

Approach Paper

Evaluation of the World Bank Group's Support for Water Supply and Sanitation Services, with Focus on the Poor FY2007-2016 June 22, 2016

I. BACKGROUND AND CONTEXT

1. **Introduction.** Access to adequate, reliable, affordable, and safe water and sanitation services is fundamental to human development and welfare. This is not just a goal in its own right, but also critical to other development objectives for health, nutrition, gender equality, and education, which go to improve the quality of life and economic well-being of the population. Globally, there are an estimated 663 million people without access to improved sources of water, and 2.4 billion people without improved sanitation facilities, with a majority of these numbers in Sub-Saharan Africa and South Asia.

2. Bridging the gap in access to improved water and sanitation is a core concern of the 2030 Agenda for Sustainable Development¹. The Sustainable Development Goal (SDG) 6 seeks 'to ensure availability of sustainable management of water and sanitation for all'. In this new context, the evaluation will examine the effectiveness of the Bank Group in supporting client countries for expanding access to W&S services in a manner that is adequate, affordable, and meets acceptable quality and reliability standards. It will present evidence-based findings, lessons, and recommendations to enhance the Bank Group's effectiveness going forward in supporting client countries for providing sustained water and sanitation services with focus on the poor, as they progress towards the SDG 6.

3. **IEG's Strategic Engagement Areas (SEAs).** In FY2015 IEG introduced a new approach in its work program, building on three purposefully selected Strategic Engagement Areas (SEAs): Inclusive Growth, Sustained Service Delivery for the Poor, and Environmental Sustainability. These three topics lie at the heart of the new World Bank Group Strategy and feed into the twin goals of ending extreme poverty and boosting shared prosperity. This evaluation is primarily anchored to the *Sustained Service Delivery for the Poor SEA*, and aligned with the *Environmental Sustainability SEA*. This evaluation belongs to a series of IEG evaluations on infrastructure (transport, electricity access, and water) and access to services (electricity access, financial inclusion). The evaluation will coordinate with ongoing IEG studies on urban transport and air and water pollution, as well as an upcoming evaluation on sustainable cities.

Description of context and issues

4. Several benefits accrue from sustained access to improved W&S services. *The quality of life benefits* include time saved searching for and carrying water; improved school attendance and completion, especially for girls; fewer days lost due to preventable sickness; greater comfort, privacy and safety, especially for women and children; and a greater sense of dignity and well-being for all. *Environmental benefits* include reduction in pollution of water and land resources; potential for promoting the circular economy by nutrient reuse, e.g. fecal sludge for fertilizer or biogas generation; and access to a cleaner environment. *Economic benefits* arise from reduced health care costs for individuals and society; cash benefits of piped water access versus vendor supply, which can equate to 20 percent of household income; greater productivity through increased labor force participation because of reduction in water borne diseases and attractiveness to industrial and commercial investments. Estimates of the benefit-cost ratio of

achieving universal access to sanitation range between 2.8 and 8.0, while for drinking water the range is 0.6 to 3.7.²

5. **The Role of Behavioral Change.** Experience shows that appropriate behavioral change must accompany infrastructure investments to realize their full human and economic developmental potential. For instance, it is important to understand and address the factors that contribute to the continued use of unimproved facilities in some segments of the population, even after improved sanitation facilities are made available. Adoption of hygiene-related behaviors such as handwashing with soap (or ash or other aid) during key activities (such as food preparation and service and defecation) are essential for reducing the incidence of diarrhea, which is a leading cause of malnutrition and the second leading cause of death among children under five years of age.³ However, effecting behavior change is a complex process.

6. **Sustained Service Delivery.** The imperative for making services work for the poor was highlighted early in the 2004 World Development Report, which emphasized the need to utilize available resources more effectively so that basic services lead to sustained benefits for the poor. The World Bank Group (WBG) and international development actors are placing renewed emphasis on service delivery, noting that service delivery frameworks for W&S, whether through public agencies or private enterprises, should provide needed goods and services to citizens “in a way that meet their expectations”⁴.

7. **Improved and Unimproved facilities.** Water supply and sanitation arrangements vary widely in the nature of the facility and the quality of service that they provide. The Joint Monitoring Program (JMP)⁵ of WHO and UNICEF distinguishes between improved and unimproved sources of water supply and sanitation. An improved drinking water source is defined as one that, by nature of its construction or through active intervention, is protected from outside contamination, in particular from fecal matter contamination (e.g. borewells, piped water as opposed to surface drinking water sources). An improved sanitation facility is defined as one that hygienically separates human excreta from human contact (e.g. pit latrine with slab, flush/pour flush to sewer system; as opposed to open defecation or shared sanitation facilities). (Annex A.)

	Water	Sanitation
World	91	68
Caucasus & Central Asia	89	96
Eastern Asia	96	77
Latin America & Caribbean	95	83
Northern Africa	93	89
Oceania	56	35
South-Eastern Asia	90	72
Southern Asia	93	47
Sub-Saharan Africa	68	30
Western Asia	95	94

Source: Adapted from WHO-UNICEF, 2015.

8. **Global coverage of improved W&S services.** The global coverage of improved drinking water sources and sanitation facilities in 2015 is estimated at 91 percent and 68 percent compared to 76 percent and 54 percent in 1990. According to WHO-UNICEF, drinking water coverage exceeded the MDG goal of 88 percent, while the sanitation coverage fell short of the MDG goal of 77 percent for 2015. However, the data may not be uniformly comparable across countries, especially in terms of adequacy, reliability, and quality parameters.

9. There are 663 million people still using unimproved drinking water sources in 2015. (Tables 1; 2a) and nearly 2.4 billion people lacking improved sanitation facilities according to WBG-UNICEF. (Tables 1; 2b).

Region	Number (million)
Sub-Saharan Africa	319
South Asia	134
East and South-East Asia	126
Other regions	84
TOTAL	663

Source: Adapted from WHO-UNICEF, 2015.

Region	Number (million)
South Asia	953
Sub-Saharan Africa	695
East and South-East Asia	513
Latin America and Caribbean	106
Other regions	98
TOTAL	2,365

10. **Sustainable Development Goal for the Water sector.** Goal 6 of the recently declared Sustainable Development Goals frames the focus of development institutions for drinking water, sanitation and hygiene, and water quality, and reflects the growing importance of W&S as a human right.⁶ Sustainable Development Goal (SDG) 6 envisages meeting the following targets by 2030. (Table 3).

Table 3. SDG Goal 6 for W&S: Salient Targets for 2030

Target 6.1	Achieve universal and equitable access to safe and affordable drinking water for all.
Target 6.2	Achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations.
Target 6.3	Improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and reuse globally.

Source: <https://sustainabledevelopment.un.org/sdg6>

11. **Attributes of W&S Services.** SDG 6 targets also serve to define the attributes or dimensions of W&S services in terms of access, equity, adequacy, reliability, quality and affordability/pricing:

- **Access:** water and sanitation facilities are easily reached, and available when needed.
- **Equity:** progressive elimination of inequalities between population sub-groups, urban / rural/ peri-urban; income level, etc.
- **Adequacy:** sufficient water for domestic needs; *for sanitation*, a system that hygienically separates excreta from human contact; safe transport and treatment off-site
- **Reliability:** availability on a 24/7 basis, with adequate pressure, and meeting national drinking quality standards; *for sanitation*, meet consumer needs for W&S services reflected in the available W&S collection/ treatment/ disposal capacity.
- **Quality:** drinking water free from pathogens and elevated levels of chemicals at all times
- **Affordability/Pricing:** consumer demand or willingness to pay for services may be reflected in the pricing of W&S services; extent to which subsidies have been effectively targeted to fill the affordability gap for low income consumers; pricing factors in the costs of investing in the W&S infrastructure, as well as operations and maintenance costs.

12. While the economic benefits of improved W&S services may be enumerated, the science of delivering sustained solutions that meet expectations for all the above attributes is less well understood. W&S in urban and rural areas have an overlay of common challenges, but with important distinguishing features that need to be taken into account. The common issues are of sustainability in financial, institutional, and environmental terms; while retaining a focus on social inclusion and equitable access to services by the poor. The distinguishing features are the wide range of options that can be offered as appropriate in urban, peri-urban and rural settings along the ladder of improved services as described in Annex A.

13. **Financial Sustainability.** Water supply and sanitation is a capital-hungry sector, and therefore financial sustainability requires that there is adequate cost recovery. Ideally this should cover operations and maintenance costs, as well as amortize investment costs. In a survey of 94 countries carried out by the UN-Water Global Analysis and Assessment of Sanitation and Drinking-Water (GLAAS)⁷ 2014, 70 percent of countries report that tariffs did not cover the costs of operation and maintenance, frequently due to the politicization of tariff structure decisions resulting in significant financing gaps – 80 percent of countries indicating insufficient financing available through cost recovery practices. Under these circumstances, it is estimated that an additional annual US\$11.3 billion over and above current investments is needed to meet the goal of universal access to improved W&S services by 2030.⁸ Absence of cost recovery practices result in weak financial health of water and sanitation service providers, ranging from utilities to community based systems, which lead to poor quality of services to consumers; For example, in Sub-Saharan Africa, 14 out of 46 countries have experienced a decline in urban water or sanitation coverage. It is important to note that low water prices also lead to wasteful, inefficient water use.

14. **Environmental Sustainability.** Management of water resources, particularly when there are competing uses from communities, agriculture and the environment is a growing challenge. By 2030, half of the world population will be living in water stressed areas. Global driving forces, including climate change, water scarcity, population growth, and urbanization are expected to affect the resilience of W&S services. It is estimated that 90 percent of wastewater in developing countries goes untreated and is discharged to land and water bodies.⁹ There are increasing problems of pollution of surface and ground water from the untreated septage and sewage generated from urban and rural communities all over the developing world. Often, it is the poor and vulnerable that are disproportionately impacted by these issues.

15. **Institutional Sustainability.** This pertains to the ability of W&S organizations to respond to user demand for sustained services. Effective service delivery requires management at the lowest appropriate level, such that there is (i) accountability of service providers to users, (ii) transparency in the way decisions are taken, and (iii) adequate voice or customer feedback of concerns to service providers. The reality is often otherwise, and commonly attributed to shortcomings in human resource capacity at all levels, and particularly in the rural sector, particularly after the scaffolding of project support is withdrawn. Critical gaps in monitoring impede decision-making and progress in providing sustainable access to the poorest consumers.¹⁰ Less than half of countries surveyed by GLAAS¹¹ track progress in extending sanitation and drinking-water services to the poor.

16. **Focus on the poor, marginalized and social inclusion.** Ninety-six percent of the global urban population uses an improved drinking water source, compared with 84 percent of the rural population. However, four out of five people living in urban areas now have access to piped water on premises, compared to just one in three people living in rural areas,¹² which contain a greater proportion of the poor. Eight out of 10 people that are still without improved drinking water sources live in rural areas. Progress on rural sanitation – where it has occurred – has primarily benefited the non-poor, with unsatisfactory practices prevalent in many countries. Seven out of 10 people are without improved sanitation facilities, and 9 out of 10 people practice open defecation in many rural areas of Africa and South Asia. Many who still lack access belong to the poorest, the most remote, and the most marginalized populations. They often pay the highest unit costs for water because they do not have physical and institutional access to water

supply systems. Expenditures for rural sanitation are estimated to comprise less than 10 percent of all financing for water and sanitation. While low-cost approaches in rural areas may partly reflect these low expenditure levels, needs remain high and funding insufficient to reach targets. Other key dimensions include gender and other socially disadvantaged groups, as they are particularly affected by the poor quality of services in rural and poorer communities.

17. **Inter-sectoral/ministerial coordination.** Improving W&S facilities and securing their potential benefits requires the coordination of several sectors/ministries. For example, coordination with the health sector is needed to promote health and nutrition-sensitive interventions such as handwashing with soap, safe drinking water management from collection to end-use, sanitation, and water supply. Coordination with urban development, environment, and other sectors are also required to ensure smooth implementation of W&S interventions and to mitigate any associated risks.

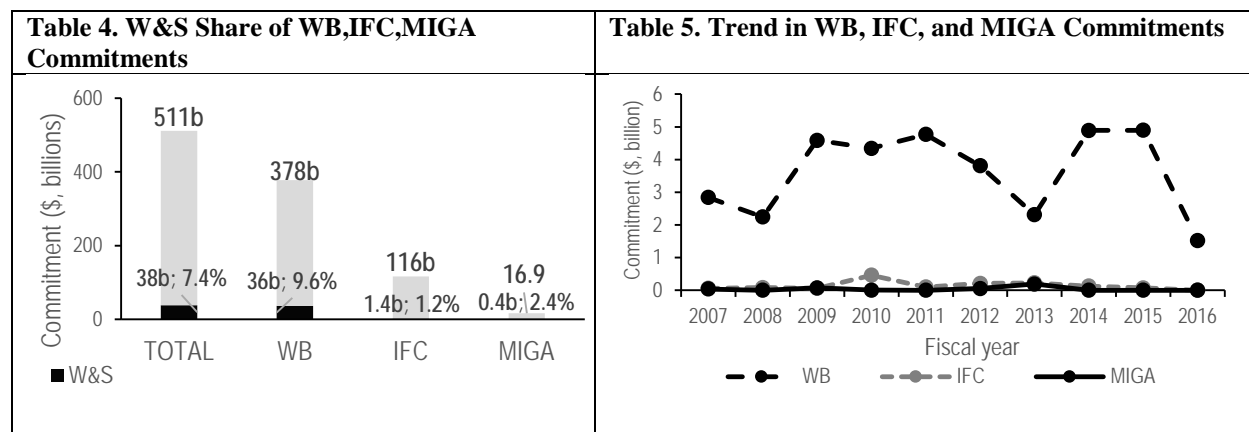
18. **WBG Policies and Interventions.** The Bank Group's strategy for water and sanitation has evolved with client needs and its own perceived role in global development. The core elements of this strategy over the past three decades are summarized below:

- 1980s: The Bank Group financed significant investments in water services infrastructure development, but there was a realization that engineering-centric solutions were not adequate to address the environmental, social and financial sustainability issues identified above.
- 1990s: The focus shifted to sustainable management of water and sanitation services. There was also an increasing attention to private sector participation in the water sector. In addition, the Bank's 1993 Water Resources Management Policy Paper¹³ highlighted the "Dublin Principles" of a demand-based approach, based on what users wanted and were willing to pay for, and applying the subsidiarity principle of decentralizing W&S responsibilities to the lowest appropriate level. By 1995, the Millennium Development Goals had been developed, and these reinforced the focus on increasing access to basic W&S services and the importance of coordinated efforts with other development partners.
- 2000s: The Bank Group's approach recognized the need to balance infrastructure development for all water stakeholders with improving management of services. The 2003 Water Resources Strategy¹⁴ called for Integrated Water Resources Management (IWRM) and appropriate staffing for this effort. The strategy also highlighted the possible impacts of climate change on the sector. It stressed the need to innovate for W&S service delivery and financing, the need to improve the performance of utilities and user associations. IFC targeted water, waste water and sanitation as a strategic sector. In addition to direct investments, IFC pioneered sub-national finance transactions, and engaged in advisory work to structure water PPPs¹⁵. IFC's roadmap for FY2011-13 included water as an important crosscutting theme with links to water, energy, food, and climate change¹⁶. In 2012, water was added to the five IFC's strategic areas of focus and future growth¹⁷. In the same year, informed by the 2030 Water Resources Group, IFC launched its cross-sectoral Water Sector Business Plan covering demand and supplied side opportunities¹⁸.
- The World Bank Sustainable Infrastructure Action Plan (SIAP: 2008)¹⁹ reinforced the principles from earlier policy documents, but with a greater recognition of the inter-relations between the various water-related subsectors (irrigation, hydropower and environmental services) with emphasis on targeting the poor and facilitating public-private partnerships. The focus on outcomes included designing improved sectoral governance in the least developed countries through the WBG Governance and Anti-Corruption Implementation Plan, and improved results measurement of infrastructure services in all projects with WBG engagement. IFC undertook to leverage private finance through investment and advisory operations and through innovative instruments in the water sector (e.g. Infraventures and PPPs with public sector and municipal

governments). As part of its infrastructure focus, MIGA guarantees supported PPPs and investments in sub-sovereign water and sanitation projects.

19. The larger context is now set by the Sustainable Development Goals, and the recently concluded climate summit in Paris (COP 21). The Bank Group’s strategy seeks to align with the corporate twin goals: end extreme poverty by 2030 and build shared prosperity for the bottom 40 percent, while ensuring sustainability.

20. **Bank Group Support for W&S sector.** The Bank Group has committed US\$38 billion for the W&S sector during FY2007-2016. This is 7.4 percent of all Bank Group assistance during the period. Among the Bank Group units, the World Bank accounts for 95.2 percent of all lending for W&S, followed by 3.7 percent for IFC and 0.93 percent for MIGA. The W&S share for the Bank alone is 9.6 percent (US\$36.2 billion), while it is lower for IFC and MIGA at 1.2 percent (US\$1.4 billion) and 1.49 percent (US\$0.4 billion), respectively (Table 4). The Bank Group’s commitments for W&S have fluctuated over the last 10 years, peaking around US\$5 billion per year during FY2009-11 and FY2014-15, but dropping below US\$3 billion in FY2008 and FY2013 (Table 5). Bank client countries have also received support from bilateral donors, including AUSAID, DfID, Japan PHRD, and the Korean Trust Fund.



Sources: WB, IFC, and MIGA databases.

Sub-sector	WB	IFC	MIGA	Total
General W&S	10.4	1.2	0.3	11.9
Water Supply	9.2	-	-	9.2
Flood Protection	4.9	-	-	4.9
WW* Treatment and Disposal	3.2	0.2	0.1	3.6
Sanitation	2.9	-	-	2.9
WW Collection & Transportation	2.9	-	-	2.9
Public Admin	2.6	-	-	2.6
Total	36.2	1.4	0.4	38.0

Region	WB	IFC	MIGA	Total
AFR	7.1	-	0.2	7.3
EAP	8.2	0.4	0.2	8.9
ECA	3.9	0.4	-	4.3
LCR	7.1	0.3	-	7.4
MNA	2.7	0.2	0.01	3.0
SAR	7.2	0.03	-	7.2
Other	-	0.02	-	0.0
Total	36.2	1.4	0.4	38.0

Sources: World Bank Business Intelligence; IFC and MIGA databases. Note: *WW: Wastewater

21. WB lending in the W&S sector²⁰ has been primarily for investments (US\$30.8 billion; 85 percent), with about US\$3.9 billion (11 percent) for policy lending, and a nascent Program-for Results (P4R) portfolio of US\$1.4 billion (4 percent). IFC provided US\$1.36 billion (96 percent) through investments and US\$0.05 billion (4 percent) through advisory services. MIGA provided US\$0.4 billion through guarantees (Annex B).

22. The largest share of World Bank lending to the W&S sector goes to distinctly identifiable water supply components at US\$9.2 billion (25 percent), with identifiable sanitation components considerably lower at US\$2.9 billion (8 percent). If it is assumed the large amount of US\$10.2 billion for ‘general W&S services’ is distributed in the same proportion as identifiable W&S components, the amounts for water supply and sanitation would be US\$2.6 billion and US\$0.8 billion, respectively, accounting for 7.2 percent and 2.2 percent of all World Bank lending for W&S services. The remaining World Bank W&S portfolio comprises flood protection, wastewater treatment, wastewater collection, and public administration. IFC’s commitments are mainly for ‘general water’ (US\$1.19 billion; 85 percent) with the remaining US\$0.22 billion (16 percent) for wastewater treatment. MIGA’s commitments are split between wastewater treatment US\$0.1 billion (25 percent) and ‘general water’ US\$0.3 billion (75 percent) (Table 6).

23. In terms of regional distribution, the largest share of World Bank commitments went to the East Asia and Pacific region (US\$8.2 billion; 23 percent). South Asia (US\$7.2 billion), Latin America and the Caribbean (US\$7.1 billion) and Sub-Saharan Africa (US\$7.1 billion) accounted for approximately 20 percent each. Eastern Europe and Central Asia and the Middle East and North Africa regions received US\$3.9 billion (11 percent) and US\$2.7 billion (7 percent), respectively (Table 7).

24. During FY2007-16, the World Bank’s Global Practice for Water has approved 217 projects for W&S services, while other Global Practices²¹ approved 410 projects containing a varying proportion of W&S components. During this period, 405 projects (including some approved prior to FY2007) have been completed. For IFC and MIGA, 108 operations and 9 guarantees were approved, while 62 operations (including 32 IFC AS of which 23 are PPPs) and 5 guarantees have matured during FY2007-2016 (Table 8).

25. Based on the 101 projects of the World Bank’s Water Global Practice that were completed during FY2007-2016, and were reviewed by IEG, 73 percent of projects in the water practice had development outcomes that were moderately satisfactory or better. This was between comparable rates for infrastructure projects in the energy and extractives (43 percent) and transport (88 percent) practices. Of all Global Practices in Sustainable Development, the Water practice has the lowest share (19 percent) of projects with M&E quality rated high or substantial, among projects closed during FY11-14. For IFC, of the 5 investments and 6 advisory services that were rated by IEG, development outcomes of 3 and 1 operations respectively were rated moderately satisfactory or better. Both the MIGA guarantees were rated as satisfactory.

26. **Partnership programs.** Partnership programs and multi-donor trust funds (channeled through the Bank Group) support a large share of non-lending technical assistance in the W&S

Table 8. Projects with W&S Components: FY2007-2016		
Unit	Approved	Completed*
World Bank	627	405
<i>Water GP</i>	217	156
<i>Other GPs</i>	410	249
IFC	108	62
MIGA	9	5
Total	744	472
<i>Sources: WB, IFC and MIGA databases.</i>		
<i>Note: *completed/matured includes some operations approved prior to FY2007.</i>		

sector. Of these, the Water and Sanitation Program (WSP), created in 1978, is the largest partnership program and provides in-kind technical assistance for W&S in over 20 countries. It has promoted innovative solutions and tested new approaches to encourage behavior change, particularly for hygiene among the poor. During 2011-2014, WSP disbursed US\$142.4 million of which 65 percent went to scaling up rural sanitation and supporting poor-inclusive W&S sector reforms. The Water Partnership Program (WPP) is a multi-donor trust fund providing support to analytical work, project preparation and implementation in the water sector. Since 2009 this program has spent about US\$11million (26 percent of the total funding) on the W&S sector. The Global Partnership on Output-Based Aid (GPOBA) supports pilot projects for results-based financing for dealing with infrastructure bottlenecks and behavioral barriers to W&S service delivery. GPOBA's investment portfolio in W&S is US\$75.6 million. The Public Private Infrastructure Assistance Facility (PPIAF) – which provides project-specific support as well as upstream technical assistance aimed at improving institutional, regulatory and legal frameworks for PPPs – directed fifteen percent of its funds to the water sector. (Annex C). IFC established the 2030 Water Resource Group²² supported by bilateral development agencies, regional development banks and private sector companies to facilitate open, trust-based dialogue processes to drive action on water resources reform in water stressed developing economies.

27. **Previous Evaluations.** An early IEG evaluation of the Bank's W&S portfolio was carried out in 1992.²³ A subsequent evaluation in 2002²⁴ covered W&S issues in the context of the Bank's water resource strategy. A desk-based review of the World Bank's W&S projects was prepared in 2003.²⁵ Other evaluations on municipal management²⁶ and social funds²⁷ also covered aspects of water and sanitation. More recently, an IEG study, 'Water and Development'²⁸ (2010) evaluated the Bank Group's support for the broader water sector including W&S for the period 1997-2007. Its salient findings are presented in Box 1. A summary of W&S related findings from the other reports is in Annex D. The relevant findings from IEG's 2010 evaluation will serve as the baseline to dig deeper into the issues related to sustained W&S services with a focus on the poor. The evaluations of Public Private Partnerships²⁹ (2015) and on Knowledge-Based Country Programs³⁰ (2013) will also be drawn upon.

Box 1. Salient Findings: Water and Development: An Evaluation of World Bank Support, 1997-2007 (2010)

- Lack of clarity in approaches to cost recovery for water services.
- Sanitation received far less support than water services.
- There is a significant urban bias in moving towards MDGs.
- Water quality: monitoring parameters is declining in more recent World Bank projects.
- Donors and governments preference for capital-intensive works vis-à-vis O&M.
- Attention to economic analysis of projects is declining.
- Poor linkage between monitoring design, implementation and corrective actions utilization.
- Insufficient attention in Bank's portfolio for issues of growing importance: coastal zone management; pollution control; groundwater conservation.

II. PURPOSE, OBJECTIVES, AND AUDIENCE

28. **Purpose and Objective.** The *purpose* of this evaluation is to obtain evidence-based findings on the outcomes of the Bank Group's support for sustained water supply and sanitation services in client countries with a focus on the poor, develop broadly-applicable lessons and propose recommendations to enhance the Bank Group's effectiveness in supporting client

countries achieve credible progress towards sustainable water and sanitation services for all, in keeping with SDG 6.

29. In placing emphasis on sustained services, the evaluation contributes to IEG's overarching SEA (strategic engagement area) of 'sustained service delivery for the poor' and through its overall attention to sustainable management of water and sanitation, on the 'environmental sustainability' SEA. The evaluation will examine the design and outcomes of WBG interventions in terms of service delivery models and approaches to behavior change for sustained delivery of water and sanitation services.

30. **Stakeholder and Audience.** The primary audience for this evaluation study is the Bank Group's Boards of Directors, management, and staff involved in W&S operations. Other stakeholders that can benefit from this study are the Bank Group's client governments, multilateral and bilateral developmental banks and donors, the private sector, concerned civil society organizations, and the ultimate beneficiaries of W&S services.

III. EVALUATION QUESTIONS AND COVERAGE/SCOPE

31. **Specific Questions To Be Answered by the Evaluation:** The study poses the following overarching and subordinate evaluation questions:

Overarching Question:

How effective has the Bank Group been in supporting client countries improve access to adequate, reliable, and sustained W&S services – and going forward – how well is it equipped to support the countries in moving towards sustained water and sanitation services for all with focus on the poor, in keeping with Sustainable Development Goal 6?

Subordinate Questions:

A. Targeting Sustained Service Delivery

- i. How targeted and relevant is the Bank Group's support (investments, development policy lending, guarantees, technical assistance, analytical work, and policy advice) for providing sustained water and sanitation services to client countries that are at different access levels; across urban, rural and peri-urban areas; and for ensuring focus on the poor and vulnerable groups, particularly women and children?
- ii. To what extent has the Bank Group, through country partnership strategies and other means, considered issues relating to the sustainability of W&S services in the face of rapid urbanization, water-stressed regions, and the need to develop climate resilience?

B. Effectiveness in Providing Adequate, Reliable, Clean and Safe Services

To what extent has the Bank Group supported client countries in:

- i. the provision of access to adequate and reliable W&S services of adequate quality through new/ rehabilitated infrastructure facilities; improved technical, planning and management capacity; improved and innovative service delivery models; and private sector participation in urban, peri-urban and rural areas ?
- ii. securing the financial viability of the W&S sector institutions (e.g. utilities, municipal and community-based W&S services) through appropriate tariff policies and regulation; improved cost recovery and revenue collection and appropriate subsidies; investing in operations and maintenance; improved operating efficiency and non-revenue water reduction; and private sector participation?

- iii. the provision of affordable W&S services through community participation, responding to consumer demand and willingness to pay; affordable connection fees and targeted subsidies?
- iv. effecting behavior change among direct beneficiaries especially in adopting improved sanitation facilities, handwashing and other hygienic practices?
- v. ensuring environmental sustainability through management of the water resources, particularly ground water sources, and building resilience to water variability caused by climate change; safe collection and treatment of wastewater; and pollution of groundwater and water bodies?
- vi. improving M&E systems for better planning and targeting of improvement of W&S services?

C. Delivery of WBG Assistance

- i. To what extent have Bank Group operations in client countries been completed within the planned costs and time estimates? What are the factors that explain the patterns of time and cost overruns?
- ii. To what extent and how effectively has the Bank Group applied economic cost-benefit analysis in the design of W&S projects and investments?
- iii. How relevant and effective have global partnership programs (principally WSP, WPP, GPOBA, PPIAF) been in contributing to the Bank Group’s efforts for supporting countries to improve access to adequate, reliable, and sustainable W&S services?
- iv. To what extent have the partnership programs improved Bank Group collaboration with other development partners to expand its reach in client countries?
- v. To what extent has the Bank Group supported coordination between the ministry responsible for W&S services and other relevant ministries?
- vi. To what extent has the Bank Group supported client countries in reducing the financing gap by leveraging and effectively deploying additional financial resources for improving W&S services through private sector participation and better donor coordination?
- vii. To what extent have the Bank Group units – WB, IFC, and MIGA – collaborated in providing support to client countries for improved W&S services?
- viii. To what extent has the Bank Group employed its human resource expertise appropriately to the needs of client countries?
- ix. To what extent has the Bank Group mainstreamed environmental and social safeguards through its W&S projects?

32. **Assessing Performance.** The criteria for assessing performance – at the level of projects, programs and countries, and for technical assistance, analytical and advisory services – will be consistent with the harmonized evaluation criteria with the Bank’s Operations Policy and Country Services (OPCS) department that are used by IEG in its project evaluations. A four point scale of high/substantial/modest/negligible will be employed for assessing Key Performance Indicators (KPIs), for which criteria will be specified. The wide range of subject matter that is being evaluated in this study lends itself to the use of benchmarking, “before and after” analysis, counterfactuals, and ‘with or without scenarios.’ For instance, utility performance lends itself to benchmarking; ‘before and after analysis’ can be applied to situations where a new demand-based approach or private sector participation has been employed for the first time; and country case studies can be the basis for ‘with or without’ analysis. Existing ratings of overall development outcomes of IEG’s Implementation Completion Report Reviews and Country Learning Report Reviews will not be revisited.

Scope (breadth and depth of coverage, time period covered)

33. The evaluation will cover the Bank Group's support for sustained delivery of water and sanitation services with a focus on the poor. It will include the Bank Group's assistance for W&S through projects, investments, guarantees, non-lending technical assistance, and advisory services that have been approved or completed (matured) during FY2007-2016 (Table 8). This time period picks up from the end-point of the last major IEG evaluation of the water sector (IEG 2010), which covered the period FY1998-2007.

34. The subject matter of the evaluation will cover water supply, sanitation, wastewater collection and conveyance, and wastewater treatment and disposal and urban flood protection as indicated by the corresponding thematic codes for the projects. Environmental and pollution issues that are integral to these activities will be covered. Broader pollution and environmental issues in the water sector will be covered by a separate IEG evaluation on air and water pollution. Linkages with water resources management and climate resilience will be explored, though these issues are not central to the evaluation. The emphasis on sustained service delivery for the poor will be in the context of service delivery to all income levels, capturing issues of scale, viability and cross-subsidization.

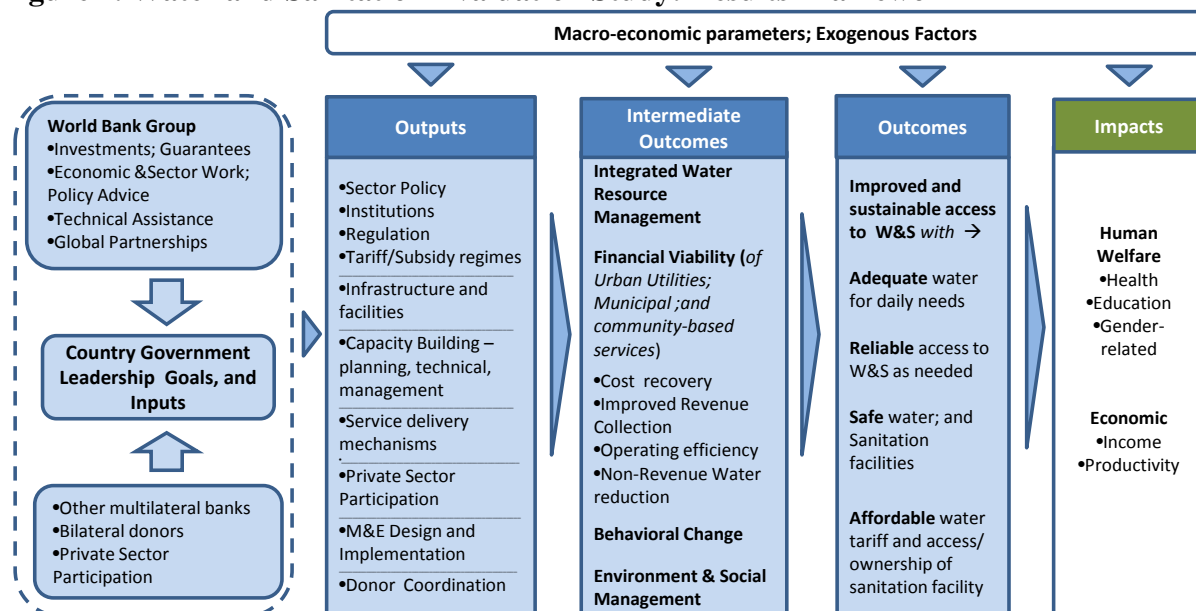
35. For the World Bank, in addition to the projects belonging to the Water Global Practice (217 approved, and 156 completed), the evaluation will cover the water and sanitation components of projects that belong to other Global Practices including agriculture, environment, health, urban management, poverty, and economic management (410 approved and 249 completed projects).

36. The contribution of analytical and advisory activities to sustained W&S service outcomes will be assessed based on structured feedback from various respondents including the GP staff and management, and borrowers. This assessment will be integrated with the country case study methodology as well as the planned assessment of contribution of partnerships including the Water and Sanitation Program (WSP) and the Water Partnership Program (WPP). The methodology used for the global partnerships evaluation for electricity access will be drawn upon as appropriate. The evaluation will not however, rate the overall performance of analytical and advisory activities in the absence of a validation in the manner done for projects.

IV. EVALUATION DESIGN AND EVALUATION ASSESSMENT

37. **Evaluation Design.** The sector diagnosis and conceptual framework presented in Section I and the evaluation questions listed in Section III are combined in a theory of change that is presented in the results framework below (Figure 1). The results framework traces the link between inputs, outputs, intermediate outcomes, and development outcomes for the W&S sector.

Figure 1. Water and Sanitation Evaluation Study: Results Framework



38. **Methodology.** The evaluation will be developed from five major modules: a literature review; Bank Group country partnership strategy analysis; project/ operations portfolio review; review of global partnerships’ contributions; country macro and sector context review; and country vis-a-vis Bank Group performance analysis. A detailed Case Study Matrix including data sources and linkages to the study evaluation questions is presented in Annex E. Each of the methodology modules is described below. The study will benefit from frameworks for evaluating service delivery models and behavioral change among beneficiaries that will be developed by dedicated teams in IEG, which will inform a theory of change in this respect. The team will coordinate with IEG’s Strategic Engagement Area (SEA) for Service Delivery to the Poor and work with the teams responsible for developing evaluative frameworks for Service Delivery to the Poor and Behavior Change. (Details in Annex J). (Table 9).

- a. *Literature and Non-lending Technical Assistance Review:* This is a review of the Bank Group’s research papers, reports, publications and other economic and sector work, as well as relevant literature and publications from UN organizations (WHO, UNICEF), multilateral development banks, bilateral donors, and academic journals. The review will cover products from FY2007-2016, but will reach back to earlier years needed to support individual desk and field country studies. Identified documents for review cover about 780 from WBG sources, 250 from external sources, including about 100 impact evaluations and systematic reviews. The literature review will also draw upon presentations in the Bank Group’s water related learning events and presentations, including the Water Week and other occasions. The non-lending and advisory services review will cover policy notes, workshops, and conferences.
- b. *Bank Group Country Strategy Analysis.* This is a review of Country Partnership Strategies as well as Country Assistance Strategy Completion Report Reviews and SCDs (systematic country diagnostics) for all case study countries during the past 10-12 years. These documents will be analyzed in terms of water, sanitation and hygiene issues raised; strategies proposed, and specific proposals for a work program.

- c. *Project Portfolio Review.* The portfolio review will be based on the Project Appraisal Documents (PADs), Implementation Completion and Results Reports (ICRs) IEG’s ICR Reviews, Expanded Project Supervision Reports (XPSRs), Project Completion Reports (PCRs), Project Evaluation Reports (PERs) and Project Performance Assessment Report (PPARs). This review will cover all Bank Group projects, operations and guarantees addressing one or more of the elements of W&S, and have been approved or completed during FY2007-2016. The portfolio review will analyze the objectives and components of all projects. A key performance indicator (KPI) analysis will be made of all the indicators listed in the results frameworks of the projects. The key performance indicators will be mapped to the outputs, outcomes and impacts in the results framework and will then be rated. These ratings will be an important basis for addressing the evaluation questions and analyzing performance. A special effort will be made to identify explicit or implied objectives, components and indicators relating to the range of identifiable service delivery models, and behavior change for improved hygiene. Project components will be coded for various topics related to service delivery and behavioral change bases on guidance from the behavioral change team in IEG. Qualitative and quantitative information will be extracted and organized in a manner that may help compare the relative efficacy of efforts in terms of reaching the rural and urban poor (as well as remotely located and marginalized populations where applicable), supporting quality services, building sustainability, and gender impacts. To counteract the often weak evidence collected during and after the projects themselves and the institutional ratings, the results will be benchmarked to the Evidence Gap Map that the International Initiative for Impact Evaluation (3ie) produced in collaboration with IEG.

TABLE 9. EVALUATION DESIGN			
EVALUATION MODULES	Map and Assess Results Framework Parameters		Evaluation Products
a) LITERATURE AND NON-LENDING ADVISORY SERVICES REVIEW	<p>OUTCOMES: SUSTAINABLE SERVICES W/ FOCUS ON POOR</p> <ul style="list-style-type: none"> ● IMPROVED ACCESS TO W&S SERVICES AND FOCUS ON POOR – Urban and Rural <ul style="list-style-type: none"> * Adequate, Reliable, Safe, Affordable *Increased share of improved facilities ● ENVIRONMENTAL SUSTAINABILITY <ul style="list-style-type: none"> *Water resource mgmt/ climate resilience *Decreased groundwater, downstream pollution ● FINANCIAL SUSTAINABILITY <ul style="list-style-type: none"> *Cost Recovery *Improved Revenue collection ● INSTITUTIONAL SUSTAINABILITY <ul style="list-style-type: none"> *Operating efficiency *Beneficiary engagement *Accountability 	Address Evaluation Questions	<p>Main Evaluation Study</p> <p>Global Partnerships Annex</p> <p>Country Case Studies (~12)</p>
b) WBG COUNTRY STRATEGY ANALYSIS			
c) PROJECT PORTFOLIO REVIEW ■ Project Key Performance Indicators (KPI) Analysis. including interventions for: <ol style="list-style-type: none"> 1. Service Delivery Mechanisms, and 2. Behavior Change 			
d) GLOBAL PARTNERSHIPS ANALYSIS			
e) COUNTRY VIS-À-VIS BANK GROUP PERFORMANCE ANALYSIS <ul style="list-style-type: none"> ■ Country macro and sector profile ■ Country-focused portfolio analysis ■ Country vs. WBG perf. assessment 			

- d. *Review of Partnerships’ Contributions:* The team will assess the relevance and effectiveness of major Bank-supported partnerships in helping the WBG improve access to affordable and sustainable W&S services. It will focus on contributions of a cluster of four global partnership programs – Water Sanitation Program (WSP), Water Partnership Program (WPP), Global Output-based Aid (GPOBA), and Public Private Infrastructure Advisory Facility (PPIAF). Since all of these programs, except the WSP, have a broader focus, the review will concentrate on

activities of the programs that are pertinent to the objective of the main evaluation. The methodology of the partnership review will be closely aligned with the evaluation framework of the main evaluation. The assessment will build on existing external evaluations of these programs as well as on new evaluative work, mostly document reviews and interviews related to their W&S portfolios. Where possible, country visits for the main evaluation will also bring insights to the contribution of these programs.

- e. *Country macro and sector context review* : The country macro and sector profile will contain relevant macroeconomic, demographic and human development indicators; and the state of the W&S sector in the country in terms of service delivery models, policies, regulation, institutions, service delivery mechanisms, service coverage, tariffs, sources and levels of investment, contribution of other multilateral development banks and bilateral aid, private sector participation, and other relevant parameters. The country focused portfolio analysis will draw upon the KPI analysis and linkage to the results framework evaluative parameters.
- f. *Country vis-a-vis Bank Group Performance Analysis*. This will draw upon all the preceding modules together with field-based findings and discussions with the Water GP staff and management. The study plans 12-14 desk- and field-based country case studies (listed under ‘sampling strategy’ below). Among others, the case studies will seek to trace the evolution of the water and sanitation sector in the country in its specific context, and the Bank Group ‘support in this process.

39. **Sampling Strategy.** All Bank Group projects/investments/guarantees, non-lending services, and advisory services approved or completed during FY2007-16 will be covered by the evaluation. The extent of evaluative analysis will be greater for completed activities, while ongoing activities will be examined to uncover trends and linkages to completed activities. The key performance indicator analysis will cover 217, 62, and 5 completed/matured activities for the World Bank, IFC, and MIGA, respectively. All IEG project-level evaluations (Implementation Completion Report Reviews, approximately 200) will be examined, along with XPSR validations for IFC (6 investments and 6 advisory services) and MIGA (2 guarantee operations). The scope of IFC and MIGA activities that are covered will go beyond the sample of evaluated operations, and will cover advisory services, efforts at supporting project preparation, venture funding, and fostering innovation to the extent possible. A purposive sample of 12-14 countries has been picked for desk- and field-based country studies based on balanced coverage of all Bank lending regions; breadth of WB, IFC, and MIGA lending and non-lending involvement; W&S access levels, income, country size, policy, regulatory, and institutional conditions; private sector participation levels; importance of urban/rural issues and relative emphasis on water supply vs. sanitation, fragile and conflict-affected states (FCS) situations; and presence of impact evaluations. Overall the sample covers over 55 percent of Bank Group commitments for W&S during FY2007-2016. The tentative long list of case study countries for field based case studies is China, Haiti, India, Indonesia, Nigeria, Sri Lanka, and Zambia, and for desk case studies is Colombia, Egypt, Peru, Senegal, Uzbekistan, and Vietnam. (Details in Annex F).

40. **Data and Information requirements.** Data and information requirements for the evaluation can be grouped as (i) *country context-related*: macroeconomic, demographic and human development indicators; (ii) *country sector policy and management-related*: policy, institutional structures, regulation, budget provisions, and subsidies; (iii) *country sector service-related*: service delivery models; indicators for W&S and relevant parameters in the health, environment and urban sectors; and (iv) Bank group lending and non-lending services data, (v) Bank Group country strategies, economic sector work and external literature; (iv) other

developmental partner assistance; and (v) private sector lending for the sector. Details of the data sources are listed in Annex E, Table A. The evaluation will also draw upon quantitative and qualitative data collected from field-based country case studies and project performance assessment reports; and interviews with all stakeholders. Perceptions of external stakeholders will be collected, as will interviews with government counterparts, civil society, researchers, private sector representatives, personnel engaged in service delivery, and beneficiaries. Focus group discussions will be held with groups of beneficiaries of Bank Group projects, where feasible. Interviews will be conducted with sector staff – technical specialists, task team leaders, researchers, and managers. Innovative data collection methods (such as through cell phones) will be sought and assessed; selected PPARs and case studies will employ focus groups and pilot sample surveys within the budget envelope. W&S services are interrelated with broader water resource management and pollution issues; interface with nutrition, health and hygiene; and are impacted by land-use planning and overall governance and corruption matters. The evaluation will cover these linkages within the scope of the evaluation methodology and information sources, while keeping the core focus on sustained delivery of W&S services. An existing “gap-map”³¹ on the measurable impacts of improved water and sanitation – based on available impact evaluations and systematic reviews – will be used to guide further data collection and analysis.

41. **Design strengths and limitations.** IEG will evaluate the Bank’s alignment with the client country’s goals, capacity and achievements (Figure 1). This is expected to lead to a far richer and comprehensive evaluative analysis than a more limited approach of judging the Bank Group’s performance against its own program goals. The evaluation also uses the prism of evaluative parameters from the results framework to examine the consistency and causality across the Bank’s strategy, support, and performance. The design incorporates frameworks for analyzing the ‘science of delivery’ for W&S, as well as behavioral change principally among beneficiaries, as crucial factors for driving adequate, reliable, and sustainable outcomes on the ground. For some of the impacts and outcomes that will be examined by the study, there may be gaps in data that can be compared over time and across different locations and countries. To reduce these data gaps, the study will draw upon the literature survey, impact evaluation, and field case studies. The team will collaborate with IEG’s internal teams on gender, service delivery, and FCS, and also the related communities of practice or other sources of expertise in the Bank Group.

V. QUALITY ASSURANCE PROCESS

42. **Quality Assurance Process.** This document follows the *IEG Quality Assurance Standards for Approach Papers*. This Approach Paper has benefited from the views of four expert peer reviewers. The same group of reviewers will also provide feedback on the final report. The peer reviewers collectively bring strong operations, research and evaluative expertise spanning all aspects of water and sanitation issues across regions and especially in developing countries: Mr. Ricardo Sancho Chavarria, Faculty of the School of International Relations National University of Costa Rica, and former Executive President of the Costa Rican water utility, Instituto Costarricense de Acueductos y Alcantarillados; Mr. Arthur McIntosh, W&S expert and former staff of the Asian Development Bank; and Prof. Dale Whittington, Professor of Environmental Sciences & Engineering, City & Regional Planning, and Public Policy, at the University of North Carolina at Chapel Hill. This approach paper has also benefited from preliminary consultations with several Bank Group operational and research staff, management.

These consultations serve as a reality check for the evaluation design and will be continued during report preparation to fill gaps in information and analysis.

VI. EXPECTED OUTPUTS, OUTREACH AND TRACKING

43. **Planned reporting vehicles.** The final evaluation report will be presented to the World Bank Group Board of Directors’ Committee on Development Effectiveness (CODE), in its oversight role of the effectiveness of Bank Group operations. Technical briefings/presentations will be held as requested for Board members and senior management. Presentations will be held for sector staff at headquarters and country offices through face-to-face presentations supplemented by videoconferencing or on-line broadcasts as feasible.

44. **Outreach/ Dissemination Strategy.** A report launch event will be held at the Bank Group headquarters for Bank staff, and staff of developmental and research organizations represented in the area. Tailored presentations will be made as requested and when feasible in relevant conferences, multilateral development banks, sector institutions, and regional institutions. Blogs, infographics, and graphics videos will be prepared with simple and clear messages, suitable for dissemination through social media. In this effort, the advice and collaboration of IEG knowledge and communications staff will be integrated from the early stages of the report preparation. Specific event such as the 2018 World Water Forum or the Stockholm Water Week will be assessed as possible dissemination platforms for the evaluation findings.

VII. RESOURCES

45. **Timeline.** Following submission of the Approach Paper to the Board’s Committee on Development Effectiveness (CODE), the report preparation will take approximately eight months including field-based studies, and another three for incorporating feedback from the WBG management and processing for submission to CODE (Table 10).

IEG Management Review of the Approach Paper – One stop	March 22, 2016
Approach paper sent to CODE	June 22, 2016
IEG Management Review of the Draft Report – One stop	March 16, 2017
CODE Meeting	May 2017

46. **Budget (\$US).** The total budget for the report is estimated at US\$1,128K, including staff time, consultant fees, travel and subsistence, contingencies and dissemination (Table 11)

Staff Costs	486,000
Consultant costs	328,000
Travel and Subsistence	150,000
Dissemination	50,000
Contingencies	20,000
TOTAL costs	1,034,000

47. **Team and skills mix:** Overall guidance is provided by Marvin Taylor-Dormond, Director, IEGSP, and Midori Makino, Manager IEGSD. The team has a balanced mix of evaluation, sector operations, and data analysis skills covering both the public and private sectors, and

consists of Ramachandra Jammi, Senior Evaluation Officer and Task Team Leader; Anahit Aghumian, Maria Elena Pinglo, Vivek Raman, and Alexandra Horst, Evaluation Officers; Ebru Karamete, Evaluation Specialist (ETC). Daniel Musitwa, Senior Communications officer, IEGKC; Vijay Jagannathan, Senior Adviser and Consultant; Jan Janssens, and Jason Cardosi, senior consultants; Anne-Clémence Owen, Yunsun Li, and Anna Amato, Consultants. Other experts will be co-opted as the study progresses, and as needed. The team coordinates internally with IEG's two framework teams for service delivery to the poor and behavior change, as well as for FCS.

ENDNOTES

¹ UN. 2015. P. 12.

² WHO. 2012. P.4.

³ <http://rehydrate.org/water/water-sanitation-hygiene.htm>

⁴ Kim. 2012.

⁵ <http://www.wssinfo.org>

⁶ <http://www.worldbank.org/en/topic/watersupply/overview#1>

⁷ UN-Water and WHO. 2014. P. x.

⁸ WHO website.

⁹ Corcoran, E., ET all. P.5.

¹⁰ WHO UNICEF USAID. 2015.

¹¹ UN-Water and WHO. 2014. P. ix.

¹² WHO UNICEF. 2015. P. 9

¹³ World Bank. 1994d.

¹⁴ World Bank. 2004.

¹⁵ IFC Strategic Directions, FY08-10: Creating Opportunity.

¹⁶ IFC Road Map FY11-13

¹⁷ IFC Road Map FY12-14;

¹⁸ The business plan covers water demand management and efficiency opportunities, including non-revenue water reduction, innovative water- and energy-efficient technologies such as low energy desalination, and wastewater treatment and reuse, as well as supply-side opportunities such as distributed services and solid waste management.

¹⁹ World Bank. 2008.

²⁰ WB lending in the W&S sector are the sum of commitments for the following sub-sector codes under W&S: Public Administration – Water, Sanitation and Flood Protection (BW); Sanitation (WA); Water Supply (WC); Wastewater Collection and Transportation (WT); Wastewater treatment and Disposal (WV); and General Water, Sanitation and Flood Protection (WZ).

²¹ AGR, Agriculture; EAE, Energy & Extractives; EDU, Education; ENV, Environment; FAM, Finance & Markets; GOV, Governance; HNP, Health, Nutrition & Population; MFM, Macro Economics & Fiscal Management; POV, Poverty; SPL, Social Protection & Labor; TAC, Trade & Competitiveness; TAI, Transport & ICT; and URS, Social, Urban, Rural and Resilience Global Practice.

²² The business plan covers water demand management and efficiency opportunities, including non-revenue water reduction, innovative water- and energy-efficient technologies such as low energy desalination, and wastewater treatment and reuse, as well as supply-side opportunities such as distributed services and solid waste management.

²³ OED 1992.

²⁴ OED 2002.

²⁵ OED 2003.

²⁶ IEG 2009.

²⁷ OED 2002a.

²⁸ IEG 2010.

²⁹ IEG 2015.

³⁰ IEG 2013.

³¹ JICA 2015.

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Annex A

Drinking Water, Sanitation, and Handwashing Ladders

Table 1. Water, Sanitation and Handwashing Ladders

	Drinking Water Ladder	Sanitation Ladder	Handwashing Ladder	
Improved	Safely managed			Improved
	A basic drinking water source which is located on premises, available when needed and free of fecal and priority chemical contamination	A basic sanitation facility which is not shared with other households and where excreta are safely disposed in situ or treated off-site		
	Basic			
	Piped water, boreholes or tubewells, protected dug wells, protected springs and rainwater provided collection time is no greater than 30 minutes for a roundtrip including queuing*	Flush/pour flush to piped sewer system, septic tank or pit latrine, ventilated improved pit latrine, composting toilet or pit latrine with a slab not shared with other households	Hand washing facility with soap and water in the household	
		Shared		
	Sanitation facilities of an otherwise acceptable type shared between two or more households			
Unimproved	Unimproved			Unimproved
	Drinking water from unprotected dug wells, unprotected springs, carts with small tank/drum, tanker trucks or basic sources with a total collection time of more than 30 minutes for a roundtrip including queuing*	Pit latrines without a slab or platform, hanging latrines and bucket latrines	Handwashing facility without soap or water	
	Surface water	Open Defecation	No facility	
	River, dam, lake, pond, stream, canal or irrigation channel	Human feces disposed of in fields, forest, bushes, open bodies of water, beaches or other open spaces or disposed of with solid waste	No handwashing facility	

Source: Adapted from WHO UNICEF JMP. 2015.

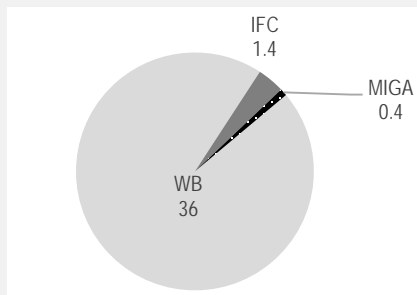
*Bottled water is considered "basic" for drinking only when the household uses a basic source for cooking and personal hygiene

Annex B

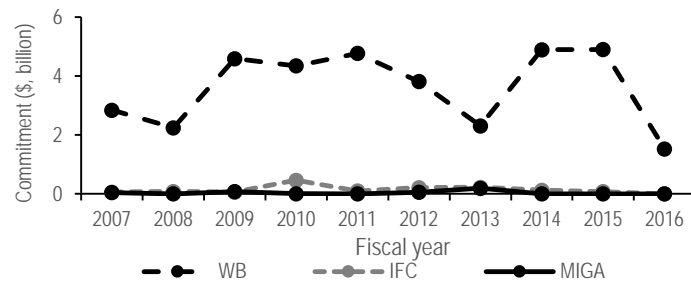
Portfolio Review: Elements of WBG Assistance for Water & Sanitation

Figure 1. WBG Support for Water and Sanitation, FY2007–2016 (\$, billions)

A. W&S Share of all WBG commitments



B. Trend in WB, IFC and MIGA commitments



Source: World Bank Business Intelligence; IFC and MIGA databases.

Note: IFC = International Finance Corporation; MIGA = Multilateral Investment Guarantee Agency; WB = World Bank.

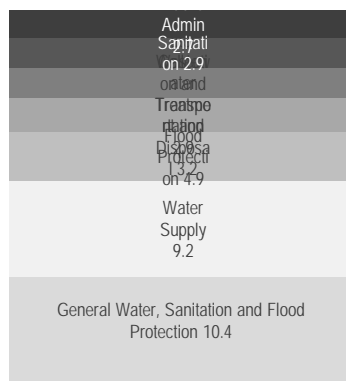
Figure 2. World Bank Support for Water & Sanitation, FY2007–2016 (\$, billions)

A. by Lending Instrument



Total: US\$ 36.2 billions

B. by Sub-sector



Total: US\$ 36.2 billions

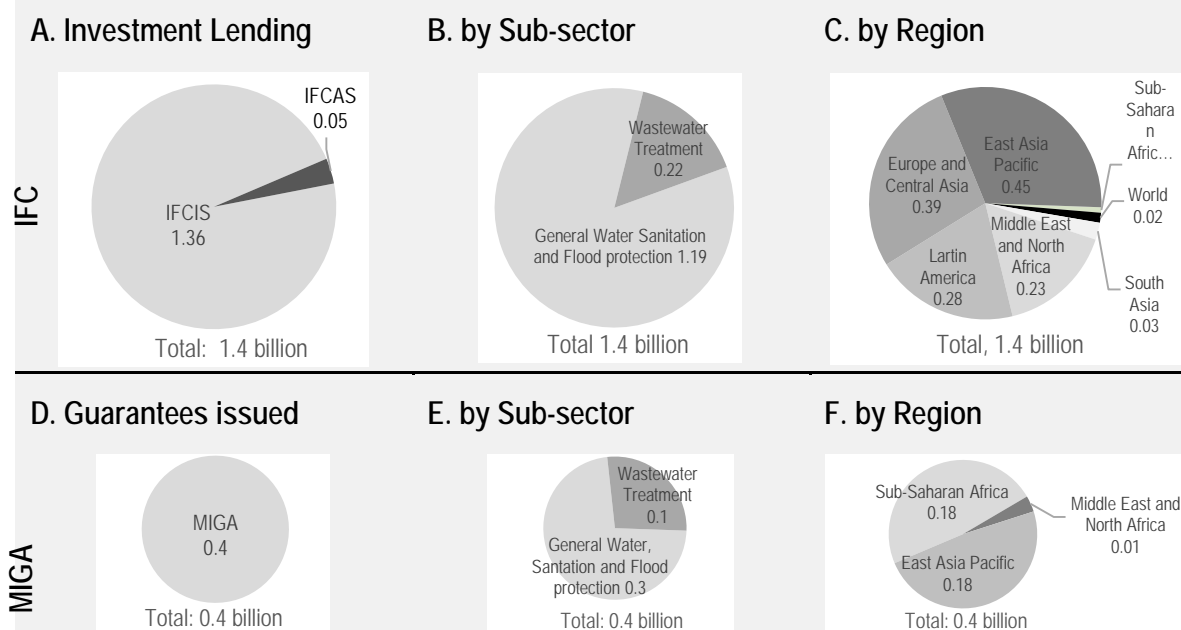
C. by Region



Total: US\$ 36.2 billions

Source: World Development Indicators; data related to 2010; United Nations 2012.

Figure 3. IFC and MIGA Support for Water & Sanitation, FY2007–2016 (\$, billions)



Sources: World Bank Business Intelligence; IFC and MIGA databases.

Note: b = billion; IDA = International Development Association; IFC = International Finance Corporation; MIGA = Multilateral Investment Guarantee Agency; WB = World Bank.

Institution	Approved projects		Number of Projects	
	Number	Amount (\$, billion)	Active	Completed/ Matured *
World Bank	627	36.2	405	546
Water GP	217	20.2	156	179
Other GPs	410	16	249	367
IFC	108	1.4	62	35
MIGA	9	0.4	5	4
Total	744	38.0	472	585

Source: World Bank Business Intelligence; IFC and MIGA databases.

Annex C

Review of World Bank Group's partnerships support to W&S Services

Purpose: The review aims to 1) learn lessons on the contribution of the partnership programs to the Bank Group's W&S work; 2) help improve the relevance and effectiveness of WBG W&S partnership programs; and 3) learn lessons for the WBG as a development partner that IEG can use in its wider engagement with WBG management on partnership issues.

Scope: The review will focus on a cluster of four global partnership programs — Water Sanitation Program (WSP), Water Partnership Program (WPP), Global Output-based Aid (GPOBA) and Public Private Infrastructure Advisory Facility (PPIAF). Since all of these programs, except the WSP, have broader or multi-sectoral foci, the review will focus on program activities that are pertinent to the objectives of the main evaluation.

Methodology and Evaluation Questions: The methodology of the Partnerships Review will be closely aligned with the evaluation framework of the main evaluation. Main evaluation questions to assess the contribution of these four partnership programs are:

1) How relevant and effective have global partnership programs (principally WSP, WPP, GPOBA, PPIAF) been in contributing to the Bank Group's efforts in supporting countries to improve access to adequate, reliable, and sustainable W&S services?

- Were design, strategies, and activities of these programs appropriate for achieving their intended results?
- What is the quality of the M&E system? How well it captures the results of the program(s)?
- To what extent the programs have achieved their intended results in W&S?

2) To what extent have these programs improved WBG collaboration with other development partners to expand its reach in client countries?

- How well have these programs complemented the WBG's global, regional, and country level work in W&S?
- As donor-supported programs, have these programs maintained the right balance between the donor priorities and client country needs in their selection of countries and activities?

The review will involve a desk study of key documents and a sample of activities for each of the partnership programs. Key respondents having an interface with partnership activities (Bank staff, client government and implementing agency officials, civil society and beneficiaries) will be interviewed. To the extent possible, it will draw on the available evidence on results as reported by external evaluation(s) of the programs, impact evaluations.¹ Where relevant, desk and field-based country case studies will include questions and analysis on the contribution of these programs.

¹ Of these four programs, only the WSP and PPIAF have relatively recent external evaluations.

Partnerships Review: Overview of Programs

Water and Sanitation program, (WSP) is a multi-donor partnership, established in 1978, that aims to support poor people in obtaining affordable, safe, and sustainable access to water and sanitation services. WSP provides in-kind technical assistance, capacity building, and leverages knowledge and partnerships through its network of technical staff in more than 20 countries across the world. WSP's disbursements under its six closely-related business areas are presented in Table 1. Two of its core business areas, scaling up rural sanitation and supporting poor-inclusive W&S sector reforms comprise about 65 percent of program US \$142.4 million spending for the last 4 years. WSP has been principally active in four regions with Africa and East Asia and Pacific accounting for the largest shares of disbursements at 32 percent and 24 percent respectively.

Table 1. Disbursements by WSP's six core business areas, 2011-2014 (US\$ million)

	2011	2012	2013	2014	Total
1. Scaling up rural sanitation and hygiene	13.2	10.7	9.8	13.5	47.2
2. Creating sustainable services through domestic private sector participation (SS-DPSP)	2	9	5.6	8.6	25.2
3. Supporting poor-inclusive WSS sector reform	12	11.8	11.5	9.3	44.6
4. Targeting urban poor; improving services in small towns	2.7	3.5	4.5	5.1	15.8
5. Mitigating & adapting W&S delivery to climate change	1.1	0.6	0.4	0.1	2.2
6. Delivering WSS services in fragile states	0.9	1	1.8	3.7	7.4
Total	31.9	36.6	33.6	40.3	142.4

Output-Based Aid Program (GPOBA) is a global partnership program that aims to fund, design, demonstrate, and document OBA approaches to improve the delivery of basic services to the poor in developing countries. GPOBA provides technical assistance and investments to promote the use of one the results-based financing approaches—output-based aid—to provide access to basic services for the poor. Water is the second largest sector in GPOBA's portfolio, after energy, comprising 24 percent of total subsidy portfolio. GPOBA's WSS portfolio: GPOBA's WSS pilots test the potential of results-based financing approaches in dealing with infrastructure bottlenecks and behavioral barriers of water supply and sanitation service delivery. Total GPOBA portfolio in the period of 2007-2015 in W&S is US\$75.66million with 17 investment projects. GPOBA WSS portfolio (2007-2015) has 13 closed subsidy projects in the amount of about US\$50mln. The largest share of water portfolio is in Africa, mainly Sub-Saharan region (table 2). The portfolio focuses on provision of basic services to the poor; with 65 percent (11 projects out of 17) of funding allocated to IDA countries.

Region	Amount	%
AFR	45.8	61
EAP	12.3	16
LAC	4.6	6
MENA	7.0	9
SAR	5.93	8
Total	75.66	100

Water Partnership Program (WPP) is a Bank-managed multi-donor trust fund established in 2009. The program aims to support finding innovative solutions to complex water challenges. WPP provides support to analytical work, project preparation and implementation across all water subsectors. The Program's support is provided via individual activities that are coordinated through six regional and one global window. The program supports only Bank executed activities. Since 2009 the program committed about \$43 million for over 300 activities. Of this, 41 percent went to global activities, mainly analytical work, Water Expert team, and dissemination of knowledge products. W&S accounted for 26 percent of WPP funding and mostly supported activities in Africa and South Asia where the access gap is the largest. These comprise project preparation and supervision support to about 100 WB investment projects in W&S and knowledge work.

Public-Private Infrastructure Advisory Facility (PPIAF) is a multi-donor trust fund that provides technical assistance to governments in developing countries in support of the enabling environment conducive to private investment (policies, laws, regulations, institutions, and government capacity). It also supports governments to develop specific infrastructure projects with private sector participation. The support to activities in Sub-Saharan Africa accounts for 41 percent of approved country- and region-specific activities. Over the last five years, on average, about 60% of PPIAF funding went to support infrastructure development strategies and policy reforms. Fifteen (15%) percent of PPIAF funds supported technical assistance in the water sector. These include project-specific support at different stages of the project-cycle as well as upstream technical assistance aimed at improving institutional, regulatory and legal frameworks for PPPs. PPIAF's support in the area of W&S cover four areas: non-revenue water, small-scale water providers, wastewater and sewerage, and solid waste.

Annex D

Salient Findings from previous IEG Evaluation of W&S sectors.

*Water Supply and Sanitation Projects: the Bank's Experience—1967–1989*²(1992): This evaluation noted a shift in the Bank's focus from working through government agencies in the W&S sector to increase sector regulatory capacity and encouraging private sector participation in an effort to provide efficient, sustainable service for all, with a special emphasis on the poor.

Social funds – Assessing Effectiveness (2002)³. Impacts in the sanitation sector varied between sewerage and latrines. No net health benefits could be detected from social funding investments in sewerage systems, although investments in latrines tended to reduce the incidence of diarrhea.

Bridging Troubled Waters. Assessing the World Bank Water Resources Strategy (2002)⁴: This study placed W&S within the context of Integrated Water Resources Management (IWRM). The report concluded that the water supply sub-sector had not sufficiently documented its effect on poverty alleviation; that the regulation sector experience had not been evaluated; that sector pricing policies were inconsistently applied; and that private sector participation had not yet been demonstrated as sustainable.

Efficient, Sustainable Service for All? An OED Review of the World Bank's Assistance to Water Supply and Sanitation (2003)⁵. This review noted that regulation must become less prescriptive and ought to focus on implementation. It noted that private sector participation had shown promising results and remained an important tool to improve coverage and quality; it also noted operators require special incentives to serve the poor.

Environmental Sustainability: An Evaluation of World Bank Group (2008)⁶: This evaluation noted that the Bank Group should adopt a more coordinated approach to policy dialogue with governments. This would enable further structural reforms for public-private partnerships in the sector as well as ensure that industry views are represented.

*Improving Municipal Management for Cities to Succeed: An IEG Special Study*⁷(2009). This report covered W&S components of World Bank projects among other activities, but did not offer findings or recommendations of specific interest to the sector.

PPP evaluation: This evaluation noted that, as a general rule, the presence of a strong regulatory framework was necessary for PPP projects to succeed in the water sector. Sector reform efforts were found to be particularly prominent in the water sector, indicating reliance of PPPs on reform in this area. However, these sector reform efforts showed the lowest success in achieving their objectives because of sector complexity.⁸

² OED. 1992

³ OED 2002a

⁴ OED. 2002

⁵ OED. 2003

⁶ IEG. 2008

⁷ IEG. 2009

⁸ IEG 2015

Annex E

Detailed Design Matrix

A. Data Sources and Limitations

DATA ATTRIBUTES	EVALUATION MODULES				
	Literature / NLTA review	WBG Sector Strategy Analysis	Project Key Performance Indicator Analysis and Portfolio Review	Desk/Field Case Studies	Global Partnerships Study
DATA SOURCES	<ul style="list-style-type: none"> ▪WB's Imagebank; ▪Water Global Practice ▪WB's Business Intelligence ▪Academic databases ▪Google Scholar 	<ul style="list-style-type: none"> ▪WBG Country Partnership strategies ▪Staff Interviews 	<ul style="list-style-type: none"> ▪WB' s Business Intelligence ▪IFC and MIGA databases ▪WBG Operations documents: Project Appraisal Reports (PADs); Implementation Completion and Results Reports (ICRs); Aide Memoires; IFC's Extended Project Supervision Reports (XPSRs); MIGA's Project Completion Reports (PCRs); ▪ IEG Reviews of ICRs. XPSRs and PCRs; ▪IEG's field-based Project Performance Assessment Reports (PPARs); ▪Previous Sector Studies 	<p><u>Literature and NLTA review</u>: Country specific data; impact evaluation and systematic review data</p> <p><u>Project Data</u>: same as KPI analysis and Portfolio Reviews;</p> <p><u>Field-based info/data</u>: Interviews with WBG staff; Govt officials; implementing agency staff; civil society; beneficiaries; site visits; selected focus groups</p> <p><u>Cross-Country Sector ; Economic; Human Development; Demographic Data</u>:</p> <ul style="list-style-type: none"> ▪Joint Monitoring Program of WHO-UNICEF; IBNET ▪Other Water sector organizations; ▪ ADB; AfDB; IaDB; USAID; DFID etc. ▪World Development Indicators; <p><u>Country Data</u>: Ministry websites;</p>	<ul style="list-style-type: none"> ▪WSP, WPP, PPIAF reports and databases; ▪GPOBA portfolio documents; ▪Integrated with Interviews for Desk/field case studies
DATA LIMITATIONS	None significant	None significant	<p><u>Impacts</u>: There is expected to be relatively low attributable data for health, nutrition, economic, and gender impacts of W&S services;</p> <p><u>Outcomes</u>: Data may be limited and context specific. Many gaps are expected for data on Adequacy, Reliability, and Affordability of W&S services. Similarly, data on Environmental and Institutional Sustainability may be limited and context specific.</p>	Attribution of interventions by each of the above entities to outcomes may be insufficient.	

B. Evaluation Module inputs to Addressing Evaluation Questions.

EVALUATION QUESTIONS	EVALUATION MODULES				
	Literature /NLTA review	WBG Sector Strategy Analysis	Project Key Performance Indicator Analysis	Desk/Field Case Studies	Global Partnerships Study
Overarching Question: How effective has the Bank Group been in supporting client countries improve access to adequate, reliable, and sustainable W&S services – and going forward – how well is it equipped to support the countries in moving towards sustainable water and sanitation services for all, in keeping with Sustainable Development Goal 6?					
A. Targeting Sustainable Service Delivery					
A i. How targeted and relevant is the Bank Group’s support (investments, policy lending, guarantees, technical assistance, analytical work, and policy advice) for providing sustained water and sanitation services to client countries that are at different access levels; across urban, rural and peri-urban areas; and for ensuring focus on the poor and vulnerable groups, particularly women and children?	✓	✓	✓	✓	✓
A ii. To what extent has the Bank Group, through country partnership strategies and other means, considered issues relating to the sustainability of water and sanitation services in the face of rapid urbanization, water-stressed regions, and the need to develop climate resilience?	✓	✓	✓	✓	✓
B. Providing Adequate, Reliable, Clean and Safe Service: <i>To what extent has the Bank Group supported client countries for...</i>					
B i. ... the provision of access to adequate and reliable W&S services of adequate quality through new/ rehabilitated infrastructure facilities; improved technical, planning and management capacity; level of connection fees; improved and innovative service delivery models; and private sector participation?			✓	✓	✓
B ii. ...securing the financial viability of the W&S sector (e.g. utilities, municipal and community-based W&S services) through appropriate tariff policies and regulation; improved cost recovery and revenue collection; investing in operations and maintenance; improved operating efficiency and non-revenue water reduction; and private sector participation?			✓	✓	✓
B iii. ...the provision of affordable W&S services through community participation, responding to consumer demand and willingness to pay; appropriate connection fees and targeted subsidies?			✓	✓	✓
B iv. ...effecting behavior change among direct beneficiaries especially in adopting improved sanitation facilities, handwashing and other hygienic practices?	✓		✓	✓	✓

EVALUATION QUESTIONS	EVALUATION MODULES				
	Literature / NLTA review	WBG Sector Strategy Analysis	Project Key Performance Indicator Analysis	Desk/ Field Case Studies	Global Partnerships Study
B v. ...ensuring environmental sustainability through management of the water resources, particularly ground water sources, and building resilience to water variability caused by climate change; safe collection and treatment of wastewater; and pollution of groundwater and water bodies?			✓	✓	✓
B vi. ... improving M&E systems for better planning and targeting of improvement of W&S services?			✓	✓	✓
C. Delivery of WBG Assistance					
C i. To what extent have Bank Group operations in client countries been completed within the planned costs and time estimates ? What are the factors that explain the patterns of time and cost overruns?			✓		
C ii. To what extent and how effectively has the Bank Group applied economic cost-benefit analysis in the design of W&S projects and investments?			✓		
C iii. How relevant and effective have global partnership programs (principally WSP, WPP, GPOBA, PPIAF) been in contributing to the Bank Group's efforts for supporting countries to improve access to adequate, reliable, and sustainable W&S services?					✓
C iv. To what extent have the partnership programs improved WBG collaboration with other development partners to expand its reach in client countries?		✓		✓	✓
C v. To what extent has the Bank Group supported coordination between the ministry responsible for W&S services and ministries for health, nutrition, urban management, water resources, and the environment?					✓
C vi. To what extent has the Bank Group supported client countries in reducing the financing gap by leveraging and effectively deploying additional financial resources for improving W&S services through private sector participation and better donor coordination?	✓			✓	
C vii. To what extent have the Bank Group units – WB, IFC, and MIGA – collaborated in providing support to client countries for improved W&S services?			✓	✓	✓
C viii. To what extent has the Bank Group employed its human resource expertise appropriately to the needs of client countries?		✓			
C ix. To what extent has the Bank Group mainstreamed environmental and social safeguards through its W&S projects?		✓			✓

Annex F

Country Case Study Matrix

	Country	Region	Field case Study/ Desk Case Study/	Pasy/Planned IEG Project Performance Assessment Report	# of WB Projects - Water GP	# of WB Projects - Other GPs	WB Lending Project Cost (M\$) - All GPs	WB Net WATSAN Commitment Amount (M\$) - All GPs	# of IFC Investments	# of IFC Advisory Services	# of MIGA Guarantees	Income Category**	Water Access Urban (%)	Sanitation Access Urban (%)	Water Access Rural (%)	Sanitation Access Rural (%)
1	China	EAP	Field	✓	43	43	22,859	6,350	11	0	7	UMI	98	87	93	77
2	Colombia	LAC	Desk	✓	5	10	2,611	1,248	0	0	0	UMI	97	85	74	81
3	Egypt	MNA	Field		7	4	1,729	823	1	3	0	LMI	100	97	99	95
4	Ghana	SSA	Desk	✓	9	7	849	509	0	0	1	LMI	93	20	84	15
5	Haiti	LAC	Field	✓	3	14	436	133	1	0	0	LI***	65	34	48	28
6	India	SAS	Field	✓	19	22	14,823	4,508	4	8	0	LMI	97	63	93	40
7	Indonesia	EAP	Field		10	33	14,662	1,570	2	1	0	LMI	94	80	72	48
8	Nigeria	SSA	Field	✓	5	13	3,905	1,376	0	0	0	LMI	81	57	33	25
9	Peru	LAC	Desk	✓	8	7	1,775	598	1	0	0	UMI	91	83	69	76
10	Senegal	SSA	Desk	✓	4	6	910	383	0	0	0	LMI	93	65	67	48
11	Sri Lanka	SAS	Field	✓	5	12	1,700	659	0	0	0	LMI	99	88	95	95
12	Uzbekistan	ECA	Desk	✓	6	0	561	441	0	0	0	LMI	99	100		100
13	Vietnam	EAP	Desk		17	22	6,243	2,935	0	2	0	LMI	99	94	97	78
14	Zambia	SSA	Field	✓	4	1	189	151	0	0	0	LMI	86	51	56	36

* IEG field-based Project Performance Assessment Report

**Income Categories are Low Income (LI), Lower Middle Income (LMI), Upper Middle Income (UMI) and Upper Income (UI)

*** Fragile and Conflict-affected State