Funding Water Resource Management: A World Bank Perspective

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The World Bank - Geneva

Graz
September 14, 2005
Key Message 1: The Development Challenge

Water resource management is a major development challenge, as the world’s water resources are under rapidly growing pressure.
Per capita water availability

Africa
Asia
MEast & NAfrica
World

Thousand m$^3$

16
14
12
10
8
6
4
2
0

1960
1990
2025
Access to water and energy services – sectors face similar challenges

**Energy**
- ~2 billion without modern energy services
- 2.4 billion rely on biomass for cooking and heating
- Frequent blackouts
- US$ 120 billion per year for developing country power sector investments to 2010
- Climate Change
- Local (urban) and indoor air pollution

**Water & Sanitation**
- 1.4 billion without safe water
- 2.6 billion without basic sanitation
- US$ 30 billion a year until 2015
- Safeguarding water resources
- Clean water, sanitation, hygiene

**Access to Services**

**Governance**
- Increasing effectiveness
- Building local capacities
- Cost recovery

**Financing**
- Limited fiscal resources for public investment
- Declining flows of private sector investments

**Environment**
- Health impact
Without significant **investments** from public and private sources in water and energy management, many poor economies cannot grow. National development strategies, based on broad-based consultations, need to reflect short-term and longer term priorities.
Risks faced by Investors in the Water and Energy Sector

- Currency risk
  - Volatile financial environment

- Regulatory risk
  - Regulatory framework not implemented

- Payment/performance risk
  - Government fails to pay amounts due

- Sub-sovereign risk
  - Investments are often at the sub-sovereign level

- “Affordability risk”
  - Private operators and consumers will not do it all – role of public investments and subsidies
Since 1990 private sector participation in infrastructure reached a total of $890 billion in more than 2,700 projects.
Private Sector in Infrastructure Heavily Concentrated in Certain Sectors and Regions

By Sector

- Water and Sanitation
- Transport
- Telecoms
- Energy

By Region

- SAR
- MNA
- LCR
- ECA
- EAP
- AFR

Total: $890 billion

Infrastructure Projects with Private Sector Commitments: 1990-2003

Source: PPI Database
The Bank’s support is aiming to bring the private sector back in through a range of sectoral assistance, financing instruments, and enabling environment.
The Water Sector Strategy & Infrastructure Action Plan: scaling up

World Bank Lending for Water over Past Three Years

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<thead>
<tr>
<th></th>
<th>FY02</th>
<th>FY03</th>
<th>FY04</th>
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<tbody>
<tr>
<td>Irrigation Serv</td>
<td>1%</td>
<td>2%</td>
<td>3%</td>
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<tr>
<td>Urban WSS WR</td>
<td>2%</td>
<td>3%</td>
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<td>Rural WSS Serv</td>
<td>1%</td>
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<td>Irrigation WR</td>
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<tr>
<td>Hydropower WR</td>
<td>1%</td>
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<td>3%</td>
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<tr>
<td>WR St/Alone Components</td>
<td>1%</td>
<td>2%</td>
<td>3%</td>
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Key Trends in Bank Infrastructure Lending by Sector

**Water Supply & Sanitation**
- WSS experienced a decline in its lending from US$2.0 billion/year in the mid 90s to $0.5B/year in FY02.
- Strong growth in lending in recent years: from US$0.5 billion in FY02 to US $1.9 billion in FY05.
- Growth in broad multi-sectoral investments, which reflects the growing recognition of the role of WSS in achieving broad development goals.

**Transport**
- Lending fell from an average of $3,127 million per year during FY90-98 to $2,617 million for FY99-02.
- Strong growth in lending recent years: from $2,392 million in FY02 to $3,819 million in FY04.
- Single largest infrastructure sub-sector since late 1990s.

**Energy & Mining**
- From FY90 to FY98, lending was at its highest level with an average of US$3.5 billion per year.
- Lending fell to an average of US $1.5 billion per year during FY99-04.
- Strong recovery in FY05 reaching a volume of US$1.9 billion.

**ICT**
- Small share of overall INF lending: on average 3-4% since 1990.
- Steady decline in lending, from an average of $346 million per year during FY90-98, to $186 million for FY99-03, to $97 million in FY04, as we moved away from public telecom investment to policy and capacity building.

**Sector Percentage of FY04 Lending**
- Energy & Mining: 16%
- Water & Sanitation: 25%
- Transport: 58%
- ICT: 1%
An Evolving Model for Infrastructure Service Delivery

Engagement Anywhere Along the Spectrum

Public

Private

Combine WBG Instruments

IBRD/IDA Loans, Credits and Guarantees

IFC Loans and Investments

MIGA Guarantees

Cost Recovery Critical

But At A Realistic Pace

Targeted Subsidies OK

• For Connections

• For Usage Charges
The World Bank Group is seeking to Leverage Funding From All Sources

WBG provides only a small part of total infrastructure investment financing
Direct Infrastructure Lending Represents Only Part of The Bank’s Support to Clients

Bank Group Support

Indirect/Other Bank Support

Infrastructure supports other sectors:
- About 32% of infrastructure activities are components in lending operations of other/non-infrastructure sectors.

Private sector leverage through guarantees:
- Since the early 1990s, the Bank has leveraged $10.7 billion in private capital via $2.9 billion in IBRD/IDA guarantees.

Support for reform through non-lending activities:
- The Bank supports policy dialogue and reform through Economic and Sector Work and Technical Assistance.

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IFC: supports infrastructure through equity, debt and guarantees. FY04 commitments to infrastructure reached about $1 billion, representing ~20% of IFC’s total commitments.

MIGA: provides support to infrastructure through investment guarantees against non-commercial risks to investors. FY04 guarantee amounts for infrastructure totaled about $300 million, representing ~25-30% of MIGA’s business.

*Other includes WB guarantees, GEF and Special Financing

**Key Messages:**
- Reaffirm the critical importance of infrastructure to growth and poverty reduction
- Significantly scale up support for infrastructure, recognizing long-standing client demand
- Act in a flexible, balanced way with respect to public vs. private service provision
- Continue to manage the transition from financing “bricks and mortar” to promoting service delivery with a view to maximizing financial leverage and development impact

**Highlights of Progress Made:**
- Increased lending in the last two years from $5.5 in FY03 to $7.4 billion in FY05
- Increased infrastructure’s share of new annual lending in the Bank from 26% in FY02 to 33% in FY05
- Continued to develop and increased the use of new instruments (e.g. guarantees, output-based aid, and proposed sub-sovereign instruments)
- Expanded beyond country-level to regional (multi-country) and local level support
- Took more proactive approach to governance, especially on high risk, high reward projects (Chad-Cam. Pipeline; Nam Theun 2; Extractive Industries Transparency Initiative)
BACK-UP
The Water Supply & Sanitation Gap

Africa’s MDG Challenge

*Population (million)*

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<td>Served 2000</td>
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<td>40</td>
<td>350</td>
<td>152</td>
<td>178</td>
<td>368</td>
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<tr>
<td>Added 2000-2015</td>
<td>175</td>
<td>175</td>
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<tr>
<td>Not Served</td>
<td>350</td>
<td>350</td>
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The Electricity Gap

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<thead>
<tr>
<th>Country</th>
<th>Elec consumption (kWh/yr)/Capita</th>
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<td>Cameroon</td>
<td>184</td>
</tr>
<tr>
<td>Nigeria</td>
<td>85</td>
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<tr>
<td>Ethiopia</td>
<td>21</td>
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<tr>
<td>Kenya</td>
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<tr>
<td>Tanzania</td>
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<td>Uganda</td>
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<td>Burkina Faso</td>
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<td>Ghana</td>
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<td>Senegal</td>
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<td>Algeria</td>
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<tr>
<td>Egypt</td>
<td>900</td>
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<tr>
<td>Morocco</td>
<td>430</td>
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<td>World Average</td>
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(United States consumption - 11994 kWh/yr/capita)

500 kWh/capita-year minimum consumption for reasonable quality of life

Hydropower potential tapped