at the request of G20, a new infrastructure action plan is being prepared by the multilateral development banks with the objective of increasing financing for infrastructure in low-income countries.

2. Analytical Framework

2.1 *Sustainable provision of infrastructure service*\(^8\) is defined as reliable provision of infrastructure and services, that is, the extent to which the policies and institutional framework, sector management capacity, and financial arrangements are in place to ensure that infrastructure is adequately operated and maintained over the long term enabling reliable provision of services while providing access to the poor.

2.2 The analytical framework of this evaluation is illustrated in the results chain in Figure 1. For identifying the inputs and assessing the outputs and outcomes of WB support, corresponding evaluation questions, elaborated in the next section, will be asked. By assessing the achievement of the outcomes at the country level, beyond project level intermediate outcomes, this evaluation will address the missing link in the results chain that is commonly overlooked in traditional WB evaluation at the project portfolio level. It is envisaged that this results chain and the analytical framework will be used for evaluating all three infrastructure sectors: transport, water supply and sanitation, and energy.

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\(^7\) MIGA identified Complex Infrastructure as one of its four priority areas since 2000 (MIGA 2000, p54). MIGA defines Complex Infrastructure as infrastructure and extractive industries projects involving project finance, environment, or social issues.

\(^8\) Unless otherwise noted, transport infrastructure services refer to both transport infrastructure and transport services.
2.3 **Inputs:** Inputs to the results chain are the WBG instruments that include IDA/IBRD loans, credits, trust funds, AAAs, ESWs, TAs, IFC advisory services, and investment activities, and MIGA guarantees.

2.4 **Outputs:** Outputs in the results chain are broadly divided into two categories, sustainability enhancing measures, and construction of physical assets. The sustainability enhancing measures include support to develop and implement sector policies, governance, and regulatory frameworks, institutional frameworks that may include private sector participation (PSP), capacity building activities that would enable efficient operation, maintenance, and management of the sector, and financial arrangements that include adoption of user fees, pricing policies, earmarked funds, subsidies, and taxation models used by the governments to provide the funds for infrastructure maintenance.

2.5 While the construction of physical infrastructure assets (such as roads, port terminals, water and wastewater treatment plants, and power plants) is also an output of WBG-supported projects, it will only be examined in the context of assessing the effectiveness of sustainability-enhancing measures supported by the WBG; it is not the focus of this evaluation.

2.6 Roles and responsibilities of the actors in the sector will be identified as the policy makers who plan for the sector investments and/or allocate budgets may be different from the regulators and the service providers. The service provider may differ depending on the institutional frameworks set up in the infrastructure sectors and, in the case of the transport sector, it would also depend on the mode of transport as well as within modes.

2.7 **Intermediate Outcomes:** Sustainability-enhancing measures translate into intermediate outcomes, including the establishment and enforcement of sector policies and regulatory frameworks, an institutional framework that is set up and operational, enhanced management...
capacity of the sector and service providers, and establishment of a financial arrangement that ensures that sufficient funds are available at least for operation and maintenance.

2.8 **Long Term Outcomes:** Sustainable provision of infrastructure services, as defined above would be the outcome in the result chain. The key indicators for assessing sustainability are broadly defined as institutional capability, financial sustainability, and functional adequacy.

2.9 This evaluation will focus on analyzing the inputs, outputs, intermediate outcomes, and long-term outcomes of the above results chain. The evaluation will analyze primarily the extent to which the sustainability-enhancing measures (such as sector policies and institutional frameworks) have been effective in supporting the sustainable provision of infrastructure services. It will *not* assess development outcomes of infrastructure *per se* on a broader basis. While the outcomes with regard to sustainability of infrastructure services are likely to affect the long-term impacts on poverty alleviation and economic growth, they will not be assessed in this evaluation.

2.10 The effectiveness of WBG support in the sector depends not only on the effectiveness of its operations within individual sub-sectors but also on the alignment of this support with the overall development strategy for the country. Hence, this evaluation seeks to answer the evaluation questions in the context of the WBG’s country assistance strategies as well as the specific sector assistance strategies. The regional context, as well as the linkage with other donor- or financier-supported operations, will be reviewed as well.

3. **Phase One: Evaluation of the Transport Sector**

3.1 Transport is a means to an end, rather than the end itself. Good transport infrastructure and services, although not the only factors, are important in helping countries to meet the MDGs by spurring growth to reduce poverty and increasing access to education and health services. There is a growing body of evidence that links transport improvements to poverty reduction and their catalytic role for significant economic growth (World Bank 2007). However, these benefits can only be reaped if infrastructure investments are properly maintained and operated over time. Given the size of contracts associated with investing, maintaining, and operating transport infrastructure, the need to ensure transparency, efficiency, and accountability is often a key sector concern.

**The WBG’s Evolving Strategy for the Transport Sector**

3.2 Sustainability of transport services became a focus of the WBG work in the mid-1990s as a result of the 1996 World Bank strategy—“Sustainable Transport: Priorities for Policy Reform.” The strategy incorporated sustainability aspects (economic, financial environmental and social) while noting that tradeoffs (such as involuntary resettlement, social costs, restructuring prices, and environmental impact) might have to be made in the process. The most recent World Bank Group transport business strategy (2007) broadens the previous strategy’s agenda, aiming at unlocking growth and development potential in an inclusive fashion. The objective of the strategy remained aligned with the principle of country ownership: “To help partner countries to
establish the governance, strategies, policies and services that will deliver transport for development in a way that is economically, financially, environmentally and socially sustainable” (Appendix A).

**WBG Assistance for the Transport Sector**

3.3 The WBG approved 393 operations in the transport sector for a total value of $44 billion during FY02-11 for projects with expected aggregate project costs of $130.7 billion. Of the $44 billion total value of WBG operations, the World Bank accounts for 89 percent, IFC for nine percent, and MIGA for three percent. In terms of the number of projects, the World Bank accounted for 65 percent, IFC for 31 percent, and MIGA for four percent. Inclusive of all WBG non-dedicated projects mapped to other sectors but with some transport components, the total number of projects increased by 372, from 395 to 768 projects, while the volume increased by $2.3 billion, from $44 billion to $46.3 billion. Most of these non-dedicated projects are mapped to urban development and agriculture sectors in terms of the number of projects. When estimating the volume of lending, most of the projects are mapped to urban development, agriculture, and energy and mining. In terms of AAA activities, the World Bank has supported 322 dedicated and 828 non-dedicated activities, and IFC has carried out 54 advisory services in the transport sector during FY02-11.

3.4 According to a World Bank Policy Study for the roads sub-sector (1988), an estimated $45 billion worth of road infrastructure had been lost over the previous two decades owing to inadequate maintenance in the eighty-five developing countries reviewed in the study. This loss could have been averted with preventive maintenance costing less than $12 billion. The situation does not seem to have improved according to a recent study on Africa’s transport infrastructure (2011), which concludes that road networks throughout the region are inadequately maintained, and that the region overall is not even close to allocating sufficient budget for the required infrastructure maintenance (Africa’s Transport Infrastructure, World Bank, 2011).

3.5 In light of such concerns, it is not surprising that WBG support aims to help improve sectoral management capacity. A preliminary analysis of a sample of World Bank and IFC transport sector operations suggests that up to four-fifths of such operations include measures to strengthen institutional capacity, and almost two-thirds aim at improving financial viability.

**Scope of the Evaluation**

3.6 The evaluation will cover the following sub-categories of transportation: (i) urban transport, (ii) rural roads, (iii) intercity highways, (iv) railways, (v) ports and waterborne transport, and (vi) air transport (see Appendix C for the preliminary portfolio review).

3.7 The topical focus of this evaluation will be on the effectiveness of WBG support to client countries in establishing institutional and financial mechanisms, and building capacity for operations and maintenance of their transport infrastructure investments, to ensure sustainable provision of transport services.

3.8 The evaluation makes the distinction between the transport services that serve the public or commercial customers directly, and transport infrastructure that is used by the transport...
This evaluation will assess the sustainability of infrastructure for all six sub-categories of transportation, and the sustainability of services for urban transport, railways, ports and waterborne transport, and air transport. While environmental and social sustainability are important aspects of infrastructure development, they will not be covered in this evaluation because they have been the subject of recent IEG evaluations on environmental sustainability, environmental and social safeguard policies and climate change.

3.9 The evaluation will analyze the extent to which the sustainability enhancing measures (sector policies, institutional frameworks etc.) have been effective in supporting the sustainable provision of infrastructure services. It will not assess development outcomes of infrastructure per se on a broader basis.

3.10 The evaluation would cover the WBG transport related portfolio of activities approved during the past ten years (FY02-11). The portfolio will include dedicated and non-dedicated IDA/IBRD projects, and trust funded support, IFC investments and advisory services, and MIGA guarantee projects (see Table 1). In addition, the evaluation will examine the possible synergies achieved through the activities funded in parallel or sequentially by IDA/IBRD, IFC, and MIGA.

Evaluation Issues and Questions

3.11 The overarching question that this evaluation seeks to answer is: “How effective has the WBG’s (World Bank, IFC, MIGA) support been in assisting countries to ensure sustainability of their transport infrastructure and services?”

3.12 The overarching evaluative question will be answered through the following questions which address the various stages of the results chain in Figure 1:

I. To what extent has the WBG support taken into account the need to ensure sustainability of transport infrastructure and services in (a) its strategies and (b) its operations?

II. (a) To what extent has the WBG supported countries in implementing the following measures to ensure the sustainability of transport infrastructure; and (b) how effective has that support been?

i. establishing policies and an institutional framework

ii. enhancing transport sector management capacity

iii. developing financial arrangements

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9 Focus will be on non-dedicated projects with more than 30% share in transport sector.

10 Policies and institutional framework comprise, for example, sector policies and strategies, PSP, government agencies, regulatory frameworks, and other governance arrangements that may be needed to enable sustainability of transport infrastructure services.

11 Sector management capacity enhancement refers to, for example, human, technical, fiduciary and other capacity building activities aimed at increasing the sustainability of transport infrastructure services.

12 Financial arrangements include, for example, adoption of user fees, earmarked funds, pricing policies, subsidies, and taxation models introduced to provide the funds needed to ensure sustainability of transport infrastructure services.
iv. enhancing private sector participation  
v. implementing other sustainability-enhancing measures

III. Have WBG-supported countries been able to ensure the sustainability of transport infrastructure and services supported under WBG operations?\(^\text{13}\)

IV. Have the WBG-supported countries been able to ensure the sustainability of their transport infrastructure and services in general?

V. What factors account for success or failure in ensuring the sustainability of infrastructure and services?

4. Methodology

4.1 The evaluation questions will be answered through a combination of the following methodologies: (i) a portfolio review of WBG projects and sector work; (ii) country case studies; (iii) a country / sector policy and strategy review; and (iv) issue notes.

Portfolio Review

4.2 The first-level desk-based portfolio review will identify and categorize the characteristics, objectives, and components of all 257 IDA/IBRD dedicated transport projects, 118 non-dedicated projects with more than 30 percent shares in the transport sector, 1,150 AAA activities with elements of transport, 122 IFC investments and 54 advisory services, and 14 MIGA guarantees approved between FY02-11. In total, 1,715 activities (511 projects, 1,204 AAA activities, and IFC Advisory Services, of which 322 are associated with the transport sector board) will be reviewed. The IEG database created for the 2005 evaluation of the transport sector will be updated and modified by incorporating the elements of focus in this evaluation.

4.3 Measures to ensure sustainability of infrastructure and services, including policies and institutional framework, capacity enhancement activities, and financial arrangements will be identified and categorized for each transport sub-sector through this first-level desk-based portfolio review.

4.4 The second-level portfolio review will assess the effectiveness of these specific sustainability-enhancing activities at the time of project evaluation for those projects that closed in the case of World Bank projects and operationally matured in the case of IFC/MIGA projects. Since IEG uses different methodologies\(^\text{14}\) for reviewing the projects supported by IBRD/IDA, IFC, and MIGA, and since the standard IEG reviews are objectives-based, a criteria-based assessment method has been developed to evaluate the results achieved through WBG-supported

\(^{13}\) A framework has been developed to assess the sector and sub-sector (mode specific) performance against the following criteria: (i) institutional capabilities; (ii) financial sustainability; and (iii) functional adequacy.

activities. An in-depth evaluation and analysis of non-lending support would be undertaken in the context of country case studies as described below.

Table 1. Coverage of Portfolio Review

<table>
<thead>
<tr>
<th>Coverage of Project Portfolio Review</th>
<th>All approved Projects since FY02&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Projects closed (WB) or operationally mature (IFC/MIGA) by FY11</th>
<th>Ongoing/recently approved projects as of FY11&lt;sup&gt;b&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBRD/IDA</td>
<td>Dedicated Projects 257</td>
<td>80</td>
<td>177</td>
</tr>
<tr>
<td></td>
<td>Non-dedicated Projects with &gt;30% share of transport 118</td>
<td>36</td>
<td>82</td>
</tr>
<tr>
<td>IFC Investments&lt;sup&gt;c&lt;/sup&gt;</td>
<td>122</td>
<td>45</td>
<td>77</td>
</tr>
<tr>
<td>MIGA Guarantees</td>
<td>14</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Total number of projects</td>
<td>511</td>
<td>164</td>
<td>347</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Coverage of WB AAAs and IFC Advisory Services Overview</th>
<th>All AAAs and ASs</th>
<th>Completed AAAs and ASs&lt;sup&gt;d&lt;/sup&gt;</th>
<th>Ongoing AAAs and ASs as of FY11</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBRD/IDA</td>
<td>Dedicated AAAs</td>
<td>322</td>
<td>256</td>
</tr>
<tr>
<td></td>
<td>Non-dedicated AAAs</td>
<td>828</td>
<td>675</td>
</tr>
<tr>
<td>Advisory Services</td>
<td>54</td>
<td>33</td>
<td>21</td>
</tr>
<tr>
<td>Total number of AAAs and ASs</td>
<td>1204</td>
<td>964</td>
<td>240</td>
</tr>
<tr>
<td>Total</td>
<td>1715</td>
<td>1128</td>
<td>687</td>
</tr>
</tbody>
</table>

<sup>a</sup> The evaluation will include all projects approved in FY2011. The numbers in the table are as of February 2011 for World Bank and as of December 2010 for IFC and MIGA.

<sup>b</sup> The evaluation will include all projects approved in FY2011. The numbers in the table are as of February 2011 for World Bank and as of December 2010 for IFC and MIGA.

<sup>c</sup> Excludes oil and gas transport or pipeline projects.

<sup>d</sup> Currently IEG only evaluates IFC’s advisory services in a systematic manner.

Country Case Studies

4.5 A country level analysis will be carried out through country case studies to answer the evaluation questions posed above. The analysis will go beyond project achievements to see how effectively WBG support has helped countries build institutions and policies that contribute to sustainable provision of infrastructure services. The country case studies will also assess the factors that contributed to success and failure and review the activities and impact of other WBG operations as well as other key donors and financiers active in the sector to the extent relevant and possible.

4.6 Twenty countries have been selected. Of the 107 countries with a population over one million and for which at least one World Bank/IFC/MIGA project has been approved, closed (IBRD/IDA projects), or operationally matured (IFC/MIGA projects) between FY02 and FY11, 62 countries have received WBG support in at least two transport sub-modes. Of these 62
countries, twenty have been selected randomly while maintaining the regional representation,\textsuperscript{15} as summarized in Table 2. The list of 20 countries is in Appendix B.

<table>
<thead>
<tr>
<th>Regions</th>
<th>Total Number of Countries</th>
<th>WBG Support in at least two Transport Modes</th>
<th>Countries Selected for Case Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sub-Saharan Africa</td>
<td>34</td>
<td>16 (26%)</td>
<td>6</td>
</tr>
<tr>
<td>East Asia and the Pacific</td>
<td>11</td>
<td>9 (15%)</td>
<td>3</td>
</tr>
<tr>
<td>Europe and Central Asia</td>
<td>25</td>
<td>10 (16%)</td>
<td>3</td>
</tr>
<tr>
<td>Latin America and the Caribbean</td>
<td>21</td>
<td>13 (21%)</td>
<td>4</td>
</tr>
<tr>
<td>Middle East and North Africa</td>
<td>10</td>
<td>8 (13%)</td>
<td>2</td>
</tr>
<tr>
<td>South Asia Region</td>
<td>6</td>
<td>6 (10%)</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>107</strong></td>
<td><strong>62 (100%)</strong></td>
<td><strong>20</strong></td>
</tr>
</tbody>
</table>

\textsuperscript{15} Number of countries selected in each region is based on the number and size of WBG support in each region. The countries selected for Sub-Saharan Africa region has been rounded up and for Middle East and North Africa the number has been rounded down.

4.7 Of the twenty countries selected for the country case studies, about five countries have been subsequently selected for field visits based on the income level representation and the degree of IFC/MIGA interventions, and a mix of small and large countries. Three additional field-based reviews will be carried out in conjunction with Project Performance Assessment Report (PPAR) and country program evaluation missions. Field-based reviews will enable a deeper analysis of experiences and results on the ground.

4.8 The methodology for the country case studies includes: (i) development of a specific template for analysis, (ii) review of all relevant country WBG activities (lending, trust funds, investments, guarantees, advisory, AAA, infrastructure funds) that have been approved, closed (IBRD/IDA projects), or operationally matured (IFC/MIGA projects) since 2002, (iii) review of country- and projects-related findings from all IEG evaluative work, (iv) assessment of the linkages with activities of other donors and financiers if applicable, and (v) interviews with WBG staff as well as other relevant stakeholders in the countries (such as Government officials, implementing agency, beneficiaries, private sector, other donors and financiers etc.). Relevant information collected and analysis carried out for PPARs and country evaluations will also complement and feed into these country case studies.

4.9 In the twenty countries selected for case studies, first, the sustainability of the transport infrastructure services supported under completed (in the case of WB) or operationally matured (in the case of IFC/MIGA) projects will be assessed. Second, a general sustainability analysis will be carried out for various transport sub-sectors at the country level. A framework has been developed to assess the sustainability against criteria such as institutional capability, financial sustainability, and functional adequacy (Appendix B). This framework will also help assess to what the extent measures aimed at ensuring sustainable provision of services took into account.
the needs to ensure infrastructure access of the poorer population, and what role the private sector plays in ensuring sustainable provision of infrastructure services.

4.10 For the countries selected for field-based visits, a local consultant will be engaged to help collect critical data on the performance of WB financed physical infrastructure and institutional development activities. Depending on the types of facilities to be reviewed, this would involve either random sampling (for small dispersed investments) or specifically selected locations (for major facilities financed). The consultant will be provided a questionnaire designed to elicit objective, fact-based assessments not overly susceptible to individual judgment/interpretation. To achieve consistency across countries, the consultants will be trained on the questionnaire and its use. The questionnaire will cover: i) the present status/condition of the facility; ii) capacity utilization of the facility; iii) arrangements for its operation and maintenance; and iv) any threat(s) to its continued operation that are now evident.

Country/Sector Policy and Strategy Review

4.11 A review of WB sector, corporate, and regional strategies and policies will be carried out to assess to what extent the sustainability of transport infrastructure services has been reflected. Relevant analytical and sector work, including advisory services carried out by the WB, will also be reviewed. This review will also feed into the country case studies.

Issue Notes

4.12 Issue notes on each mode of transport (for urban transport, rural transport, inter-city highways, railways, ports and waterways, and air transport) will be prepared by summarizing the evaluation findings from the portfolio review, country case studies, PPARs, and other literature reviews related to the sub-sector.

4.13 In addition, the following theme-based issue notes will be prepared by bringing together findings from literature and portfolio assessments as well as the country case studies:

I. **Private sector participation**: Experiences on various forms of private sector participation, ranging from performance-based contracts to large-scale equity investments by the private sector will be collected and their effectiveness in ensuring the sustainability of services will be assessed for various modes of transportation.

II. **Pro-poor policies in transport**: This issue paper will help identify how WB has helped incorporate the needs of the poor in its support to the countries. Affordability and accessibility issues for the poor will be assessed in projects that include elements of targeting the poor, such as the rural roads and urban transport projects, as well as their effectiveness in ensuring the sustainability of transport infrastructure services.

External Advisory Panel and Peer Reviews

4.14 A group of external advisors will be identified to advise the evaluation team during the evaluative process. This Panel will consist of three to four internationally recognized transportation experts and practitioners who will comment on the ongoing research and early
drafts of the various intermediate outputs. The Panel will review and provide written comments on the final report. The evaluation will also be reviewed by internal peer reviewers who will provide comments on early drafts and on the final report.

Limitations

4.15 The evaluation will not assess development outcomes of infrastructure per se on a broader basis. Its focus is on assessing the extent to which measures (such as sector policies and institutional frameworks) supported by the WBG have been effective in supporting the sustainable provision of infrastructure services.

4.16 Some WBG activities, in particular IFC projects, may not be intended to have a systemic impact on the sustainability of the transport sector as a whole at the country level. In such cases this evaluation will recognize such limitations and assess the direct project level impacts as well as the indirect impacts on the sustainability of the infrastructure services which may occur as a result of spillover effects, e.g. demonstration effects or increased competitiveness in the sector.

5. Resources, Timing, and Dissemination

Evaluation Team

5.1 The core evaluation team includes the following IEG staff; Midori Makino (IEGPS)—task team leader (Phase I), Stefan Apfalter and Maria Elena Pinglo (IEGPE), Ramachandra Jammi (IEGPS), and consultants. The evaluation will be conducted under the general supervision of Monika Huppi, Manager (IEGPS), and the Director (IEGPS). $800,000 in Bank Budget and $80,000 in Trust Funds have been allocated to this evaluation over FY2012-13.

Consultation

5.2 This approach paper was prepared based on consultations with the key stakeholders, including WBG management, operational staff, and other sector experts. This consultation process will be continued during the evaluation as one way of improving the accuracy, relevance, and usefulness of evaluation findings and recommendations, while always safeguarding the evaluation’s independence.

Dissemination

5.3 Following the completion of the evaluation, there will be dissemination events not only in the Bank Group’s headquarters in Washington, DC, but also in Regions and countries with a strong client interest and/or a large portfolio in transport. Dissemination events will include presentations at brown bag lunches and other sector events using video conferencing, web-streaming, and other interactive technologies with the country offices, client organizations, other donors and financiers, and other sector stakeholders. Opportunities will be sought to present the evaluation findings in the events surrounding the G20 agenda that focus on infrastructure.
Timing

5.4 The preparation of the evaluation is timed to help inform the mid-cycle implementation review of the WBG transport strategy. The following timetable is proposed:

Table 3. IEG Transport Sector Evaluation Timetable

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approach paper sent to CODE</td>
<td>October 2011</td>
</tr>
<tr>
<td>IEG Management Review—One stop</td>
<td>May 2012</td>
</tr>
<tr>
<td>Report sent to WBG Management</td>
<td>July 2012</td>
</tr>
<tr>
<td>Report sent to CODE</td>
<td>August 2012</td>
</tr>
<tr>
<td>CODE Meeting</td>
<td>September 2012</td>
</tr>
</tbody>
</table>
Appendix A: The Current WBG Transport Business Strategy

“Safe, Clean, and Affordable Transport for Development, 2008-2012”

Safe acknowledges the prominence of health outcomes within the Millennium Development Goals; clean reflects the greater contribution that transport can make to the environment aims of the Millennium Development Goals and to the mitigation of climate change impact; and affordable acknowledges that efficient freight infrastructure translated through well-functioning markets into affordable transport and logistics series is critical for trade and access to all economic and social opportunities. Finally, transport for development asserts that, while transport can have many purposes, the Bank Group’s focus must be on its contribution to economic development.

Overarching objective:

To help partner countries to establish the governance, strategies, policies and services that will deliver transport for development in a way that is economically, financially, environmentally and socially sustainable.

Strategic Directions

The Bank Group will pursue five strategic directions in the next five years:

1. Create the conditions for increased support for transport investment and governance.
2. Deepen engagement in the roads and highways subsector.
3. Increase engagement in the urban transport subsector.
4. Diversify engagement in transport for trade.
5. Transport and climate change: control emissions and mitigate impact.

Process Adjustments

To achieve its objective and the five strategic directions, the Bank Group intends to adjust the way it does business in four main ways:

1. Increase the proportion of Bank Group transport lending made through program approaches
2. Enhance the quality of policy dialogue and sharing of transport knowledge.
3. Improve monitoring and evaluation.
4. Capture more synergies across sectors and Bank Group instruments.

Monitoring Progress

The Bank Group’s Transport Sector Board will take the responsibility for annually reviewing progress toward implementing the transport business strategy. The Bank Group’s approach to transport will, however, continue to evolve as we learn from experience. It therefore offers a flexible framework that is open to new ideas, and adaptable to country demands for financial support and analytical and advisory activities.
Appendix B: Design Matrix and the List of 20 Countries Selected for the Case Studies

<table>
<thead>
<tr>
<th>Evaluative Question</th>
<th>Information required/Examples of Indicators</th>
<th>Data Source (against baselines in PADs, ICRs, and sector reviews)</th>
<th>Methodology</th>
<th>Limitations</th>
</tr>
</thead>
<tbody>
<tr>
<td>How effective has the WBG’s (WB, IFC, MIGA) support been in assisting countries enhance sustainability of their transport infrastructure and services?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I. To what extent has the WBG support taken into account the need for sustainability of transport infrastructure and services in its strategies and operations?</td>
<td>Whether the sustainability of transport infrastructure and services is reflected in WBG strategies and operations?</td>
<td>WB, IFC and MIGA strategies and relevant policies, CASs, portfolio data on lending, AAA and guarantees global and country level</td>
<td>• Policy review of WBG sector, corporate and regional strategies and policies to assess to what extent sustainability of transport infrastructure and services (TIS) has been reflected (country level strategies would be covered only as part of the case studies)</td>
<td>• There may be limited information available from IFC/MIGA projects—but PSP note</td>
</tr>
<tr>
<td></td>
<td>How WBG support fits within the country / sector policy/priorities?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>II. In ensuring sustainability of transport infrastructure services, (i) to what extent has the WBG supported countries; and (ii) how effective has the support been for the countries to:</td>
<td>WBG support in establishing policies and institutional frameworks that include: Sector policy and strategy, Private sector participation</td>
<td>For answering (i): WB (project and AAA, country procurement assessment report),</td>
<td>For answering (i): Portfolio review (level 1) of portfolio data to assess trends and patterns in number and volume of project elements supporting</td>
<td></td>
</tr>
<tr>
<td>a. establish policies and institutional framework</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

16 Policies and institutional framework comprise, for example, sector policies and strategies, PSP, government agencies, regulatory frameworks, and other governance arrangements that may be needed to enable sustainability of transport infrastructure services.
<table>
<thead>
<tr>
<th>Evaluative Question</th>
<th>Information required/Examples of Indicators</th>
<th>Data Source (against baselines in PADs, ICRs, and sector reviews)</th>
<th>Methodology</th>
<th>Limitations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Government agency&lt;br&gt;• Regulatory framework&lt;br&gt;• Governance arrangements, etc</td>
<td>• IFC (investment and advisory),&lt;br&gt;• MIGA projects database&lt;br&gt;For answering (ii):&lt;br&gt;• WB: ICRs, PPARS,&lt;br&gt;• IFC: XPSRs, PCR, supervision reports&lt;br&gt;• MIGA: PERs&lt;br&gt;• Interviews with WBG staff involved in the sector.</td>
<td>policies and institutional frameworks&lt;br&gt;For answering (ii):&lt;br&gt;• Portfolio review of effectiveness (level 2)&lt;br&gt;  based on project level evaluations (ICR-Rs, PPARs, XPSARs, PERs) to assess in quantitative terms (success ratings) if policies are in place and institutional frameworks are fully operational&lt;br&gt;• Country case studies (incl country field missions) to assess in detail if policies are enforced and institutional frameworks are fully operational; assessment in qualitative terms mainly to identify success factors, building on and in addition to above quantitative terms from portfolio review (level 2)&lt;br&gt;• Issue notes on transport modes to identify common trends and factors across the portfolio review (level 2), country case studies and taking into account external (non WBG) sources&lt;br&gt;• Issues notes on PSP to summarize PSP aspects across the portfolio review (level 2), country case studies and taking into account external (non WBG) sources</td>
<td>would complement</td>
</tr>
<tr>
<td>b. enhance their transport sector management capacity&lt;sup&gt;17&lt;/sup&gt;</td>
<td>WBG support in enhancing human, technical, fiduciary and other capacity.</td>
<td>For answering (i):&lt;br&gt;• WB (project and AAA, country procurement assessment report),&lt;br&gt;• IFC (investment and advisory),&lt;br&gt;• MIGA projects database&lt;br&gt;For answering (ii):&lt;br&gt;• WB: ICRs, PPARs,</td>
<td>Same as a.) except for Issues paper on PSP</td>
<td></td>
</tr>
</tbody>
</table>

<sup>17</sup> Sector management capacity enhancement refers to, for example, human, technical, fiduciary and other capacity building activities aimed at increasing the sustainability of transport infrastructure services

October 28, 2011
<table>
<thead>
<tr>
<th>Evaluative Question</th>
<th>Information required/Examples of Indicators</th>
<th>Data Source (against baselines in PADs, ICRs, and sector reviews)</th>
<th>Methodology</th>
<th>Limitations</th>
</tr>
</thead>
</table>
| c. develop financial arrangements\(^{18}\) | WBG support in creating financial arrangements that include:  
  - Adoption of user fees  
  - Earmarked funds for maintenance  
  - Output based aid  
  - Pricing policy  
  - Subsidies, etc | • IFC: XPSRs, PCRs, supervision reports  
• MIGA:“PERs  
• Interviews with WBG staff involved in the sector. | For answering (i):  
  - WB (project and AAA, country procurement assessment report),  
  - IFC (investment and advisory),  
  - MIGA projects database  
For answering (ii):  
  - WB: ICRs, PPARS,  
  - IFC: XPSRs, PCRs, supervision reports  
  - MIGA:“PERs  
  - Interviews with WBG staff involved in the sector. | Same as a.)  
For answering (i):  
  - Portfolio review (level 1)  
For answering (ii):  
  - Portfolio review (level 2)  
  - Country case studies  
  - Issue notes on transport modes  
  - Issues note on pro-poor policies  
  - Issues note on PSP |
| d. enhance private sector participation | Assessment of sustainability indicators (same as above under question I (ii) and for financial viability (% of infrastructure costs met through toll and other revenues—viability gap reduced). | For answering (i):  
  - WB (project and AAA, country procurement assessment report),  
  - IFC (investment and advisory),  
  - MIGA projects database  
For answering (ii):  
  - WB: ICRs, PPARS,  
  - IFC: XPSRs, PCRs, supervision reports  
  - MIGA:“PERs  
  - Interviews with WBG staff involved in the sector. | Same as a.)  
For answering (i):  
  - Portfolio review (level 1)  
For answering (ii):  
  - Portfolio review (level 2)  
  - Country case studies  
  - Issue notes on transport modes  
  - Issues note on PSP |

---

\(^{18}\) Financial arrangements include, for example, adoption of user fees, earmarked funds, pricing policies, subsidies, and taxation models introduced to provide the funds needed to ensure sustainability of transport infrastructure services.
<table>
<thead>
<tr>
<th>Evaluative Question</th>
<th>Information required/Examples of Indicators</th>
<th>Data Source (against baselines in PADs, ICRs, and sector reviews)</th>
<th>Methodology</th>
<th>Limitations</th>
</tr>
</thead>
<tbody>
<tr>
<td>e. implement other measures</td>
<td>Any other WBG supported activities that do not fit in the above policy and institutional framework, capacity, and financial arrangements categories.</td>
<td>WB (project and AAA), IFC (investment and advisory), MIGA projects database</td>
<td>Same as a.) For answering (i):</td>
<td>Indicators may be hard to collect or unavailable</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>For answering (ii):</td>
<td>Indicator may not reflect sustainability (e.g. age of assets also affects indicator)</td>
</tr>
</tbody>
</table>
| III. Have WBG-supported countries been able to ensure the sustainability of transport infrastructure services supported under WBG operations | Indicators for infrastructure and services sustainability—illustrative examples for transport:  
- Institutional capability which focuses on the condition of the infrastructure facilities that are related to the quality of maintenance;  
- Financial viability which focuses on the financial robustness and efficiency of the operators and the sub-sectors;  
- Functional adequacy which focuses on asset conditions, safety, capacity, accessibility, and state of facility usage. | Annual reports of service providers and other public information  
WB: ICRs, PPARS,  
IFC: XPSRs, PCRs, supervision reports  
MIGA: PER’s  
Interviews with WBG staff presently involved in the sector. (In the case of field based case studies: Interviews with government counterpart, implementing agencies, and other sector stakeholders in the country) | • Country case studies to assess qualitative and quantitative information on listed indicators (e.g. maintenance of physical infrastructure etc.), placing them in context with above country level analysis (i.e. with findings of strategy and policy review, portfolio data level 1 and level 2)  
• Country field missions to triangulate and add on indicators data, plus provide in depth assessment regarding questions I-V  
• Issue notes on transport modes to identify common trends and factors across the portfolio review (level 2), country case studies and taking into account external (non WBG) sources | |
| IV. Has the WBG supported countries been able to ensure the sustainability of their transport infrastructure and services in general? | Indicators for infrastructure services sustainability—illustrative examples for transport:  
- Institutional capability which focuses on the condition of the infrastructure facilities that are related to the quality of maintenance; | Annual reports of service providers and other public information  
WB: ICRs, PPARS,  
IFC: XPSRs, PCRs, supervision reports  
MIGA: PER’s | Same as III, but assessing TIS beyond WBG supported activities  
• Country case studies to assess qualitative and quantitative information on listed indicators (e.g. maintenance of physical infrastructure etc.), placing them in context with above country level analysis (i.e. with findings of strategy and policy review, portfolio data level 1 and level 2) | Indicators may be hard to collect or unavailable |
<p>|                      |                                           |                                                 | Indicator may not reflect sustainability (e.g. age of assets also affects indicator) | |</p>
<table>
<thead>
<tr>
<th>Evaluative Question</th>
<th>Information required/Examples of Indicators</th>
<th>Data Source (against baselines in PADs, ICRs, and sector reviews)</th>
<th>Methodology</th>
<th>Limitations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Financial viability which focuses on the financial robustness and efficiency of the operators and the sub-sectors; • Functional adequacy which focuses on asset condition, safety, capacity, accessibility, and state of facility usage.</td>
<td>Interviews with WBG staff presently involved in the sector. (In the case of field based case studies: Interviews with government counterpart, implementing agencies, and other sector stakeholders in the country)</td>
<td>• Country field missions to triangulate and add on indicators data, plus provide in depth assessment regarding questions I-V • Issue notes on transport modes to identify common trends and factors across the portfolio review (level 2), country case studies and taking into account external (non WBG) sources</td>
<td>Data beyond WBG supported projects may be difficult to obtain</td>
</tr>
<tr>
<td>V. What factors account for success or failure in ensuring the sustainability of infrastructure and services?</td>
<td>Qualitative assessment of factors that account for success and failures.</td>
<td>WB: ICRs, PPARS, IFC: XPSRs, PCRs, supervision reports MIGA: PERs Findings from the portfolio review and country case studies</td>
<td>• Portfolio review of effectiveness (level 2)—qualitative information on success factors • Country case studies • Issue notes on transport modes, PSP and pro-poor policies</td>
<td></td>
</tr>
</tbody>
</table>
## List of 20 Countries Selected for the Country Case Studies

<table>
<thead>
<tr>
<th>Region</th>
<th>Country name</th>
<th>Completed or operationally matured (No. of modes)</th>
<th>Active/ongoing (No. of modes)</th>
<th>Countries with IFC/MIGA involvement</th>
<th>Tentative field studies&lt;sup&gt;b&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFR</td>
<td>Mozambique</td>
<td>4</td>
<td>2</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>AFR</td>
<td>Nigeria</td>
<td>4</td>
<td>2</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>AFR</td>
<td>Senegal</td>
<td>3</td>
<td>4</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>AFR</td>
<td>Tanzania</td>
<td>3</td>
<td>4</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>AFR</td>
<td>Uganda</td>
<td>2</td>
<td>2</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>AFR</td>
<td>Zambia</td>
<td>3</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EAP</td>
<td>Indonesia</td>
<td>3</td>
<td>5</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>EAP</td>
<td>Mongolia</td>
<td>3</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EAP</td>
<td>Papua New Guinea</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECA</td>
<td>Poland</td>
<td>2</td>
<td>1</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>ECA</td>
<td>Russian Federation</td>
<td>5</td>
<td>4</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>ECA</td>
<td>Turkey</td>
<td>2</td>
<td>3</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>LCR</td>
<td>Bolivia</td>
<td>3</td>
<td>2</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>LCR</td>
<td>Chile</td>
<td>5</td>
<td>2</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>LCR</td>
<td>Peru</td>
<td>5</td>
<td>4</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>LCR</td>
<td>Honduras</td>
<td>2</td>
<td>1</td>
<td>X</td>
<td></td>
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<tr>
<td>MNA</td>
<td>Tunisia</td>
<td>4</td>
<td>2</td>
<td>X</td>
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</tr>
<tr>
<td>MNA</td>
<td>Yemen Republic</td>
<td>2</td>
<td>3</td>
<td></td>
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<tr>
<td>SAR</td>
<td>India</td>
<td>4</td>
<td>4</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>SAR</td>
<td>Sri Lanka</td>
<td>3</td>
<td>1</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup> In the context of IEG’s planned Country Program Evaluation for Liberia, the transport sector portfolio and its sustainability may also be assessed as an input to this evaluation.

<sup>b</sup> Field based country case studies for Mozambique, Poland, and India will be carried out in conjunction with IEG’s PPAR missions and the field based country case study for Peru will be carried out in conjunction with the country program evaluation.
## Countries Selected for Field Studies

<table>
<thead>
<tr>
<th>Country</th>
<th>Income level</th>
<th>IFC/MIGA involvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mozambique</td>
<td>Low Income Country (LIC)</td>
<td>One operationally mature IFC project</td>
</tr>
<tr>
<td>Nigeria</td>
<td>Lower Middle Income Country (LMIC)</td>
<td>One Advisory Service (AS)</td>
</tr>
<tr>
<td>Senegal</td>
<td>LMIC</td>
<td>One ongoing IFC project and one ongoing MIGA project</td>
</tr>
<tr>
<td>Indonesia</td>
<td>LMIC</td>
<td>Two ongoing IFC projects</td>
</tr>
<tr>
<td>Russia</td>
<td>Upper Middle Income Country (UMIC)</td>
<td>Ten ongoing IFC projects, thirteen operationally mature IFC projects, and one AS</td>
</tr>
<tr>
<td>Poland</td>
<td>UMIC</td>
<td>Four ongoing projects, six ASs, and two operationally mature IFC projects</td>
</tr>
<tr>
<td>Chile</td>
<td>UMIC</td>
<td>Five operationally mature IFC projects</td>
</tr>
<tr>
<td>Peru</td>
<td>UMIC</td>
<td>Two operationally mature and three ongoing IFC projects, and one operationally mature MIGA project</td>
</tr>
</tbody>
</table>

a. Field based country case studies for Mozambique, Poland, and India will be carried out in conjunction with IEG’s PPAR missions and the field based country case study for Peru will be carried out in conjunction with the country program evaluation. In the context of IEG’s planned Country Program Evaluation for Liberia, the transport sector portfolio and its sustainability may also be assessed as an input to this evaluation.
Appendix C: Preliminary Portfolio Review

WBG Assistance for Infrastructure

Over the last decade (FY2000-10), WBG’s assistance for infrastructure in terms of lending, investments and guarantees (project commitments) has risen from $5.2 billion to $28.6 billion. The level of assistance for infrastructure has also risen substantially as a share of WBG-wide project commitments (Figure C1). WBG’s most recent (FY08-10) average annual project commitments for infrastructure has grown by 1.8 times compared to the pre-IAP (FY00-02) average, while the corresponding WBG-wide project commitments grew only by 1.4 times. Infrastructure’s share of total WBG lending, investments, and guarantees over the past 20 years was 34%, and it has increased from the pre-IAP (FY00-02) share of 29% to an average of 34% (FY08-10).

Figure C1. Share of Infrastructure Lending, Investments, and Guarantees (US$ million)

WBG Assistance for the Transport Sector

The WBG approved 393 lending, investments and guarantees in the transport sector for a total value of $44 billion during FY02-11 for projects with expected aggregate project costs of $130.7 billion. Of the $44 billion total value of WBG operations, the WB accounts for 89 percent, IFC for nine percent and MIGA for three percent. In terms of the number of projects, WB accounted for 65 percent, IFC for 31 percent, and MIGA for four percent. Inclusive of all WBG non-dedicated projects mapped to other sectors but with some transport components, the total number of projects increase by 372 projects from 395 projects to 768 projects while the volume increase by $2.3 billion from $44 billion to $46.3 billion. Most of these non-dedicated projects are

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19 World Bank lending, IFC investments and MIGA guarantees issued (gross)

20 These figures represent total approved loan amounts for projects mapped to energy and mining, transport, urban development, ICT, and water sector boards.
mapped to urban development and agriculture projects in terms of the number of projects. When estimating the volume of lending most of the projects are mapped to urban development, agriculture, as well as energy and mining.

**Figure C2. WBG Transport Financing (In US$millions)**

**Figure C3. WBG Transport Portfolio Composition By Volume ($44 billion over FY02-11)**

* IBRD/IDA as of Feb 2011, Miga and IFC as of Dec

**Table C1. Number of Projects, Lending, and Guarantees for Various Transport Modes within WBG**

<table>
<thead>
<tr>
<th></th>
<th>IBRD/IDA</th>
<th>IFC</th>
<th>MIGA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of projects</td>
<td>257</td>
<td>122</td>
<td>14</td>
</tr>
<tr>
<td>Total lending (US$ billion)/guarantees issued (gross US$ billion)</td>
<td>39.0</td>
<td>3.8</td>
<td>1.5</td>
</tr>
<tr>
<td>Share of lending/guarantees (%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roads</td>
<td>68</td>
<td>9</td>
<td>13</td>
</tr>
<tr>
<td>Railways</td>
<td>14</td>
<td>14</td>
<td>32</td>
</tr>
<tr>
<td>Ports/harbors</td>
<td>2</td>
<td>35</td>
<td>48</td>
</tr>
<tr>
<td>Aviation</td>
<td>2</td>
<td>29</td>
<td>6</td>
</tr>
<tr>
<td>Other transport including trade logistics</td>
<td>14</td>
<td>13</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>100</strong></td>
<td><strong>100</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>
IBRD/IDA Funded Projects: The transport projects include IBRD and IDA funded lending as well as grants and trust funds. Of the total IBRD/IDA portfolio of 392 projects, 257 were dedicated transport projects mapped to the transport Sector Board. Of those 80 were closed and had been evaluated by IEG as of February 2011. The total volume of lending amounted to $39 billion (and a total volume including recorded counterpart, donor, and private sector funding, the aggregate project costs total $106 billion) over the past ten years, with 68% of the dedicated transport projects in the road sub-sector, 14%, railways, 2% each in ports and aviation, and the rest in other modes of transportation. In addition, there were 372 non-dedicated projects (projects with transport components but are mapped to other sector boards) in the portfolio for the period FY 2002 to 2011; 149 of them had closed as of February 2011.

IBRD/IDA funded AAA: During the period of FY2002-10, the Bank financed 322 AAA products mapped to the transport Sector Board. The Bank also financed 828 AAA products that were mapped to other sectors than the transport sector. However, most are general studies with relatively low focus on the transport sector. The AAA products will be reviewed in the context of the country case studies.
IBRD/IDA Outcome Ratings: Of the 2,079 IBRD/IDA funded projects evaluated by IEG during the past ten years, the 257 projects mapped to the transport sector board have the best outcome ratings, with over 90% moderately satisfactory rating or above.

Figure C5. Share of Projects with Outcome Ratings of Moderately Satisfactory or Above

IFC Investments: During the FY02-11, IFC has supported 122 projects in transport with a total capital value of $21 billion, investing $3.8 billion on its own and mobilizing $1.3 billion of “B loans.” In contrast with the IBRD/IDA, by volume, main activities in transport investments were in ports and harbor operations (35%), followed by airports and airlines (29%) and rail transportation (14%). The volume of investments was about 3 times higher than the preceding 10 year period (FY92-01), during which $ 1.3 billion investments were made. While volume increased significantly during FY02-11, the share of transport in IFC investments remained flat at about 5.3%.

IFC Advisory Services: During FY02-11, IFC undertook 54 advisory services in transport with a total funding of US$59 million representing 4% of total funding for Advisory Services and 2% by number of Advisory Services IFC offered Advisory Services ranging from advice for governments and private operators in privatizations and structuring public private partnerships (PPP’s) to providing support for feasibility and market studies for transport projects. While volatile between years, total funding for advisory services in transport has increased over time from $3.6 million in FY03 to $7.7 million in FY10.

IFC Outcome Ratings: IFC transport development outcomes of 42 investment projects evaluated between 2002-2010 rank higher than the outcomes for IFC as a whole or other IFC infrastructure projects. Moreover, the evaluated transport projects have yielded better than average impacts in all four underlying indicators of development outcome (See Figure C5).

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21 Excluding right issues and oil and gas transport or pipeline projects

22 As of DEC 2010

23 Project’s development outcomes of IFC projects are evaluated based on multiple attributes of their contribution to a country’s economic development and ratings are based on a synthesis of their performance across four underlying indicators: (i) project business performance; (ii) economic sustainability; (iii) environmental and social effects; and (iv) contribution to private sector development. The development outcome rating is a bottom-line assessment of a project’s results on-the-ground, and not an “average” of these four indicators.
However, the net returns on IFC’s portfolio in the sector have typically lagged behind those across IFC as a whole (IEG 2006). The evaluated outcomes of AS in the transport sector have been low: four of the six transport projects evaluated between FY08-10 had unsatisfactory ratings on development effectiveness mainly due to inadequate institutional capacity and poor governance.

**Figure C6. Performance of IFC Transport Sector Projects**

![Development Outcome](image)

MIGA Guarantees: During FY02-11, MIGA issued guarantees for $1.5 billion (and a total project cost of $3.7 billion) supporting 14 projects in the transport sector through political risk insurance. The share of transport in MIGA’s overall guarantee issuance rose to 11 percent between FY02 and FY11, compared with only 1 percent in FY92-01. During FY02-11, ports is the largest sector in terms of volume and number of newly issued transport guarantees (eight projects and 48 percent of volume) followed by rail transportation (two projects, 32 percent of volume) and toll roads (two projects, 13 percent of volume).

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24 As of Dec 30, 2010
Appendix D: References


OECD 2006. Promoting Pro-poor Growth: Key policy messages. Organization for Economic Cooperation and Development. OECD


