

WORLD BANK GROUP
SUSTAINABLE INFRASTRUCTURE ACTION PLAN
FY 2009-2011



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World Bank Group Sustainable Infrastructure Action Plan (SIAP)

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ABBREVIATIONS AND ACRONYMS

AAA	Analytical and Advisory Activities	ISR	Implementation Status and Results
ADB	Asian Development Bank	LAC	Latin America and Caribbean Region
AFD	Agence Française de Développement	LIC	Low-Income Country
AfDB	African Development Bank	LNG	Liquid Natural Gas
CAS	Country Assistance Strategy	MDB	Multilateral Development Bank
CEIF	Clean Energy Investment Framework	MDG	Millennium Development Goal
CIF	Climate Investment Funds	MIC	Middle-Income Country
CTF	Clean Technology Fund	MIGA	Multilateral Investments Guarantee Agency
DAC	Development Assistance Committee	MNA	Middle East and North Africa Region
EAP	East Asia and Pacific Region	NEPAD	New Partnership for Africa's Development
ECA	Europe and Central Asia Region	O&M	Operation and Maintenance
ECTEL	Eastern Caribbean Telecommunications Regulator	OBA	Output-Based Aid
ESMAP	Energy Sector Management Assistance Program	ODA	Official Development Assistance
EU	European Union	OECD	Organization for Economic Co-operation and Development
FIs	Financial Intermediaries	OPCS	Operations Policy and Country Services
FY	Fiscal Year	PPIAF	Public Private Infrastructure Advisory Facility
GAP	Gender Action Plan	PPP	Public-Private Partnership
GDP	Gross Domestic Product	PRSP	Poverty Reduction Strategy Paper
GEF	Global Environment Facility	QAG	Quality Assurance Group
GeoFund	WB Geothermal Energy Fund	RAI	Rural Access Index
GFCRP	Global Food Crisis Response Program	SAR	South Asia Region
GFDRR	Global Facility for Disaster Reduction and Recovery	SDLP	Sustainable Development Leadership Program
GGFR	Global Gas Flaring Reduction Partnership	SDN	Sustainable Development Network
GHG	Green-House Gas	SEE	South East Europe
GICT	Global Information, Communications and Technology	SF	Special Financing
GPOBA	Global Partnership for Output-Based Aid	SFCCD	Strategic Framework for Climate Change and Development
GPP	Global Program and Partnership	SIAP	Sustainable Infrastructure Action Plan
IAP	Infrastructure Action Plan	SSA	Sub-Saharan Africa Region
IBRD	International Bank for Reconstruction and Development	SSIU	Sector Strategy Implementation Update
ICT	Information and Communication Technologies	SWAPs	Sector Wide Approaches
ICR	Implementation Completion and Results Report	TF	Trust Fund
IDA	International Development Association	TFESSD	Trust Fund for Environmental and Social Sustainable Development
IDA-14	14 th replenishment of IDA	TRE	WB Treasury Department
IDA-15	15 th replenishment of IDA	UN	United Nations
IEA	International Energy Agency	UNFCCC	UN Framework Convention on Climate Change
IEG	Independent Evaluation Group	WB	World Bank (IBRD/IDA)
IFC	International Finance Corporation	DECDDG	Development Economics Data Group
IFI	International Financial Institutions	WBG	World Bank Group
IPCC	Intergovernmental Panel on Climate Change	WDR	World Development Report
IPP	Independent Power Producer	WSS	Water Supply and Sanitation

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FOREWORD

The World Bank opened its doors more than 60 years ago with an initial and immediate concentration on financing critical infrastructure in war-ravaged European countries. Since then, investments in infrastructure have remained a key component of our work as we have expanded to become the World Bank Group and focused on supporting economic growth and poverty reduction in developing countries around the world. As this Action Plan points out, “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.”

The demands worldwide are enormous. Developing countries each year require in the order of US\$900 billion both maintaining existing infrastructure facilities and augmenting them to respond to pressing development needs. Under the Sustainable Infrastructure Action Plan, the World Bank Group will use all of its resources—loans, grants, equity investments, guarantees, technical assistance, and more—to invest approximately US\$15-18 billion per year in infrastructure, and to leverage our work with partners to raise another US\$27-37 billion annually. We will also combine financial strength with our analytical and technical skills, capacity-building services, global reach, and convening power. In the end, we hope to join with partners to make a real difference in the lives of billions of people by providing them with access to efficient, affordable, and sustainable services in energy, water, transport, and information and communications technology.

In the international development community, no one actor can answer all questions or solve all problems. The Action Plan that follows is a roadmap for how the World Bank Group intends to play its part in infrastructure. As we move rapidly toward the 2015 deadline to achieve the Millennium Development Goals, we at the World Bank, IFC, and MIGA call on the international community to join with us to actively support these basic building blocks of economic development and poverty reduction.

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WORLD BANK GROUP SUSTAINABLE INFRASTRUCTURE ACTION PLAN

EXECUTIVE SUMMARY

1. This report presents the World Bank Group's Sustainable Infrastructure Action Plan (SIAP), for Fiscal Year 2009-11 (FY 09-11). It follows up on the Infrastructure Action Plan (IAP), FY04-07 to revitalize the institution's engagement in infrastructure. SIAP supports a renewed commitment to client countries to improve the reach and quality of infrastructure service delivery in a sustainable manner through increased financial and analytical support and leverage.
2. Since the 1960s, the World Bank (WB or the Bank) has provided substantial assistance to developing countries for basic infrastructure services such as energy, transport, water, and telecommunications. 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.
3. During the 1990s, there were widespread expectations that the private sector would play a much larger 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. Bilateral Official Development Assistance (ODA) declined during the same time period and, in parallel, World Bank lending for infrastructure dropped from US\$10.6 billion in 1993 to US\$5.4 billion in 2003. The growing awareness of the impact of the infrastructure service delivery deficit on developing countries' poverty reduction and economic growth prospects prompted calls for the WB to re-engage and scale up its assistance. Upon request from the WB Board, Management launched the IAP in 2003 for the FY04-07 period with the objective of revitalizing Bank engagement. The International Finance Corporation (IFC) and Multilateral Investments Guarantee Agency (MIGA) were not part of the IAP, but increasingly strong ties were built at the World Bank Group (WBG) level over this period.
4. **IAP objectives were achieved.** At the end of the IAP, WB financing for the infrastructure sectors totaled US\$33 billion for the FY04-07 period, compared with US\$22 billion over the preceding four-year time period. Adding IFC and MIGA, the figures were US\$41 billion and US\$28 billion, respectively. The volume and scope of analytical and advisory activities increased by more than 30 percent. More operations began to draw on the collective strengths of International Bank for Reconstruction and Development/International Development Association (IBRD/IDA), IFC, MIGA, and a range of instruments, such as sub-national assistance, Sector-Wide Approaches (SWAPs), Output-Based Aid (OBA), and innovative political risk guarantees, were developed to better address client needs. Progress was also steady in addressing priorities in results measurement and governance. The mainstreaming of environmental and social objectives continued to improve during IAP and an enhanced understanding of sustainable dimensions of infrastructure emerged. In parallel with growth in the business, the quality of WBG's infrastructure portfolio remained sound, including in terms of compliance with safeguards.

5. **The external environment continues to change rapidly.** During the IAP period, the recovery of WBG support to infrastructure was accompanied by dramatic changes in the external environment. Eight trends in particular are affecting the way infrastructure services are planned, financed and operated: (a) climate change; (b) globalization of trade and services; (c) growing regional disparities in the context of rapid urbanization and decentralization; (d) changing global financial conditions, including increases in private investment in infrastructure in emerging markets; (e) an increasingly complex global aid architecture; (f) rising energy prices; (g) the potential of breakthroughs in technologies for delivering infrastructure services in a more sustainable manner; and (h) the food crisis. The ongoing food crisis has mobilized multilateral development banks (MDBs) under the umbrella of the United Nations (UN) for immediate action, and the WBG has outlined its action plan under the recently WB Board approved Global Food Crisis Response Program (GFCRP)¹.

6. **The WBG can play a new role in infrastructure support.** These global trends, together with the still large infrastructure service delivery gaps—884 million people without access to safe water, 1.6 billion without electricity, and 2.5 billion without sanitation—caused the WBG to update its analysis of its role in infrastructure after the initial gains achieved during the IAP. Four key considerations emerged from this:

- There has to be progress in supporting developing countries to meet the enormous lags in the access agenda of core infrastructure sectors (transport, water, energy, and information, communication and technology). While there has been continued demand from client countries in these infrastructure sectors, advancing in this core access agenda requires focused attention on key cross-cutting issues: climate change, the role of the private sector, regional disparities in infrastructure service delivery, rapidly growing demand for infrastructure in urbanizing economies, affordability and the need to support and build upon technological advances;
- There is a need to embed sustainability in infrastructure services going beyond the “do-no-harm” objectives. In addition to the traditional economic and financial viability of infrastructure services, the design of infrastructure programs needs to support environmental sustainability and social inclusion: the “triple bottom line;”
- It is paramount to ensure support for a strong governance framework for infrastructure services: efficient and effective use of public and private resources, strong results monitoring systems to measure the access and sustainability outcomes of infrastructure spending, and effective anti-corruption action programs;
- Even at the current level of US\$13 billion per annum plus planned future increases, direct WBG financing would remain modest relative to the total demand for infrastructure investment and maintenance from developing countries, estimated at over US\$900 billion per annum. The WBG can leverage its financing by mobilizing additional private financing and harmonized aid resources for infrastructure, using its convening power to support developing countries.

¹ Framework document for “Proposed Loans, Credits, and Grants in the amount of US\$1.2 billion equivalent for a Global Food Crisis Response Program,” May 29, 2008.

7. The analysis of the role that the WBG needs to play in infrastructure led to the preparation of SIAP FY09-11. SIAP has been prepared as an umbrella framework that brings together the lessons of the Bank's infrastructure experiences from the past two decades² and the more recent achievements during the IAP. The umbrella framework of SIAP provides direction to the many individual efforts to increase infrastructure support by the different institutions of the WBG through multiple product lines.

8. **What will we do?** Four aspects are critical to the WBG's approach to infrastructure in SIAP:

- Address the core access agenda in the following infrastructure sectors: transport, energy, water, and Information and Communication Technologies (ICT) for development;
- Maximize effectiveness through a focused approach to complex cross-sectoral issues such as the role of infrastructure in climate change mitigation and adaptation efforts³, the role of public private partnerships (PPPs) in the provision of infrastructure services, and new ways to provide infrastructure support for rural-urban integration and development;
- Focus on social and environmental objectives in addition to the economic/financial viability and ensure access to affordable infrastructure services through a platform of strong governance; and
- Leverage WBG financing through: (a) support to governments to create a market environment supportive of private investment; (b) direct support for private financing of infrastructure; (c) increased advocacy to ramp up harmonized donor financing; and (d) systematic use of financial products that address the financial risks faced by clients and reduce the overall project costs.

9. **How much will the infrastructure business grow?** During FY08-11, the WBG plans to scale up its finance and advisory services for infrastructure between US\$59 and US\$72 billion,⁴ and leverage an additional US\$109 to US\$149 billion in Official Development Assistance (ODA) and private financing for infrastructure.

10. **How will we do it?** Through improved agility of the WBG in responding to client and stakeholder demands, we will:

- Increase WBG joint work, such as joint WB-IFC sub-national transactions and WB-MIGA-IFC collaboration on large and complex infrastructure projects, particularly energy sector projects in Africa; joint advisory services and upstream Analytical and Advisory Activities (AAA); and develop rules of joint engagement for common WBG product lines;

² "Infrastructure: Lessons from the Last Two Decades of World Bank Engagement," and the accompanying paper: "Scaling-up Infrastructure: Building on Strengths, Learning from Mistakes" (SecM2006-0046).

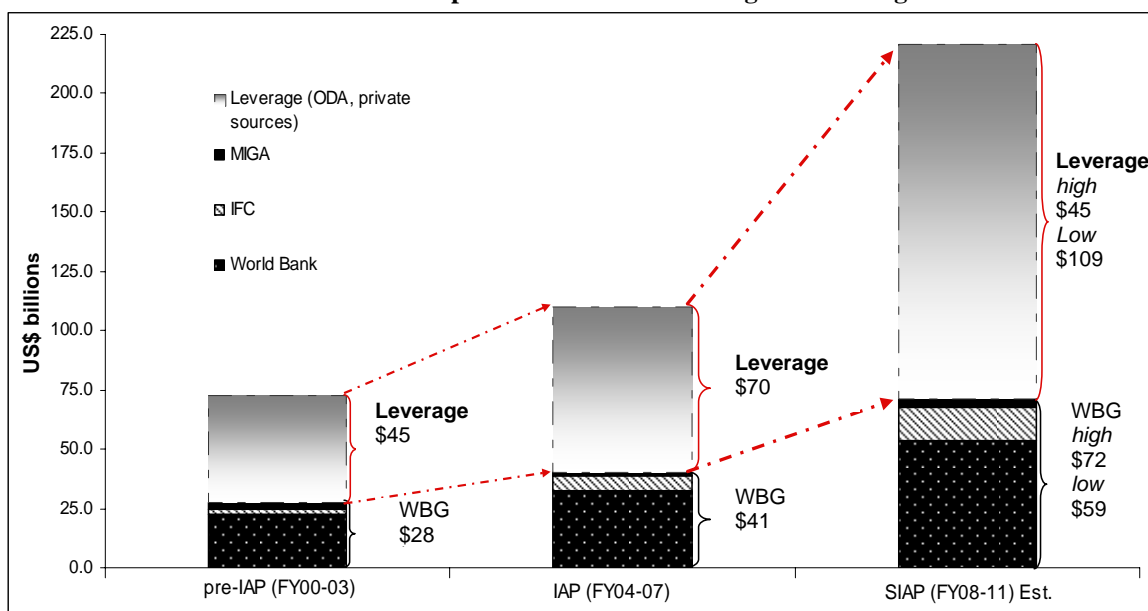
³ The SIAP was prepared concurrently with the WBG Strategic Framework for Climate Change and Development. The two strategic papers are complementary and leverage each other's objectives.

⁴ This includes the transition year of FY08.

- Reduce the non-financial costs of doing business in high priority sectors, including hydropower;
- Improve results monitoring and evaluation of the sustainable infrastructure interventions;
- Increase the utilization of the WBG financial expertise and access to multiple financial resources for transactions packaging for high priority objectives, such as the mitigation of sovereign and natural catastrophic risks; and
- Maximize the benefits from the SDN integration, including through training and recruitment.

11. **SIAP Matrix.** The SIAP matrix in Table 2 (that appears on page 42) indicates the outputs under each component of the Action Plan.

World Bank Group Infrastructure Financing and Leverage⁵



(US\$ Billions)	Pre-IAP(FY00-03)	IAP (FY04-07)	SIAP (FY08-11) Low Case (Est.)	SIAP (FY08-11) High Case (Est.)
WB	22	33	45	53
IFC	3	6	11	15
MIGA	3	2	3	4
WBG Financing	28	41	59	72
Leverage (private and ODA financing)	45	70	109	149

Note: FY08 is a transition year and is not included in SIAP. However, it is included in the calculations for comparability to past years.

⁵ WB financing during SIAP estimated based on assumption that IDA will grow at IDA-15 replenishment rate of 38 percent and IBRD will grow between 10 to 30 percent. Estimates were adjusted and finalized by the WB Regional Departments (Regions) based on market scanning and business plans.

WORLD BANK GROUP SUSTAINABLE INFRASTRUCTURE ACTION PLAN

I. INTRODUCTION

1. This document presents the WBG's SIAP, FY09-11. It follows up on the 2003 Infrastructure Action Plan to revitalize the Bank Group's engagement in infrastructure for the FY04 period. SIAP outlines a new phase of Management's commitment to support client countries improve the reach and quality of infrastructure service delivery in the developing world in a sustainable and affordable manner through increased financial and analytical support and leverage.

2. The catalytic role of infrastructure in poverty reduction has been recognized in the Millennium Development Goals (MDGs), which single out access to water supply and sanitation service targets to be achieved by 2015. Although not explicitly stated as goals, access to other infrastructure services such as electricity, transport, and telecommunications is indispensable for achieving the health, education, gender, and income poverty goals spelled out in the Millennium Declaration of the UN General Assembly. For example, each year 529,000 women die due to childbirth complications. Most of these deaths could be prevented through timely access to essential childbirth-related care, for which road access is crucial.⁶

Table 1: Access to Infrastructure

	<i>EAP</i>	<i>ECA</i>	<i>LAC</i>	<i>MNA</i>	<i>SAR</i>	<i>SSA</i>	
Population (in millions) ¹	1,899	459	555	310	1,492	770	
Living population with less than \$1 per day (in million) ²	169	4.4	47	4.4	446	298	
Urban population (%) ³	42	64	78	57	29	36	
Urban population in 2030 (%) ³	70	63	92	61	40	52	
Access to electricity (%) ⁴	89	99	90	78	52	26	
Access to water supply (%) ⁵	Urban	93	95	94	95	94	83
	Rural	67	82	66	77	80	44
Access to sanitation (%) ⁵	Urban	73	91	86	93	67	73
	Rural	35	81	52	70	22	43
Access to telephone per 100 population ⁶	Fixed	23	25	18	17	3	1
	Mobile	35	63	55	36	15	14
Access to rural transport (%) ⁷	90	82	59	59	57	34	

¹ World Bank Development Database, 2006.

² World Bank Development Economics Data Group (DEC), October 2007 – Data from 2004.

³ World Bank Development Database, 2006.

⁴ International Energy Agency (IEA), 2005. EAP data includes China, while MNA does not include Northern African States.

⁵ Joint Monitoring Program Database (wssinfo.org), 2004 Data.

⁶ World Development Indicators, 2006.

⁷ Rural Access Index (RAI) estimates the proportion of rural population, which has access to an all-weather road, based on household survey data: 2002–04.

⁶ Wagstaff, A., Cleason, M., 2004, The Millennium Development Goals for Health: Rising to the Challenges, (The World Bank), Washington, DC.

3. With an estimated 884 million people without access to safe water, 1.6 billion without electricity, 2.5 billion without sanitation, and more than 1 billion without access to telephone services, the infrastructure access gap looms large in the developing world. These gaps in access and service quality to a large degree reflect inadequate investment. Estimates of infrastructure investment needs in developing countries amounted to about 7 percent to 9 percent of Gross Domestic Product (GDP) per annum, while only about half of the required amount of over US\$400 billion/year⁷ was spent on infrastructure investment and maintenance. Effectiveness of infrastructure investment was further limited by poor quality in service delivery, without the necessary policies and institutions to effectively manage the sector.

4. At the start of the current decade, infrastructure investment in many developing countries had fallen below the levels of 10 years earlier, driven by declining public funding and private investment flows. As a consequence, most countries faced large and growing infrastructure service gaps that threatened the achievement of growth and poverty reduction goals. By 2003, there was a sense that the parallel decline in WBG support to infrastructure had exacerbated this reduction in infrastructure investments—directly, in terms of reductions in the institution’s assistance and, indirectly, by signaling to the international development community and to client countries that these sectors were not a development priority.

5. Concern about these developments led a number of client countries and the WB Board to ask the World Bank for an expanded assistance program for infrastructure; the 2003 IAP was the institution’s response. The IAP committed the WB to scale up support to its clients for basic infrastructure services through a more balanced and pragmatic approach to the complex issues of increasing the level and quality of infrastructure service delivery. IFC and MIGA were not part of the IAP, though increasingly strong ties were built at the World Bank Group level over the period.

6. **IAP objectives were achieved.**⁸ At the end of the IAP, WB financing for the infrastructure sectors totaled US\$32.8 billion for the FY04-07 period, compared with US\$22.3 billion over the preceding four-year time period. Adding IFC and MIGA, these figures were US\$40.5 billion and US\$27.6 billion respectively. The volume and scope of analytical and advisory activities increased by more than 30 percent. More operations drew on the collective strengths of IBRD/IDA, IFC, and MIGA and a range of instruments such as sub-national assistance, Sector-Wide Approaches (SWAPs), Output-Based Aid (OBA), and innovative political risk guarantees, were developed to better address client needs. Progress was also steady in addressing priorities in result measurement and governance, and in mainstreaming environmental and social objectives and approaches for sustainable infrastructure. In parallel with growth in the business, the quality of WBG’s infrastructure portfolio remained sound, including compliance with

⁷ These estimates were partial in that they did not include electricity transmission and distribution, wastewater treatment, urban transport, ports, and airports, nor oil and gas infrastructure. A back-of-the-envelope estimate suggests that, if these infrastructure services were to be included, annual investment needs would exceed \$900 billion, double the original estimates of 2003.

⁸ WBG Executive Directors were informed periodically of progress on the IAP: “Infrastructure Action Plan Overview and Matrix of Management Actions,” (SecM2003-0302, June 23, 2003); “Development Committee Meeting—September 22, 2003,” (SecM2003-0392, 28 August 2003); “Infrastructure Action Plan Update,” (SecM2004-0123, 25 March 2004); “Executive Directors’ Informal Meeting – April 8, 2004,” (SecM2004-0182, 20 April 2004); “Infrastructure and the World Bank,” (DC2005-0015, September 12, 2005); “IAP Update, Technical Briefing to Executive Directors and Advisors,” November 23, 2007.

safeguards. The Bank's active infrastructure portfolio,⁹ representing 46 percent of the Bank's overall portfolio, comprises 451 operations with net commitments of \$44 billion. The portfolio is performing better than Bank-wide average, in terms of projects-at-risk (17 percent and commitments-at-risk 16 percent). The Bank's Sustainable Development Network (SDN) has generally addressed projects in difficulty well with a Proactivity Index of 72 percent. The quality of project supervision is strong (88 percent rated by Quality Assurance Group (QAG) as moderately satisfactory or better since FY00). The latest QAG supervision assessment found 100 percent of projects moderately satisfactory or better. The QAG quality-at-entry assessments have also been favorable with the most recent assessment rated 94 percent of infrastructure projects as moderately satisfactory or better. IFC's active infrastructure portfolio,¹⁰ representing 24 percent of IFC's overall portfolio, comprised 240 clients with net commitments of US\$6.7 billion. IFC's infrastructure portfolio's loan loss provisioning, at 2.1 percent, is close to IFC average of 1.7 percent. Data available from the IFC's Development Outcome Tracking System for mature projects (more than three year old) shows that infrastructure projects have a higher Development Outcome success rate than the IFC average (64 percent): 79 percent for telecommunications and information technologies and 78 percent for water, transportation, and utilities. While not all oil, gas and mining projects are energy related and this sector nevertheless demonstrated an average success rate of 83 percent.¹¹

7. During IAP, there was also steady progress on results measurement, at the project level in particular for IDA-14 projects. At the country and sector level, substantial progress was made on results monitoring. Good progress was also made on results measurement at the country level during IAP. Country Assistance Strategies (CASs), Poverty Reduction Strategy Papers (PRSPs) and Sector Strategy Implementation Updates (SSIUs) include detailed results frameworks and an increasing amount of baseline or progress data, and sectoral results monitoring was expanded for rural road and electricity access, supplemented by the trade logistics index, continuously updated for water and sanitation access, and further broadened in the ICT sector. The Bank-issued *World Development Indicators* remain arguably the leading source of country results across infrastructure sectors and regions. Sectoral and regional websites provide further availability of country indicators. A publication with extensive ICT indicator data has been a flagship effort.

8. The Bank's infrastructure engagement over the past twenty years has yielded valuable lessons including:¹²

- *Balance growth with access; target enhanced access for the poor.* The Bank has acknowledged an essential lesson learned: there is no longer a debate about whether infrastructure has a role to play in poverty reduction, it is crucial. However, regulatory policies need to be designed to mobilize resources to work for the poor, not just stimulate growth. The access agenda for the poor will continue to be a focus for the WBG's infrastructure agenda going forward;

⁹ As of January 2008.

¹⁰ As of December 2007.

¹¹ Most Corporate Sub-national Finance Projects were rated "Too Early to Tell" since they were approved less than 3 years ago.

¹² "Infrastructure: Lessons from the Last Two Decades of World Bank Engagement," Doc # 35199 Vol. 1, January 30, 2006.

- *Support the right project and produce results.* The Bank has learned the importance of understanding existing consumption patterns and public perceptions of improved service quality to engage in projects that meet local needs as well as tailoring project design to local circumstances. The Bank will continue to support improved public financial management for the right infrastructure projects and enhanced transparency and results monitoring of public spending for infrastructure;
- *Engage along the entire spectrum of public-private solutions.* Government institutions will remain central but understanding the political economy of private participation, adapting regulatory approaches to country circumstances, and properly allocating risk between public and private sectors is fundamental to successful infrastructure investments in developing countries. Each of the WBG institutions will continue to innovate and engage Public-Private Partnership (PPP) models for infrastructure, adapting them to country circumstances;
- *Design projects that ensure social and environmental sustainability.* The Bank has recognized the importance of addressing these issues and has taken significant strides towards harmonizing the process of integrating work on environmental and social issues into all phases of project cycles. Sustainable growth in infrastructure is a key priority for the WBG and will continue to be integrated into the WBG's infrastructure strategy;
- *Confront corruption decisively.* The Bank has made considerable progress in strengthening its fiduciary, investigative, and sanctions systems to combat corruption in Bank-financed projects. Lessons from recent experience include: (a) tailoring approaches to fiduciary conditions in individual countries; (b) creating internal incentives for staff to identify and deal decisively with corruption; and (c) systematizing efforts to analyze the impact of reforms on incidence of corruption. The Bank continues to strengthen its support to improved governance by developing and applying the WBG Governance and Anti-Corruption Implementation Plan in its infrastructure action plan going forward; and
- *Communicate effectively with stakeholders.* Embedding a communication strategy into each phase of the project cycle is crucial to ensuring that stakeholders, including civil society organizations, the media, and the general public, have a transparent view of the Bank's activities. As part of the sustainability agenda, the WBG will intensify efforts going forward to ensure that stakeholder needs assessments and effective communications are incorporated as core components of the Bank's infrastructure activities.

Box 1: Twenty Years of Infrastructure: Key Lessons Learned

1. **Growth cannot come at the cost of access:** Balance infrastructure investments that promote economic growth with those that target enhanced access for the poor.
2. **Tailor PPPs to local conditions:** The choice between public and private provision should be driven by local conditions, not by ideology; what matters most are results.
3. **Projects need to safeguard people and nature:** Assess social and environmental impacts carefully, and integrate such assessments into project design.
4. **A strong governance framework is paramount:** Fight corruption at all levels in the projects we finance, in the sectors we engage in, and in the countries we support.
5. **Communicate with stakeholders:** It is critical to engage with critics and supporters alike. Communications are most effective when integrated as part of the project cycle.
6. **Don't forget the basics:** Remember the basics of project preparation and appraisal-technical design, economic and financial analyses, and implementation arrangements.

II. EMERGING GLOBAL CHALLENGES

9. Despite the achievements of IAP, infrastructure services access, investment, and policy gaps remain large. At the same time, intensifying global trends affect the way infrastructure services are planned, financed, and operated:

- *Globalization of production of goods and services presents enormous opportunities for developing countries, provided they have the infrastructure in place to compete. The dramatic growth in global trade and services (from US\$10 trillion in 2006 to US\$27 trillion in 2030) requires new transport corridors, regional energy pools, and communication rings. The availability and quality of infrastructure services enable increased mobility of labor, goods and services, as well as reduced time and costs. Developing countries must develop infrastructure to increase access and to ensure their population does not lose out on the increased growth opportunities of globalization.*
- *Rapidly urbanizing economies in the developing world (Africa's urban population quadrupled between 1971 and 2001, and Asia's is expected to double by 2030) has fueled growth, but has also been accompanied by increasing spatial disparities and changes in the location and nature of the demand for infrastructure services. Many localities/sub-national governments lack the financial, managerial, and administrative capacities to handle their new responsibilities. Increasing disparities in social welfare between urban and rural areas, leading and lagging regions, landlocked and coastal countries, call for ways to improve spatial integration through improved connectivity—in which infrastructure plays a key role.*
- *Addressing climate change is central to the development and poverty reduction agenda and has significant implications for infrastructure planning, management and delivery. Developing countries are particularly vulnerable to climate change impact on infrastructure. Building resilience to increasing climate variability is the most significant climate challenge facing low-income countries. The distribution of major*

climate-related risks around the world is skewed against poor countries. Sub-Saharan African countries dominate the list of the most drought-affected. South and Southeast Asia are disproportionately flood-affected. Although it has been recognized for some years that climate change is already occurring, adaptation to the impacts of those changes has not received the same attention in either the negotiations or in development planning as has the mitigation agenda. Energy production, transformation and use are major contributors to rising Green House Gas (GHG) emissions, and mitigation strategies will have to include changes in energy systems such as greater end use efficiency, switching to cleaner fuels and adoption of new technologies. However, stabilization of GHG concentrations must take into account the energy needs of developing countries for economic growth. The share of non-Organization for Economic Co-operation and Development (OECD) countries in global transport emissions is expected to rise from one third today to one half by 2030 and to require mitigation strategies, including advanced planning, modal shifts, new fuels and technologies. More than two thirds of modern energy consumption takes place in cities and they are the source of most solid waste and transport-related GHG emissions. On the supply side, changes in both the quantity and pattern of water availability will exacerbate existing challenges of water allocation (e.g., protecting productive uses such as irrigation and drinking water during droughts) and hydrologic variability (e.g., managing the destructive power of water during floods). On the demand side, a shift in energy sources to hydropower and bio-fuels will increase demand on the water resource base, requiring both improved infrastructure and management practices. However, it is imperative that options for tackling climate change recognize the need to protect broad-based development and poverty alleviation objectives and funding flows, especially to the poorest.

- *Rising energy prices place a premium on diversification, end-use efficiency, and spatial planning.* Oil, the world's major source of energy, more than doubled in price between 2003 and 2007. Planning and operation of infrastructure are strongly affected by this step-change in energy prices. Higher fossil fuel prices make renewable technologies, including hydropower, more competitive, and provide an impetus for improving energy efficiency and for improved cost management for more efficient water pumping technologies, improved irrigation, and drainage Operations and Maintenance (O&M), as well as for better management of the water resource. Vehicle use is considerably more expensive, raising demands for mass transit and advanced planning on urban spatial design to reduce commuting distance and time.
- *There have been changes in global financial conditions such as the marked increase in private investments in infrastructure in emerging markets, in particular in Africa, South Asia and the Middle East.* Total private investment in infrastructure was around US\$114 billion in 2006, still 20 percent lower in real terms than the peak in 1997. The operators from developed countries are a less dominant group among investors today while local, regional, and south-south investors are becoming increasingly prominent. Among the sectors, telecommunications is still dominant at more than US\$60 billion. This sector accounted for over half of private investment in infrastructure in 2006. The investments in transport sector reached a peak of US\$30 billion in 2006—mostly due to strong growth in the road and railway sectors. In

2006, private investments in the energy sector were less than 50 percent of their pre-1997 levels, while private investments in the water and sewerage sectors remained below US\$2 billion per annum. The comeback in private capital flows to developing countries offers new opportunities to address the backlog of infrastructure investment many countries face today. However, inadequate sectoral and macro fiscal policies and institutional arrangements result in poor allocation of public resources for infrastructure. There is a perceived lack of transparency of regulations, and governance issue in many countries still suffering from high costs of doing business.

- *Proliferations of aid channels, ODA fragmentation, earmarking of aid, and emerging new donors have increased the complexity of the global aid architecture.* The average number of donors per country rose from about 12 in the 1960s to about 33 in the 2001–2005 period. There are more than 230 international organizations, funds, and programs. Earmarking of ODA is still common in many bilateral assistance programs. At the same time, growth has been remarkable in Middle Income Countries (MIC) assistance to poorer countries and their share of funding has been rising in energy, telecoms, and transport.¹³ China’s financing for African infrastructure is estimated to have exceeded US\$4 billion in 2006, a level comparable in scale to that of all OECD-Development Assistance Committee members. The Arab development funds have been contributing around US\$500 million per year to African infrastructure development, particularly in the road sector. These new entrants in the aid business signal a welcome development but also point the need for all donors to continue to expand efforts to foster aid alignment in order to maximize the long-term development impact of aid.
- *Rapidly changing new technologies bring new opportunities to change the development paradigm and to provide new responses to development challenges.* The rapid expansion of mobile phone technology and internet access is providing a platform to increase productivity, allow developing countries to provide services at a global scale, improve public services, and promote transparency and good governance. New transportation technologies will be critical to connect production centers and markets, and improve livability of exploding urban centers. New decentralized energy and water treatment technologies have the potential to serve the dispersed and most difficult to reach populations. Carbon capture, as well as energy efficiency and generation technologies, will be critical in any solution to climate change. Finally, the diffusion and use of new technologies have been shown to be limited by weak basic infrastructure systems such as roads and electricity.
- *For many countries and regions where progress in reducing poverty has been slow, the negative poverty impact of rising food prices risks has undermined the poverty gains of the last 5 to 10 years, at least in the short term.* U.S. wheat export prices rose from US\$375/ton in January to US\$440/ton in March 2008, and Thai rice export prices increased from US\$365/ton to US\$562/ton. This came on top of a 181 percent increase in global wheat prices over the 36 months leading up to February 2008, and

¹³ Schur, M., von Klauudy, S., Dellacha, G., 2006, “The Role of Developing Country Firms in Infrastructure: A New Class of Investors Emerges,” In: PPIAF Publication, No. 3, April 2006.

an 83 percent increase in overall global food prices over the same period. The acceleration of rising international food prices highlighted the urgent need to invest in and develop rural and agricultural infrastructure, reflecting not only a lower agricultural productivity but the acute levels of obsolescence in infrastructure-related activities of the agro production chain: water for irrigation; improved transport logistics (e.g. storage, handling, transport, etc.)

III. SUSTAINABLE INFRASTRUCTURE ACTION PLAN

10. The emerging global trends, together with the still large infrastructure service delivery gaps, caused the WBG to undertake an updated analysis of its role in infrastructure following on the initial gains achieved during the IAP. Four key considerations emerged from this analysis:

- There has to be continued progress in supporting developing countries meet the enormous lags in the access agenda of core infrastructure sectors (transport, water, energy, and ICT). While there has been continued demand from client countries in these infrastructure sectors, advancing in this core access agenda requires focused attention to key cross-cutting issues: climate change, the role of the private sector, regional disparities in infrastructure service delivery, the rapidly growing demand for infrastructure in urbanizing economies, and the need to support and build upon technological advances;
- There is a need to embed sustainability in infrastructure services going beyond the mainstreaming of environmental and social considerations. In addition to the traditional economic and financial sustainability of infrastructure services, the design of infrastructure programs and the technical and operational choices needs to support the achievement of environmental and social inclusion sustainability goals: the “triple bottom line;”
- It is paramount to ensure support for a strong governance framework for infrastructure services: efficient and effective use of public and private resources, strong results monitoring systems to measure the access and sustainability outcomes of infrastructure spending, and effective anti-corruption action programs; and
- The direct support of WBG financing has the potential to increase in both middle-income and low-income countries. However, even at the current level of US\$13 billion per annum plus planned future increases, the direct WBG financing would remain modest relative to the total demand for infrastructure investment and maintenance from developing countries, estimated at US\$900 billion per annum. The WBG can leverage its financing by mobilizing additional private and harmonized aid resources for infrastructure, using its convening power to support developing countries.

11. The analysis of the role that the WBG needs to play in infrastructure led to the preparation of the SIAP.¹⁴ The SIAP has been prepared as an umbrella framework that brings

¹⁴ FY08 is a transition year and is not included in SIAP. However, it is included in the calculations for comparability purposes with previous periods.

together the lessons of the WBG’s infrastructure experiences from the past two decades and the more recent IAP, and brings business of the Bank in this area to another level. It provides direction to the many individual efforts to increase infrastructure support by the different WBG institutions through multiple product lines. Four aspects are critical to the WBG’s approach to infrastructure in SIAP: (a) focused development of cross sectoral themes to maximize effectiveness of core sector strategies; (b) strong WBG interaction to increase the effectiveness of each of its institutions and strengthened ways to work together; (c) sustainability at the core of infrastructure interventions through focus on the “triple bottom line”—economic/financial, environmental, and social sustainability-based on a platform of strong governance; and (d) augment the WBG’s direct financing through increased attention to leveraging its financing efforts in order to mobilize additional aid resources for infrastructure, using the full convening power of the WBG to support client countries.

A. Addressing the access gap through core sector strategies

12. While the multidimensional aspects of sustainability provide new assistance opportunities in the years ahead, in most of the developing world there is still an important unfinished core infrastructure access agenda: strengthening sectoral policies and institutions to improve the efficiency, affordability, quality, and reach of basic services. Each of the WBG institutions will continue to scale up its support to meet the access gap in core infrastructure sectors: transport, water, energy, and ICT. As the largest WBG sector during IAP, the *transport* sector will increase diversification from roads to all transport modes, including rail, ports, airports, and the design of multi-modal transport and logistics operations. WBG assistance for water¹⁵ focuses on sustainable management of the water resource base and efficient and equitable delivery of water services (Water Supply and Sanitation (WSS), irrigation, hydropower, and environmental services). The *energy* sector will continue to scale up to address the energy access gap, while responding to the emerging challenges of energy security and climate change, and moving forward with the implementation of the Clean Energy Investment Framework (CEIF). In addition to expanding the access to information infrastructure, mainstreaming and innovation, during SIAP the WBG will continue to broaden its support in the context of the ICT for development agenda. The WBG will address the access gap through implementation of a sector-wide programmatic approach, leveraging both international and domestic private sector capabilities through PPPs. A more detailed description of core sector strategies can be found in Annex 2.

B. Maximizing effectiveness through cross sectoral themes

13. During SIAP, the WBG will continue to refine and ramp up each of the core infrastructure sectors. In addition, in response to the intensifying global trends, the WBG will maximize the effectiveness of each of the core sectors and contribute to leveraging the impact of the core sector strategies through the following three cross-sectoral themes: (a) supporting governments to respond to and mitigate the impact of climate change; (b) “crowding in” the private sector by expanding PPPs; providing support to public agencies to improve the

¹⁵ The Water Supply & Sanitation and Water Resource Management Boards were transformed into the Water Sector Board on January 1, 2007, responsible for water resources management, water supply and sanitation, irrigation/water for food, water for energy, and water for environment. The SIAP will follow the revised water sector profile and activities, whereas the IAP tracked the water supply and sanitation sector.

conditions for competition—strong regulatory framework, consistent sector policies, well designed projects, a strong market to more effectively meet the needs of consumers; improving monitoring of service provision; becoming more effective regulators of infrastructure services; and becoming more effective partners to the private sector in infrastructure service provision; and (c) more explicitly incorporating the spatial dimension of development, through support of rural-urban integration and expansion of the reach and scope of interaction from country-level to sub-national and cross-country, regional levels.

Box 2: Sectoral Perspectives in Energy for Development

Emerging trends in energy security, climate change and the energy access gap call for a renewal of the WBG core energy sector strategy: improving access and affordability of modern energy services; improving macro-economic and fiscal balances; promoting good governance and private sector development; and protecting the environment.

The energy sector in Sub-Saharan Africa faces especially large challenges: insufficient generation capacity to meet demand, low rates of household and public facility access to either grid or off-grid sources of energy, poor reliability of supply for those who are connected, and electricity costs running as high as US\$0.50/kWh in some landlocked countries. These shortcomings are symptoms of underlying causes that the Action Plan for Energy Access in SSA aims to address. In the case of household electricity access in Sub-Saharan Africa, the goal is to reach 35 percent in 2015 and 47 percent by 2030 (compared with 25 percent in 2007). A key element of the program design will be the implementation of a sector-wide programmatic approach in countries that have a favorable policy framework. WBG is scaling up support for energy access programs in other regions by leveraging both international and domestic private sector capabilities through PPPs (Cambodia, India, Mexico, and Vietnam, among many others). WBG lending for energy has exceeded US\$11 billion for the period FY06 to the first half of FY08, with specific focus on IDA countries, where energy financing has increased from an annual average of US\$0.9 billion between FY03-FY05 to an annual average of US\$1.8 billion between FY06-07.

In addition to the challenges of the energy sector described above, the past year has witnessed a remarkable surge in political and popular support for actions to combat climate change. In 2006, the WBG began implementing CEIF or the Framework. The CEIF recognizes that tackling climate change is feasible and action is urgent, but at the same time, increasing energy supply and services are critical for economic growth. The Framework recognizes that all countries are vulnerable to climate change and instability in weather patterns, but the poorest countries and the poorest people within them are most vulnerable, most exposed and with the least means to adapt. The Framework provides for a strong overall WBG energy program; supports the Africa energy scale up action plan; supports the transition to low carbon growth paths; and supports countries adaptation to climate variability and change. The WBG has strengthened its investment support for low-carbon energy projects. The share of support for low-carbon energy projects increased from 28 percent in FY03-05 to 40 percent in FY06-first half of FY08. The WBG is in the process of developing a Strategic Framework for Climate Change and Development (SFFCCD) that emphasizes the continued priority for economic growth, poverty reduction and MDG achievements, and the fundamental role that access to energy services and increased energy use play in achieving these goals.

1. Climate Change

14. Climate change presents an urgent challenge to the well-being of countries and particularly to the poorest countries and the poorest people, who are most vulnerable, most exposed, and with the least means to adapt. There has been impressive consensus-building on the importance of addressing climate change at the international level during the past year, culminating in an agreement at the United Nations Framework Convention on Climate Change, 13th Conference of Parties in Bali in 2007 to launch negotiations towards long-term cooperative action by all countries. The WBG has accumulated substantial experience in addressing climate change in the

context of development and poverty reduction, most recently in the CEIF.¹⁶ On the *mitigation* front, initial Bank response to climate change issues has moved forward significantly, particularly with respect to the energy sector. Total low carbon energy lending increased four-fold from FY03 to FY07 in terms of lending volume; while the share of the number of low carbon projects increased from 28 percent in FY03-05 to about 40 percent in FY07. The WBG exceeded its Bonn commitment of 20 percent annual increase in investment in new Renewable Energy and Energy Efficiency. The total volume of the ten active carbon funds rose to US\$2 billion. A broader climate change response will need to include attention to the transport and urban sectors. On the *adaptation* front, it will be critical to ensure that Bank infrastructure projects take into account climate risks in their design and that actions are taken to improve climate resilience. The water, urban and rural infrastructure sectors will be particularly important areas of initial focus.

15. The WBG is in the process of developing a Strategic Framework for Climate Change and Development (SFCCD) that will guide our response. Scaling up WBG action on climate change rests on: (a) a continued priority for economic growth, poverty reduction and achieving MDGs in developing countries; (b) an understanding that access to energy services and increased energy use by developing countries are fundamental to these goals; and (c) a recognition that adaptation to climate variability and changes is critical to sustaining and furthering development gains in the majority of developing countries. A Concept Note for the SFCCD has been prepared concurrently with the SIAP, and the themes outlined in the SFCCD that have bearing on the infrastructure practice are highlighted below. The SFCCD will be ready by fall 2008, and will benefit from internal and external consultations. As a result, the program outlined below may evolve.

16. Climate action is a key priority for developing countries, particularly regarding *adaptation*. Building up resilience to increasing climate variability is the most significant climate challenge facing IDA countries. The adaptation challenge will be particularly critical for the infrastructure sectors, yet knowledge and work on this for these sectors is not as advanced as that for the mitigation agenda. There is a need for a shift in approach to adaptation from a largely stand alone, project by project, approach to one where the management of climate risk, current and future, is an essential part of developmental planning. Adaptation should not be seen as an end in itself, but as a means to meet the development objectives of countries. While much of the adaptation effort will be autonomous, as individuals and businesses respond to changing climate, improved infrastructure, better planning and additional information (e.g. seasonal forecasts) will be required for these actions to be most effective. There is also an urgent need to raise the awareness of the private sector to the risks and opportunities related to climate change.

17. Adaptation to climate variability and change in infrastructure will figure prominently in several major studies which have been initiated. These include a two-year study on the

¹⁶ The CEIF focuses on three areas of WBG involvement: (a) *energy for growth, with particular emphasis on access to energy* in Sub-Saharan Africa through the Africa energy scale up action plan; (b) *transition to a low carbon development trajectory, especially in the G+5 countries*, by scaling up analytical, knowledge, and investment support in the areas of energy efficiency, renewables, and transportation; global and country level analytical work, with special emphasis on the +5 Countries; new product development (especially with respect to Carbon Finance); and strategic partnership with the Global Environment Facility (GEF) to support continued growth in the low carbon portfolio and leveraging of private finance; and (c) *adaptation to the effects of climate change*, including the development of tools and methodologies to “climate-proof” investments.

Economics of Adaptation; and targeted studies to understand the impact of climate on the urban sector, with a particular initial focus on the coastal mega-cities of Asia and later of West Africa, where methods for assessing the threats from sea level rise and increased storm surge will be developed. The studies will continue beyond the usual mapping of threatened areas to assess the direct and indirect economic impacts from damage, loss of productive capacity and communications. During SIAP, the first-generation adaptation screening tools that would allow for better mainstreaming of climate adaptation concerns into the design of infrastructure projects will be delivered. A specific focus will be placed on water resource management strategies, especially in water scarce regions such as MNA. In addition, the WBG will continue to deepen its engagement on disaster risk management (see Box 3).

Box 3: Disaster Risk Management

During the past two decades, the WBG has become the largest multilateral institution provider of disaster risk management assistance. Following the Independent Evaluation Group's (IEG) *Evaluation of Natural Disaster Assistance* (2006), the WBG will take a proactive approach and help client countries shift their focus from disaster response to a comprehensive vision of managing natural disaster risks, *inter alia*, including better early warning systems, institutional capacities for emergency preparedness, investments to protect critical infrastructure, more accessible safety nets for the poor, and innovative risk transfer and insurance products. The new global partnership with the UN and major donors established in FY 07, the Global Facility for Disaster Reduction and Recovery (GFDRR), will be central to this client-centric effort led by the Bank regions and country teams.^{a/} Furthermore, during preparations of CASs and PRSPs in high risk countries the Bank will increasingly adopt a systemic, structured and balanced approach to disaster risk management. The three important business lines in support of this integrated approach are: **(a) Risk identification and assessment**, which includes hazard and vulnerability mapping, geographical distribution of risk, appropriate institutional framework for periodical in-country risk assessment, and linkages with national systems for poverty assessment. More clients will call upon the Bank's assistance for risk assessment products that form the basis of design and implementation of risk mitigation and climate change adaptation strategies; **(b) Risk mitigation**, which includes design and implementation of hazard-specific mitigation measures to be taken to minimize physical damage for both existing and new facilities and infrastructure, prioritizing and financing for mitigation programs, setting up all-hazard warning and monitoring systems, hazard mapping and land use planning, watershed management, integrated coastal zone management etc.; and **(c) Catastrophic risk financing**, which includes risk quantification, assistance in building the national institutions of catastrophic risk management, advisory services in developing innovative catastrophic risk transfer solutions such as: (i) national catastrophe pools; (ii) issuance of catastrophe bonds; (iii) access to global reinsurance capacity through global risk pooling; and (iv) contingent capital facilities to reduce the costs of reinsurance.

^{a/} GFDRR helps developing countries fund development projects and programs that enhance local capacities for disaster prevention and emergency preparedness. GFDRR grants support disaster risk assessments, developing risk mitigation policies and strategies, preparation of disaster prevention projects and additional financing for recovery, provided that recipient governments demonstrate commitment to disaster prevention.

18. **On the mitigation front**, the World Bank has already been building on synergies between climate action and development—working on energy security and efficiency, encouraging renewable energy, and promoting sustainable urbanization. The WBG is now aiming to help interested countries shift to a development paradigm based on low-carbon growth pathways, focusing first on the major industrializing MICs as IDA countries contribute the least to GHG emissions. Low-carbon growth studies (with dedicated emphasis on infrastructure sectors such as energy and transport) will be completed for six countries (Brazil, China, India, Indonesia, Mexico and South Africa) by FY09, with such studies expanded to additional countries upon their request. These will form the basis for policy dialogue on actions to support economic growth reducing carbon emission. Ambitious country programs will provide the

framework for attracting additional financing in the form of carbon finance (particularly opportunities to go programmatic through the new Carbon Partnership Facility), grants from GEF, or where there are opportunities for major scale-up and impact—possibly concessional finance under a new clean technology fund currently under discussion with donors, led by the US, UK and Japan. The combination of new sources of financing, complemented with IBRD, IFC and MIGA instruments, will allow the WBG to scale up support for low carbon investments, infrastructure development, policy and institutional reforms. Examples might include major energy efficiency programs at the national or provincial level; urban transport programs which have aggressive goals toward low-energy intensity modes and technologies; expanding renewable energy programs; and accelerating adoption of the most efficient coal technologies. Private sector solutions will be critical to these efforts, and IFC in particular will play a role in market development and technology transfer, supported by the IBRD, engaging in dialogues on attendant reforms to provide the enabling environment.

19. Under the CEIF, it was agreed that the WBG would undertake development of methodologies to understand the carbon footprint of WBG projects and programs. For infrastructure, this work will begin in a pilot phase for the power sector, moving thereafter to the transport sector. In addition, IFC will pilot the use of carbon shadow pricing in its investment analysis. The pilot would not be for decision-making, but to inform investors of alternatives, and build the financial and economic foundation for accessing additional sources of financing (like carbon finance or the new clean technology fund) to support the choice of the cleaner technology which local benefits might not otherwise support. There are many methodological hurdles, so in the first instance the pilot would serve to clarify technical issues and evaluate whether this approach would be mainstreamed more broadly in the WBG. Finally, in FY08, an ongoing review leading to recommendations on a possible role for the WBG in facilitating technology development and accelerating deployment of emerging energy technologies will be completed. Depending on the outcome of that review, a new line of action may be developed.

20. The proposed *Climate Investment Funds*¹⁷ (CIF) would build on progress made by many of the developing countries, with the objectives of scaling up investments in low-carbon technologies (Clean Technology Fund or CTF), and supporting various programs to test innovative approaches to climate action (Strategic Climate Fund or SCF). The proposed CTF would provide scaled-up financing to contribute to demonstration, deployment and transfer of low-carbon technologies with a significant potential for long-term greenhouse gas emissions savings. The proposed SCF would provide financing to pilot new development approaches or to scale-up activities aimed at a specific climate change challenge or sectoral response through targeted programs. It is expected that most of these investments will be executed in power, transport facilities, building and industrial sectors. SCF is also expected to be applied to reduce deforestation and forest degradation and to promote improved sustainable forest management.

2. Public-Private Partnerships

21. An important lesson of the WBG's infrastructure experience during the past two decades has been that neither the public nor the private sector can alone meet the access, quality,

¹⁷ World Bank, 2008. "Climate Investment Funds: The Clean Technology Fund and the Strategic Climate Fund," June 5, 2008 (R2008-0131 and IDA/R2008-0209).

financing, and policy gaps for infrastructure. During IAP, the WBG's strategy shifted from a focus on transfer of infrastructure assets from the public to the private sector to a flexible range of PPPs, thereby providing a more effective framework for diverse developing countries' needs. The new framework recognizes the need for ongoing government support, considering the political sensitivity of certain public services, greater attention to adequate risk assessments, establishing a market environment to attract private sector participation, operating environment conducive to the full range of private sector competition and participation, and increasing awareness of the limits to achieving cost reflective tariffs, with more explicit use of government subsidies for financing services to the poor. Many infrastructure sectors are characterized by complex political economy, and their long-term nature means that the public sector needs strong capacities to understand the commitments entered in the partnerships with the private sector, and to design and regulate these projects. At the same time, during the IAP period, a larger pool of domestic and developing country private sector investors have emerged, who are more attuned to local circumstances and more likely to use local finance, increasing the opportunities for WBG support to facilitate and leverage PPP transactions.

Box 4: Scaling Up Output-Based Aid

An emerging mechanism for drawing effectively on private sector service delivery for market segments that would not otherwise be profitable to serve is OBA schemes. A form of PPP, OBA provides contractual assurance that investing in service provision for (low income) customers will qualify for pre-agreed subsidies. OBA is premised on transparent contracts, risk sharing with the entity being subsidized, and payments only on the basis of verified outputs. This leads to transparency, accountability, and a focus on performance and has proven attractive for private sector investment. The Global Partnerships for Output Based Aid (GPOBA), a WB-administered trust fund, has been instrumental in piloting OBA, with more than 30 operations under design and or implementation, requiring US\$140 million in GPOBA subsidy financing, and providing access to basic services such as water and sanitation to more than 1.2 million households.^{a/} Most OBA projects undertaken by the Bank without the involvement of GPOBA so far have been in MICs, although there are successful IDA examples, such as a US\$475 million road project in Nigeria and US\$5 million in seed financing for rural telecommunications in Uganda. OBA will continue to grow as a critical component of the WBG's PPP instruments for low income customers and other segments that have not traditionally attracted the private sector. Special attention will be paid to developing larger OBA schemes in IDA countries.

^{a/} In addition to Bank operations that have OBA components, GPOBA is acting as a key instrument for the WBG to actively develop expertise in OBA both inside and outside the WBG by developing pilot projects and disseminating results.

22. Securing effective and mutually beneficial private sector investment is heavily dependent on government actions to foster an enabling environment: establishing sound policies and institutional arrangements to foster private sector participation and competition, and strengthening local public sector capacities to reduce or manage political and regulatory risks. During SIAP, the WBG will support the strengthening of the enabling environment for PPPs through the following areas of work of central and local governments: (a) establishing sound legal and regulatory frameworks that provide clarity and predictability to private investors and consumers; (b) strengthening capacities of agencies responsible for PPP design, implementation, and oversight, including sound approaches for choosing between the PPP and public routes, and integrating government support into the budget framework; (c) using tools and approaches to improve governance, deter collusion, increase citizen and consumer participation; and (d) designing transactions and structuring public financing through credit enhancements, partial guarantee facilities, and matching sector loans.

23. During SIAP, the WBG will actively scale up PPP programs, using all parts of the WBG, including trust funds and special programs such as GPOBA and Public Private Infrastructure Advisory Facility (PPIAF). One measure of the effectiveness of these efforts is the amount of private finance leveraged by WBG interventions. At the same time, it is recognized that many such efforts, whether through a demonstration project or contributing to establish the right policy framework, may not be quantifiable. Each of the WBG institutions has a specific strength in designing and implementing PPPs for infrastructure service delivery, and coordinating work between the institutions can maximize WBG's effectiveness in this area. Recent initiatives such as the joint planning of IFC/IDA projects or MIGA/IDA collaboration on complex power projects in the Africa Region will continue and will be expanded throughout the WBG portfolio to maximize the effectiveness of WBG's support to PPPs.

Box 5: The Public-Private Infrastructure Advisory Facility

Since its inception in 1999, PPIAF, a multi-donor facility managed by the Bank, has funded more than US\$130 million in technical assistance, facilitating more than 100 transactions and strengthening more than 50 institutions. In recent years, PPIAF has significantly refocused its technical assistance grants to IDA countries. In fiscal 2007, 78 percent of its country-specific technical assistance went to IDA and IDA blend countries, and almost half of its country-based grants went to Sub-Saharan Africa.

In 2007, PPIAF expanded its program strategically to complement the different aspects of the WBG's support to infrastructure:

- IFC joined PPIAF as a new member. This has helped increase coordination between PPIAF's upstream technical assistance work on the enabling environment for PPPs, and IFC's transactional support, with almost 20 such activities under implementation or active development.
- In July 2007, PPIAF launched the Sub-national Technical Assistance Program as a complementary technical assistance facility to the World Bank Group's Sub-national Financing program. With US\$7 million in its first year of operation, this program assists sub-national governments and well performing public entities to improve their creditworthiness as a way to mobilize market-based financing without sovereign guarantees. Such transactions will also help promote the development of local financial markets.

3. Rural-Urban Integration

24. Opportunities and limits for economic and social development have a clear geographic expression, with economies of agglomeration leading to spatial concentration of economic activity in urban centers. This is especially pronounced along coastal areas linked to ports. Travel time to markets and access to productive and social infrastructure are key determinants of both firm productivity and household welfare, and these vary widely across the territory of a country or region. Infrastructure policies and investment become important levers to bridge geographic disparity, whether across countries (e.g. by connecting land-locked countries to ports) or within countries (e.g. by developing trunk infrastructure corridors and their connections with rural networks). However, in the context of fiscal constraints, the decision of where to place what kinds of infrastructure involves spatial equity-efficiency tradeoffs that call for careful fiscal instrument design and inter-jurisdictional coordination.

25. The SDN integration has opened new avenues to look at these questions in a more pragmatic and holistic way. Over FY09-11, SDN will promote: (a) better integration of infrastructure in spatial growth diagnostics, to be woven into Country Economic Memoranda and CASs; (b) fiscally-responsible approaches to territorial development, combining sector

contributions; and (c) improvement to the institutional support to basic spatial analysis tools, such as Geographic Information Systems. Core sector strategies will reflect this more integrated and space-conscious approach. In dominantly rural areas, ICT will continue to provide the means to disseminate market information at affordable costs and with minimal market distortion. In addition, infrastructure that ensures satisfaction of the population's basic needs or facilitates access to markets will assist in bringing a better balance in social welfare between lagging and leading regions in a cost-effective way. In core urban areas, local authorities' ability to manage the growing agglomerations, taking advantage of the positive externalities while mitigating the negatives, will need to happen in tandem with investment in urgent solutions to fund slum upgrading and service provision. And, importantly, analysis supporting WBG advice in these areas will be increasingly inter-connected, supporting a more integrated view of the rural-urban transformation at the sub-national country or regional levels. What characterizes spatial challenges is that they do not conform to sector silos or national borders—they may be driven by very specific, cross-sector local dynamics, or they may have broader spillover effects—and therefore they bring the WBG in contact with a new range of “clients” and constituencies.

26. Regional/multi-country approaches to infrastructure development can deliver economies of scale in production and delivery of services. Where impacts of infrastructure development spill over national borders (e.g. worker migration, health impacts or trans-boundary environmental impacts such as air emissions or downstream water flows), multi-country approaches are a necessity for sustainability and regional stability. Consequently, the demand for multi-country assistance programs is expected to continue to grow from its current 30 percent of infrastructure lending. In Africa the value of regional integration is widely recognized, and will continue to be a priority during the IDA-15 period. A key milestone was the creation of New Partnership for Africa's Development (NEPAD), which is playing a leading role in the development of regional integration projects. Regional operations are expected to grow in importance in ECA and EAP. ECA will build on early successes of the South East Europe (SEE) electricity Adaptable Program Lendings, the advanced preparatory work under Central Asia South Asia Regional Electricity Market and the existing operational framework under the GeoFund. Under EU sponsorship, an SEE Railway Community will be created, under which the Bank will finance priority projects as each country meets the policy triggers and as each project is ready to receive support. In EAP, fostering greater regional integration of the Mekong Region is a shared priority among the riparian countries and the international development community. Regional programs also pose unique challenges, including establishing an equitable sharing of benefits, costs and risks across borders. This requires good governance and, in many cases, new institutions at the supranational as well as national levels.

27. The World Development Report 2009 (WDR 2009), *Spatial Disparities and Development Policy*, examines the importance of geography and spatial transformations for economic development and poverty reduction, and the policies that can help shape this process. It assesses how cities, regions, and countries can exploit the gains from spatial concentration of economic activity, while at the same time promoting convergence in human development indicators and living standards across the geographic space of countries and regions. During the implementation period of SIAP, FY09-11: (a) the lessons and recommendations of the WDR 2009 will be operationalized, resulting in a more consistent and well-founded treatment of spatial issues in CASs, AAA, and projects; (b) the institutional enabling environment for undertaking solid spatial analysis will be strengthened, through improving the infrastructure, procedures,

protocols, and partnerships for the collection and use of geo-referenced social and economic data in the Bank and in interested client countries; and (c) Bank staff capacity to use spatial analysis to inform regional policy decisions by client countries will be strengthened, through a focused dissemination and learning program.

28. WBG made steady progress on the urban agenda during IAP. Annual average urban development lending plus sectoral lending for urban infrastructure (such as WSS, solid waste management, and urban transport) increased from US\$1.6 billion in FY03 to US\$2.7 billion in FY07. However, the dramatic urbanization pattern in developing countries requires a stepped-up WBG response to provide for adequate infrastructure services to the rapidly growing urban population. During SIAP, WBG will prepare an updated urban strategy, which identifies critical issues that affect the quality of life in urban cities, and design, and implement tailored approaches to respond to the demands of urban service delivery. Box 6 includes examples of three such programs.

Box 6: Selected urban programs to be implemented during SIAP

- *“Building Liveable Cities in Africa:”* Limited donor funding for cities and absence of focus on programs for the city poor, as well as gaps in national policies recognizing the role of cities in growth strategies, have all constrained our collective impact on Africa’s cities. For too long, cities have been seen only as a source of problems and not the centres of progress they need to be if Africa is to experience sustained poverty reduction and inclusive growth. The program, developed in partnership between the WBG and Cities Alliance, would support analysis and consultations for strategy formulation and policymaking for central and local governments. Pilot funds would be made available for business development in cities. Some of the key issues to be examined include: planning for, and investing in, infrastructure efficiently financing the substantial ramp-up in spending for urban infrastructure in African cities, and ensuring the inclusion and full contribution of the urban poor.
- *Collaborative Capacity Building Program in Urban Management - Building the Foundations of Liveable Cities:* Rapid expansion of mega-cities, secondary cities, and towns has created an unprecedented management challenge in thousands of local governments. In India alone, over half a million local government officials were newly elected after decentralization in 1992. A concerted effort is needed to build skills in financial, technical, and managerial fields to implement supporting policy arrangements related to key issues of municipal finance and governance, as well as to managing country responses to future economic and demographic trends. The Government of Singapore has approached the Bank to collaborate in creating a regional capacity-building and research hub for urban management in Singapore with the effective upgrading and professionalizing urban management practices and policies in developing countries in the EAP, MNA, and SAR. During SIAP, the Bank would collaborate with Singapore to support this initiative and will seek to identify other partners that can give this initiative a global reach.
- *Revitalizing WBG support to Slum Upgrading and Urban Infrastructure Funds:* The Bank’s urban infrastructure and slum upgrading funds have strong performance records and are of high strategic relevance for the Bank’s clients. Decentralization and future demographic trends place the bulk of urban population increase—and hence demand for new urban infrastructure—in smaller cities and towns. However, these funds have declined significantly in the Bank’s operational portfolio. This product line will be reviewed in the context of the WBG non-financial costs of doing business and an action plan will be developed to increase the Bank’s support to ensuring that population of rapidly developing urban cities will have access to infrastructure services.

29. The Bank’s work on rural infrastructure will comprise a critical input to the WBG’s response to the global food price crisis. The availability of efficient and effective infrastructure needed to produce and transport food to market is one of the critical drivers of managing food prices. 75 percent of the world’s poor are living in rural areas and most are involved in farming. As described in the *World Development Report 2008: Agriculture for Development*, well functioning infrastructure to provide water for irrigation, roads and ports for transport of both

agricultural inputs and farm produce, and rapid communications to relay necessary market information to farmers, processors and retailers are all necessary building blocks to harness agriculture's power to promote economic growth, reduce poverty and promote environmental sustainability, especially in the context of climate change. Although the current food price crisis is deservedly receiving a lot of attention, especially because of the potential adverse implications for the most vulnerable, it is worth remembering that there were over 800 million hungry people, mostly in rural areas, before the most recent rise in food prices. To help them, as well as those newly threatened by rising food prices, both short term safety net and medium and longer term agricultural supply response measures are necessary, and investments in sustainable infrastructure to make it easier and cheaper to produce food and bring it to market are essential.

C. Sustainability as a core dimension of infrastructure

30. The definition of sustainability has been significantly strengthened during the past decade, from a rigorous approach focused on economic and financial sustainability to a triple bottom line: economic and financial, environment, and social sustainability. Lessons from the past 20 years of the Bank's engagement in infrastructure underscore that long-term sustainability is gained through strong governance of the infrastructure services delivery: increased transparency on public finance for infrastructure, results measurement to monitor the effectiveness of infrastructure spending, and strong governance and anti-corruption plans for each specific transaction and sector.¹⁸ The core infrastructure access agenda will remain a primary focus during SIAP ensuring that improved access to infrastructure services is affordable to poor communities, including inclusion on gender and disability. The WBG will promote sustainability of infrastructure services through a proactive approach to evaluate environment and social objectives—to “do good” rather than “do no harm”—and will continue to promote strong governance of infrastructure service delivery through close support to clients for achieving stronger governance in the area of public and private provision of infrastructure services.

1. Environment

31. WBG assistance for infrastructure sectors has increasingly mainstreamed environmental management as both an objective and a means. Thus, infrastructure related environmental objectives have dominated the Environment and Natural Resources IBRD/IDA lending portfolio, at approximately US\$3.8 billion for the period FY03–FY07. Advisory work has similarly been growing with a focus on improving the understanding of linkages between environment and economic objectives while reconciling tradeoffs. Country Environmental Analyses help clients to evaluate their environmental priorities and capacity, and form the basis for policy reforms and investments in a range of areas, including infrastructure. Strategic Environmental Assessments and regional environmental planning tools are increasingly being used to support sustainability by strengthening the selections of types and locations of infrastructure investments on the basis of the natural resource carrying capacity and ecosystem and social vulnerability as well as addressing environmental concerns, which impact policies and investments within and across infrastructure sectors. Many banks participating in the financing for IFC projects adhere to the

¹⁸ “Scaling Up Infrastructure: Building on Strengths, Learning from Mistakes,” Infrastructure Network, January 3, 2006.

Equator Principles, a framework for managing Environmental and Social risks in project finance that is based on IFC's Social and Environmental Performance Standards and the Environmental Health and Safety Guidelines.

32. During SIAP, the lessons from IAP on mainstreaming environmental issues in infrastructure projects will be used to bring environmental sustainability to the core of design considerations in four main directions: (a) up-streaming of program design and policy advice, a more systematic use of SEAs and CEAs, and project level Environmental Assessments and Social Assessments, as key tools for sustainability; (b) enhancing the environmental outcomes of infrastructure interventions, particularly in areas such as the urban environment (wastewater, solid waste and air quality management), the household environment (improved sanitation and air pollution, the latter through modern fuels and cook-stoves), and the regional environment (sustainable water resources, hydropower, and energy generation infrastructure); (c) systematically applying innovative economic and financial tools that promote the triple-bottom line (such as payment for environmental services and green accounting); and (d) strengthening the policy and institutional capacity for sustainable infrastructure in client countries, within both infrastructure and environmental agencies.

33. Two important elements of the environmental sustainability agenda in infrastructure will be the enhanced monitoring of WBG contribution to environmental outcomes through infrastructure interventions, and the training of WBG staff. The Sustainable Development Leadership Program (SDLP) will be developed and rolled out during SIAP. The objective of the SDLP is to develop a cadre of WBG staff to take leadership in sustainable development. The Program will aim to develop a common view of sustainability, articulate results of sustainable interventions and growth paths, ensure literacy on cutting-edge topics such as climate change and spatial issues, and strengthen leadership and capacity to better reflect aspects of sustainable development in Bank products and programs.

2. Social

34. Highly visible, and at times controversial, infrastructure operations face increased levels of political and social risk. Infrastructure projects may generate negative impacts during their construction and operation to neighboring communities, require land acquisition, and cause involuntary displacement, and loss of livelihoods of the affected population. The Bank's approach to safeguards has continued to improve over time.

35. However, sustainability requires going beyond mitigation of negative impacts and safeguards to increasing social value and ensuring sharing of benefits by all groups in the community. For example, the Bank-supported rehabilitation of Kainji and Jebba hydropower facilities project in Nigeria includes components for improved irrigated agriculture and watershed management in targeted areas, as well as institutional development for regional water management throughout the Niger River Basin. During SIAP, three approaches to promoting social inclusion in infrastructure operations will be pursued: systematizing social analysis, expanding benefit sharing, and promoting community and stakeholder participation.

- *Systematizing social analysis.* Social analysis is increasingly being conducted at the country and sector level rather than at the level of individual operations alone, so as to maximize value added and achieve synergies across the infrastructure portfolio.
- *Expanding benefit sharing.* Bringing incremental development benefits from large-scale infrastructure operations to local communities, initially focused on hydropower projects, will continue to be expanded. WBG experience with large dam construction in Uganda has shown not only that safeguard policies can be fully complied with, but also that community-level capacity can be built through partnerships with local government units and the private sector.
- *Promoting community and stakeholder participation.* Participation of stakeholders during a project preparation and implementation increases ownership, lowers costs, leads to quicker implementation, enhance transparency, and increases communities' commitment to sustaining infrastructure investments. Participatory methodologies also ensure equal opportunities for all stakeholders, and inclusion of the most vulnerable. Innovative tools for citizen oversight such as community scorecards and social auditing are increasingly being used to provide feedback on service quality during project implementation and are being mainstreamed through community-driven development and other operational approaches that strengthen the demand side of good governance and provide a platform for communities to co-manage infrastructure investments.

36. To promote shared growth and accelerate the implementation of Millennium Development Goal 3 (Promoting gender equality and women's empowerment), in 2006 the WB Board approved the *Gender Action Plan* (GAP) FY2007-10 with a budget of US\$34 million.¹⁹ Action 1 of the GAP is to engender operations and technical assistance in economic sectors, especially infrastructure. The WBG is committed to the following activities for operationalizing the GAP:

- Undertake a Gender Review of Infrastructure Portfolio and a Stocktaking Report on Infrastructure and Women's Economic Empowerment;
- Integrate gender in transport operations in at least 3 regions;
- Mainstream gender into Extractive Industry operations, with an initial focus on 2-3 operations in Africa and LAC;
- Undertake a review of the Energy Sector Management Assistance Program (ESMAP) portfolio in order to engender both the ESMAP portfolio and the Bank's energy access agenda; and
- Engender the ICT for Development Report 2008.

¹⁹ World Bank. 2006. "Gender Equality as Smart Economics: "A World Bank Group Gender Action Plan (Fiscal years 2007-10)," September 2006.

37. The IFC has approached safeguards at two levels: (a) at the project level to ensure that each IFC investment is adequately designed to ensure social benefits to stakeholders and enhance the environmental benefits of its investments; and (b) as a corporate standard setter on social and environmental standards for private sector investment in WBG client countries. IFC's corporate safeguards standards are considered as an industry leader for private investment in developing countries. MIGA's "Policy and Performance Standards on Social and Environmental Sustainability" became effective for new projects on October 1, 2007, and MIGA will monitor the implementation of this policy during SIAP.

3. Governance

38. Achieving the triple-bottom line objectives of sustainable infrastructure—economic/financial, environmental, and social—requires an underlying platform of strong governance. Ensuring access to quality, affordable infrastructure requires efficient use of scarce resources in the sector. The design and implementation of infrastructure interventions that achieve environmental outcomes need an active voice of civil society. Social sustainability and the sharing of benefits from infrastructure projects, requires the involvement of communities and un-served groups. Improving governance and reducing corruption and mismanagement of resources are thus central to development effectiveness of sustainable infrastructure, especially in expanding the scope of counterparts to decentralized client levels. Three areas of focus have been identified for further support to clients during SIAP: (a) overarching work on governance and anticorruption in the sector; (b) a particular focus on public finance and fiscal management of infrastructure; and (c) results measurement. The WB Board of Directors' recent endorsement of the *Implementation Plan for Strengthening WBG Engagement in Governance and Anticorruption* provides a springboard for enhancing both the scope and depth of the Bank's activities in governance of infrastructure and for prioritizing efforts to better ensure project development impact is not derailed by corruption.²⁰ Box 7 provides examples of the activity that will be mainstreamed in this area. IFC Advisory Services will focus on establishing transparent procurement and award processes for increased private sector investment.

39. Areas of focus at the sector level are expected to involve evaluation of the efficiency of public infrastructure finance and utilities as an entry point for assessing sectoral governance and corruption issues. TA components of investment loans and AAA will support subsequent sector-based lending operations addressing key areas such as: (a) regulatory and contractual arrangements to identify where competition, transparency, and accountability could be improved; (b) financial flows through levels of government and tools to reduce diversion; (c) the corporate governance of state-owned enterprises; and (d) consumer surveys and other demand-side approaches to improving service delivery.

40. At the project level, more systematic approaches will be used to reduce the potential impact of governance failures and corruption on individual operations through up-front analysis and prevention measures built into projects at the design stage as well as through enhanced oversight mechanisms. These approaches will include: (a) an explicit evaluation of governance and corruption risks at the design stage including 'corruption mapping' exercises; (b) fostering

²⁰ "Implementation Plan for Strengthening WBG Engagement in Governance and Anticorruption" (SecM2007-0425, November 2, 2007).

project design around output-based and community-driven approaches, which focus on the actual delivery of services in high demand; (c) simplicity and clarity in project and contractual design to reduce discretion and ease oversight, including financial management and procurement; (d) transparency mechanisms, including publication of project documents and third party/civil society oversight of procurement and delivery (including physical audit); and (e) improved Bank task team oversight through the monitoring of “red flags” during implementation that may be linked to governance failures, including corruption.

Box 7: Enhancing Infrastructure Sector’s Focus on, and Response to, Governance and Anticorruption

Regarding *analytical and advisory* work, a focus on governance and anticorruption suggests a need to examine issues ranging from the political economy of infrastructure provision to the mechanics of petty corruption. One example of such work is a study of corruption in South Asia’s water and sanitation sector financed by the Bank’s WSP program. This study, based on interviews and focus group discussions with over 1,400 staff, customers, and key informants, analyzed the nature and extent of corruption in the sector and examined cases where corruption had been reduced. The report provided estimates of the scale of corruption in various sector activities as well as elaborated on the mechanisms of corrupt transactions. Based on this analysis, the work concluded that two effective mechanisms to reduce the extent of corruption were a shift in the accountability networks of service providers, and a change in the work environment that increases the moral cost of misconduct.

At the level of *sector reform*, governance and anticorruption activities can build on over two decades of experience in improving policy, regulatory, and management frameworks to improve the efficiency and quality of infrastructure provision in developing countries. One recent example is a reform project involving the Phnom Penh Water Supply Authority that included putting in a management team with performance-based incentives, corporatization, water meters installation, automated billing and accounting, customer surveys, and a new tariff structure based on cost-recovery models - all accompanied by a public information campaign.

At the *investment project* level, a number of operations have incorporated significantly expanded activities related to improving sector governance and project anti-corruption protections. The Paraguay Road Maintenance Project used two workshops held by the Ministry of Public Works to discuss sector governance weaknesses –these provided input into sector reform proposals and project design. Results elements adopted included a framework of monitorable output indicators to be tracked, but also baseline and follow-up surveys to provide evidence of socio-economic project impact. Transparency measures included an active program of dissemination prior to and during the project, as well as electronic publication of procurements, contract award and implementation progress, complain procedures, and other project and sector-related documents and policies. Participatory processes were used in the design of the local (unpaved) roads component of the project, which also involved local cost-sharing. Local universities were engaged in monitoring physical quality of outputs for output-based project components. Combined with World Bank-led fiduciary assessments, the consultation process also prompted the development and inclusion on the project documents of a number of mitigation measures regarding project fiduciary arrangements, including new financial management systems and improved audits, and an enhanced supervision process involving the monitoring of ‘red flags’ such as price variance in bids and procurement delays.

At the *global partnership* level, there is a growing interest in PPPs involving civil society to increase sector-level transparency and accountability. The Extractive Industries Transparency Initiative (EITI) is one of the first such initiatives—a global program aimed at improving transparency and accountability in resource-rich countries. The heart of the program is publication and verification of payments made to governments by extractive industries. Over the 2003-2006 period, 25 countries committed to implement the EITI and the Bank provided assistance to more than half of these countries. Multi-stakeholder committees to oversee EITI implementation had been set up in 12 countries and auditors had been appointed in 8 countries. The World Bank administers the EITI Multi-Donor Trust Fund, which is used to provide technical and financial assistance to countries implementing the program.

41. Several areas of public financial management deserve heightened attention going forward: (a) stepped-up assistance for some of the largest client countries that operate through intermediate tiers of government and face particular policy and financing coordination issues for infrastructure, such as Brazil, China, and India; (b) addressing the impact of decentralization of

public resource allocation and management responsibilities on spending patterns for local infrastructure services; and (c) strengthening financial performance and fiscal treatment of state-owned enterprises, which are major recipients of public financing and are often responsible for service delivery.

D. Leverage finance

42. The direct support of WBG financing has the potential to increase in both middle-income and low-income countries. However, even at the current level of US\$13 billion per annum plus planned future increases, the direct WBG financing would remain modest relative to the total demand for infrastructure investment and maintenance from developing countries, estimated at over US\$900 billion per annum. The WBG can leverage its financing by mobilizing additional private and harmonized aid resources for infrastructure, using its convening power to support developing countries. During SIAP, WBG will continue to pursue opportunities to maximize its financing through: (a) increased leveraging of private financing for infrastructure, using a number of approaches and instruments that range from stepped-up increased technical assistance to governments to structure private transaction, to innovative instruments and pioneering transactions, indirect financing through infrastructure funds, and to strengthened local banks and capital markets; (b) increased advocacy to mobilize additional donor financing; and (c) increased efforts on aid harmonization among donors for infrastructure.

1. Private Finance

43. While the public sector will continue to play a key role in delivering infrastructure services, “crowding in” private investment will be essential in addressing the growing infrastructure finance needs in developing countries. The WBG will provide: (a) technical assistance to improve the legal and regulatory environment and the ability of public institutions to enter into partnerships with private sector players through transparent and competitive contracting arrangements; and (b) investment, credit, and credit risk mitigation products to mobilize private finance and facilitate the effective allocation of political and regulatory risks. Depending on the entity being supported and the types of risks being mitigated, support can be offered by the Bank, IFC, and/or MIGA. In the most successful examples of leveraging private finance, a combination of WBG instruments was deployed.

44. The Bank will provide institutional and financial support for PPPs through its direct financing, risk mitigation, and technical assistance instruments. In particular, the Bank will help to:

- *Improve the creditworthiness of public support to PPPs.* Experience has demonstrated that the single most important factor for a successful PPP arrangement lies in the credit quality of the long term public sector support being provided (e.g. supplemental subsidies, minimum revenue guarantees, payment obligations under off-take agreements etc.). Improved creditworthiness can increase investor confidence, increase competition for projects, and reduce the cost of debt and equity. The Bank will provide credit enhancement for the public sector support to PPPs using its risk mitigation instruments: (a) on a transaction basis e.g. through a recent partial risk guarantee supporting specific government commitments for the Jordan IPP project; or

- (b) on a wholesale basis e.g. through the possible utilization of a contingent loan instrument to improve the creditworthiness and market appeal of a government-sponsored Guarantee Fund in Indonesia.
- *Mobilize long term local currency financing.* Local currency financing can mitigate foreign exchange risk and improve opportunities for local investors in PPP projects who often do not have access to foreign limited recourse debt, but are increasingly the most dynamic actors in the PPP market. The Bank is increasingly: (a) providing direct long term financing in local currencies in selected markets; (b) supporting the development of financial instruments (e.g. currency and interest swaps, forwards etc.) that local capital markets need to be able to offer long term local currency financing; and (c) providing credit enhancement (e.g. refinancing risk) and co-financing to local banks and institutional investors.
 - *Leverage innovative financial instruments such as carbon finance.* Accessing future carbon credits cash flows can improve the attractiveness of certain projects for private finance. The Bank will: (a) systematically assess infrastructure projects to identify opportunities to incorporate carbon emissions reduction components, for example gas collection to utilize coal-bed methane or methane produced by solid waste dumps; and (b) explore the use of risk mitigation instruments to improve monetization of future cash flows from carbon credits. During SIAP implementation, the WBG will explore the option of raising additional funding for infrastructure investments via the securitization of existing infrastructure assets portfolios in national development banks (state owned) as well as in private financial institutions. Using its different risk mitigation windows, the WBG could play a role assisting local and regional financial institutions unload part of the risks of their existing portfolios to global as well as local capital markets. This will create new space in the balance sheets of these institutions to fund new infrastructure investments.
 - *Improve institutional capacity for project development.* Many government agencies lack familiarity with the work needed to bring complex transactions such as PPPs to the market, and often do not have the necessary financial and legal skills. The Bank will support governments by helping develop practices, policies and documentation for PPP projects, and guidance material including standard contracts, manuals and processes for identifying and developing PPPs. The Bank will also offer a source of expertise in aspects of PPP procurement and management, resources to fund project development, training programs, and assessment of the fiscal costs and risks associated with PPPs. In addition, the Bank will roll out a web-based knowledge management tool covering contractual and legal issues in infrastructure with sample documents, checklists, guides, sample clauses, and relevant web links to be used internally by the Banks operational staff and, when rolled out externally, client countries and implementation units within those countries.
 - *Manage fiscal risks.* Some types of government support (e.g. minimum revenue guarantees, conditional long term off-take agreements etc.) do not require an initial cash contribution at the time of the decision to grant such support, nor is it known whether such cash contribution will be needed. These types of deferred public

support help governments to procure infrastructure services beyond budget allocations, but create contingent liabilities. The Bank provides technical assistance to governments seeking to proactively manage their fiscal risks. Improved fiscal risk management can also improve market confidence in government support, thereby reducing the cost of private debt.

45. During SIAP, IFC will lead efforts on leveraging private finance through its investment and advisory operations and through the following specific instruments and new approaches:

- *Implement Infra-Ventures.* The new US\$100 million IFC fund launched in FY08 aims to provide early stage risk capital, feasibility studies, and advisory services on financial modeling and project structuring. By working together with the Bank, other donors, financial institutions, and developers, the goal of this facility is to draw in private capital by increasing the number of bankable projects across IDA countries. While telecommunications accounted for 55 percent of all private infrastructure investment in developing countries in 2006, IFC will promote private investment in other infrastructure sectors: water, utilities, gas, and waste management. For a greater reach IFC will apply a programmatic—rather than a project-by-project—approach in countries with scope for multiple projects like the power sectors of India, Nepal, and Turkey. IFC Advisory Services will substantially expand during SIAP, enhance its collaboration with IDA, and explore potential for deeper delivery partnerships with the African Development Bank (AfDB) and other donors.
- *Partner with emerging investors.* The mix of infrastructure investors in developing countries has evolved. Local, regional, and south-south investors have emerged as major players in developing country infrastructure markets. IFC will selectively partner with emerging investors to leverage IFC's industry expertise and knowledge of local markets and respond to client needs with a combination of credit enhancements (e.g. longer maturities and local currency financing) and global industry knowledge.
- *Leverage investment through financial intermediaries.* Growing demand for infrastructure investment in the developing world is driving Financial Intermediaries (FIs) to return to this sector. IFC plans to support the sector using both technical assistance and investments: scaling up its technical assistance and indirect financing through wholesaling via local FIs through its Global Financial Markets Department. IFC can play a key role in the infrastructure sector by enabling infrastructure fund vehicles to access international capital markets and thereby mobilize long-term debt and equity for underlying infrastructure investments. During SIAP, IFC plans to invest globally through 2-3 infrastructure funds on an annual basis. In addition, through co-investments where required, IFC will also take additional equity stakes in the underlying infrastructure projects and thus help to mobilize further Foreign Direct Investments into infrastructure. The above present a solid opportunity for IFC to provide joint solutions to FI clients that include long term local currency financing, structured products, and global expertise. Infrastructure Development Finance Company in India is a good example of Joint Venture work between IFC

departments. By FY11, the Joint Venture program is expected to reach up to US\$1 billion annually.

- *Develop new approaches for PPPs with public sector and municipal governments.* IFC also plans to develop new approaches and products with public sector and municipal governments for PPPs that rely on IFC's structuring expertise to address viability gaps, including through a more balanced sharing of risks, partial risk guarantees, and OBA.

46. During SIAP, MIGA's guarantee operations will facilitate foreign direct investments into infrastructure projects in high risk, fragile and low income countries and regions. Building on a series of innovative projects developed in recent years, MIGA's future support for infrastructure will increasingly aim to focus on: Islamic and carbon finance, project finance for renewable energy, capital markets financing for and securitizations of infrastructure assets, and support for PPPs, including investments in sub-sovereign water and sanitation projects.

2. Managing Risks for Public Finance

47. On the public financing side, the Bank will systematically continue to support governments to manage project financial risks. During SIAP, the Bank will mainstream the application of IBRD risk management products for the infrastructure portfolio to address financial risks related to interest rate, currency, liquidity and commodity price volatility. The application of such products could reduce, some or all of above financial risks, contributing to the viability of the project and reducing the overall cost for the client country. While some of these products have been applied to selected projects, the Bank will systematically identify priority sectors and projects where IBRD risk management products would strengthen the client's ability to manage the financial risk associated with public financing of infrastructure projects. One example is energy projects where the public utility would need to manage foreign currency risks or international fuel price volatility. At the sub-national level, these risk management products would dramatically improve the local government's ability to manage the financial risk of public utility projects.

48. Systematically using the Bank's financial expertise to optimally package the Bank's financings with multiple sources of financing, such as trust funds, carbon finance rights, donors' grants, earmarked funding etc., could also reduce the overall cost of projects for clients. Where possible, the Bank will also look for opportunities to expand availability of financing through instruments such as enclave financing in IDA countries. Finally, the WBG could also support clients to mitigate sovereign and natural catastrophic risks. Sovereign risks could be addressed through appropriate financial products and engagement on the policy and sector dialogue. The natural catastrophe risks could emanate from disasters like wind, rainfall, earthquake, that would affect also projects in the infrastructure like hydropower, electric wind production etc. Using the right financial products like weather derivatives could have a tremendous effect on reducing the risks of certain type of projects.

3. Mobilizing Aid Resources

49. An important element of the WBG's revitalization of support for infrastructure is in convening donor agencies and foundations at country and global levels to step up support for improving the quality and reach of infrastructure services in the developing world. At the transaction level, the Bank will improve the identification and utilization of the wide range of available funds and match them with projects under preparation; and second, have a centralized system to secure the lowest cost and most efficient funding for projects. At the country and regional levels the Bank will continue to play coordinating role in mobilizing aid resources and co-financing operations, using sector-wide and multi-sectoral approaches. Equally prominent are parallel operations that are derived from a common set of priorities and interventions that are agreed with and executed by the host country.

50. The Bank also plays a catalytic role in mobilizing and often administering donor support for individual sectors and for specific issues or themes (such as GEF, Carbon Funds, Clean Development Mechanism, Trust Fund for Environmental and Social Sustainable Development, Social Impact Assessments, PPIAF, and GPOBA). Trust funds serve as the primary funding instrument for the partnerships that afford several benefits, including inter alia, drawing together diverse stakeholders to address cutting-edge or long-term issues and resource mobilization to support work in the regions and client countries. The amount of trust funds committed for infrastructure has grown significantly since 2000 with disbursement of infrastructure related GPPs reaching more than US\$100 million in FY07. This trend is expected to grow significantly through the creation of new partnerships and trust funds for sustainable infrastructure development, such as the proposed CIF. Going forward, the specific areas of focus include: (a) ensuring the coherence among global and country programs; (b) assessing existing governance arrangements for Trust Funds (TFs) to further facilitate alignment with country assistance program priorities; (c) improving the alignment of funding cycles of various TFs to more effectively coordinate resource mobilization efforts and reporting; and (d) improve the comparability of deliverable, performance and financial reporting practices across global trust funded programs. A specific example is the Africa Catalytic Growth Fund, which is a significant instrument that provides additional resources to eligible African countries or regional organizations. Key priority areas of support are aligned with the Africa Action Plan flagships and the infrastructure sectors would definitely be eligible. Eligible recipients would have to be either: (i) high performing economies that can achieve accelerated growth and serve as regional models (e.g. Ghana, Mozambique); (ii) transformation economies that can demonstrate recent and sustained commitment to reform (e.g. Malawi, Rwanda); and (iii) regional integration initiatives that can address multi-country public goods or boost competitiveness.

51. At the global level, SDN integration provides significant opportunities for the donor community to engage with WBG in a more strategic and focused manner on global issues such as climate change, private sector development, and disaster reduction and recovery. These partnerships go beyond mobilizing aid resources. They also bring together diverse stakeholders to address long term challenges, develop new products (e.g. carbon funds instruments), and strongly support the Paris harmonization agenda as they facilitate common donor approaches to capacity building and knowledge transfer among country clients.

4. Harmonizing Aid Policies through Partnerships

52. WBG will continue to use its convening power to reduce aid fragmentation. For example, in Africa the Bank is working closely with other major donors and recipients through the Infrastructure Consortium for Africa. The consortium, created after the 2005 Gleneagles summit, is now the international development community's principal vehicle for mobilizing finance and improving aid effectiveness for infrastructure. Another example is the creation of regional, national, and sectoral OBA funds to pool government, donor, and International Finance Institutions (IFI) resources for the delivery of infrastructure services to the poor. Such funds are currently under development in Honduras, Mexico and Tanzania. The Bank is currently preparing several case studies for aid effectiveness and harmonization of infrastructure sector jointly with Japan Bank for International Cooperation, Asian Development Bank, Agence Française de Développement, AfDB, and Kreditanstalt für Wiederaufbau, to be presented at the Accra High Level Forum on Aid Effectiveness in September 2008 that will review the progress under the Paris Declaration on Aid Effectiveness.

53. Of growing importance is the increased south-south financing for infrastructure investments, with China and India as the most significant contributors to financing in Africa. The emergence of new financiers is an important and welcome development to meeting the financing needs for infrastructure: their contribution will serve to increase the pool of available resources and ideas to create a more dynamic and enriching donor environment. The WBG can play an effective facilitation role working with these and other new donors, such as the recent cooperation with the Korea Ex-Im Bank, AfDB, and the Africa Region, and to ensure that the policies of the emerging donors are coordinated with traditional donors to maximize effectiveness of the increased resources.

E. Regional and tailored approaches

54. Each WBG Region will customize its infrastructure business plan to meet the needs of its clients. Specific focus will also be made on target client segments: Low Income Countries (LICs), Middle Income Countries, and Post Conflict and Fragile States. The following presents a snapshot of these approaches.

55. **Africa Region's** infrastructure needs continue to be a critical constraint on growth and remain a priority area for IDA funding, but significant innovations will be needed. Alongside traditional areas of focus such as road rehabilitation and maintenance, trade facilitation along key transport corridors, investment in water and sanitation to meet MDGs, and support for the expansion of Africa's cities, new priorities are emerging. In particular, some 35 countries on the continent are experiencing a power crisis entailing frequent blackouts, prohibitively high costs, and extremely limited access. In response, the region is moving to substantially scale-up its support to this sector, including funding of transformational generation projects for the regional power pools, improving the performance of Africa's ailing power utilities, and rolling out access to electricity. In addition, the creation of the new water resources practice in the region provides the platform for supporting multi-purpose cross-border development of river basin resources to harness benefits in power generation, irrigation, water supply and flood control. The favorable IDA replenishment puts the Region in a strong position to pursue this agenda. Nevertheless, it is important to recognize that traditional ODA resources, now close to US\$6 billion per year,

remain small relative to Africa's annual investment needs of at least US\$20 billion per year. In relation to Small States in Africa, the WB is currently pursuing a transport sector project in Botswana, including roads rehabilitation as well as institutional strengthening, targeting at enhancing its road communication with South Africa. In Lesotho, the WB is simultaneously executing: (i) a road rehabilitation and institutional strengthening project; (ii) expanding a multidonor water and sanitation project providing institutional support, enhancing the regulatory framework and improving water supply.

56. In recent years, major new players have emerged to finance infrastructure projects in Africa, with China and India together committing funds comparable to those of the OECD-DAC donors. Forging partnerships with these emerging financiers has therefore become increasingly important, and a Memorandum of Understanding with the China Ex-Im Bank has already been signed to this end. Beyond such donor collaboration, there is a need to explore innovative financing instruments that could expand the envelope of resources. Examples include greater use of IBRD enclave lending in LICs, in possible combination with third party guarantees and/or interest rate buy-down arrangements. Finally, while there has traditionally been relatively little engagement with Africa's MICs, the region sees this as an important agenda to pursue. MICs are important anchors for the development of regional infrastructure, and create important economic spillovers that help to sustain growth across the region. The Bank and IFC will closely collaborate with each other and with other partners to enlarge the pool of bankable projects, through early stage identification and development of potential projects, and through systematic leveraging of IFC Advisory work. Specifically, IFC will: (a) focus on riskier and “harder” IDA countries with the greatest needs such as the Democratic Republic of Congo, Mali, and Niger through Infra-Ventures; and (b) continued development of projects within IDA countries that have significant financing and access gaps in infrastructure, but more favorable conditions and an established infrastructure track record, such as Kenya, Nigeria, Tanzania, Cameroon, and Senegal.

57. **In the East Asia and Pacific Region**, the WBG’s strong program of financial and advisory assistance is expected to expand further in both middle income and low income countries. The Region will continue to address the infrastructure service needs in IDA countries with financing, capacity building and management of infrastructure assets. In MICs, the focus is increasingly on addressing environmental challenges of rapid economic growth and, given the large investment needs of the region, on the development of frameworks and mechanisms to revive and harness PPPs, especially in the Philippines and Indonesia. Climate change will be an important new thrust of the WBG work program including substantial lending and advisory work on implementing cleaner energy systems (e.g. scaling up energy efficiency improvement, renewable energy generation, and clean coal technologies in China), expanding sustainable transport (e.g. mass transit systems to moderate transport fuel demand), pursuing climate-friendly city management, and supporting strategies for adaptation. The IFC utilities and sub-national businesses are expected to expand throughout the Region. IFC will focus on environmentally sustainable projects such as water supply and waste water treatment, gas distribution, and transport logistics; develop projects in IDA countries through Infra-Ventures; and engage advisory services and the World Bank to improve the investment climate and institutional and regulatory frameworks. IFC will seek to address the region’s energy needs by financing well-structured power projects, both Independent Power Producers (IPPs) and captive projects, and support the privatization of the ports sector while enhancing investments with strong sponsors.

58. **In the Eastern Europe and Central Asia Region**, overall infrastructure access rates, even in the poorer countries, are high compared with other regions. Due to improvements in pricing and more commercially oriented operations, the “hidden costs” caused by underpricing, nonpayment, and theft of infrastructure services have generally fallen across the ECA region, but continue to remain relatively high (exceeding 5 percent of GDP) in some countries. At the same time, the low-income countries in the Region need continued support for improved infrastructure services. WBG will continue to expand energy efficiency and renewable energy business and focus on improving quality of service in roads, heating, water, and sanitation in rural areas based on a strong pipeline. Transport lending is expected to rise substantially. Multiple sources of financing available in the Region focus WBG efforts on value-added approaches and innovative instruments. For example, Russia is a core focus for the sub-national business. At the same time, the Region gives WBG more opportunities for aid harmonization facilitating the emergence of new donors from this Region. IFC’s strategic priorities will include increasing commitments in IDA countries, increasing the share of commitments in frontier regions of Russia, the Ukraine and Belarus, and further integrating investment and advisory services. IFC’s strategy in the Region will focus on a programmatic approach to climate change and the development of PPPs in Russia. In Central Asia, IFC will work with the Bank to support PPP structures, implement at least one regional project, and to engage in water supply and energy projects—some of which will be in renewable energy. In relation to Small States in ECA, the WB will be executing an energy efficiency project in Montenegro. The Bank is also supporting the Government of Kosovo to strengthen its enabling policy, legal, and regulatory frameworks, making them conducive to new investments in the energy sector. Since 2005 the WB has been executing as well a technical assistance project related to the regulation/integration of Kosovo within the Southern Europe energy community.

59. **In the Latin America and the Caribbean Region**, the diverse MIC and LIC needs provide a large client base for a wide range of innovative infrastructure financing products and advisory services. While there is significant borrowing interest across the full spectrum of infrastructure activities, the Bank’s challenge in the years to come will be to remain competitive with private capital markets in terms of cost and other regional banks in terms of the efficiency of project delivery. The potential for sub-national lending in this Region is large and will depend upon the marriage of technical assistance for credit strengthening and project structuring, decentralization investments financed with on-lending to sub-sovereign entities, as well as the emerging sub-national lending program. It is expected that there will be increased demand for projects in energy diversification and market reform, water supply and sanitation expansion, improved logistics infrastructure, as well interventions to address urban congestion, pollution and housing constraints. In South America IFC will focus on power, climate change, and transportation sectors, while in Central America, IFC will pursue investments across sectors. Transportation projects in ports and roads sub-sectors and fostering regional integration will be a key priority going forward for IFC in LAC. IFC programs in LAC will leverage the Infrastructure Advisory Facility and combine investment and advisory services opportunities in rural infrastructure. In climate change, LAC will be a key region for IFC’s pilots for adaptation and mitigation, with investments and advisory services for clean energy including hydro, gas production, and carbon finance. Small States in the Region face unique challenges related to spatial isolation and lack of scale economies. In the Caribbean, the emphasis continues to be to find regional solutions to infrastructure investment and recovery from natural disasters. Based on the experience of building the Eastern Caribbean Telecommunications Regulator (ECTEL),

the Bank is now pursuing the development of a regional electricity regulatory body. Likewise, in the wake of the Caribbean Catastrophic Risk Insurance Facility, the region is exploring the expansion of the facility to cover damages from flooding as well as damage to a wider set of assets. In addition, the Caribbean region is preparing a request for resources from the Global Trade Facility to identify the transport and logistics challenges for the small states of the region so as to be able to advise the countries of the region on the investment, structuring and regulation of their trade and logistics infrastructure and services.

60. The use of PPPs for infrastructure service delivery will continue to be a central approach to meeting the financing, managerial and operating needs of power, transport and, on a selected basis, water and sanitation services throughout the Caribbean. The Bank continues to finance the implementation of a PPP for Saint Lucia's water and sanitation utility. Recently, IFC Advisory Services has joined the Bank as the transaction advisors for the government while the Bank project is financing the legal, technical and regulatory elements. The Bank is now advising the Governments of Dominica, Jamaica, Dominican Republic and Haiti on the development and reform of the electricity sector that would leverage private financing or participation. IFC has financed the Montego Bay Jamaica airport project; it was built and operated by the Jamaican government for 40 years. The government then arranged a 30-year concession of the airport to the private sector when it needed expansion/rebuilding. MBJ Jamaica is a Build Operate Own and Transfer project.

61. **In the Middle East and North Africa Region**, financing prospects remain volatile and will continue to be influenced by geopolitical considerations hindering lending to countries with enormous infrastructure needs such as Syria or Iran, and security issues hampering the implementation of projects in Iraq, Lebanon, and the West Bank and Gaza. Most MNA countries are middle income and have access to alternative sources of financing for their investment programs, reinforcing the need to reduce the costs of doing business. A substantial reform agenda still lies ahead and entails helping MNA countries to progressively adjust utility and transport service tariffs to cost reflective levels, while implementing institutional and regulatory reforms to promote greater efficiency in the provision of services. In the water sector, the Bank will focus its intervention on improving the management of scarce water resources, targeting both the resource and service side, while promoting integrated management of surface and ground water resources, taking into account the new challenges posed by climate change. IFC infrastructure plans in MNA are to expand field presence and leverage opportunities with high development impact in corporate distribution companies, Liquid Natural Gas (LNG) terminals, power generation, and port expansion projects. IFC will also continue on-going collaboration with Advisory Services and Infra-Ventures to create bankable projects in water supply and waste water management sectors. In Egypt and Jordan, IFC will seek opportunities across all sectors including a programmatic approach in power. It will also explore developing opportunities in Algeria and Yemen, as well as PPPs in Lebanon. The WBG is also actively engaged in PPPs in Africa in the transport sector, mostly in the rail, port and aviation sectors, and in the energy sector, mostly on power generation. Several operations are currently under preparation e.g. in Liberia (utility concession), Mauritania (Port of Nouakchott), Cameroon (railway concession underway).

62. **In the South Asia Region**, a key priority going forward will be to address the urban agenda through lending and advisory services, as rapid urbanization is placing major stress on inefficient city management and urban services provision. The region also anticipates a scaling up

of lending in the energy sector, in particular for power transmission and hydro-electric generation, as well as low-carbon approaches to energy security. In transport, the Bank continues to build on a strong history of engagement in the roads sector, and is increasingly engaging in urban transport, ports and railways, as well as the integrated management of transport corridors. Most of the infrastructure sectors of South Asia still suffer from inadequate policy frameworks and the AAA program, already active in India and Pakistan, will expand to other countries. Most countries in the region are interested in expanding the role of PPPs, and India now has a very large PPP program. Expanding the role of PPPs will require both institutions to develop the framework and pilot transactions, through advisory services and financing. The Bank and IFC are updating the joint PPP strategy and expanding the range of sectors on which they will work together, as well as focusing upstream development work on countries where PPPs are not yet operational but where the environment is generally favorable. In India, the most promising sectors for World Bank and IFC collaboration include: municipal infrastructure, power, airport development and water development. In Bangladesh and Nepal, programmatic approaches will be sought across all sectors. In Pakistan, the planned privatization program is expected to provide a broad scope of investment opportunities for IFC across infrastructure sectors. IFC's infrastructure track record in Pakistan in the power and transport (air lines, container terminals and ports) sector provides a solid basis to build critical mass. Through the proposed South Asia Infrastructure Advisory Facility, IFC will seek partnerships with other Project Advisory facilities to develop bankable projects. In India, IFC will aim to diversify its sector strategy in utilities (water sector), power (coal fired, solid hydro and wind), and transportation (logistics, small deals, ports and construction).

63. **Low Income Countries:** Expanding sustainable access to basic infrastructure services remains the over-arching objective of the World Bank Group assistance in LICs. In urban areas this includes strengthening the institutional and financial capacity of local governments and utilities as well as investing in sustainable service delivery systems that can keep pace with growing demand and reduce shortages in basic services. In rural areas, the focus is on decentralized, demand-responsive, community-managed approaches, using sector investment programs to introduce reforms and build local capacity, and on moving to full-scale implementation through budget support instruments.

64. Regional/multi-country approaches to infrastructure development can leverage economies of scale in production and delivery of services, and the value of regional integration is widely recognized and will continue to be a priority during the IDA-15 period in Africa. Another avenue for scaling up World Bank financing in Africa is using IBRD resources to finance enclave infrastructure projects, to supplement IDA resources for countries that are already able to borrow on IBRD terms from other financiers. In addition, Africa is a core region for both the IFC and MIGA's infrastructure businesses. An effective internal integration measure has been to hold monthly WB/IFC operational meetings to step up joint planning and execution of infrastructure projects. The meetings have generated the following promising results: coordinate approaches on Kenya Uganda Rail Concession and Cameroon Camrail; Bujagali, Senegal and Mozambique Thermal Power Plants; and the Addis Ababa water utility, where an IFC trust fund is financing a joint "options study." This model could be extended to other priority LIC regions. MIGA collaboration with the Bank's Africa region has resulted in joint operations in Uganda and Mozambique. MIGA's growing partnerships with local investment promotion and export credit agencies (such as the African Development Bank) has resulted in increased support to large infrastructure developments in the Region.

65. Issues to be addressed in meeting client demand in low-income CIS countries include: how to: (a) “supply wholesale” investment financing and institutional development support to multiple secondary cities; (b) respond to certain major cities requesting Bank support without necessitating sovereign guarantee (sub-national financing); (c) move from the land administration agenda (e.g. titling, cadastre, registration) to urban land management (including reforms of urban planning and land use, and developing value-based property taxation); (d) engage more broadly on the urban environment or “sustainability/livability” agenda, beyond the traditional solid waste and water and sanitation interventions; and (e) address the continuing housing agenda, especially for poor households. Moving forward, lending for water supply and sanitation activities in the low-income ECA countries will respond to demand for improved water supply and sanitation in both larger cities and smaller towns. In Central Asia, demand will continue for municipal infrastructure projects similar to the ongoing Small Towns projects, with a focus on water supply improvements to the poor, as well as institutional development components. Weak commitment to reforms needed to improve the financial performance of utilities responsible for service provision creates a major challenge, particularly in Central Asia.

66. **Middle Income Countries (MICs):** WBG support to MICs is evolving to adapt to their changing needs. The effectiveness (or value) of WBG assistance demands continued innovation in instruments and approaches, such as regional and sub-national products, to meet the complex infrastructure investment and capacity needs of these countries. The recent reduction in the Bank’s financial cost for IBRD²¹ lending was a positive step to strengthening the product line for MICs. However, WBG’s capacity to identify and reduce “non-financial costs” of doing business will have a major impact on WBG’s continued ability to serve this market. Finally, MICs are emerging as significant partners and co-investors with WBG in other countries. The WBG has an important role to play in working with and supporting MICs in aid harmonization and as source of knowledge and experience for economic development.

67. **Post-Conflict and Fragile States:** Poverty and conflict are interlinked, with each feeding the other. The WBG is well positioned to help address the economic underpinnings of a conflict. Support for infrastructure would boost economic growth, thereby strengthening a fragile peace and reducing the possibility of conflict ensuing. The WBG approach to post conflict and fragile states recognizes that the special circumstances of these states and situations call for a strategic approach that is “not business as usual.” Fragile states are not always conflict-affected and conflict-affected countries are not necessarily hampered by fragile institutions—but there are important commonalities, as many fragile states are affected by conflict and many conflict-affected countries are plagued by weak institutions and low capacity. WBG will continue to respond to a primary need in these states for basic infrastructure services and will expand through direct financing and through mobilizing donor financing and support through aid harmonization. Infrastructure rehabilitation programs in these countries require a very good understanding of the causes of fragility and conflict and necessitate specific social analysis focusing on the fragility of the social structures and of the institutions to ensure that they can contribute to strengthen institutions and reduce conflict effectively. The strategy is fraught with risk in that new investments in infrastructure would be subject to possible destruction in the event of the conflict resuming. Country-specific risks would be factored into the WBG investment decision, with risk mitigation

²¹ In Sept 2007, the WB Board approved a significant simplification and reduction in IBRD loan and guarantee pricing, reducing overall cost by 25 basis points and returning the all-in cost of new borrowing to 1998 levels.

built into program design. Infrastructure investment will be accompanied by strong capacity-building efforts to ensure improved service delivery and also to ensure that the infrastructure investments can be appropriately operated and maintained. The WBG will continue to focus on PPPs for appropriate investment and capacity building.

F. Continue to scale up WBG direct financing and leverage

68. The overall volume of the World Bank Group's direct financing of infrastructure is expected to grow during SIAP, to between US\$59 and US\$72 billion in FY08-11 (including FY08 as transition year and the SIAP period FY09-11 for comparability). IDA financing for infrastructure is expected to increase commensurate with the increase in the recently completed IDA-15 replenishment, to approximately US\$17 billion. IBRD financing is expected to increase between 10 to 30 percent from the IAP period, to US\$22-US\$25 billion, dependent on the individual regional business environment and financing conditions. Responding to strong client demand in client countries, IFC is poised for a significant expansion in financing both national and sub-national infrastructure businesses, utilities, and through its advisory business, to US\$11-US\$15 billion, representing a doubling of FY05-07 IFC infrastructure financing. The increased IFC/IDA coordination envisioned under IDA will increase both the level of assistance and impact of these projects. During SIAP (FY08-11), MIGA expects to grow its aggregate infrastructure issuance to between US\$2.6 to US\$3.5 billion, and will continue to work closely with WB and IFC to identify areas where MIGA's risk mitigation products can facilitate new private investment in infrastructure projects.

69. During SIAP, the WBG institutions plan to increase their focus on leveraging their financing, mobilizing increased private sector and additional public sector financing for infrastructure service delivery. With the creation of several project structuring and technical assistance vehicles and the additional trust funds mobilized by the WBG, the magnitude of leverage is expected to increase during SIAP to between US\$109 and US\$149 billion.

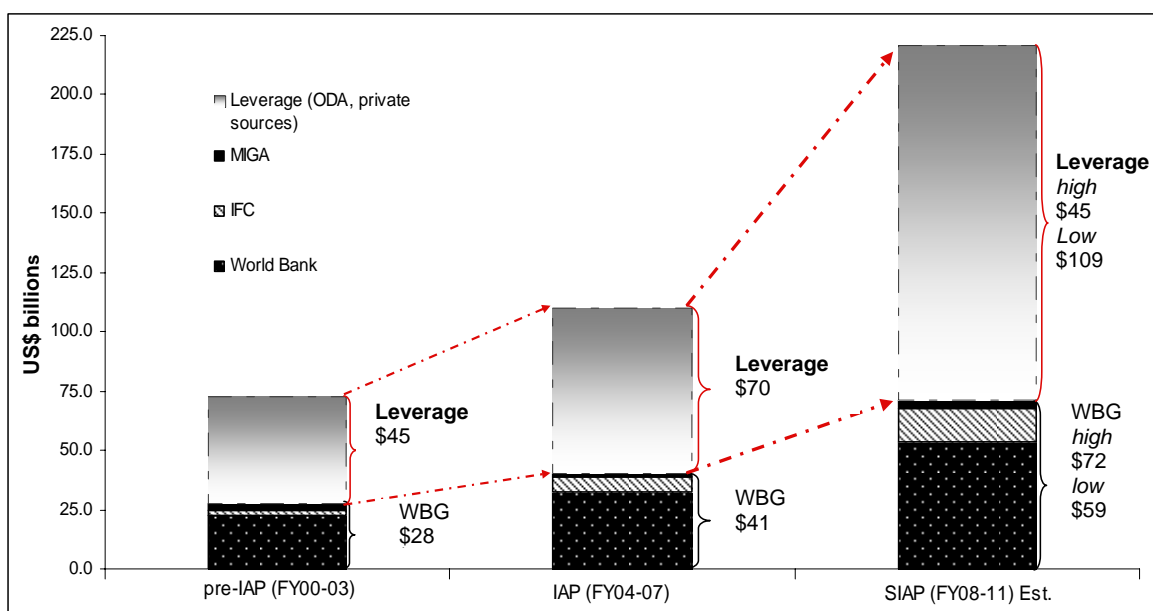
IV. IMPROVED RESPONSIVENESS TO CLIENT AND STAKEHOLDER DEMANDS

70. Effectively delivering on the multifaceted infrastructure assistance priorities outlined above requires a high degree of responsiveness and agility on the part of the WBG if it is to effectively serve its clients in a changing world. To make substantial progress in the support of sustainable infrastructure, identifying leveraging opportunities, and pursuing these goals actively will not be possible without additional staff and financial resources. The WBG will continue to look for ways to improve the institution's flexibility and agility to respond to the needs of our clients within its resources by:

- Reviewing and adjusting WBG organizational responses, such as the SDN integration, to strengthen focus on financial/economic, environmental, and social sustainability; and a rapid expansion of the local IFC offices, to achieve greater reach and client responsiveness;
- Mainstreaming joint work by WBG institutions;
- Systematic efforts to reduce the non-financial costs of doing business for new and innovative products for infrastructure;

- Designing products that address the financial risks faced by clients and reduce the overall costs and risks of projects; and
- Providing tailored solutions to specific country/regional contexts and to certain key stakeholders.

Figure 1: World Bank Group Infrastructure Financing and Leverage



(US\$ Billions)	<i>Pre-IAP (FY00-03)</i>	<i>IAP (FY04-07)</i>	<i>SIAP (FY08-11) Low Case (Est.)</i>	<i>SIAP (FY08-11) High Case (Est.)</i>
WB	22	33	45	53
IFC	3	6	11	15
MIGA	3	2	3	4
WBG Financing	28	41	59	72
Leverage (private and ODA financing)	45	70	109	149

Notes:

- FY08 is a transition year not included in SIAP. However, it is included in calculations for comparability to past years.
- WB financing during SIAP estimated based on assumption that IDA will grow at IDA-15 replenishment rate of 38 percent and IBRD will grow between 10 to 30 percent. Estimates were adjusted and finalized by Regions based on market scanning and business plans.
- IFC and MIGA financing were estimated based on respective business plans.
- WBG leverage was calculated according to methodology outlined in Annex 3. FY03 and FY07 leverage ratios were used as proxies for leverage during IAP and SIAP periods, respectively.
- WB leverage, including government financing, other donors, and special products such as proposed Climate Investment Fund, carbon finance and GEF, was estimated at 1:1.1 during IAP and 1:1.2 during SIAP (High Case).
- IFC leverage was estimated at 1:4.1 during IAP and 1:5 during SIAP (High Case).
- MIGA leverage was estimated at 1:2.6 for IAP and 1:2.7 during SIAP (High Case).

A. SDN Integration

71. The SDN integration has strengthened the WBG capacity to support its clients in addressing cross-cutting issues and themes that affect infrastructure service delivery. Combining the Infrastructure and Environmentally and Socially Sustainable Development networks in 2006 to form SDN was driven in part by the recognition of the need for more integrative assistance approaches, recognizing the multidimensionality and complexity of the challenges faced by the Bank's clients today. It brought together the infrastructure practices of the World Bank, IFC, and MIGA with the Bank's environment and natural resources, social development, agriculture, and rural development practices. With more than 1,200 SDN staff, more than 90 percent of whom are in Regional VPUs and 40 percent of the latter in country offices the SDN integration provides a strong platform for supporting clients to accelerate progress toward the MDGs and sustain economic growth, particularly in addressing cross-cutting concerns such as climate change, environmental and social sustainability, spatial development and decentralization, governance, and private sector participation.

72. The significant increase in lending during IAP was accomplished with a modest increase in infrastructure staff. While WB lending almost doubled from US\$5.4 billion in FY03 to US\$10.2 billion in FY07, WB infrastructure staff increased by about 20 percent from 430 to 522 during the same period. The IFC's staffing increased consistently with its infrastructure business, from US\$1 billion in FY03 to US\$1.8 billion in FY07, with a corresponding staffing increase from 96 to 155. The anticipated increase in WBG infrastructure financing and advisory services during SIAP, especially the anticipated new ways of doing business—leveraging impact, sustainability, and public and private financing of infrastructure requires a corresponding increase in manpower to design, implement, and manage the infrastructure business. In addition to designing/supervising financing operations and delivering high quality advisory services, staff must actively seek out financing partners using a variety of financing instruments. Beyond assuring safeguard compliance, staff must ensure that project design promotes sharing of benefits of increased infrastructure service delivery across the society, including the poor, women and other groups with little or no access.

73. Effectively meeting these demands requires strengthening staffing levels and skills in: (a) core sectoral disciplines (e.g. engineering, utility management and finance, hydrology, transport agency management); and for (b) addressing cross cutting priorities (e.g. social development/gender, urban and regional development specialists, land management/ housing specialists, clean technologies, public sector management and governance, disaster risk modeling, city finance and land management). Solid and broadly available expertise in these areas is critical to delivering high quality upstream analytical work (sectoral and cross-sector) and to effectively scale up engagement with a large number of client countries, sub-national entities, and partners. IFC will continue its active decentralization to work more closely with country offices in the context of rapidly changing domestic markets and new investors and will increase recruitment in line with the growth in its business. In summary, a combination of approaches will be used throughout the WBG: (a) focusing management attention and incentives on building multi disciplinary and multi-sectoral teams; (b) providing cross network support/exchanges and expanding joint learning programs (e.g. the forthcoming Sustainable Development Leadership Program); and (c) augmenting existing staffing through external recruitment, staff exchange programs and secondments.

B. Mainstreaming WBG Joint Work

74. During IAP, WBG institutions increased their interactions at several levels. First, they worked together on selected complex transactions, using advisory services, guarantees, and new instruments to reduce risks. Second, they combined forces on finding ways to enhance client capacity. Third, they used a variety of policy and public finance instruments to catalyze private investment in expanding infrastructure services for the poor.

75. Results to date indicate that successful projects that leveraged substantial private sector financing have been realized through a combination of WBG instruments and technical assistance. In addition, enhancing client capacity to improve the climate for private investment, establishing regulatory oversight mechanisms for public and private infrastructure service provision, and project structuring are core aspects of WBG assistance. Moreover, coordinating advisory services among public sector clients (IDA/IBRD) and private sponsors (IFC/MIGA) is gaining prominence as the creation of bankable, economic projects requires strong capacity on the part of both the public and private sectors. Strengthening fiscal management and creditworthiness, as well as sector policy, planning, and governance are core competencies of the Bank. Strong administrative capacity and public financial management are important for ensuring that scaled up assistance is delivered and managed effectively. Coordinating such assistance with IFC and MIGA transaction structuring and credit assessment expertise, and with the WBG's risk mitigation and lending products (particularly the local currency variants) provides WBG clients with a mix of services for mobilizing long-term capital and management expertise from the private sector to augment their own resources.

76. During SIAP, coordination across the WBG will continue to be strengthened and systematized. The range of experiences at the project and transaction level, in some cases developed opportunistically by each of the WBG institutions, will be reviewed to ensure a systematic and efficient approach to WBG institutional interaction, including the planned review of the sub-national business, PPPs, and advisory services. The review will help identify how different parts of the WBG can engage more efficiently with clients on common product lines. The review will also carefully identify and provide options to address any potential conflicts of interest in joint work, for example, to eliminate any potential conflict of interest in an IFC proposed private investment when the Bank finances the technical assistance. One of the objectives of the review is to identify improvements to the WBG conflict of interest procedures in order to cope with the increased level of joint WBG activity. This would be an important effort to maximizing the effectiveness of WBG support to clients.

77. WBG joint work is also expected to be strengthened significantly through the appointment of the new Director, IFC/IDA Secretariat. This is intended to increasingly leverage private investment in IDA countries, particularly through PPPs in infrastructure; scale up IDA financing of regional and sub-regional projects in support of regional market integration, trade facilitation, and infrastructure development; expand the menu of financing and risk management options, including assessing the potential for IDA non-sovereign lending; and pilot and ramp up innovative financing options for the private sector, including OBA and guarantees.

C. Reducing non-financial costs of doing business

78. Clients have identified the non-financial costs of doing business with the World Bank Group as an impediment. Unlike commercial lending, in addition to providing the needed financing, World Bank support for investment projects provides a vehicle for sustained hands-on knowledge transfer and technical assistance to borrowing countries. Typically, the World Bank provides support with analytical and design work in the conceptual stages of project preparation and technical support and expertise during project implementation, including in the fiduciary (financial management and procurement) and safeguards (environmental and social) areas. While these aspects of investment lending are valued by the World Bank's borrowers, the World Bank's current investment lending model has not kept up with the evolving and increasing diverse needs of the varied Bank borrowers and has become over-encumbered by internal World Bank processes and requirements, especially in the fiduciary and safeguard areas. The result is a concern among World Bank borrowers, and, especially, MICs with access to alternative sources of financing, about the non-financial costs and rigidities of investment lending. SDN will work closely with Operations Policy and Country Services (OPCS) to address increasing the agility of the Bank in responding to client needs.

79. There are other examples of the WBG reducing the non-financial costs of doing business. The 2005 Additional Financing policy provided greater flexibility by streamlining procedures to provide supplemental financing in the context of well-performing ongoing projects. Another notable example specific to the infrastructure sector is the development of the emergency operations procedures, where the long lead times for project preparation up to WB Board approval were tailored to fit the urgency of the project. These innovations have resulted in the WBG becoming the largest provider of development assistance for reconstruction activities. The WBG is further developing core capabilities in rapid damage assessment as well as insurance and risk mitigation instruments to support clients to manage reconstruction while safeguarding long term economic development plans. To ensure that innovative instruments like OBA can also be deployed more widely, GPOBA is currently working with OPCS to prepare disbursement guidelines for innovative OBA project structures.

80. Another example of the Bank's ongoing work to reduce the non-financial costs is the recently evaluated country systems pilot for environmental and social safeguards.²² Based on the lessons of the pilot program: (a) the program is to be expanded to a larger number of countries; (b) with a shift from individual projects to sector or country wide application; and (c) where country capacity is variable across sectors and/or regions, scaling up will be incremental, moving through sub-national (state/municipal) or parastatal entities; and (d) where certain elements of the system are weak, risk mitigation measures are to be applied at the project level while supporting capacity building measures to enable local institutions to address those weaknesses as part of the WBG's overall program of assistance.

81. The Bank's ability to continue to provide valued assistance for infrastructure development depends critically on continuing progress on simplification of internal procedures and greater flexibility in investment lending, in particular streamlining and increasing the effectiveness of internal clearance procedures. A key element of this agenda is the reform and rationalization of

²² Use of Country Systems in Bank Supported Operations-Status Report (R2007-0079/4 October 15, 2007).

investment lending policies.²³ This is to bring about greater simplicity and clarity (30 policy statements currently govern investment lending) and to better calibrate the scope and number of prior reviews to the magnitude and types of risks that individual operations carry. The intention is to significantly reduce procedural requirements and control points for low/moderate risks projects. SDN will be a committed partner to OPCS in pursuing this agenda during SIAP implementation.

D. Enhancing monitoring of WBG contribution to development through sustainable infrastructure

82. During SIAP, noting the trends on potential effectiveness and limits of the overall results management agenda for development effectiveness, the WBG will continue to improve progress on results measurement at the project and country level. In addition, the WBG will initiate work to develop a framework for assessing its leveraging impact on infrastructure. The SIAP Action Matrix attached in Annex 2 below provides detail on how SIAP Activities will be measured.

1. Project Level Monitoring

83. At the project level, recognizing that absolute comparability is not feasible or ideal, the Bank and its partners will foster some limited harmonization of infrastructure indicators through: (a) disseminating good practice indicators; (b) encouraging comparable definitions for widely used indicators; and (c) joint work with clients to measure common indicators in addition to their more customized local indicators. The harmonization of infrastructure indicators is already being piloted in the Africa Region, and with a cross-regional effort in tracking output measures of water projects. The ICT sector has also been one of the early movers, with the global “Measuring ICT for Development” partnership, established in 2004, using a common set of core ICT indicators that are comparable at the international level.

84. Since outcomes and impacts of some infrastructure projects materialize only over time, an important element of SIAP will be to actively assess results and disseminate lessons from IAP infrastructure projects. One of the assessment tools is rigorous Impact Evaluations, of which more than 40 were launched for infrastructure projects during the IAP period, starting with baseline measurement. The strategic deployment of impact evaluations for sustainable infrastructure projects will continue.

85. Under SIAP, efforts will continue to foster the monitoring of WBG infrastructure projects through staff training, incentives, infrastructure events, and other similar initiatives. Although measuring AAA results faces considerable issues of lags (due to rapid task completion after delivery) and attribution, more effort to measure AAA results will be made. One such initiative will focus on results stories of Economic and Sector Work.

86. During SIAP, the IFC plans to continue to deepen the use of DOTS throughout the infrastructure portfolio and increase harmonization of impact indicators across projects. In FY08, IFC will develop specific sectoral targets within infrastructure for people/customers reached through our projects (IFC “Reach” indicators). MIGA is currently reviewing its existing Monitoring and Evaluation framework to establish a new self-monitoring and evaluation system

²³ Strengthening the World Bank’s Engagement with IBRD partner Countries-Implementation Report-Development Committee paper (DC2007-0022, October 9, 2007).

to better track the development impacts and the investment facilitation results of its guarantee projects.

2. Country and Global Monitoring

87. At the country and global level, the Bank will continue work on country level data in two ways during SIAP: (a) pulling together infrastructure results data from diverse sources for easier and wider access; and (b) developing a more comprehensive and consistent framework, including emphasis on environmental and social sustainability indicators and sectoral contributions and vulnerabilities to climate change. Gearing up for such an effort, the data structure and stocktaking of indicator availability have recently been updated, and discussions launched about the prioritization of indicators.

88. Complex household surveys have been the main source of data on key dimensions of infrastructure services; however, the steady but slow pace of progress with household surveys has become a critical constraint on country-level results data. While this household survey work, and the effort to insert more infrastructure content, should continue, a concerted initiative is currently being prepared to foster innovation in data collection methods for infrastructure to supplement the household surveys. It will draw on rapidly evolving progress in GIS referencing, remote sensing, and visual data collection inspection; the increasing ease of voluntary benchmarking communities due to interactive web technologies; and rapid survey methods that the private sector is increasingly using in developing countries, which may benefit from the spread of ICT. During SIAP, the Bank will identify pioneering applications inside and outside the institution, assess and share such experience, support pilots, and encourage rapid replication and scale-up. If showing success, this initially internal incubator effort could soon be expanded to become a community of practice with external partners.

89. Management for development results has taken roots in a rapidly growing number of client countries. The Bank has been supporting this in multiple ways, mostly at non-sectoral national agencies. Sectoral efforts in infrastructure have been part of some broader initiatives, or in the context of specific projects. Under SIAP, the Bank will continue the support to our infrastructure sector clients in using monitoring systems for improving management, dissemination and communication of results, and for enhancing the capacity of civil society organizations to work with such data.

3. Assessing Leverage

90. Measuring the outcomes of direct WBG interventions in infrastructure service delivery is an important agenda to assess the institution's effectiveness and impact. In addition, as the WBG's own financing can only cover a small portion of the infrastructure financing gap, the SIAP includes a renewed focus on leveraging opportunities for additional financing. It is therefore important to monitor the extent to which WBG financing is leveraged with support from trust-funded programs and partnerships, private sector funding under WBG guarantees or joint investments, project co-financing by other donors, etc. The WB, IFC, and MIGA already have initial indicators of leverage for some of their core products and demonstration effects (of certain pilot transactions, innovative instruments, and technical assistance efforts). During SIAP, the WBG will build on and expand these efforts towards capturing leverage more comprehensively, using a consistent methodology

agreed across each institution (Annex 3). On the results side, options for assessing the combined outcomes and impact of the WBG and the support that it leverages will be reviewed.

Table 2: World Bank Group Sustainable Infrastructure Action Plan (SIAP)

<i>Objectives/Action Areas</i>	<i>Actions/Targets</i>	<i>WBG Accountability</i>
WHAT WILL WE DO?		
<p>Core sector strategies to guide action to meet the access gap in infrastructure sectors (Transport, Water, Energy, and Information and Communications Technology)</p>	<ul style="list-style-type: none"> • Transport business strategy (FY08-11) fully implemented <ul style="list-style-type: none"> ○ Diversification from roads to all transport modes and removal of bottlenecks for international trade through increased regional projects and AAA; Freight Transport for Development ○ Cross sectoral linkages to energy security • Water Sector Board integration mainstreamed by FY09 <ul style="list-style-type: none"> ○ More equitable and efficient delivery of water services (water supply and sanitation, irrigation, hydropower and environmental services) with special emphasis on services to the poor ○ IFC Water Strategy to catalyze private investment • Energy <ul style="list-style-type: none"> ○ Scaling-up the access program in SSA through sector-wide programmatic approaches launched in FY08 • Information and Communications Technology (ICT) WBG agenda revamped by FY09 in response to new industry trends: <ul style="list-style-type: none"> ○ Shift from traditional technical assistance to APL, and integrated projects (infrastructure, e-government, Information Technology industry) and reimbursable Technical Assistance ○ Continued growth in frontier markets. 	<ul style="list-style-type: none"> • Regions, SDN, IFC, MIGA
<p>Maximize effectiveness through cross sectoral synergies:</p> <p>➤ Infrastructure response for climate change mitigation and adaptation, underpinned by WBG Strategic Framework on Climate Change and Development (SFCCD)</p>	<ul style="list-style-type: none"> • Transport: Supporting response to climate change through increased support to planning, investment, and strategy for urban transportation; <i>Transport and Climate Change</i> • Water: Enhanced focus on sustainable management of the water resource base • Energy: scaled up actions in CEIF <ul style="list-style-type: none"> ○ Transition to low carbon economies – studies completed in +5 countries in FY09 and continuing to largest GHG emitters and expansion of methodology to other large GHG emitters; <i>Clean Energy Technology Acceleration Initiative Implementation Plan</i> ○ Continued progress in low carbon energy lending from the base of 40 percent of low carbon projects in FY07 and the WBG Bonn targets of 20 percent annual increase in investment in renewables and energy efficiency • Development, testing, and improvement of methodologies for carbon foot-printing and climate risk screening, with first methodologies by FY09, and full roll-out by FY11 • Launch of the Climate Investment Fund, including a clean technology fund in FY09 with robust programs committed in at least 5 countries by FY11 	<ul style="list-style-type: none"> • Regions, SDN, IFC, MIGA

Objectives/Action Areas	Actions/Targets	WBG Accountability
<p>➤ Expand PPPs and strengthen market conditions to crowd-in the private sector.</p>	<ul style="list-style-type: none"> • Support government’s action to strengthen enabling environment for PPPs through technical assistance and leveraging facilities: <ul style="list-style-type: none"> ○ Establish legal and regulatory frameworks that provide clarity and predictability to private investors and consumers ○ Strengthen agencies responsible for PPP design, implementation, and oversight, including sound approaches for selecting between the PPP and public routes, and integrating government support into the budget framework ○ Scale up OBA ○ Mobilize local long-term currency funding for infrastructure ○ Provide transaction preparation support through scaled up IFC Investment and Advisory assistance ○ Design and structure transactions through credit enhancements, partial guarantee facilities, and matching sector loans • Direct leveraging facilities implemented through IFC 	<ul style="list-style-type: none"> • Regions, SDN, IFC, MIGA
<p>➤ Incorporate spatial dimension of development (Regional development, sub-national finance, and rural-urban integration)</p>	<ul style="list-style-type: none"> • WDR 2009 operationalized by FY11 <ul style="list-style-type: none"> ○ Focused treatment of spatial issues in CASs, AAA, and projects, including “Shared opportunity: geographically inclusive development in the Middle East and North Africa” ○ Dissemination and Bank staff learning on spatial analysis to inform regional policy decisions by client countries, including <i>Climate Change in metropolitan cities in Asia</i> • Increased number of regional infrastructure projects, such as regional water resources management, regional energy trade and transport projects • Base case of 10 joint WB-IFC transactions with sub-national public entities without sovereign guarantees in FY09 growing to 16 by FY11 in all regions, focusing on middle-income countries • Develop and operationalize urban strategies, including: Building Liveable Cities in Africa; Collaborative Capacity Building Program in Urban Management; slum upgrading through urban infrastructure funds 	<ul style="list-style-type: none"> • Regions, Development Economics DEC/SDN
<p>Mainstream Sustainability: ➤ Environment</p>	<ul style="list-style-type: none"> • Build on IAP experience to mainstream environmental issues in infrastructure projects: <ul style="list-style-type: none"> ○ Scaled-up and systematize use of SEAs and CEAs as key tools for sustainability by FY11 ○ Special focus on infrastructure interventions for environmental objectives in urban environment (wastewater, solid waste and air quality management), household environment (improved sanitation and indoor air), and regional environment (sustainable water resources, hydropower and energy generation infrastructure) ○ Scaled-up use of economic/financial tools such as payment for environmental services and green accounting 	<ul style="list-style-type: none"> • Regions, Social Development (SDV)

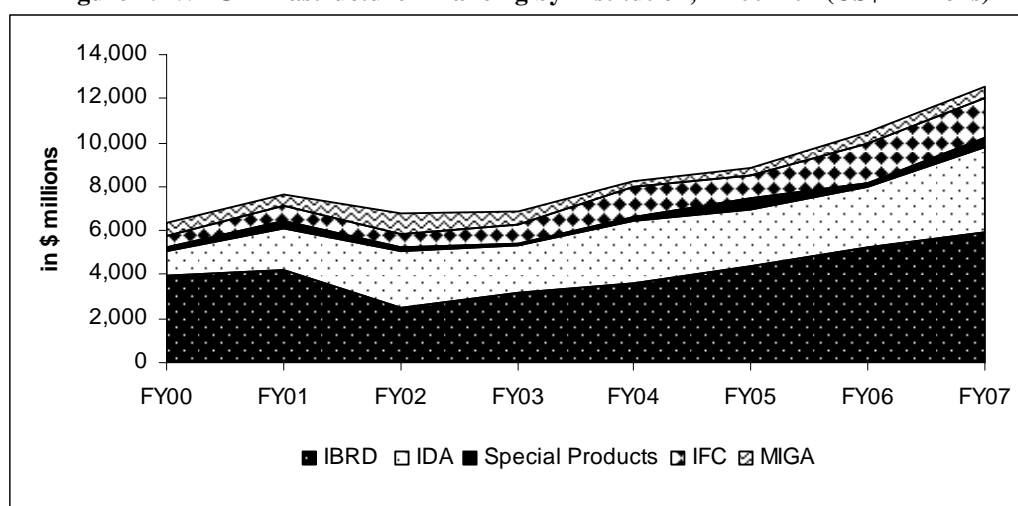
<i>Objectives/Action Areas</i>	<i>Actions/Targets</i>	<i>WBG Accountability</i>
➤ Social	<ul style="list-style-type: none"> ● Build on IAP experience to mainstream social benefit sharing in infrastructure approaches by FY11 <ul style="list-style-type: none"> ○ Systematizing social analysis ○ Promoting inclusive community and stakeholder participation ○ Expanding benefit sharing (beginning with hydropower projects) ○ Operationalizing Gender Action Plan: i) systematize analysis for operations and AAA; ii) design operations for reducing gender disparity; iii) start up gender disaggregated M&E and Impact Evaluation. 	<ul style="list-style-type: none"> ● Regions, Social Development (SDV)
➤ Governance	<ul style="list-style-type: none"> ● Support to ensure access to quality, affordable infrastructure services through improved governance through sector support to the WBG Governance and Anti-Corruption Implementation Plan (GAC) beginning in FY08 <ul style="list-style-type: none"> ○ Sectoral translation of WBG GAC launched in FY08 ○ Improved public finance and fiscal management of infrastructure ○ Improved results measurement of infrastructure services 	<ul style="list-style-type: none"> ● Regions, SDN, IFC, MIGA

<i>Objectives/Action Areas</i>	<i>Actions/Targets</i>	<i>WBG Accountability</i>
<ul style="list-style-type: none"> ➤ Leverage private and public financing for infrastructure 	<ul style="list-style-type: none"> • Private and public financing leverage through WBG financing between US\$109 - US\$149 billion based on WBG financing of US\$59 -US\$72 billion (FY08-11) <ul style="list-style-type: none"> ○ Increased WB lending commitments to US\$45 to US\$53 billion ○ Increased IFC equity & lending commitments for infrastructure to US\$10.7 - US\$14.6 billion ○ Increased MIGA insurance coverage for infrastructure to US\$2.6 - US\$3.5 billion • Expand percentage of operations that use the Bank's risk management/ treasury products (IBRD/IFC) to support client's management of financial risks for public finance and reduce overall project costs: on interest rate, currency, liquidity and commodity price volatility • Direct leveraging of private sector financing through: <ul style="list-style-type: none"> ○ Infrastructure financing joint ventures with Financial Intermediaries (FIs) to reach US\$1 billion by FY11 ○ Implementation of IFC's Infra-Ventures Fund ○ Deepening local capital markets through IFC's Global Financial Markets ○ Exploring use of WBG risk mitigation products to create financially efficient asset backed securities that can raise new funding in global and local capital markets • Scaled up support on key cross-cutting trust funds and partnerships, including: <ul style="list-style-type: none"> ○ Climate Investment Facility ○ GFDRR: Global Fund for Disaster Reduction and Recovery ○ GPOBA: Global Partnership of Output Based Aid • Contribute to global fora on harmonizing aid policies, including Infrastructure Consortium for Africa; High Level Forum (HLF) on Aid Effectiveness in Accra, Ghana; support to new and emerging donors for infrastructure 	<ul style="list-style-type: none"> • WBG <ul style="list-style-type: none"> ○ WB ○ IFC ○ MIGA ○ Regions, Treasury (TRE), SDN • IFC • WBG • SDN, Concessional Finance and Global Partnerships • OPCS
HOW WILL WE DO IT?		
<ul style="list-style-type: none"> ➤ SDN Integration 	<ul style="list-style-type: none"> • Develop and scale-up training to Bank staff and clients on Sustainable Development 	<ul style="list-style-type: none"> • Regions, SDN
<ul style="list-style-type: none"> ➤ Mainstreaming WBG joint work 	<ul style="list-style-type: none"> • Increase WB-IFC-MIGA joint engagements (includes co-financing, parallel financing, advisory services, upstream AAA) • Increase PPIAF-like scale up activities • Complete WBG Sub-national business review by FY09 • Implement WBG interaction plan for common product lines by FY11 	<ul style="list-style-type: none"> • Regions, SDN, IFC, MIGA

<i>Objectives/Action Areas</i>	<i>Actions/Targets</i>	<i>WBG Accountability</i>
<p>➤ Reducing Non-Financial Costs of Doing Business</p>	<ul style="list-style-type: none"> • High priority sub-sectors in infrastructure partner with OPCS to streamline internal procedures • Support OPCS to expand country systems pilot and reform and rationalization of lending policies • Systematically increase usage of Bank’s financial and structuring capacity and products for transactions packaging for priority sectors • Mitigate sovereign and natural catastrophic risks through risk instruments such as weather derivatives 	<ul style="list-style-type: none"> • OPCS, SDN
<p>➤ Enhancing monitoring of WBG contribution to development through sustainable infrastructure</p>	<ul style="list-style-type: none"> • Increase WB-IFC-MIGA joint engagements (includes co-financing, parallel financing, advisory services, upstream AAA) • Formulate pilots of innovative methods of data collection conducted; emerging lessons reviewed and disseminated; scale up strategy (WB) • Report on expanded set of good practice project and country results indicators (WB) • Compile outputs and outcomes in IAP infrastructure Implementation Completion and Results Report (ICRs) (WB) • Deepen implementation of DOTS to infrastructure sectors (IFC) • Review existing M&E framework to improve tracking of development impacts and investment facilitation results (MIGA) 	<ul style="list-style-type: none"> • SDN, IFC, MIGA

ANNEX 1: IAP ACCOMPLISHMENTS

1. With the Infrastructure Action Plan, the World Bank responded to calls for the institution to re-engage and scale up infrastructure assistance in 2003. The primary objectives during IAP were to: (a) respond to increased client demand for infrastructure; (b) rebuild the knowledge base at country and regional levels; and (c) strengthen the WBG's instruments and approach by creating new lines of business to meet emerging client demands, expanding the use of risk mitigation instruments, and facilitating and promoting the joint use of WBG instruments. These objectives were largely achieved and yielded valuable lessons that have helped steer the SIAP strategy and objectives. The WBG's Executive Directors were periodically briefed on the progress of IAP during the plan period, with a final Technical Briefing in November 2007. Highlights of IAP accomplishments are presented below.
2. The World Bank's financing for infrastructure was scaled up in all regions and almost all sectors. Lending increased from US\$5.4 billion in FY03 to US\$10.2 billion in FY07. There was strong demand for both IBRD and IDA financing for infrastructure. Despite constraints posed by IDA country credit ceilings, IDA infrastructure assistance increased by 53 percent between FY00-03 to FY04-07. East Asia and Pacific and Sub Saharan Africa accounted for the largest IBRD/IDA lending volume, while Eastern and Central Europe, Sub Saharan Africa, and Latin America and Caribbean Regions had the greatest increase in lending volume compared to the prior period. Transport accounted for the largest volume and greatest growth during the period. The Bank's increased infrastructure volumes corresponded to high portfolio quality, higher than the Bank average for all sectors. The IAP scale up was accomplished through very modest increases in staffing.
3. IFC's infrastructure financing increased significantly during the IAP period across power, transport, telecoms, oil & gas and utility sectors with significant growth in investments in utilities, renewable energy and energy efficiency. IFC's 2007 financing, doubled to US\$1.8 billion from US\$1 billion in 2003. Significant growth occurred in Latin America and East Asia and Pacific regions. During this same period, financing in low income countries, particularly in Africa, expanded significantly. IFC's infrastructure portfolio is higher than the IFC's remaining portfolio counting up to 86 percent project success rate. A dramatic ramp up in IFC's advisory assistance laid the groundwork for mobilizing US\$1.4 billion in private investment. The IFC's ramp up was accompanied by a parallel staffing increase, mostly in field offices. IFC's added value in the markets is demonstrated through innovative transactions such as the FY08 IFC investment of a US\$105 million IFC A Loan that will partly finance the privatization of the Magat Hydroelectric Power Plant in the Philippines. This transaction is the first and only privatization deal successfully concluded with significant foreign participation and the first merchant power plant to be financed internationally in East Asia.

Figure 2: WBG Infrastructure Financing by Institution, FY00 – 07 (US\$ Millions)

<i>Institution</i>	<i>FY00</i>	<i>FY01</i>	<i>FY02</i>	<i>FY03</i>	<i>FY04</i>	<i>FY05</i>	<i>FY06</i>	<i>FY07</i>
IBRD	3,924	4,189	2,502	3,148	3,595	4,359	5,275	5,942
IDA	1,152	1,935	2,563	2,161	2,832	2,559	2,712	3,839
Special Products*	140	284	171	130	171	534	152	436
IFC	565	699	645	809	1,384	1,054	1,857	1,805
MIGA**	589	535	863	645	301	349	483	509
WBG Total	6,370	7,642	6,744	6,893	8,283	8,855	10,480	12,531

* Special products include WB Carbon Offset, GEF, Guarantees, and Special Financing.

** MIGA figures represent actual gross contract amounts signed in each fiscal year in the Power, Telecom, Transportation, Sewage and Water, and Oil and Gas sectors.

4. Infrastructure has been an important component of MIGA's product portfolio and has continued to increase as a percentage of total MIGA guarantees, to 41 percent of its total portfolio.²⁴ During IAP, MIGA continued its expansion in infrastructure by supporting complex infrastructure transactions, south-south investments, projects in frontier markets and projects in conflict-affected environments, including a strategic focus on transactions in Africa and on renewable and clean energy transactions. Examples of innovative MIGA transactions include a FY06 guarantee to a carbon finance operation in El Salvador and a FY06 Dominican Republic toll road financing guarantee for a US\$162 million international bond issue, and a US\$427 million guarantee for Islamic-compliant project finance for a new container port terminal in Djibouti in FY08, the largest syndicated guarantee in MIGA's portfolio.

5. The WBG made good progress in *increasing the knowledge base for infrastructure*, the second component of IAP. Within the Bank, infrastructure analysis was mainstreamed into core economic analysis—Public Expenditure Reviews, PRSPs, CASs—as well as several flagship sectoral and regional reports: Country Water Resources Assistance strategies in Iran and Yemen; infrastructure strategies in Indonesia, Mongolia, Vietnam; urbanization analyses such as China, Philippines and Vietnam; the Mumbai Renewal Action Plan; Dhaka Urban Poverty Report; and major regional initiatives such as the MNA Regional Water Strategy and EAP Infrastructure Strategy. Institutional analysis and regulatory reform advisory work formed a core part of the

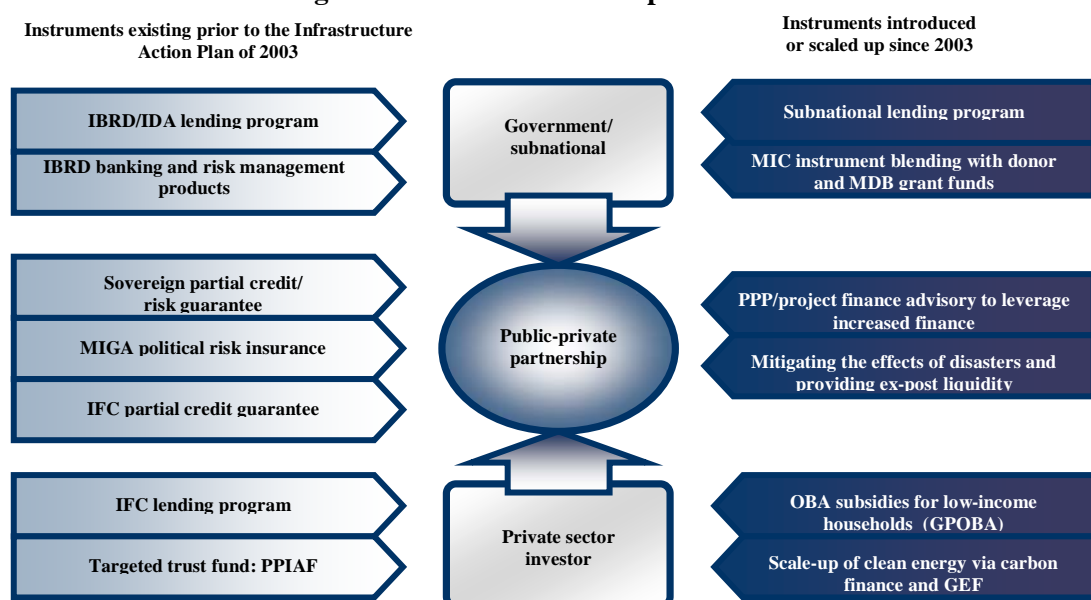
²⁴ As of December 31, 2007.

Bank's infrastructure strategy in MNA, as well as development of the urban pipeline in SAR and EAP. Substantial advisory and institution building support was also provided on a regional basis, such as the Nile Basin initiative and the Infrastructure Regulators Fora in Africa and East Asia. Within IFC, there has been strengthened focus on knowledge management for business development and client services, which has been achieved through a closer collaboration between the Advisory Services and Infrastructure Departments.

6. The World Bank's decentralization strategy, which was largely implemented during the period prior to the IAP, was an important contributing factor in the infrastructure ramp up during IAP. Another example is IFC's decentralization strategy, implemented during the IAP period, which supported the growth in IFC's technical assistance and advisory which in turn impacted the growth of IFC's infrastructure business. With 65 percent of staff now located in country offices, IFC Advisory was able to work closely with the clients and to coordinate better with staff from other organizations, including the World Bank's decentralized offices. Successes from IFC's advisory work include the best practice privatization of Jordan's Queen Alia Airport in Amman, a PPP to help restructure and award a 25-year concession signed in April 2007 to expand and rehabilitate the airport. In addition, IFC's advisory work directly benefited the preparation of IFC and other private sector investments.

7. The third objective of the IAP was to *strengthen the World Bank Group's instruments and approaches* by: (a) more widely deploying existing and creating new lines of business to meet emerging client demands (especially at the sub-national and regional levels); (b) expanding the use of risk mitigation instruments; and (c) promoting the joint use of WBG instruments.

Figure 3: World Bank Group Instruments



8. **Sub-national finance.** Across the developing world, decentralization of service delivery responsibility has proceeded in tandem with growing political decentralization. Local authorities now increasingly bear responsibility for planning, service delivery, oversight, and to a large degree, financing of key municipal infrastructure services. Both IBRD and IDA have supported

sub-national - local government infrastructure - financial assistance for urban development lending plus sectoral lending for urban infrastructure (Water Supply and Sanitation (WSS), solid waste management, urban transport) increased from US\$1.6 billion in FY03 to US\$2.7 billion in FY07. Recent projects focus on building capacities of local governments to deliver infrastructure services: Vietnam-local infrastructure development fund, Mexico Sector-Wide Programmatic Approach (SWAP) to provide performance-based assistance to local governments, Pakistan/PMSIP²⁵ and Development Policy Lending for performance-based funding to deepen local government reforms in major cities and towns. Similar programs are underway in other regions as well.

9. Among developing countries, particularly, MICs, there is a growing sentiment that local governments should strive to access financing without sovereign guarantees. In response, the IFC created the Municipal Fund in 2003 to support local governments and their entities to access private financing without sovereign guarantees in essential infrastructure service sectors such as roads, water and wastewater, and solid waste management, along with social infrastructure supporting health and education delivery, where both local needs and development impact are high. Transformed into the joint WB/IFC Sub-national Finance program in 2006, the unit's mandate was extended from local governments to include selective investment in nationally owned utility enterprises and infrastructure development finance institutions. As of FY07, the Sub-national Finance Program closed nine transactions for a total IFC exposure of US\$330 million equivalent, catalyzing more than US\$900 million for local infrastructure. For the Bank, support to sub-national governments is a key pillar of the Bank's urban assistance strategy. MIGA's program focused on facilitating the private sector investments into municipal infrastructure, principally for water and wastewater services as well as for solid waste management.

10. **Multi-country/regional programs.** A review of the Bank's experience with multi-country programs concluded that "they offer substantial potential to achieve results"²⁶ and found that the experience of the past ten years with such programs had been generally positive. Demand for regional projects increased during IAP and IDA countries received a boost from the Regional Pilot Program under IDA-14;²⁷ in South East Europe and the Greater Mekong region. The Bank's AFR Region established a Department of Regional Integration to support this growing line of business, which doubled during the IAP period and now constitutes 30 percent of the Region's infrastructure commitments (See Box 7). A US\$1 billion APL facility is being implemented to help develop the SEE Energy Community, an organized regional energy market currently covering operations in eight countries.

²⁵ Punjab Municipal Services Improvement Project.

²⁶ World Bank IEG 2007, The Development Potential of Regional Programs, Washington, DC.

²⁷ The Regional Pilot Program was initiated with the WB Board Paper: World Bank (IDA) 2003, Pilot Program for Regional Projects, Washington, DC IDA/SecM2003-0532/1, October 24, 2003. A mid-term evaluation of the Pilot Program that was carried out in November 2006.

Box 7: Modernizing Rail Networks in Africa

In 2006, IFC extended financing to support the revitalization of the Kenya-Uganda Rail-way concession under a private operator. IFC's US\$32 million loan to Rift Valley Railways supported an investment program for the more efficient operation and modernization of the rail network. The World Bank Group was involved in this project in several areas: IDA provided financial support for retrenchment and resettlement related to the project in Kenya, and partial risk guarantees on behalf of the Governments of Kenya and Uganda. IFC's Advisory Services group advised the Government of Kenya and managed the competitive bidding process in October 2005. Separately, IFC was selected by the winning bidder to lead the project financing.

The joint concession is also expected to benefit other land-locked neighboring countries through increased efficiency and lower transportation costs, setting the stage for future regional cooperation in the East African region. In Kenya, the transaction marked the first privatization where a concession structure was used.

11. **Risk mitigation instruments.** The WBG introduced or scaled up a range of financing instruments to support developing countries to mobilize private investment for infrastructure. One set of instruments is the IBRD banking products such as currency and interest rate swaps and commodity price hedges to reduce financing risks associated with adverse movements in exchange rates, interest rates, and commodity prices. The Mexico Decentralized Infrastructure Reform and Development Project used a currency swap to finance the loan in local currency for on-lending to the state of Guanajuato, eliminating the need for a foreign exchange trust. Experience in deploying these local currency products will be evaluated and a plan for expansion put in place during SIAP.

12. Risk mitigation instruments allow the transfer of a portion of risks that private lenders and investors are unable or unwilling to take, especially in countries lacking a track record of supporting private undertakings for infrastructure service delivery and where country credit risk is perceived to be too high to attract cost-effective financing. During the IAP period, six guarantee operations were concluded for a total exposure of US\$444 million, mobilizing total financing of US\$1.9 billion. The IFC also provided partial credit guarantees for infrastructure projects in both foreign and local currencies. MIGA's political risk insurance provided partial coverage of losses incurred by creditors and equity investors for specific political risk events, including events of transfer restrictions, war and civil disturbance, expropriation and breach of contract by the host government. It also managed multiple reinsurance syndications to increase the insurance capacity for related infrastructure projects, including those in certain post-conflict countries where private insurance capacity can be limited.

13. **Moving to a WBG approach.** While the WB, IFC, and MIGA worked individually to develop unique instruments during IAP, the three institutions learned increasingly to work together to leverage each other's unique skills and knowledge. The WBG worked together to: a) reduce risks using guarantees and new instruments in projects like Bujagali Hydropower, the West Africa Gas Pipeline, and the Kenya-Uganda Rail Concession; b) coordinate closely in complex areas such as enhancing client capacity through specific instruments like PPIAF, which creates the environment and institutions for PPPs; IFC's advisory services to structure model transactions; and working together on programs and projects like the Johannesburg Infrastructure Investment Program and Karachi Electric Supply Corporation; and c) catalyze private investment with sector reforms and targeted subsidies for the poor in cases like Tlalnepantla/Mexico, where the Bank's decentralization and structure adjustment operations helped create conditions for IFC bond issue; and through GPOBA, which gives OBA to provide subsidies to the poor.

14. Four models of cooperation were implemented between the WBG institutions during IAP. First, traditional WBG interaction at the country level continued through coordination with the CAS process and certain complex or innovative projects. Examples include Bujagali Hydropower, West Africa Gas Pipeline, Senegal Electricity Sector Efficiency Enhancement, Amman East Power Plant, Kenya Uganda Railway Concession, Uganda Power Distribution Privatization, and Southern Africa Regional Gas Project. Second, the Bank and IFC conducted joint pilots in certain emerging areas: Sub-National Facility; OBA through GPOBA; Extractive Industries through EITI; and disaster recovery through GFDRR. Third, three Global Product Groups were established to create a critical mass of skills in high demand throughout the World Bank Group: ICT, Oil & Gas, Sub-National Finance. Finally, in certain areas, each institution pursued development and implementation according to its own strategies: in technical assistance and advisory areas; and on financing and risk management instruments. These four options can be applied as new infrastructure initiatives that may benefit from increased WBG interaction.

15. Finally, results management at the project level has been strongly improving under IAP, especially, during the last two years. Pertinent staff skills have been strengthened, many guidance tools provided, internal advisory arrangements been put in place, the pool of good-practice examples expanded, and the conduct of rigorous impact evaluations exploded. Managerial attention to the issue has grown, progress is being monitored, and QAG assessments are now focusing more on results management. The Bank-wide progress on these dimensions has been tracked and reported,²⁸ and the infrastructure sectors are a key part of it.

16. This task-level progress in results measurement has not been uniform, however. Progress under IAP phase I has been strongest in IDA lending projects, with specific requirements monitored under IDA-14, supplemental documentation of results in the preparation for IDA-15 replenishment, and with particularly extensive efforts under the Africa Action Plan. During IAP, progress on project-level results management improved, and the infrastructure sectors formed a key input to Bank-wide progress reporting especially on projects financed through IDA-14: (a) more than 75 percent of all IDA credits approved in FY06 included satisfactory baselines for at least one output or outcome indicator in their first supervision report;²⁹ (b) completion reports in WSS and Transport are now reporting more systematically on project outputs;³⁰ and (c) roughly three quarters of credits approved in WSS and rural transport in FY06 reported on standard key outcome indicators.³¹

17. There has been substantial progress on results measurement at the country level during IAP. CASs, PRSPs and SSIUs include detailed results frameworks and an increasing amount of baseline or progress data. The availability of country-level data on infrastructure results has been significantly expanded for rural road and electricity access; supplemented by the trade logistics index; continuously updated for water and sanitation access; and further broadened in the ICT sector. The Bank-issued *World Development Indicators* remain arguably the leading source of country results across infrastructure sectors and regions. Sectoral and regional

²⁸ Progress report on IDA-14 Results Monitoring System; annual COMPAS report; SSIU.

²⁹ Moreover, of those IDA credits whose first Implementation Status and Results (ISR) lacked baselines, 83 percent did include baselines in their second ISR.

³⁰ This road has allowed establishing, for instance, that 54 IDA credits completed in FY04-06 have helped, *inter alia*, construct 6,250 km, rehabilitate more than 10,700 km, and maintain more than 46,000 km of roads.

³¹ Access to safe water source and to a rural all-season road.

websites provide further availability of country indicators. A publication with extensive ICT indicator data has been a special flagship effort. Still, the set of country indicators that are comparable across countries remains narrow. Less is known about the quality and affordability of infrastructure, its actual use, and its environmental and social impacts. In preparation for the next phase of monitoring, the data structure and stocktaking of indicator availability have recently been updated, and discussions launched about the prioritization of indicators.

ANNEX 2: CORE SECTOR STRATEGIES

1. While the multidimensional aspects of sustainability provide new assistance opportunities in the years ahead, in most of the developing world there is still an important unfinished core infrastructure agenda: strengthening sectoral policies and institutions to improve the efficiency, quality, and access to basic services, including conservation for cost recovery policies, tariff, maintenance and sustainability of the infrastructure investment. Each of the WBG institutions will continue to scale up its support to core infrastructure sectors: transport, water, energy, and ICT.

2. **Transport:** Transport was the largest WBG sector during IAP, with US\$15.2 billion in Bank lending. Following a comprehensive operational review³² the Bank's transport business strategy was updated in 2007. Going forward, the transport sector will increase diversification from roads to all transport modes, including rail, ports, airports, and design of multi-modal transport and logistics operations. Priorities for the sector are sustainability of transport infrastructure, environmental sustainability of all transport interventions, and improvement of both rural and urban access and mobility. Future WB transport lending is focused in six areas to help transport play a stronger role in development and to better meet emerging challenges: urban transportation, transport and trade linkages, road transport services, transport safety and security, social inclusion, and environmental management with particular attention to climate change. Regional integration and trade facilitation will be a strong priority business line for the sector.

3. The Bank will increase its engagement in urban transportation services, in response to the rapid growth of urban population, which disproportionately include the poor. Particular policy attention will be given to building capacity in urban transportation administration and regulation, enhancing the role and quality of affordable passenger and freight transport services through financing mechanisms, facilitating involvement of the private sector to deliver public services, managing the demand for private car travel, bringing in new technologies, and recognizing the importance and needs of pedestrians and non-motorized forms of transportation.

4. WBG will provide increasing support for public and private infrastructure investments to overcome transport bottlenecks to regional and international trade in goods and services. IFC's transport strategy will emphasize deeper collaboration with the Bank and closer integration with IFC Advisory Services. The Bank will help partner countries build institutional capacity so that they can develop transport logistics strategies to address nonphysical barriers as well as infrastructure deficiencies, improve the management of public infrastructure, and encourage successful private sector participation in competitive markets for transport and logistics services. At the same time, the IFC will continue to build on its successful experiences in advising countries on successful preparation of private transactions for large transport investments in ports and airports. MIGA will continue assisting countries in attracting foreign direct investments into key infrastructure assets and helping complex projects raise project finance on favorable terms.

5. **Water:** Assistance for water is guided by the Water Resource Management strategy and the WSS Business Plan whose focus is sustainable management of the water resource base and

³² World Bank 2007, A Decade of Action in Transport—An Evaluation of World Bank Assistance to the Transport Sector, 1995-2005, Independent Evaluation Group, Washington, DC.

efficient and equitable delivery of water services. The water related practices of the World Bank were integrated as part of the SDN integration in 2007, under the policy coordination of a single Water Sector Board. This provides a strong institutional platform to address emerging water challenges and opportunities.

6. The challenges for water management are huge: 500 million people, mainly in developing countries, already have to cope with severe water stress (Aquastat-FAO 2003). Projections indicate that impacts of global warming on hydrological systems and accelerating urbanization, the population under severe water stress might increase to 4 billion by 2050. With limited institutional capacity and low stocks of water related infrastructure, developing countries are particularly vulnerable to the effects of climate change, urbanization, land use changes, and shifts in global trading patterns, particularly for agricultural products.

7. These challenges call for a comprehensive water assistance program to: (a) internalize the value of environmental services of water ecosystems into infrastructure projects; (b) scale up water management and development of infrastructure for enhanced water and energy security; (c) support water stressed regions (particularly Africa) with large population vulnerable to floods and droughts as well as with potential for irrigation and hydropower development; (d) address growing water quality degradation related to pollution of surface and groundwater sources; (e) integrate improved technologies in Bank operations; (f) partner with international, research and academic institutions; and (g) expand and share knowledge on these critical issues.

8. Enhancing access to and the quality of water and sanitation services will remain a central focus of Bank assistance, particularly in Africa and South Asia. The Bank will continue to step up efforts to support the achievement of the MDGs in WSS by supporting decentralized community-managed approaches (rural); building autonomous water boards for local operators (towns); and by improving operator performance (urban). Investment in utilities continues to be a key area for IFC expansion and MIGA expects continued growth in its business in water and other wastewater sectors.

9. Irrigated area worldwide is about 260 million hectares.³³ Irrigation development has relied heavily on increasing, and often unsustainable, use of groundwater. In Sub Saharan Africa, rain-fed agriculture represents more than 95 percent of cropland. Bank assistance will be scaled up to support sustainable use of water in irrigated systems and by integrating adaptation to climate change in agriculture water management for efficient decentralization in large irrigation systems, sustainable use of groundwater, effective management of run-off and soil humidity, efficient allocation of water in peri-urban areas, including reuse.

10. The WBG will actively pursue effective PPPs in this area, particularly with an emerging set of potential sponsors including central governments, municipals, consortia led by financial institutions, local construction companies and industrial operators from developing countries. IFC has an unprecedented opportunity to take a leadership position in enabling private investment into the global water sector, and in bringing the demand and supply sides of the sector together to more actively address the issues of access, scarcity, and quality in the sector.

³³ FAO, Production Yearbook, 2004.

11. The WBG will continue to partner with bilateral and multilateral donors to support the poorest countries to reach the water supply and sanitation MDG targets. The Bank will also scale up partnerships to on a broader range of water related concerns including water resources, agriculture water management, hydropower development, trans-boundary water management and climate change.

12. **Energy:** Emerging trends in energy security, climate change and the energy access gap call for a renewal of the WBG core energy sector strategy: improving access and affordability of modern energy services; improving macro-economic and fiscal balances; promoting good governance and private sector development; and protecting the environment. While these elements remain as priorities, in 2006 the World Bank Group began implementing a CEIF, endorsed by the Development Committee during the 2007 Spring Meetings.³⁴

13. The Framework recognizes that all countries are vulnerable to climate change and instability in weather patterns, but the poorest countries and the poorest people within them are most vulnerable, most exposed and with the least means to adapt. The framework provides for a strong overall WBG energy program: supports the Africa energy scale up action plan; supports the transition to a low carbon economy, especially, in the G+5 countries; and supports countries adaptation to climate variability and change. Energy, therefore, is an essential component of the proposed comprehensive WBG Climate Change strategy in 2008, and scaling up hydropower is an example of an investment that supports all three objectives.

14. In the case of household electricity access in Sub Saharan Africa, the goal is to supply electricity to 35 percent in 2015 and 47 percent by 2030 (compared with 25 percent in 2007). A key element of the program design will be the implementation of a sector-wide programmatic approach in countries that have a favorable policy framework. WBG is scaling up support for energy access programs in other regions by leveraging both international and domestic private sector capabilities through PPPs (Cambodia, India, Mexico, and Vietnam).

15. In many countries energy security has become a central concern of client governments and an entry point for Bank assistance. The WBG is supporting clients to address supply shortfalls, diversify supply, cope with high energy prices, and improve the efficiency and financial performance of power utilities.

16. In the power sector, IFC is responding to the climate change challenges by ramping up investment in renewable energy projects, including hydropower and wind-power, and in energy efficiency. IFC will continue to invest in fossil-fuel generated power when appropriate, and encourage the use of higher efficiency plants to minimize their carbon footprint. It is also investing in electricity transmission and distribution companies in order to increase access for end-users and improve energy efficiency. As in other infrastructure sectors, IFC seeks to increase investment in IDA countries in coordination with the World Bank through decentralization and early stage project development through the Infra-Ventures initiative. A high priority is being provided to finance power projects in Africa and Central Asia. In some countries such as the Philippines and Pakistan, a programmatic approach is being pursued, in order to meet the electricity sector's large

³⁴ Clean Energy for Development Investment Framework: The World Bank Group Action Plan, WB Board Paper SecM2007-0098; IDA/SecM2007-0127; IFC/SecM2007-0012; MIGA/SecM2007-0009, March 6, 2007.

investment needs. IFC is increasing its investments in the natural gas sector across the value chain, in order to stimulate competition, increase energy diversification, reduce environmental impacts by displacing more polluting fuels, and promote lower end-user prices.

17. IFC's Oil, Gas, and Mining strategy will support the economic development, transport and processing of developing country oil, gas and coal resources in a sustainable manner to help promote sustainable development and facilitate energy access. Key areas of focus will be Africa, MNA, and LAC. IFC will continue with its current gas focus to ensure that 50 percent of oil and gas projects are for gas. IFC will also work with the Global Gas Flaring Reduction Partnership (GGFR) to support private investment to reduce gas flaring and consider potential for efficient oil and gas production, as well as oil and gas-field related sequestration.

18. In the area of Climate Change, COC will balance between sustainable development and the use of oil, gas, and other natural resources and global climate change considerations. In Mining, IFC will encourage energy efficient processes and provide support for coal bed and mine mouth methane as alternatives to more GHG intensive fuels. IFC will also offer selective support for clean coal mining, washing, and transport for greater efficiency and less GHG emissions.

19. ***Information and Communications Technology (ICT):*** New industry trends are redefining the WBG's ICT agenda. While access to services remains a central focus, the convergence of business models, regulatory approaches, and the mainstreaming of ICT across economic sectors are increasingly important elements of the work in this sector. As a result of globalization, ICT development is a basic condition for the competitiveness of firms, cities, nations, and regions. ICT offers the potential to decrease the impact of distance and time and allows developing countries to integrate into global production chains. Furthermore, the diffusion of ICT is expected to have a direct impact on poverty alleviation through growth generation and better integration of the underserved populations into the economy.

20. These emerging trends will affect WBG support for ICT development, built on three pillars: access to information infrastructure, mainstreaming (delivery of public and private services), and innovation (ICT-enabled services and entrepreneurship). While the sector competition agenda remains critically important and will continue to have the top priority in the emerging work program, new areas of intervention will include: (a) closing the urban-rural divide; (b) expanding backbone access; (c) addressing next generation regulatory issues; (d) developing the local IT industry; and (e) enhancing public service delivery through technical and financial assistance. WBG will continue to expand its traditional (telecom) advisory and financing business to the wider ICT agenda, incorporating e-government and IT development, municipal networks, IT-parks, backbone networks, and open access policies.

21. In the context of these emerging priorities, traditional instruments will still be relevant. In particular, technical assistance (through loans and grants) will still be key instrument of the Bank engagement in the client countries. However, three instruments may have a more important role in the coming years:

- Adaptable Program Lending. On the success of Regional Connectivity Infrastructure Project/East Africa Submarine Cable System Project, this instrument may be

considered and used to tackle regional issues, especially in the area of regional access to broadband connectivity (infrastructure, Internet access points).

- Integrated projects with the three emerging pillars (infrastructure, e-government, IT industry). Following the success of the three existing projects (in Ghana, Tunisia, and Vietnam), other projects will be developed.
- Higher reliance on Reimbursable Technical Assistance. In MNA this is expected to increase, and expand to other regions, in particular LAC, ECA and EAP.

22. IFC is continuing to grow its portfolio with a particular focus on frontier markets where the need is the greatest. Access to basic telephone services will remain the focus for frontier/IDA countries where mobile penetration lags behind the world average. The IFC will also focus on new technological and business solutions such as Highspeed Wireless Technology, Voice over Internet Protocol, and the village phone concept, to help make access to basic telecommunication services more affordable. The IFC's focus for MICs will primarily focus on broadband connectivity where access and affordability is still a major constraint.

23. The following are examples of recent projects of the three pillars under GICT to help countries achieve their goals in the ICT sector where close collaboration among IFC, World Bank, and infoDev (trust fund) yields noticeable development impacts:

- Access—RCIP/EASSy—A joint IFC/World Bank project providing Eastern Africa with connectivity to the global fiber optic network. EASSy, which is supported by IFC funding, will connect 8 coastal countries in Eastern Africa to the global fiber optic network. RCIP, supported by World Bank funding, aims to help develop a terrestrial backhaul network in neighboring land-locked countries.
- Mainstreaming—Wizzit—IFC has made a US\$2.5 million equity investment in a provider of banking services through a GSM network in South Africa. It provides low-cost accessible services in rural areas to clients who did not have access to traditional banking services, saving approximately 30 to 70 percent of the transaction costs associated with traditional banks. Wizzit aims to leverage IFC's global network to replicate the model in other countries.
- Innovation—InfoDev Incubator Initiative—As part of GICT's InfoDev program, the Incubator Initiative which has received close to US\$20 million in funding from donors has developed a global network of incubators reaching 130 countries. These incubators provide entrepreneurs access to adequate office facilities and services critical to the nurturing the development of grassroots innovation. To date, this Initiative has directly funded over 70 incubators, which helped development of close to 2,000 Small and Medium size Enterprises.

ANNEX 3: METHODOLOGY TO MEASURE PROJECT LEVERAGE OF WBG INFRASTRUCTURE FINANCING

1. This annex describes the methodology used for calculating the project leverage of World Bank Group financing in infrastructure. This methodology will be consistently used to monitor leverage levels during implementation of the SIAP. The note does not address broader forms of leverage, such as the impact of policy advice, capacity building, or demonstration projects on private investment or aid levels.

2. *Scope of Infrastructure*

- Infrastructure includes Transport, Energy & Related Extractive Industries, Information & Communication Technology, as well as Water including Irrigation & Drainage sectors.³⁵ Energy-related Extractive Industries include oil, gas, and coal/lignite.³⁶ The Water sector includes also the treatment of solid waste and other sanitation, in line with the Bank's standard sector classification.
- Projects addressing the Urban Development and Natural Disaster Management themes will be included only to the extent of their coding in infrastructure sectors.
- For each project, the percentage coded in infrastructure sectors will be applied, both to the total project costs and the WBG financing. For IFC and MIGA as well as Carbon Finance Projects, this is always 100 percent since their coding systems do not split a project into several sectors.

3. *WBG Financing*

- The reporting will cover WBG financing for recipient execution. This also includes lending or grants for recipient-executed TA, but does not include WBG-executed technical assistance (unless it is included in the project document as part of the project costs). The Bank includes its product lines IFC Private Equity, Guarantees (GU), Global Environment Facility (GEF) Financing (GE/GM), Carbon Finance, Montreal Protocol, Rainforest, Special Financing (SF), and Recipient-Executed Grants. The IFC includes A-loans, quasi-loans, quasi-equity, equity, guarantees and risk management.³⁷ MIGA includes its guarantees.

³⁵ The inclusion of Irrigation & Drainage varies from the Bank's standard reporting by major sector, where this sector is reported under Agriculture. The inclusion of Energy-Related Extractive Industries varies from common reporting on infrastructure at IFC and MIGA.

³⁶ Since the Bank has only one code for all extractive industries together, the Bank data includes also a small amount of non-coal mining. This imprecision is minor since most of the Bank lending to this sector is either for coal exclusively or technical assistance lending for the mining sector including coal.

³⁷ IFC C loans can be booked as either quasi loans or quasi equity depending on the terms of agreement.

- Geographical breakdowns of the data will show six Regions.³⁸
- For Bank financing, amounts approved by the WB Board will be shown, whereas for IFC and MIGA financing, the amounts legally effective will be used. This is consistent with each entity's reporting practice. The resulting WBG amounts will be labeled "Commitments," which is in line with Bank and IFC terminology but not with standard MIGA terminology.³⁹ Supplemental WBG financing to earlier WBG projects will be counted in the period in which it is reported by the respective WBG entity.
- For project costs other than the WBG financing, the indications in WBG systems or project documents at the appraisal stage will be used. These sources often do not indicate, though, whether co-financiers have already approved the amounts, or whether they have already become legally effective.
- All amounts will be reported in US\$. Amounts that are indicated only in other currency are converted at the exchange rate at the time the WBG financing of the project gets counted (see above). As a proxy, the US\$ equivalent amounts or exchange rate stated in project approval documents can be used.

4. *Project Leverage*

- "Project Leverage" will be defined as project cost divided by WBG financing.
- Project cost include the WBG financing, the borrower's contribution, and co-financing by third parties that is part of the project's legal umbrella. In the case of IFC financing, the project costs include: (a) IFC financing; (b) B-Loan Syndications that are part of the project and funded by other financing sources; and (c) other non-IFC financing of the project (local financing, other donors, internal cash generation etc.).
- Parallel financing is not included because its relationship with the WBG project is hard to determine and the available data is incomplete.
- In the case of WBG guarantees, the amount of the guarantee will be shown as WBG financing, and the WBG-guaranteed amount of financing by other sources under Non-WBG financing. However, the guarantee amount will be netted out to generate total project cost. Care will be taken also to avoid double-counting of the WBG financing,

³⁸ Sub-Saharan Africa (SSA), East Asia & Pacific (EAP), Eastern & Central Europe (ECA), Latin America & Caribbean (LAC), Middle East & North Africa (MNA), and South Asia (SAR). This differs from the customary reporting of IFC and MIGA on seven and five Regions, respectively. Djibouti is reported under MNA, and Pakistan and Afghanistan under South Asia.

³⁹ At MIGA, the term "commitment" normally denotes "reserving" capacity; in the case that effectiveness is awaiting a client's meeting certain conditions. This occurs infrequently, however; most MIGA guarantees go from approval to contract without becoming a commitment. Note also that data on co-financing at the project pipeline stage, or in terms of actual disbursements, is not consistently available.

as well as double-counting of the related non-WBG financing, in the case of projects that receive funding from two or three WBG institutions.

- Trust funding that co-finances a project and is not WBG-administered will be counted as part of project cost. Trust funding that is WBG administered and recipient executed under appropriate product lines (see below) will be counted as WBG financing. Trust funding that is WBG administered and WBG executed will be counted only if it is included in the project document as part of the project costs.



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