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Findings, Lessons, and Recommendations

This final chapter reviews the findings and lessons from the IEG evaluation. It also provides recommendations to management to improve Bank effectiveness in the transport sector. It recognizes that the world is changing rapidly and that the Bank will have to be flexible and adapt its support programs to meet the emerging challenges.

Findings and Lessons

Current World Bank transport strategy is founded on the three pillars of private sector involvement, continuing sustainability, and development of an appropriate urban strategy. This foundation remains relevant today but requires adjustment to the more complex emerging environment. The past is not necessarily a guide for the future, even when a sector has a solid record of achievement. It will be necessary to shift from a "cylindrical" or "silo" approach to a more sector-interlinked approach. This may or may not require more resources, depending on the relative priority of transport to competing needs, but it will certainly entail a smarter use of resources.

Role of the Public and Private Sectors

The Bank's encouragement of greater private sector participation in the transport sector where feasible is supported by this evaluation's findings. International experience generally—and Bank Group experience in particular—shows that this approach has usually led to significant improvements in transport sector performance. However, for various reasons, some countries prefer not to opt for full privatization in favor of more modest models of private sector participation.

Bottlenecks in transport result from inefficiencies in the use of available resources, lags in the engineering and managerial technologies applied, and failures to make timely investments in capacity expansion. This evaluation indicates that the most positive impact of changes in the public-private sector balance will be cases that can either sharply reduce such inefficiencies or significantly raise the productivity of the capital stock already invested in the sector. Improvements in trade prospects and technological advances (such as electronic pricing techniques or the increasing scale of ships and aircraft) suggest that there is still substantial scope for further gains of this sort.

The impact of privatization has usually been more significant when the privatization process includes measures to reduce the amount of regulation of the mode concerned and when the structures offered to private bidders are designed to sustain competition. At the same time, for impact, appropriate measures need to be taken to ensure

access of competing providers to any facilities with local monopoly characteristics. Although there is less scope for private sector involvement in the poorest countries, a major reason for the success of several concessions has been the Bank's willingness to fund retrenchment costs and programs to improve opportunities for workers who now have to make a different choice of livelihood.

Full transport concessions remain concentrated in middle-income countries, where the volumes of traffic are attractive and there is sufficient public sector capacity to engage with the private sector. IEG recognizes, however, that the positive impact of even one or two concessions in a lower-income country can have a dramatic effect. Actual possibilities of attracting private capital into transport infrastructure vary greatly over time and among countries. But there are instances in ports and large bridges, where even poor countries with uncertain prospects have been able to attract foreign private sector interest at certain stages in the financial markets' cycle. A further aspect to consider is that several countries, especially in East Asia and the Pacific, are poised to attain middle-income country status. This means that the Bank must remain competitive in the assistance it can offer with respect to PPPs.

One aspect in which the public sector frequently needs strengthening is strategic and structural planning, most particularly when increased private participation is being considered or is undergoing its running-in period. Government has an irreplaceable planning role in transport. This is partly because of the need for active consensus building among the different modes to maintain an effective integrated system. But it is also due to the importance of transport infrastructure, and especially the road and rail networks, in structuring land use and regional development more generally. Multimodal strategic planning is particularly crucial at the national and metropolitan levels of government.

In parts of Asia and Africa where the study team inquired into reasons for the absence of reforms that have proved productive elsewhere, the main obstacle to progress appears to be local fears among labor, but also among concerned bureaucrats and less dynamic enterprises, of losing their acquired positions. This problem is often exacerbated by laws and regulations, often dating back several decades, which may never have been sound but have built up over time an array of supporting interests. Bringing about changes in public-private balance requires multiple scarce political skills, particularly of communication to generate wider understanding of the opportunities being missed; of alliance building, to gather political support; of negotiation, to win the tolerance of those who expect to suffer; and of effective implementation, including respect for the rights of all concerned.

Considering distributional as well as environmental aspects of projects, there would seem to be a need for more combinations of larger-scale public and private financing than is so far generally undertaken in developing countries, more along the lines of some recent projects in continental Europe. This can bring the advantages of private management into areas that have high economic priority but cannot be expected to become financially viable rapidly.

Maintenance, Institutional Development, and Environmental Protection

Improving the strength and efficiency of the private sector role in road maintenance is a matter that remains important in all countries, as different stages of development are achieved and new techniques are developed. Key components on the public side include serious commitment at the highest level within each concerned body to the elimination of corruption and achievement of high standards of governance; development and continuous updating of the management information systems; both central and decentralized capacities for planning and contract management; adoption and systematic enforcement of transparent competitive bidding practices; financial flows to the different levels of government involved; and gradually increasing use of performance-based contracting. Important contributions from the private side (with public support) are training, development of commercial equipment-supply enterprises, and an effective contractor association.

Linked to this is the effectiveness of governance and capacity building in the sector. By and large, technical assistance to strengthen client capacity has had modest results in low-income countries but better results in middle-income countries. While the road agencies and some of the railway reorganizations have demonstrated continuing support and success, in many other cases training has been aimed at assisting the immediate project and is therefore less likely to have any sustained impact. Typically, the timing of training interventions is not always synchronized with the necessary organizational changes needed to improve public sector performance. Institutional change takes time, and often the life cycle of the project intervention is relatively short—about 5 years; this is often insufficient to ensure lasting results. Institutional objectives need to be designed more realistically and be pursued incrementally; that kind of continuing support program will often extend beyond the transport sector itself.

A further lesson is the need to choose a single clear criterion for selecting a prequalified bidder. Contention among interested parties and at the political level seems to be minimized by using the relatively simple and straightforward criterion of maximum payment (or minimum subsidy demanded) for the right to provide services. Services must meet the performance standards specified in the tender documents.

There is sufficient evidence to show that the use of second-generation road funds, especially in Africa and Central America, has met with modest success—in a few cases substantial success. The Bank has learned to be pragmatic and tends to promote road funds only when the budget approach has failed. The Bank has learned as well to take into account the different circumstances prevailing in each country. In some countries where second-generation funds have been introduced, there is evidence of an increase in the percentage of roads in good condition. However, in one-third of Sub-Saharan African countries with road funds, the income is insufficient to cover routine maintenance costs. Nevertheless, the flow of funds has become more stable and predictable. Road funds, however, should not be contemplated where there is a high level of corruption or where there is little likelihood of having independent audits and transparent procurement. It would be beneficial if a rigorous study of the impact of the successful road funds could be undertaken to show why they have succeeded.

Nevertheless, road funds often come as part of a package that leads to improvements in road department accountability. This can be attributed to the establishment of road agencies and road boards and contracting out to the private sector, not only of construction and rehabilitation but also of routine maintenance, design, and general supervision. Transparently competitive tendering of works against performance-based specifications has been a very significant step forward, as has the representation of the public and user groups on road boards.

In general, both client perspectives and pertinent documents show that there is positive support for the Bank's actions in ensuring environmental sustainability and providing safeguards for people affected by new projects. There is also general support for capacity-building activities and assistance with coordination between institutions and even different tiers of government. The demand for roads is likely to continue unabated, but there is recognition, at least in middle-income countries, of the importance of environmental, social, economic, and institutional issues related to city growth. Stakeholders saw relative neglect of both urban transport and intermodal efficiency. Some also perceived slowness in the Bank's decision-making processes.

Poverty Reduction

There has been an important shift in mind-set. The old mind-set said that the objective of a transport system in a developing country is to build the best transport system that can be afforded. Now the objective is to design a system that optimizes transport as an intermediary good to achieve a sound poverty-reduction strategy, obviously within resource constraints. Poverty-reduction projects are often multidisciplinary, and experience shows that when the transport component is small and

the project falls under a sector board other than transport, the outcome is often unsatisfactory. The need for guidelines for and/or oversight of these components is apparent.

When a country has very limited resources and severe capacity constraints, a programmatic approach to roll out development assistance, in consort with other donors, may be the most effective way to proceed and build capacity. Capacity building, especially in fragile states, takes time, and it is necessary to be realistic about what can be achieved and how it can be achieved. A phased approach appears to yield the best results, because each phase can build on lessons from previous phases; the work plan may also have to go beyond the immediate project and sector to be fully successful. Clear milestones are essential.

The needs of the transport sector are changing, and the composition of the sector portfolio may be cause for concern, with its heavy emphasis on intercity highways. Analysis of input from stakeholders and staff elicited a view that the Bank should perhaps be taking on more projects in rural access, urban transport development, and multimodal transport. Given the implications of this for achieving the MDGs, there should be a more informed debate about relative priorities when CASs are prepared. Because the Bank finances just 2 percent of total infrastructure spending in developing countries (Oxford Analytica 2005), it should try much harder to achieve the best balance between financing high-priority but less-challenging projects and ones that will demonstrate new ideas and approaches.

Evidence from both IEG and QAG suggests that over the past 10 years transport in general has been an efficiently run but sometimes insular sector. The present operational strategy will not necessarily continue to be appropriate in the future. In particular, the relative neglect of knowledge dissemination, both internally and externally, is significantly less than would reasonably be expected from such a large sector. Although some important AAA work has been carried out in several countries, the effort is spread rather thin, and awareness of this high-quality work is not as widespread as it should be. Better linkages could also be made with research institutions, and internally the sector needs to change the perception that it has few research needs. Firmer information is needed about the relationships between transport and poverty, as well as about the added value the Bank can deploy when it supports such projects.

Future Challenges

Sector leadership, in IEG's judgment, has correctly identified the future challenges of the 21st century in its draft update of strategic priorities. Through the strategy it wishes to support the MDGs more fully by refocusing emphasis on issues such as the provision of clean, affordable, and safe transport. This does not imply that the demand for traditional highway financing is expected to decline but rather that emerging additional priorities will have to be addressed and customized on a Regional and country basis. Such a shift would not be a unilateral decision by the Bank; it would result from a gradual concerted effort to encourage clients to put forward more projects relating to emerging issues. Inspection of the list of projects now in preparation shows that this is already happening.

The arguments in support of improving transport affordability are strong. Affordability cuts across the entire transport spectrum and the suggested increased focus on the rural and urban poor fit well with the poverty-reduction agenda. This will entail closer cooperation with the health and agriculture sectors and with experts in the social, gender, urban, rural, and human development fields. More projects aimed at removing cross-border trade barriers will also reduce freight costs and improve the affordability of consumer goods and inputs into the productive sectors. The interface here is with industry, trade, energy, finance, and resource management. The shift toward more multimodal operations, including supply chain management, is already apparent.

The greater emphasis on safety also supports those MDGs that address health issues. Every year more than 1.2 million people are killed and up to 50 million more are injured on roads worldwide; the prediction that by 2020 road accidents will become the third-largest contributor to the global

burden of mortality and injury is hardly surprising. Bank-financed projects until recently have rarely tackled road safety holistically, but there is evidence that new road safety approaches are being pursued in all Regions—not just in urban areas but also on intercity highways and rural roads.

Add-on safety components in rehabilitation or construction projects may have resulted in the introduction of some safety features or the elimination of accident "black spots," but they were never going to introduce significant, meaningful institutional change. An alternative approach, based on large multisector projects involving education, policing, health, works, and other departments, is under development, but more coordination is necessary to achieve improved results through better standards, implementation, and enforcement.

Aviation safety has become an important and even controversial topic as well because certain developing country airlines with poor safety records have been banned from the airspace of industrial countries. There is now a move to substantially upgrade both aviation safety and security in developing countries, especially in Africa, and the Bank is expecting to sustain the recent increase in projects of this nature.

Air quality has assumed new importance with the growing number of motor vehicles contributing to the volume of greenhouse gas emissions (Stern 2006). Road transport alone accounts for nearly a quarter of the man-made gases believed to be contributing to climate change. Pollution, noise, ugliness, and wasted time caused by traffic congestion also impose substantial societal costs. This is a powerful reason to increase support to urban transport; it provides opportunities not only to reduce air pollution and other environmental damage but also to explore ways to reduce the long-term energy demand through traffic management and pricing, constraints on the use of private cars, and greater support for mass transit systems and public transport in general.

London has successfully introduced a central city access charge,[1] while Austria, Germany, and Switzerland have created electronic systems to charge trucks for the costs that their movements impose on the roads. Such advances in technology are expected to spread at least to middle-income countries in the near future.

The Bank has already discovered that it can obtain greater leverage from sources of funding such as the Global Environment Facility and the UN Environment Program. Carbon finance initiatives in future years also have the potential to fund global research projects. The UN Environment Program recently launched a multimillion dollar public transport project covering three polluted cities in Latin America. In Europe an emissions trading scheme, which imposes carbon dioxide emission limits on factories and power stations, has been introduced as the mainstay to meet its Kyoto Protocol goals. Transport will be included in 2013.[2]

However, caution is needed in the approach to these issues, especially in smaller countries. In Madagascar, the authorities did not see clean air as one of the country's most pressing priorities, and this aspect was dropped from the project. An area of controversy as to whether the Bank should be adopting OECD best practice emissions technology or older technology for developing countries has probably also not yet been fully resolved. The Bank needs to reach internal consensus on how it should advise its clients.

The rapidly increasing interaction between transport and other sectors is an important matter; there is no doubt that transport is developing into a complex multisectoral business. But it is not yet clear whether the present deployment of internal resources available to the transport sector will be sufficient to meet these additional challenges as well as the substantial demand for the more traditional road-related projects. To IEG it appears unlikely that these new priorities can be achieved meaningfully without either scaling up support or reassessing sector priorities and engaging with greater dialogue with borrowers.

The next generation of projects will increasingly be located in urban areas, and the Bank will be expected to provide more support to the larger municipalities, metropolitan centers, and peri-urban areas. This will require working across sectors

through multisectoral teams and will generate increasing complexity in business. IEG notes that this trend has already begun; in table A.7 it can be seen that for projects in the pipeline there is already a clear evolution toward more multimodal projects and fewer roads and highways.

Nonlending assistance in the transport sector appears to be of good quality but in quantity is insufficient. If it is to progress beyond its present status, it needs to be planned more strategically with better resources and more interaction with both staff and clients. This implies much more effective sharing of resources between networks; clearly the recent merging of the Infrastructure with the ESSD Network is a positive step in this direction.

An additional factor to consider is the pace of change in the business environment. For example, in the coming decade many East Asia and Pacific countries will attain middle-income country status, effectively changing the nature of the demand for Bank services. Examples of where the Bank is proactively offering new products and services to remain competitive in comparison with other international financial institutions in this domain include reimbursable technical assistance in Saint Petersburg, Russian Federation, and knowledge partnerships with Thailand. Although these initiatives have not been formally evaluated, the trend toward more innovation is clear.

Other potential growth areas include introducing subnational lending through a new facility (subject to the caveat that some national governments are worried about subnational debt sustainability). Capacity at the subnational level varies considerably. For example, in the Middle East and North Africa, few cities would contemplate taking on additional debt. However, in other cases there is a great opportunity because the Bank's comparative advantage lies in helping build capacity at a subnational level in support of national governments. This strength is expected to leverage additional finance for infrastructure.

The anticipated increased dialogue with clients on all these issues will have to be supported by increased ESW activity, especially with respect to PPPs, including greenfield projects. More knowledge service products with mechanisms such as peer-to-peer exchanges and twinning arrangements will provide an environment for better outcomes; but they will also carry greater risks for successful implementation because of increasing complexity and multiple stakeholders. The higher reward-higher risk mix may affect the measured portfolio quality in the future, although complex urban transport projects have historically shown consistently good results. It is clear, however, that if more complicated projects consume a greater quantity of resources, then fewer projects can be completed overall.

More programmatic lending and SWAps may be one way to help the Bank use resources more effectively and productively. The possible advantages of pursuing this approach are stronger country ownership and leadership, better policy dialogue between the partners and stakeholders, greater focus on results in a programmatic framework, economies of scale, and likely a better approach to capacity building. Possible difficulties with SWAps include disconnects between the agendas, policies, and procedures of participating donors. Transport sector SWAps have commenced in several countries; the proposed self-evaluation of their outcomes and the sustainability thereafter will be further studied with great interest. Finally, the unique efforts in Africa through SSATP to promote knowledge sharing will also need to be independently reassessed in the near future.

Recommendations

- Ensure that the focus of the Bank's transport operations goes beyond intercity highways and gives more attention to issues of growing urgency, including environmental damages, energy efficiency and climate change, traffic congestion, safety, affordability, and trade. This could entail a trade-off between a portion of the traditional highway business and the newer, more complex challenges.
- Prepare a Bank Group transport strategy with a sixfold emphasis: (i) greater attention to air and water pollution and realizing environ-

mental gains; (ii) achieving greater synergies across relevant sectors—building on the merging of the Bank's ESSD and Infrastructure Networks; (iii) enhancing knowledge sharing and analytical and advisory services and their contribution to country strategies; (iv) continuing to support private sector participation through close coordination among the Bank, IFC, and MIGA; (v) increasing attention to governance and corruption issues; and (vi) redeploying staff and budget resources accordingly.

- Build up the sector's monitoring and evaluation efforts and align them with the new strategy, including through (i) the development over the next year of relevant intermediate indicators applicable to the broad range of projects; (ii) the launching of an enhanced program of rigorous impact evaluations for selected programs; (iii) a comprehensive self-evaluation of the experience with SWAps within 3 years; and (iv) an independent overview of the SSATP Program within 2 years.