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Infrastructure, Poverty, and the Role of the MDBs

I. Introductory Remarks

It is an honor to be invited to share my views on the role that infrastructure can play to reduce poverty and improve development outcomes in MDB-financed operations. I would like to thank you, Mr. Chairman, and Members of the Committee, for the leadership you and your staff have demonstrated in advancing dialogue on the important role of multilateral development banks (MDBs) in international development and the challenges that these global institutions face in fulfilling their missions to alleviate poverty.

I am testifying today on behalf of a number of US-based non-governmental organizations: Bank Information Center, Environmental Defense, and International Rivers Network. I am the Executive Director of the Bank Information Center (BIC). BIC partners with civil society in developing and transition countries to influence the World Bank and other international financial institutions (IFIs) to promote social and economic justice and ecological sustainability. BIC is an independent, non-profit, non-governmental organization that advocates for the protection of rights, participation, transparency, and public accountability in the governance and operations of the World Bank, regional development banks, and IMF.

II. Context

Improving access to basic infrastructure services is essential to reducing poverty. Basic infrastructure is critical to reducing poverty and achieving the Millennium Development Goals. Over 2.7 billion people live on less than $2 a day. 1.6 billion lack access to electricity and 1.1 billion lack access to clean water. Box 1 provides some indicators on access to basic infrastructure services. The issue before us is not if infrastructure is important but **what** type of infrastructure is critical; for **whom** is the infrastructure intended; and **how** should decisions on infrastructure priorities and projects be reached?

A concise definition for infrastructure is all the facilities used to deliver energy and minerals, water and sanitation, telecommunication and transport services. However, this simple definition masks a wide array of investments that have varying impacts on improving household incomes and reducing poverty. To help understand this diversity, infrastructure investments can be unbundled along a number of different criteria. Some investments focus on promoting economic **growth** while others target enhanced **access** by the poor. Infrastructure can be a single **large** project or hundreds of **small** projects; project design and implementation can be **centralized** or **decentralized**. Infrastructure can be **high risk** or **low risk** in nature. Infrastructure can provide products or services for **domestic use** or for **exports** through an enclave arrangement. Also important, infrastructure services refer to more than just bricks-and-

mortar investments. Infrastructure services can also be provided through policy and institutional reforms such as creating an enabling environment to transfer irrigation management from the state to village-level water user organizations or instituting demand-side management regulations for energy consumption.

An important distinction needs to be drawn between capital-intensive, commodity export projects that require large transport systems to evacuate their product (such as oil and gas pipelines), and infrastructure projects that are built to provide basic services to a variety of users. While both are labeled "infrastructure," the central difference is that in the case of the former, the primary "development" benefits to the host country are almost entirely in the form of revenues to the government, while in the latter, the benefits may come in a variety of forms, including improved public access to transportation systems, electrification, water and sanitation services, increased industrial capacity for a variety of domestic sectors, as well as revenues to the state. The need for and potential benefits of the latter are evident in developing countries (see Table 1). The case for the former, however, is much more debatable, as the impact of increased revenue generation on growth and poverty reduction depends upon the will and capacity of a government to use revenues effectively for the benefit of its people.

Table 1: Basic Infrastructure Indicators

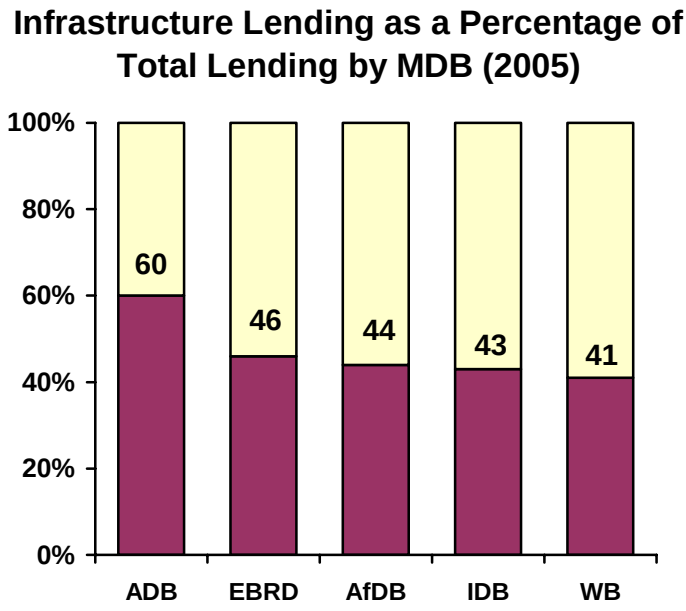
Region	**AFR**	**EAP**	**ECA**	**LCR**	**MNA**	**SAR**
Population (million)	674	1,823	474	518	300	1,378
% living on less than $1 a day	46%	15%	4%	10%	2%	31%
% urban population	36%	43%	65%	77%	59%	28%
Major Access Indicators						
Electricity (% of population with access to network)	24%	88%	99%	89%	92%	43%
Water (% of population with access to improved sources)	58%	78%	91%	89%	88%	84%
Sanitation (% of population with access to improved sanitation)	36%	49%	82%	74%	75%	35%
Roads (% of rural pop. Living within 2 kms of an all-season road)	34%	95%	77%	54%	51%	65%

Sources: World Bank (2006), WDI (2001, 2002, 2003); International Energy Agency (2002, 2004)

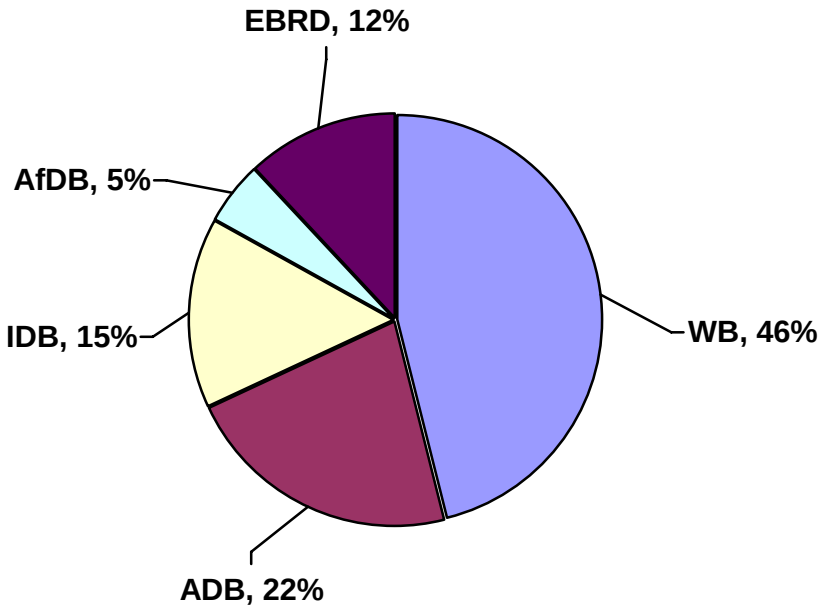
Infrastructure is by far the largest sector financed by the MDBs. Infrastructure lending in 2005 amounted to US$20.2 billion representing about XX% of overall MDB assistance. (see Table 2) The ADB in particular invests heavily in infrastructure at close to 60% of overall lending. The World Bank still accounts for 43% of overall MDB infrastructure commitments with the ADB and IDB at about 20% each. Infrastructure also spans multiple sector units at the MDBs. Transportation accounts for a third of World Bank infrastructure commitments with the rest roughly split between water and sanitation, urban development, and energy. (see graphs below)

Table 2: MDB Infrastructure Lending (2005)			
Development Bank	**Infrastructure Lending**	**Total Lending**	**% of Total**
AfDB	$1.1 billion	$2.5 billion	44%
ADB	$4.4 billion	$7.4 billion	60%
IDB	$3.1 billion	$7.2 billion	43%
EBRD	€2.0 billion ($2.4 billion USD)	€4.3 billion ($5.2 billion USD)	46%
WB	$9.2 billion	$22.3 billion	41%

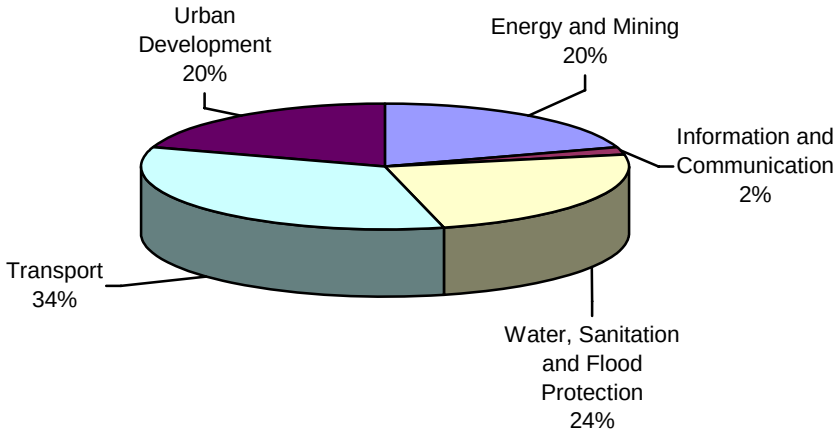
Source: 2005 Annual Reports of World Bank, ADB, IDB, EBRD and AfDB.
AfDB: Agriculture and Rural Development (20%), Communications, Power Supply, Water Supply and Sanitation, Transport, Industry, Mining and quarrying, Urban Development
ADB: Transportation and Telecommunications, Energy, Water Supply, Sanitation, and Waste Management
EBRD: Infrastructure (municipal infrastructure, transport), Energy, Manufacturing (20%), Agribusiness (20%) and Telecommunications
IDB: Energy, Transportation and Communication, Industry, Mining and Tourism, Multisector Credit and Preinvestment, Productive Infrastructure, Water and Sanitation, Urban Development and Social Investment (25%)
World Bank: Water, Sanitation and Flood Protection, Energy and Mining, Information and Communication, Urban Development, Transportation



Breakdown of Infrastructure Lending by MDB
Total = $20.2 billion (2005)



World Bank Infrastructure Lending by Sector
Total=$9.1 billion (2005)



But there is a compelling decades-long record of the failures of many large, high-risk infrastructure projects to produce positive development outcomes. Controversy has historically centered on large, high-risk, export-oriented infrastructure developments, particularly in the energy sector (e.g. Chad-Cameroon, Camisea). These projects are premised on promoting growth through revenue generation for the central government and rely on the 'trickle-down theory' for poverty reduction. Their success depends upon the existence of transparent and accountable public revenue management systems to translate increased fiscal revenues into pro-poor investments. Often, they are enclave infrastructure projects that generate few permanent jobs and create only minimal spillover economic benefits for local business. Sadly, these types of infrastructure projects have rarely succeeded in reducing poverty or contributing positively to sustainable development. (details in next section)

Evidence of these past failures are common. In a refreshingly candid report on lessons learned from past infrastructure lending, the World Bank recently remarked:

> "Infrastructure is complex, controversial, and often risky. There is potential for white elephants, environmental damage, loss of livelihood, and corruption. We know that because we've seen it, and we've been on the wrong side of the equation at times, making some mistakes along the way."[1]

The World Bank organized a major development conference in Tokyo focused on infrastructure in May 2006. A key paper for the conference by Antonio Estache, Senior Economic Adviser of the World Bank Infrastructure Network, states:

> "The most dramatic lesson the international infrastructure community may have learned is humility. This is because we have collectively found the limits of our knowledge on a wide variety of issues relevant to policymaking in infrastructure…There is, for instance, still a lot of uncertainty on how, and how much, infrastructure impacts growth…Without more and better data on these dimensions of infrastructure service delivery, there will be no accountability in the sector. So far, when accountability has failed, the poorest users and the taxpayers have tended to bear the bulk of the costs of poor service and of corruption."[2]

The World Bank's acknowledgement of the complexity and risk of infrastructure projects reinforces the findings of two major multi-stakeholder reviews: the World Commission on Dams (WCD) and the Extractive Industries Review (EIR). The WCD (2000) and the EIR (2003) provide a rigorous frameworks and recommendations on how dams and extractive industries should be developed and the appropriate role for the World Bank in these sectors. The strategic priorities, principles, and guidelines contained in these reports are also relevant for infrastructure more generally. In turn, these reports have benefited from the active and in-depth monitoring of infrastructure projects undertaken by civil society and academics over the past three decades.

However, the World Bank has rejected several key findings and recommendations on dams and extractive industries emerging from these reviews. Despite commissioning these multi-stakeholder reviews, the World Bank has refused to accept many of the most important recommendations of the reports and has instead proposed watered-down reforms, cherry-picking only those recommendations that it endorses. That said, one of the important recommendations it has accepted is on improving revenue and contract transparency -- which are essential if export-oriented infrastructure projects are to succeed.

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[1] 'Shaping up Infrastructure: Building on Strengths, Learning from Mistakes', World Bank, 2006.
[2] Estache, Antonio, "Infrastructure: A survey of recent and upcoming issues", World Bank, 2006

Politics, not poverty, drives the current push for large, high-risk infrastructure at the MDBs. The problems posed by large, high-risk infrastructure, centralized approaches to infrastructure delivery, and the excessive faith in the private sector to provide basic, affordable infrastructure to the poor have been well documented. Yet the pressure to ramp up such infrastructure lending continues unabated. This suggests that lessons learned from past mistakes have not yet been internalized and translated into concrete improvements in what sectors are prioritized, what projects are selected, and in the design and implementation of individual projects. Understanding the politics behind the drive for large, high-risk infrastructure – at the expense of others forms of 'smart infrastructure' (defined below) – may help explain this disconnect.

Several powerful interests stand to gain under the current scenario. The Ministry of Finance and Ministry of Industry/Energy in large borrowing countries often request financial support for large-scale, controversial infrastructure – as these projects tend to serve broader political objectives. The Boards of Directors and senior management of MDBs are keen to lend money – preferably in large tranches. Many bureaucrats and politicians gain handsomely through widespread corruption associated with large infrastructure. Multinational and domestic firms also benefit from sizeable and lucrative supply and construction contracts associated with capital-intensive infrastructure projects. Finally, MDB macroeconomists stubbornly adhere to the belief that big projects promote growth and this type of growth is most effective in reducing poverty. It is in this political context that the challenges of promoting a pro-poor infrastructure agenda must be understood.

Ultimately, the fundamental problem is one of political will. How do we generate the will to strike the right balance between different types of and approaches to infrastructure; to implement lessons learned from earlier infrastructure mistakes; and to act upon recommendations articulated in previous Senate Foreign Relations Committee hearings on the MDBs? Recognizing that certain types of infrastructure projects are more successful in reducing poverty than others is critical to determining what priorities MDBs should embrace in their infrastructure lending. The testimony below distils some of the most significant problems associated with large, high risk infrastructure. It then calls for a radical shift towards pro-poor, smart infrastructure and provides specific policy and project recommendations for MDBs to adopt.

III. Why do large, high-risk infrastructure projects fail so often?

Large, high-risk infrastructure projects rarely improve the livelihoods of affected communities or the poor more generally in a sustained and equitable way. There are no doubt exceptions but several independent project and sector-level evaluations of controversial infrastructure projects confirm this finding. The genesis of the World Commission on Dams and Extractives Industry Review was in part an explicit recognition of the inability of high-risk infrastructure (often energy-export projects) to deliver positive development outcomes. A summary of the development impacts and risks of major infrastructure projects recently financed by MDBs is provided in Annex 1. This list is telling in that high-risk infrastructure constructed without adequate due diligence and safeguards continues to be promoted by MDBs despite lessons learned from past projects.

Five special, significant risks emerge from this list that help explain why these projects often fail:

1. ***Flawed project selection:*** The story of large infrastructure is often a story of power. Large infrastructure often fails to benefit the poor because the wrong projects were initially selected

and financed. Decision-making processes in most countries for identifying infrastructure lack transparency and accountability. Powerful, vested interests determine which projects are financed and how they are designed (with little regard to their impact on poverty). Purported beneficiaries and the general public rarely have seats at the table. A fair, informed and transparent decision-making process, based on the acknowledgement and protection of existing rights and entitlements, would give all stakeholders the opportunity to fully and actively participate in the decision. Few, if any, of the projects listed below could meet this criterion set out by the World Commission on Dams.

MDBs argue that controversial high risk infrastructure projects are often promoted by their clients. Should MDBs interfere in domestic decision-making processes? What about country ownership, they ask? The problem with this response is that the client is often narrowly interpreted as the Ministry of Finance (MoF) or Ministry of Industry (MoI); 'country' ownership rarely includes other Ministries or Line Departments, affected communities, elected officials, or the public at large. MDBs should ensure that meaningful participatory processes have been followed in identifying priority infrastructure before agreeing to consider such requests for development assistance.

2. ***Inadequate governance***: The necessary governance conditions are often not in place to enable large, high-risk infrastructure projects to contribute to growth and poverty reduction. For example, government must have the regulatory capacity to monitor and mitigate a project's environmental and social impacts, as well as the administrative capacity and political will to manage revenues in the interest of the poor. Without minimum conditions, such as the rule of law, fiscal transparency, a functioning independent judiciary, and free press, citizens lack the means to hold their governments accountable to poverty reduction goals and social and environmental standards, or to seek redress for grievances when rights are violated in the context of large, high-risk infrastructure projects. The quality of governance is an even more significant factor for export-oriented projects whose expected development benefits stem principally from their contribution to government revenue, rather than employment generation or enhanced local access to services. The World Bank's own Operations Evaluation Department (OED) has identified governance as a crucial factor to determining the success of these types of large projects in reducing poverty: ***"…good governance is the prerequisite for enhancing the positive linkage between increased fiscal revenue flows and sustainable development."***[3] Although it is unrealistic to wait for perfect governance conditions before investing in large infrastructure projects, some minimum governance conditions and basic capacity must be in place, to help ensure that infrastructure investments benefit the poor, and that the local population is not left to bear environmental and social costs.

3. ***Susceptibility to corruption***: Certain characteristics of large infrastructure – natural monopolies capable of generating large rents, big construction and management contracts, etc. – make it particularly prone to corruption. According to the World Bank, about half of its anti-corruption investigations that led to corrective actions are infrastructure projects. Corruption has manifested itself in several MDB-financed projects listed below including perhaps most dramatically in the Samut Prakarn Wastewater Management project. Corruption undermines development effectiveness. It can result in the approval of unnecessary or sub-optimal projects; overly complex project designs; excessive project costs; and reduced user revenues. Recent attention on combating corruption at the MDBs is

[3] Operations Evaluation Department, "Extractive Industries and Sustainable Development – An Evaluation of World Bank Group Experience," Washington, D.C. 2003, p. 7

welcome but the inherent susceptibility of large infrastructure to corruption can not be easily overcome. Thus, there is an apparent contradiction between anti-corruption efforts at the MDBs and their simultaneous commitments to ramping up investment in large infrastructure.

4. ***Disproportionate impacts on local communities and the environment:*** A key risk confronting most large-scale infrastructure is the inequitable distribution of benefits and costs. Social and environmental costs such as physical or economic displacement, conversion of natural habitats, water and soil contamination, etc., almost always fall upon affected communities located in or near the project area. These communities are often the most vulnerable and least able to withstand these costs. Such impacts often spark social opposition to the infrastructure project, which can at times stop or delay the project threatening the wider benefits that the project claims to provide. In the case of large, export-oriented infrastructure whose development impact depends on the use of the revenues they generate for the state, local communities often feel they don't receive their fair share of the benefits, to the extent they receive concrete benefits at all. Free, prior, and informed consent should be adopted as a guiding principle, especially for indigenous groups, to help ensure that at a minimum, the poor who live in the project area benefit from such major investments.

5. ***Shoddy economic and financial analysis:*** Many large infrastructure projects fail to deliver the benefits originally claimed because of faulty economic and financial analysis. Cost-benefit analyses tend to overestimate revenues and underestimate costs (e.g. Yacyreta project). Risks are rarely identified and appropriately taken into account when calculating rates of return. Concession agreements and project contracts tend to favor large multinational companies with key risks usually assumed by host governments. Economic analyses of large infrastructure projects should be disclosed and subjected to public scrutiny as part of the deliberative public decision-making process. This will help ensure that the most viable infrastructure projects are approved.

High-risk infrastructure receives a disproportionate share of management and staff time that is often not commensurate with the projected rewards. In addition to the above risks, the opportunity cost of the financial and staff resources devoted to approving and supervising controversial infrastructure can not be overestimated. Not only is concessional financing displaced from more viable projects but also staff time that could be more effectively deployed to support pro-poor infrastructure. One can only imagine what innovative, smart infrastructure (defined below) projects could have been implemented in Chad or Lao PDR if resources deployed in preparing the Chad-Cameroon pipeline or Nam Theun 2 dam were channeled into simpler projects with more direct and immediate impacts on poverty.

IV. What is needed? A Radical Shift towards Pro-poor, 'Smart Infrastructure'

In order to improve their contribution to development, MDBs must embrace pro-poor, decentralized infrastructure much more vigorously. A significant shift in the portfolio is required from high-risk, capital intensive (often enclave) infrastructure to pro-poor, 'smart infrastructure'. I define 'smart infrastructure' as pro-poor, decentralized, and typically small in scale. Compared to high-risk, export-oriented projects, it provides more direct and immediate pathways to reducing poverty. "Smart infrastructure" is also more likely to be equitable and sustainable. Characteristics of smart infrastructure include:

- more direct and tangible benefits to poor households and communities
- decentralized approaches for project design, implementation, operation, and maintenance
- prominent role of users in all stages of the project cycle and the role of local governments
- more amenable to greater transparency and accountability
- smaller in size and scale, compared to large national or regional projects
- ability to generate local employment and technical capacity/know-how

less susceptible to large-scale corruption but close scrutiny still required given widespread petty corruption often associated with small civil works

Smart infrastructure also includes investments in promoting efficiency gains from existing infrastructure as opposed to building new infrastructure. The World Bank recognizes that the challenge is striking the right balance in these different types of infrastructure investments. Unfortunately, the current political context and power dynamics prevent a more optimal mix of investments from being supported by MDBs.

Good examples of pro-poor, smart infrastructure financed by MDBs already exist. Examples of smart infrastructure include integrated watershed development; rural and urban water and sanitation; rural access roads; run-of-the river hydroelectric projects; renewable energy; off-grid electrification; traditional water harvesting and irrigations systems; community-level common property infrastructure; etc. MDBs are already supporting these types of projects but need to significantly ramp up their investments in these areas. Good examples of smart infrastructure projects financed by MDBs are provided below. (see Box)

The radical shift to smart infrastructure is not too suggest that large infrastructure is unnecessary to reducing poverty. Certain types of large, trunk infrastructure remain important and the MDBs should invest in this area *subject* to recommendations presented in the following section.

Examples of Smart Infrastructure Projects financed by MDBs

India: Uttar Pradesh Rural Water Supply and Sanitation Projects
The project empowers village communities to make design choice and procure materials, services, and civil works. They are supported by NGOs that assist with community mobilization and private firms that provide technical design, inspection, and monitoring services. Investments in water supply and sanitation are complemented by programs promoting health awareness, women's development, and non-formal education. The project has achieved full cost recovery for operation and maintenance, and partial cost recovery for capital costs – major improvements over past practice in the Indian water sector. Recent evaluations of sustainability have shown that 92 percent of the water supply schemes and 100 percent of the latrines financed by the project are fully functional and in use by the beneficiaries.

Brazil: Rural Poverty Reduction Program
Community-driven approaches to development offer enormous potential for reducing poverty and improving lives, as shown by the Rural Poverty Reduction Program in northeast Brazil. The program has done a remarkable job of delivering basic infrastructure and services, supporting 55,000 small-scale investments—including 10,000 investments in water supply and 8,000 in electrification—in a region that contains Latin America's largest concentration of poor rural people. Just as important have been the program's effects on empowering communities, building social capital, improving governance, and reducing corruption. The program works directly with poor rural communities while leveraging the involvement of an increasingly broad range of public and private partners—including municipal governments, no-governmental organizations (NGOs), public and private service providers, and churches, to expand coverage, exploit special skills, and build constituencies. The core institutional mechanism is the community associations; they define, execute, operate, and maintain the investments from which they benefit, acting through decentralized, participatory municipal councils in which 80 percent of voting power for approval of proposed investments rests with community representatives.

Mexico: Large-Scale Renewable Energy Development Project
The project aims to assist Mexico in developing initial experience in commercially-based grid-connected renewable energy applications by supporting construction of an approximately 101 MW IPP wind farm, while building institutional capacity to value, acquire, and manage such resources on a replicable basis. The global objective is to reduce greenhouse gas emissions by addressing and reducing the barriers to development of grid-connected renewable energy technologies and markets in Mexico.

Indonesia: Kampung Improvement Project III
Housing conditions and solutions vary widely from place to place in a large metropolitan area such as Jakarta. This UNDP/World Bank program attempted the difficult task of tailoring upgrading from site to site across a large city. To do so, they used community based organizations (CBOs) as project initiators to encourage an active, innovative, and self-sustained community in which upgrading could take place. This program is considered to be one of the best urban poverty relief programs in the world for several reasons - one being the low level of investment needed per person (US$118 in Jakarta to US$23 in smaller cities), another being its sustainability. Since its inception in 1969, the concept has spread to 800 cities in Indonesia to benefit almost 30 million people and is among the best urban poverty relief programs in the world. The KIP program has had three phases. The first two concentrated on physical improvements and the third phase added a social/economic dimension to the equation by devoting 12% of the funding to economic development.

India: Karnataka Community-Based Tank Management Project
The project development objective is to improve rural livelihoods and reduce poverty by developing and strengthening community-based approaches to improving and managing selected tank systems. The project consists of three components: 1) establishing an enabling environment for the sustainable, decentralized management of tank systems; 2) strengthening community-based institutions to assume responsibility for tank system development and management; and 3) undertaking tank system improvements. The third component is further sub-divided into: a) improving the operational performance of selected tank systems through a menu of physical interventions identified and executed by local users and b) facilitating technical training and on-farm demonstrations in water management, agriculture, and horticulture development, fisheries, forestry, and fodder production to help ensure that improved water storage and efficiency is translated into increased household incomes.

V. Specific Policy and Project Recommendations to be adopted by MDBs

The recommendations below are intended to help improve the development effectiveness of infrastructure financed by MDBs. Political commitment is an absolute prerequisite to real change – where the commitment is in place, the recommendations can be usefully taken up, but without it there is little hope for progress. I would also like to endorse the comprehensive set of priorities, principles, and guidelines put forward by the World Commission on Dams in 2000 and the Extractive Industries Review in 2003. Most of these recommendations apply equally well to the challenges facing infrastructure more generally at the MDBs.

The recommendations below are what I believe to be the most pivotal, concrete and practical steps MDBs should adopt to improve its infrastructure lending:

1. ***Establish explicit sector/sub-sector lending targets to promote pro-poor, smart infrastructure:*** MDBs have adopted explicit lending targets for infrastructure. The World Bank, for example, has stated that it aims to increase infrastructure lending to US$10 billion a year or 40% of the total Bank lending by 2008. The World Bank, and other MDBs, should commit a certain substantial percentage of their infrastructure lending to pro-poor, smart infrastructure. This use of lending targets may be a blunt tool but it is particularly effective in encouraging a shift in the portfolio, diversifying away from capital-intensive or export-oriented projects. Key to the success of these targets is (a) clarity on which sectors and sub-sectors (e.g. small-scale irrigation, renewable energy) additional business should be encouraged and the types of projects that would be contained in these sectors and (b) clarity on the methodology for calculating the baseline lending levels in each sector. Despite some definitional and methodological problems, the World Bank's recent commitment to increase lending in renewable energies could serve as an instructive example.

2. ***Ensure that a comprehensive and participatory options assessment is conducted before a decision is made to proceed with any large infrastructure program or project.*** The proposed solution should be based on an assessment of the full range of policy, institutional, and technical options to meet an identified need, such as increased electricity supply or improved access to markets. The leading reason large infrastructure fails to deliver benefits to the poor is because the wrong project was originally selected and financed. Options assessment – when conducted properly – is an effective way to reduce this risk[4]. All stakeholders should participate in the process but a particular emphasis must be placed on the role of potentially affected communities. Transparency and participation in the assessment will help ensure least-cost solutions are adopted; affected communities and the public benefit; and corruption is mitigated. Analyzing the distribution of benefits and costs should be an input into the process with due weight placed on social and environmental costs. If reducing poverty is the objective, emphasis should be placed on solutions (e.g. efficiency gains through rehabilitating existing infrastructure or demand side management) that deliver benefits most directly to the poor. The SFRC should request US Treasury and the US

[4] MDBs typically require a Study of Alternatives as part of their due diligence for projects with major environmental and social impacts. The Study of Alternatives – despite sharing some objectives as an Options Assessment – has not been an effective tool. At best, these studies result in minor changes to project design; meaningful discussion of alternatives rarely happens. The Study of Alternatives takes place too late – after a project has already been selected and feasibility studies have started. Therefore, this in no way can replace a real Options Assessment, which is conducted prior to project identification.

Executive Directors at the MDBs to insist that a rigorous options assessment is conducted prior to approval of (at a minimum) all large, high-risk infrastructure projects.

3. ***Ensure minimum governance conditions and sectoral capacity before investing in infrastructure.*** Proper sequencing of investments is crucial to ensuring their poverty reduction potential. Much as the EIR recommended with regard to oil, gas and mining projects, adequate core and sectoral governance criteria should be met prior to MDB support for large, high-risk infrastructure projects, and particularly those which are designed to generate revenues for the host government. Infrastructure projects whose poverty-reduction potential depends on revenue generation can only succeed in a context in which there are basic assurances of a minimum level of government accountability to the public. Such conditions include but are not limited to the rule of law, a functioning independent judiciary, fiscal transparency, a free press, and demonstrated respect for human rights. Given the heavy footprints and substantial risks associated with large-scale infrastructure projects, the host government needs to have the capacity to monitor, manage and mitigate social and environmental impacts before an infrastructure investment is made. Numerous projects (and Chad-Cameroon most vividly) illustrate the risk of supporting projects before such capacity is in place. It is much easier to construct a dam or pipeline than it is to build good governance. Often, the development of physical infrastructure far outpaces capacity building efforts, and it is difficult if not impossible for government to "catch-up," let alone to remedy harms suffered while government regulation and oversight were absent.

4. ***Develop sector-specific anti-corruption guidelines.*** Corruption is pervasive in infrastructure and MDBs are vigorously scaling up investments in this sector**.** Sector-specific anticorruption measures may help resolve this obvious contradiction. The World Bank (likely to be followed by other MDBs) is in the process of developing an anti-corruption and governance framework to help guide its future operations. As part of these efforts, MDBs should develop more specific 'nuts-and-bolts' anti-corruption guidelines for sectors especially prone to corruption. Meaningful public participation in the formulation of these guidelines will be crucial to ensuring high quality and broad ownership.

5. ***Strengthen protections of social and environmental rights of affected communities and the environment; upholding the highest international environmental and social rights and standards***. Recognition of rights is an important element in establishing the existing entitlements of adversely affected people at various locations. Existing entitlements are the basis for negotiating new entitlements. The project process must recognize a range of entitlements including the entitlement of affected parties to (i) participate in negotiating the outcomes of the options assessment process; (ii) participate in negotiating the implementation of the preferred option; and (iii) negotiate the nature and components of mitigation.[5] International standards and norms should be explicitly adopted by MDBs and recognized as the basis for existing entitlements. Most important are, those related to human rights; no-go zones; free, prior, and informed consent; and core labor standards. Some progress has recently been made in tethering the development banks to these standards but much more is required. This has become even more pressing as some private banks and export credit agencies have actually surpassed the MDBs on certain topics.

6. ***Establish minimum transparency and participation provisions throughout project implementation.*** Public/community participation in monitoring and decision-making over the life of an infrastructure project enhances outcomes. Currently, most MDBs do not require

[5] Recommendation contained almost verbatim in the World Commission on Dams final report, 2000.

the disclosure of project information or public participation during project implementation. Because many problems, both anticipated and unforeseen, are encountered during project execution, affected communities and other stakeholders must be involved in identifying problems and selecting remedies, including changes in project design or oversight. MDBs should revise their Information Disclosure policies to establish minimum provisions for information disclosure and public participation during implementation. This will improve not only anti-corruption efforts but also the development effectiveness of infrastructure projects.

7. ***Require robust independent monitoring mechanisms for large-scale infrastructure projects.*** One effective mechanism to help ensure risky infrastructure projects contribute to poverty reduction is to appoint a high-level panel of 'eminent persons' to oversee the project during preparation and implementation. Chad-Cameroon and Nam Theun 2 are both examples for which international advisory groups were constituted. An impediment to the effectiveness of these panels, however, was that they lacked teeth – the ability to enforce their recommendations. In addition to requiring independent monitoring panels, MDBs should also establish links between monitoring and accountability mechanisms. This may help ensure that the findings and recommendations of monitoring bodies are acted upon. The public (in particular, affected communities) should be involved in the monitoring and the panel's reports and recommendations should be disclosed simultaneously to all stakeholders.

8. ***Promote certain policy or operational reforms and good practice guidelines to help create an enabling environment for smart infrastructure***. Lending in support of smart infrastructure is hampered at many MDBs because of operational or policy bottlenecks or the lack of clarity on some key content issues. A review of which obstacles impede additional MDB lending for smart infrastructure would be helpful. Possible reforms include:

    - promote the use of small, more flexible lending instruments (such as the Learning and Innovation Loan at the World Bank)
    - community procurement guidelines that allow users to select and monitor construction and technical assistance contracts. Active involvement of beneficiaries is the by far the most effective way to shine a light on and prevent corruption. MDB procurement policies and guidelines should be reviewed to ensure that their approach to procurement is consistent with this objective and does not unfairly penalize community-level contracting.
    - promote transparency in project costs and fund flows during project implementation to combat corruption and improve quality of implementation. Information disclosure policies at the MDBs should ensure that disaggregated project costs for infrastructure projects are made available to the public.
    - ensure subsidies are in place for poor *before* additional user fees for infrastructure are introduced. This is consistent with and should build off of recent US legislation regarding user fees for social sector services.

9. ***Alter staff incentives to focus on development effectiveness not lending volumes***: The pressure to lend at the development banks remains as strong as it has been in the past. This perverse incentive affects the type of infrastructure projects that are financed. Large commitments and disbursements are easier for large, trunk infrastructure and so a bias towards this type of investment exists. Reforming the overall incentive structure has proven to be more difficult than expected – in part, because existing incentives are in-built into the structure and processes of how the development banks operate and are protected by powerful

voices on the Board. The pressure to lend is most intense at the country level – for Country Directors and their leadership team. I would therefore argue that the most tactical place to tackle these misaligned incentives is with the Country Director. Truly independent audits of development effectiveness (and specifically the poverty impacts of infrastructure projects) – not lending volumes – at the country level need to be conducted. Performance evaluations of the Country Director (including benchmarks for promotions and layoffs) must be based in large part on these audits. The rationale for these independent audits at the country level is similar to the arguments put forward in the previous Senate FRC hearing on the MDBs. A specific intervention to shift management incentives at the Country Director level may be more acceptable and in the long run, may help catalyze wider reforms on staff incentives.

10. ***Set up a small, independent evaluation unit to measure impacts of infrastructure lending in reducing poverty***: Donors to MDBs should establish a small, independent evaluation unit to examine the poverty impacts of infrastructure. This recommendation follows the unambiguous conclusion reached in the previous SFRC hearing by Easterly, Lerrick, and Levine on the need for real independence and objectivity in the evaluation process. A pilot initiative could be designed to evaluate a sample of infrastructure projects approved by MDBs over a 3 year period and based on the results to provide concrete guidelines on (a) how to improve the poverty impacts of infrastructure and (b) how to put in place more effective monitoring and evaluation systems to measure the results of infrastructure investments. Given the increasing significance of infrastructure to MDB portfolios, an independent audit on infrastructure would be a useful place to begin. Such a pilot may be politically more acceptable to the MDBs than a whole-scale and radical change to the so-called 'independent' evaluation departments.

VI. Concluding Remarks

I would like to thank you, Mr. Chairman, for the opportunity to share our views today on infrastructure, poverty, and the MDBs. I hope that the testimonies provide the Committee with constructive and concrete ideas of how to improve the development effectiveness of infrastructure lending. Infrastructure represents the largest share of MDB commitments financed today and the share is increasing. The success of the MDBs in achieving their missions depends in large part on infrastructure projects improving the lives of the rural and urban poor.

This hearing reflects a positive evolution of the topics discussed before the SFRC. The Committee has been particularly successful in elevating the issue of corruption on the development agenda; it is our hope that it will be equally successful in catalyzing serious reflection and reform in the infrastructure lending practices and policies of the MDBs.

Annex 1

Profiles of Large Infrastructure Projects supported by MDBs

Chad-Cameroon Oil Pipeline (Chad, Cameroon/World Bank, IFC)

The $4.2 billion Chad-Cameroon Oil Development and Pipeline project is the largest private sector investment in sub-Saharan Africa and one of the most controversial in the history of the World Bank. The project involved the construction of a 1070 km pipeline from oil fields in southern Chad to the Atlantic Coast of Cameroon. Before the World Bank Group approved financing for the investment in 2000, local and international civil society organizations called for a moratorium on the project until minimum conditions of good governance, respect for human rights and capacity to manage the petroleum sector were in place. Instead, the Bank Group maintained that government capacity could be built in tandem with pipeline construction and that a law on the management of oil revenues would provide an adequate safeguard to ensure that petrodollars would be used for poverty reduction. Six years later, the project has not yet delivered its promised benefits; there is little evidence of any improvement in the lives of the poor in Chad and the country is in crisis. Pipeline construction was completed a year ahead of schedule and oil began to flow in 2003, while government capacity building projects in Chad and Cameroon lagged far behind. Then, facing mounting political instability in Chad, the government decided in January 2006 to amend the "model" revenue management law, stripping it of its strongest components in order to allow the government to use more of the oil revenues for military spending rather than poverty reduction, and eliminating a savings account for future generations. Meanwhile, in Cameroon, there remain significant outstanding concerns about environmental and social harm along the pipeline route, including failure to mitigate the spread of HIV/AIDS, loss of water sources, inadequate compensation for crops, and threats to the indigenous pygmy population. The experience of the Chad-Cameroon pipeline demonstrates how contingent development impacts are upon the will and capacity of host governments to protect the rights of their populations and harness revenues for poverty reduction. Recent events reveal the pitfall of failing to follow proper investment sequencing—governance capacity first, investment second—and illustrate the risks for the poor inherent in a large-scale project built in absence of a solid foundation of public accountability and the rule of law.

Lesotho Highlands Water Project (Lesotho, South Africa/World Bank)

The Lesotho Highlands Water Project (LHWP) is a huge interbasin water–transfer scheme comprising five proposed dams, 200 kilometers of tunnels blasted through the Maluti Mountains, and a 72–megawatt hydropower plant that will supply power to Lesotho. One of the world's largest infrastructure projects under construction today, the LHWP has been plagued by corruption scandals in recent years.. The project's primary purpose is to transfer water from the tiny nation of Lesotho to Gauteng Province, the industrial heartland of South Africa. Water conservation (demand-side management) alternatives that would have allowed the postponement of the project's second dam were foregone, despite growing public concerns about the link between the costly LHWP and rising water rates for consumers in South Africa. Social and environmental impacts in the project area have been devastating to the local population. Over 20,000 people have moved into the area, greatly increasing the spread of communicable diseases such as HIV/AIDS. In addition, over 200,000 people were physically or economically displaced for the construction of the Khatse dam, the first stage of the large project. Replacement housing took years to complete and livelihood restoration efforts have been inadequate. Two of the five dams are already complete. Local communities are concerned that if remaining dams are constructed, thousands of acres of Lesotho's scarce arable land will be flooded. The land and livelihood loss, threats to food security and public health costs, as well as the impacts of water price increases on consumers in South Africa, underscore the failures of this large-scale scheme to address the needs of the poor.

Camisea Gas Pipeline (Peru / IDB)
The project involves the extraction, transportation, and distribution of natural gas for domestic consumption and export. Operations have only recently begun, so it is too soon to tell if the project is achieving its economic development objectives.[1] However, its sustainability is already in question, on account of problems that start with the non-transparent project siting process and the lack of consideration of alternatives/opportunity costs. Camisea is based in a remote, ecologically fragile tropical area, the Lower Urubamba Valley of the Peruvian Amazon. High risks related to environmental degradation of pristine, high-biodiversity areas, and social impacts related to involuntary resettlement, the destruction of food and water supplies of local communities, and the exposure of voluntarily isolated indigenous peoples to illnesses for which they have no immunological defenses. Poor regulatory capacity has been seen in the Peruvian Government's and operating consortium's inability to deal with the consequences of multiple ruptures in the liquid natural gas pipeline, and earlier this year reports surfaced in the Peruvian press of a possible conflicts of interest involving a top government official, who was a strong Camisea supporter despite having several compromising corporate entanglements.

Marlin Mine project (Guatemala / IFC)
The project involves the installation and operation of an open pit gold mine in the predominantly indigenous department of San Marcos, in the western highlands of Guatemala. Project selection took place in a highly non-transparent and non-participatory way, with apparently little consideration of alternatives/opportunity costs by the mine's owner, Canadian company Glamis Gold. High environmental risks relate to degradation of a dry, fragile ecosystem, pollution, and overuse of freshwater and other scarce resources. Social impacts include inadequate consultations and blatant disregard by Glamis and the Guatemalan Government of the culturally-influenced wishes of local people. The operation of the mine in the face of popular opposition has created the potential for violence and human rights abuses, but none of the principals involved—especially Glamis or the Government—have shown much interest in or ability to defuse the situation by negotiating with the affected communities in good faith. Weak regulatory and planning capacity is evident in the Government's consideration of a company proposal for mine expansion, even though none of the required impact assessments or community consultations have apparently taken place.

Yacyretá Hydroelectric project (Argentina, Paraguay / World Bank, IDB)
The bi-national Yacyretá hydroelectric dam has been sponsored by both the World Bank and the IDB through numerous projects implemented over the last 27 years. Its main objective has been to generate least-cost electricity to cover up to 40% of the energy demand in Argentina's urban centers, a goal it still has not been able to satisfy because the dam is operating below capacity. The Yacyretá reservoir was never impounded to the design level because of persisting delays relating to the mitigation of the original construction projects' numerous social and environmental impacts, including loss of biodiversity in the project area, degraded water quality, and loss of livelihoods resulting from the involuntary displacement and resettlement of over 50,000 people in urban areas. Weak capacity on the part of EBY, the binational entity undertaking the project, has been a chronic problem, and deficiencies in the overall governance and oversight frameworks for the original projects have led to implementation delays, cost overruns, allegations of corruption, and contractual disputes.

Baku-Tbilisi-Ceyhan Pipeline (Azerbaijan, Georgia, Turkey / EBRD, IFC)
The Baku-Tbilisi-Ceyhan (BTC) Oil Pipeline, which has been built with the aid of financing from the IFC and the EBRD, is planned to transport up to one million barrels of oil per day from the Caspian Sea through Azerbaijan, Georgia and Turkey. Local groups and international NGOs have objected to the project on several grounds:

- The Banks approved the project without clear guidelines on how adversely affected local landowners would be compensated or resettled;
- The pipeline runs through an earthquake-prone region, putting it at risk to damage and severe environmental pollution;

- The pipeline crosses the watershed of the Borjomi national park, an area of Georgia famous for its mineral water springs and natural beauty, thus threatening the livelihoods of people in the region;
- Arrangements for using the revenues from the pipeline are not transparent, and corruption is a serious concern in parts of the region.

K2R4 Safety and Modernization Programme (Ukraine / EBRD)
The Ukrainian nuclear reactors Khmelnitsky 2 and Rivne 4, often referred to as K2/R4, were completed and modernized with the help of financing from the EBRD and Euratom in 2004. EBRD participated in financing the projects despite concerns about: safety (the reactors are based on risky Soviet-era designs); high costs (an independent panel of experts contracted by EBRD to review the economics of the project concluded that completing the reactors was not the most productive use of the EBRD's money); and complaints that the decision-making process was non-transparent and undemocratic (there was little evidence of popular support, but much evidence of lobbying by companies that supplied nuclear technology to the projects).

Samut Prakarn Wastewater Management Project (Thailand / ADB)
The Samut Prakarn Wastewater Management Project Samut Prakarn was conceived by the Government of Thailand in the early 1990's to address the severe water pollution problems in Samut Prakarn Province. The project was originally designed to comprise two treatment plants in an industrial zone. The plant design and location were subsequently changed by the private contractor to include a single plant in the fishing village of Klong Dan, a location 20km east of the industrial zone. ADB Management treated this departure from approved plans as a routine matter and failed to conduct additional studies or seek approval from its Board. Under the changed site and design, the project (now on hold due to an on-going corruption investigation by the Thai government) poses adverse environmental and social impacts that will affect 60,000 villagers living near the project location, most of whom only found out about the project when construction started. Local communities allege that corruption was involved in the purchase of land for the project as it was bought at an artificially high price and all 17 plots comprising the project area were sold by a single company at exactly the maximum price allowed under the contract; this suggests collusion between buyer and seller. Affected communities filed an inspection case at the ADB whose findings confirmed that the ADB had violated its own policies during project preparation and implementation. The Thai government investigations have corroborated the corruption charges leveled by the community and have uncovered additional evidence. ADB's involvement in the project did not prevent corruption from arising; instead of assessing and minimizing corruption risks in a project in a country which at the time was ranked among the most corrupt countries in the world, ADB abdicated its oversight functions to the "turn-key" contractor and its Special Review Mission of 2000 dismissed evidence of corruption. The ADB Office of Auditor General never conducted an internal investigation and argued that as the land transactions were being investigated by the Thai government, it limited its review to the wholly separate issue of an alleged conflict of interest involving a key ADB staff member on the project. The ADB to date has not responded to the allegations of corruption raised by the Klong Dan community in a satisfactory and straight forward manner.

Mumbai Urban Transport Project (India / WB)
The US$945 million MUTP, which includes a US$542 loan from the Bank, began in 2002 and was designed as a first and urgent step towards improving physical infrastructure in rail and road transportation. With more than 100,000 people to be resettled to make way for the infrastructure improvements, MUTP is among the largest urban resettlement projects supported by the Bank in the world. Claiming that the WB had violated its own policies and procedures, three organizations representing affectees submitted a claim to the WB Inspection Panel in 2004. The Panel's findings, approved by the Board, found that even though affectees were originally living in squalid conditions, the Bank violated its Resettlement Policy by not ensuring their income/livelihoods and physical environment were improved in the resettlement sites; sites lacked access to water and sewerage and did not cater to the specific business/trade needs of the affectees. The Bank

management suspended loan disbursement in March 2006 to bear pressure on the executing agency to comply with Bank policies; the response from the executing agency was one of defiance and the Bank resumed lending in July 2006 even though the head of the executing agency claims it has not changed its resettlement practice and that it has in fact forced the WB to change its policies. Progress Reports from both Bank management and the Inspection Panel are due September 2006.

Nam Theun 2 Hydroelectric Project (Lao PDR / WB, ADB)

In April 2005, the World Bank and Asian Development Bank respectively approved up to $270 million and $120 million in loans and risk guarantees for the 1,070 megawatt Nam Theun 2 Hydropower Project in Laos, following nearly a decade of discussion. This came despite a number of concerns raised by various civil society groups relating to the significant environmental and social costs, inadequate consultations with project affected persons on the design and mitigation measures of the project, lack of revenue management oversight, and presence of other least-cost options. Nam Theun 2 is the first major dam to be supported by the World Bank since it announced its intention to ramp up lending for large dams and other "high-risk" infrastructure projects. In a country where civil liberties and free speech are severely restricted, independent oversight of the project's progress cannot be assured, Construction has already begun.and while the NT2 revenues will account for only 3 to 5 percent of total revenues for Laos from 2010 to 2020, the project is expected to displace 6,200 indigenous people and impact more than 100,000 villagers who depend on the Xe Bang Fai River for fish, agriculture and other aspects of their livelihood. WB has already reported on the delays in the implementation of environmental and social programs and independent reports from the site suggest the resettled villagers are having difficulty adjusting to their new "settled" lifestyles and cropping patterns. Concerns about the capacity of the private consortium and the Lao government to abide by WB and ADB policies, and the ability of WB and ADB to implement their policies remain.

Southern Transport Development Project (Sri Lanka / ADB)

The Southern Transport Development Project (STDP), approved in November 1999, involves the construction of a 128-km expressway linking Colombo with Matara in the south. The Asian Development Bank (ADB) has provided a loan of $90 million from the concessional Asian Development Fund to finance the southern 61-km section from Kurundugahetekma to Matara, construction of which is currently on-going. Japan Bank for International Cooperation (JBIC) is financing the northern 67-km section, and the Government is financing the balance. Local groups are most concerned about the significant alteration of the original road alignment, as identified in the ADB-financed feasibility study, without the requisite due diligence and without the approval of the ADB Board of Directors. This alteration has resulted in a host of problems including increased number of people to be resettled, poor facilities in the resettlement "villages, lack of attention to economic and social rehabilitation of oustees, lack of participation, information and transparency, environmental degradation, and disturbance to social networks and structures. The ADB's independent Compliance Review Panel accepted a case from affectees in 2004 and its investigations have confirmed the ADB failed to implement its policies or provide adequate supervision, which led to the above impacts. The CRP's findings have been accepted by both ADB Board and Management but remedial measures by Management are behind schedule.