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PROJECT PERFORMANCE ASSESSMENT REPORT



GHANA

Second Urban Environmental  
Sanitation Project and Small Towns  
Water Supply and Sanitation Project,  
Second Phase of APL

**Report No. 105746**

MAY 19, 2016

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**PROJECT PERFORMANCE ASSESSMENT REPORT**

**GHANA**

**SECOND URBAN ENVIRONMENTAL SANITATION PROJECT  
(IDA CR-38890-GH)**

**SMALL TOWNS WATER SUPPLY AND SANITATION PROJECT  
SECOND PHASE OF APL  
(IDA CR-39710-GH, CR-39711-GH, CR-45660-GH)**

**May 19, 2016**

## Currency Equivalents

*Currency Unit = Ghanaian Cedi*

<b>Year</b>	<b>US\$</b>	<b>Cedi</b>
2004	1.00	9010
2005	1.00	9122
2006	1.00	9222
2007*	1.00	0.960
2008	1.00	1.263
2009	1.00	1.431
2010	1.00	1.488
2011	1.00	1.639
2012	1.00	1.902
2013	1.00	2.365
2014	1.00	3.205
2015	1.00	3.825

\*In July 2007, the New Ghana Cedi was introduced. It completely replaced the old Cedi by December of 2008. The New Ghana Cedi was worth 10,000 old Cedi at the time of its introduction.

## Fiscal Year: January - December

Government: January 1 – December 31

## Abbreviations

APL	Adaptable Program Loan
BA	Beneficiary Assessments
CAS	Country Assistance Strategy
CPS	Country Partnership Strategy
CWSA	Community Water and Sanitation Agency
CWSP	Community Water and Sanitation Program
DA	District Assemblies
DfID	Department for International Development
DWST	District Water and Sanitation Teams
EA	Environmental Assessment
ESMF	Environmental and Social Management Framework
EHU	Environmental Health Units
FM	Financial Management
ICR	Implementation Completion and results Report
IDA	International Development Agency
IEG	Independent Evaluation Group
ISC	Institutional Strengthening Component
MA	Municipal Assemblies
MDG	Millennium Development Goals
MLGRD	Ministry of Local Government and Rural Development
MMDA	Metropolitan, Municipal and District Assemblies
MWH	Ministry of Works and Housing
MWRWH	Ministry of Water Resources, Works and Housing
O&M	Operations and Maintenance
PAD	Project Appraisal Document
PCU	Project Coordination Unit
PDO	Project Development Objective
PPAR	Project Performance Assessment Report
RAP	Resettlement Action Plan
RCC	Regional Coordinating Councils
RPF	Resettlement Policy Framework
RWST	Regional Water Supply Teams
SDG	Sustainable Development Goals
SDR	Special Drawing Rights
WATSAN	Water and Sanitation Committees
WSDB	Water and Sanitation Development Board

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## Principal Ratings

### GHANA – SECOND URBAN ENVIRONMENTAL SANITATION PROJECT

	<i>ICR*</i>	<i>ICR Review*</i>	<i>PPAR</i>
Outcome	Moderately Satisfactory	Moderately Satisfactory	Moderately Satisfactory
Risk to Development Outcome	Significant	Significant	Significant
Bank Performance	Moderately Satisfactory	Moderately Satisfactory	Moderately Satisfactory
Borrower Performance	Moderately Satisfactory	Moderately Satisfactory	Moderately Satisfactory

### GHANA – SMALL TOWNS WATER AND SANITATION PROJECT – SECOND PHASE OF APL

	<i>ICR*</i>	<i>ICR Review*</i>	<i>PPAR</i>
Outcome	Satisfactory	Satisfactory	Moderately Satisfactory
Risk to Development Outcome	Moderate	Moderate	Significant
Bank Performance	Satisfactory	Moderately Satisfactory	Moderately Satisfactory
Borrower Performance	Satisfactory	Moderately Satisfactory	Moderately Satisfactory

\* The Implementation Completion and Results Report (ICR) is a self-evaluation by the responsible World Bank department. The ICR Review is an intermediate product by the Independent Evaluation Group of the World Bank Group that seeks to independently verify the findings of the ICR.

<p>This report was prepared by Maha Armaly (consultant), who assessed the project in January/February 2016. The consultant was supervised by Kavita Mathur (TTL). The report was peer reviewed by Caroline van den Berg and panel reviewed by Ridley Nelson. Romyne Pereira provided administrative support.</p>
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## Key Staff Responsible

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**IEG Mission: Improving World Bank Group development results through excellence in evaluation.**
**About this Report**

The Independent Evaluation Group (IEG) assesses the programs and activities of the World Bank for two purposes: first, to ensure the integrity of the Bank's self-evaluation process and to verify that the Bank's work is producing the expected results, and second, to help develop improved directions, policies, and procedures through the dissemination of lessons drawn from experience. As part of this work, IEG annually assesses 20–25 percent of the Bank's lending operations through field work. In selecting operations for assessment, preference is given to those that are innovative, large, or complex; those that are relevant to upcoming studies or country evaluations; those for which Executive Directors or Bank management have requested assessments; and those that are likely to generate important lessons.

To prepare a Project Performance Assessment Report (PPAR), IEG staff examine project files and other documents, visit the borrowing country to discuss the operation with the government, and other in-country stakeholders, and interview Bank staff and other donor agency staff both at headquarters and in local offices as appropriate.

Each PPAR is subject to internal IEG peer review, Panel review, and management approval. Once cleared internally, the PPAR is commented on by the responsible Bank department. The PPAR is also sent to the borrower for review. IEG incorporates both Bank and borrower comments as appropriate, and the borrowers' comments are attached to the document that is sent to the Bank's Board of Executive Directors. After an assessment report has been sent to the Board, it is disclosed to the public.

**About the IEG Rating System for Public Sector Evaluations**

IEG's use of multiple evaluation methods offers both rigor and a necessary level of flexibility to adapt to lending instrument, project design, or sectoral approach. IEG evaluators all apply the same basic method to arrive at their project ratings. Following is the definition and rating scale used for each evaluation criterion (additional information is available on the IEG website: <http://worldbank.org/ieg>).

**Outcome:** The extent to which the operation's major relevant objectives were achieved, or are expected to be achieved, efficiently. The rating has three dimensions: relevance, efficacy, and efficiency. *Relevance* includes relevance of objectives and relevance of design. Relevance of objectives is the extent to which the project's objectives are consistent with the country's current development priorities and with current Bank country and sectoral assistance strategies and corporate goals (expressed in Poverty Reduction Strategy Papers, Country Assistance Strategies, Sector Strategy Papers, and Operational Policies). Relevance of design is the extent to which the project's design is consistent with the stated objectives. *Efficacy* is the extent to which the project's objectives were achieved, or are expected to be achieved, taking into account their relative importance. *Efficiency* is the extent to which the project achieved, or is expected to achieve, a return higher than the opportunity cost of capital and benefits at least cost compared to alternatives. The efficiency dimension generally is not applied to adjustment operations. *Possible ratings for Outcome:* Highly Satisfactory, Satisfactory, Moderately Satisfactory, Moderately Unsatisfactory, Unsatisfactory, Highly Unsatisfactory.

**Risk to Development Outcome:** The risk, at the time of evaluation, that development outcomes (or expected outcomes) will not be maintained (or realized). *Possible ratings for Risk to Development Outcome:* High, Significant, Moderate, Negligible to Low, Not Evaluable.

**Bank Performance:** The extent to which services provided by the Bank ensured quality at entry of the operation and supported effective implementation through appropriate supervision (including ensuring adequate transition arrangements for regular operation of supported activities after loan/credit closing, toward the achievement of development outcomes. The rating has two dimensions: quality at entry and quality of supervision. *Possible ratings for Bank Performance:* Highly Satisfactory, Satisfactory, Moderately Satisfactory, Moderately Unsatisfactory, Unsatisfactory, Highly Unsatisfactory.

**Borrower Performance:** The extent to which the borrower (including the government and implementing agency or agencies) ensured quality of preparation and implementation, and complied with covenants and agreements, toward the achievement of development outcomes. The rating has two dimensions: government performance and implementing agency performance. *Possible ratings for Borrower Performance:* Highly Satisfactory, Satisfactory, Moderately Satisfactory, Moderately Unsatisfactory, Unsatisfactory, Highly Unsatisfactory.

## Preface

This is a Project Performance Assessment Report (PPAR) for the following two projects:

Ghana—Second Urban Environmental Sanitation Project was approved on April 29, 2004, and closed on June 30, 2012, after a two-year extension. The project was financed with an International Development Association (IDA) Credit (Cr. 38890-GH) of Special Drawing Rights (SDR) 41.6 million (US\$62.0 million equivalent) signed on August 13, 2004.

Ghana—Small Towns Water Supply and Sanitation Project was approved on July 27, 2004, and closed on April 30, 2010, after a one-year extension. The project was financed with an IDA credit (Cr. 39710-GH) in the amount of SDR 17.8 million (US\$26 million equivalent) signed on August 13, 2004. Additional Financing (Cr. 39711-GH) for SDR6.6 million (US\$10 million equivalent) was signed on August 8, 2007. A second additional financing (Cr. 45660-GH) for SDR 10.2 million (US\$ 15 million equivalent) was signed on August 14, 2009. Total credits amounted to SDR 34.6 million (US\$51 million equivalent).

These two projects were selected for field assessment to contribute to the upcoming Independent Evaluation Group (IEG) water and sanitation sector evaluation planned for fiscal year (FY) 17.

IEG visited Ghana from January 26 - February 5, 2016. The team visited four of the five regions covered in the Second Urban Environmental Sanitation Project (Accra, Kumasi, Sekondi-Takoradi, and Tema). For the Small Towns Water Supply and Sanitation Project, the team visited three regions (Ashanti, Central, and Western) out of the six covered by the project (Ashanti, Brong-Ahafo, Upper East, Upper West, Central, and Western Regions) and six of the 73 towns.

In Accra, the IEG team met with officials from the central government including, the Project Coordinating Unit (PCU) at the Ministry of Local Government and Rural Development and the Community Water and Sanitation Agency at the Ministry of Water Resources, Works and Housing. The team also met with Metropolitan, Municipal and District Assemblies, and with regional, district, and community water and sanitation management teams.

IEG acknowledges the attention and cooperation provided by local interlocutors and the excellent planning and support provided by the PCU of the Second Urban Environmental Sanitation Project as well as the staff of the local Metropolitan, Municipal and District Assemblies; the Community Water and Sanitation Agency responsible for the implementation of the Small Towns Water and Sanitation Project as well its regional offices, the District and the Community Water and Sanitation Management Teams, and the World Bank's country office in Accra. A list of locations visited and the persons met by the IEG team are included in Appendix C.

Following IEG procedures, the draft report was sent to government officials and agencies for their reviews and comments but no comments were received.



## Summary

This Project Performance Assessment Report (PPAR) evaluates the development effectiveness of the two projects in Ghana, namely: (i) the Second Urban Environmental Sanitation Project, and (ii) the Small Towns Water Supply and Sanitation Project—in support of the second phase of the Community Water and Sanitation Program.

The two projects were prepared simultaneously and approved within three months of each other in 2004. The projects differed considerably in terms of the ambition of their respective objectives and the complexity of the components. The Second Urban Environmental Sanitation Project focused on sanitation (including drainage and solid waste) and included six components. The Small Towns Water Supply and Sanitation Project focused mainly on delivery of water in rural areas and included funding for sanitation. Additional financing almost doubled the amount of financing available to the project.

Both projects were highly relevant to World Bank and government strategies and addressed severe needs for upgrading of infrastructure and services. Both projects were follow up projects and had complex institutional arrangements related to, at the time of the project preparation and implementation, the new decentralized structure of government and multi-layered institutional composition. The multiple objectives and complex components of the Second Urban Environmental Sanitation Project needed better preparation than it was afforded, and as a result faced more difficult implementation, particularly related to resettlement challenges. The results framework for both projects suffered deficiencies in design leading to difficult and evidence-starved monitoring and evaluation. The Second Urban Environmental Sanitation Project was able to overcome some of these difficulties with the undertaking at the end of the project of three beneficiary assessments that evaluated the technical, social, and institutional development accomplishments of the project. A beneficiary and a technical assessment were undertaken for the Small Towns Water Supply and Sanitation Project, but were not completed at the time the Implementation Completion and Results Report was written.

### **Ghana – Second Urban Environmental Sanitation Project**

The development objective of this project was: “to improve urban living conditions in Accra, Kumasi, Sekondi-Takoradi, Tamale, and Tema in regard to environmental health, sanitation, drainage, vehicular access, and solid waste management in a sustainable fashion, with special emphasis on the poor.” The project objectives were not revised. The objectives continue to be highly relevant to the Government Policy on Urban Environmental Sanitation initiated in December 2003 and updated in 2010, and to the World Bank’s Country Partnership Strategy (CPS August 20, 2013 for FY13-16), which affirm the importance of urban water and sanitation services in Ghana’s development agenda. The objectives were reaffirmed in other documents, including Ghana’s Medium-Term Development Policy Framework (2010-2013), Poverty Reduction Strategy (2006-2009), Ghana Shared Growth and Development Agenda (2010-2013), as well as Ghana’s Millennium Development Goals (MDG).

The project efficacy is rated substantial based on the stated planned and actual achievements in terms of improving services in the sectors addressed by the project, with shortcomings in

the achievement of the sustainability objective and less than robust evidence on poverty and environmental health. The efficiency is rated modest because several components were dropped indicating less benefits achieved. The overall outcome of the project is rated **Moderately Satisfactory**. The risk to development outcome is rated **Significant**. Bank Performance is rated **Moderately Satisfactory**. Borrower Performance is rated **Moderately Satisfactory**.

### **Ghana—Small Towns Water Supply and Sanitation Project**

The development objective of this project was: “to increase access to sustainable water supply and sanitation services in small towns in six regions of the Borrower.” The project is the second phase of an Adaptable Program Loan with the program objective to: “support the Government of Ghana in reaching the Millennium Development Goals in water and sanitation, which are to provide water supply and sanitation access to 72 percent and 56 percent of the rural population, respectively. The project objectives were not revised. Additional financing was provided to include 50,000 additional beneficiaries from water supply investments over the original number of 500,000 beneficiaries.

The project was prepared at the same time as the Second Urban Environmental Sanitation Project above, and focuses on water and sanitation in small towns instead of larger urban areas. The project objectives continue to be highly relevant government and Bank objectives outlined in their strategic documents.

Efficacy is rated substantial because the project increased access to sustainable water supply facilities, which represented about 85 percent of the investments and about 90 percent of beneficiaries. On sanitation, access was increased but not in a sustainable manner as water supply sector has a stronger institutional support than the sanitation sector. Efficiency is rated modest due to high per capita costs. The overall outcome of the project is rated **Moderately Satisfactory**. The risk to development outcome is rated **Significant**. Bank Performance is rated **Moderately Satisfactory**. Borrower Performance is rated **Moderately Satisfactory**.

## Lessons

- (a) **For school toilets to be used in a sustained manner, an integrated hygiene education needs to be offered on a continuous basis.** A strong hygiene education campaign was undertaken throughout Ghana prior and during the two projects. Discussions with authorities and visits to schools indicate that the emphasis on the implementation of the hygiene education program diminished due to lack of funds. Sustained provision of hygiene education (availability of information as well as soap and water near toilets) ensures incoming classes continue to learn and use safe hygiene practices.
- (b) **The concept of Community Ownership and Management is not sufficient to ensure sustainability in an environment of weak community stewardship.** Implementation of regulations, strong monitoring, education and enforcement are needed to assure a sustainable operation and maintenance of the facilities. In the case of the drainage component in the Second Urban Environmental Sanitation Project, the communities resorted to old habits of dumping garbage in the rehabilitated drainage system. In the case of the Small Towns Water and Sanitation Project, communities surrounding the schools were using the toilets. In both cases, the behavior contributed to a faster demise of the infrastructure and increased the costs of operations and maintenance.
- (c) **Stakeholder analysis and citizens engagement during project and facility design is important for assessing the willingness to pay for the services.** In the case of the Small Towns Water Supply and Sanitation Project, discussions with community water management teams indicated that they were facing competition from private operators who built, owned and operated their own facilities (as opposed to facilities being concessioned to private operators under the project) and were capable of providing good service at higher prices.
- (d) **Changing the rules of the game for short-term political gains during implementation disrupts community involvement and sends the wrong signal to communities in terms of government intentions.** In the case of the Small Towns Water and Sanitation Project, the decision to exempt communities from the 5 percent copayment requirement alienated those communities who made the contribution, and may increase resistance to payment of other obligations in hopes of further changes in government policies.

Marvin Taylor-Dormond  
Director, IEGSP  
Independent Evaluation Group



# 1. Country and Sector Context

## COUNTRY CONTEXT

1.1 Ghana is a stable nation with a good record of power changing hands peacefully. Ghana is the world's second largest cocoa producer behind Ivory Coast, and Africa's biggest gold miner after South Africa. It is one of the continent's fastest growing economies, and newest oil producer. The country is the second most populous in West Africa after Nigeria, and has maintained an increasing urbanization trend. As Ghana's total population more than doubled between 1984 and 2013, urban population growth outpaced rural population growth, growing 4.4 percent annually. Over this period, Ghana's urban population more than tripled, rising from under 4 million to nearly 14 million people.

1.2 In July 2011, Ghana achieved the Bank's per-capita income threshold for classification as a Lower Middle Income Country. Ghana's economy has been on a high growth pattern for most of the last decade. The estimated national headcount poverty ratio fell by 31.2 percent, from 52.6 percent in 1991 to 21.4 percent in 2012. Poverty is still predominantly rural. The share of the population living in poverty in 2013 was 22.1 percent nationwide, 38.2 percent in rural areas, and 10.4 percent in urban areas. In the rapidly growing urban areas, with a growing services sector, large numbers of the labor force, including migrants from rural areas, were absorbed in better paying jobs in the formal and informal economy. Sustained growth was consolidated, spurred by favorable commodity prices for Ghana's main exports (gold and cocoa), the commercialization of a major oil discovery, and robust growth in the services sector.

## SECTOR CONTEXT

### Ghana's Achievements of the Millennium Development Goals

1.3 Ghana had a mixed record of achieving the Millennium Development Goal 7: Ensure environmental sustainability. The target of halving the proportion of the population without access to safe water has been achieved, but poor sanitation remains pervasive. For sanitation, 84 percent of total population remain without access to improved sanitation compared to the target of 48 percent. In the case of water, the target was over achieved with 21 percent of the population not having access to safe water vs. the target of 22 percent. Most households remain without basic sanitation especially in rural areas. Urban areas recorded 28.6 percent access to improved basic sanitation compared to 10.5 percent for the rural population in 2013. Public toilets are the facility used by the highest proportion of households at national level in 2013, followed by defecation in bush/field/beach. In urban areas, public toilets are the most used facility, followed by water closets. Among rural households, however, defecation in bush/beach/field is the main practice, followed by public toilet and pit latrine. Only 2.3 percent of rural households used water closets in 2013 compared with 23.3 percent in urban areas.

1.4 Key challenges in the sector include: (a) fast rate of urbanization with increasing demand for water for domestic, industrial and commercial consumption; (b) pollution of water bodies by small-scale illegal miners in rural areas; (c) inadequate financial resources to

undertake, operate and maintain water projects, combined with fiscal deficits and a rising debt burden; (d) unreliable supply of electricity to power and pump water to homes; (e) unplanned expansion of settlements; (f) low investment in sanitation delivery; (g) weak environmental sanitation monitoring and enforcement systems; and (h) unavailability of accurate and timely data on sanitation.

1.5 Going forward, Ghana has played a major role at both national and international levels in defining the post-2015 development agenda and in developing the Sustainable Development Goal (SDG). Goal 6 of the SDGs aims to ensure availability and sustainable management of water and sanitation for all. Ghana has undertaken two national consultations and one thematic consultation, and established Inter-ministerial Steering Committees as well as a committee on finance. The objective is to incorporate SDGs into the long-term national development plan. Ghana aims to ensure that the SDGs are reflected in subsequent medium-term development frameworks. Guidelines will be provided to local governments to prepare their development plans. Sector and district plans will be reviewed to ensure compliance with the guidelines and approved for budgetary allocation. A list of indicators of the SDGs and other national indicators will be tracked with the support of the Ghana Statistical Service and the Cross-Sectoral Planning Groups, in line with the follow-up and review process of the Post-2015 Development Agenda.

### **Urban Water and Sanitation Sector**

1.6 Urbanization continues to put severe pressure on urban services such as housing, water supply, sanitation, transport, drainage and solid waste collection and disposal. According to government reports, about 70 percent of Ghana's population lived in slums with improper solid waste collection and disposal, poor road and drainage conditions leading to congestion and floods, public health and safety concerns. The transfer of responsibility for environmental sanitation from central ministries to the Local Assemblies was done without a concomitant transfer of resources, which is likely to lead to difficulties in implementation and in achieving broad national objectives in the sectors.

1.7 **Urban Water Supply.** According to a World Bank study, Ghana's major cities have recently seen a worrying trend toward diminished relative access to basic services (World Bank 2015b). Within urban areas population growth has outpaced service supply, leading to a lower share of the urban population with access to piped water, sanitation, and toilet facilities. The proportion of residents in large metropolitan areas with access to piped water experienced a downward trend within the decade of 2000 to 2010. Accra was the worst off with a decline of 22.2 percentage points in the share of the population with access to piped water, followed by Kumasi (7.7 percentage points) and Tema (5.7 percentage points). This decline was covered by the purchase of bottled water and plastic water "sachets" where costs are typically 5–7 times higher than piped water. Almost 83 percent of residents within Kumasi city had access to piped water in 2000, but this level of access was reduced to 75.1 percent by 2010. System losses, lack of maintenance, and insufficient investments exacerbate the problem in the expanding urban space.

1.8 **Urban Sanitation.** An increasing number of urban residents do not have access to private or public toilet facilities. Between 2000 and 2010, there was an increase in the

proportion of households without any toilet facility in all city size groups. Among the metropolitan areas, Tamale (8.0 percent) and Tema (7.3 percent), and Sekondi-Takoradi (1.5 percent) experienced a deterioration in access to safe toilets. Access to sewerage remains very limited. Most households dispose of liquid waste directly in drainages, and in smaller towns, most liquid waste is simply disposed of outside. Even in Accra and Tema, little more than 10 percent of households discharged their liquid waste through the sewage system. Access to liquid waste disposal services is better closer to the city centers, but a large majority of households in peri-urban areas do not have adequate liquid waste disposal infrastructure.

**1.9 Urban Solid Waste.** Improvements in solid waste disposal and sewerage are limited and most peri-urban areas do not have access to waste disposal services. Throughout Ghana, the majority of households use public dumps to dispose of household solid waste. In 2010, 37.7 percent of households disposed of their solid waste in open spaces at public dumps and about one-quarter (23.8 percent) disposed of their solid waste in public containers. Smaller proportions of households either have their solid waste collected (14.4 percent) or burned (10.7 percent). From 2000 to 2010, disposal of waste in public dumps declined in Greater Accra by 17.3 percentage points and Ashanti region by 1.5 percentage points. Progress has been made in waste collection in general, but this has not translated into improved environmental conditions. This is especially the case in low-income areas in cities such as Kumasi and Accra, where communal disposal containers are constantly overflowing as a result of delay or absence of institutionalized collection mechanisms.

### **Rural Water and Sanitation Sector — Community Water and Sanitation Program**

**1.10** The government's Community Water and Sanitation Program falls within Ghana's National Water Policy (2007). The objective of this program is to "improve the public health and economic well-being of rural and small town communities through the provision of adequate, safe and sustainable water for domestic, commercial and industrial purposes in a planned and coordinated manner, with integrated hygiene education and sanitation interventions." An underlying principle of the Program is its emphasis on community ownership and management, which entails effective community participation in the planning, implementation and management of the water and sanitation facilities in the belief that, as custodians, communities will ensure the sustainability of these systems. Water and Sanitation Development Boards and Water and Sanitation Committees have been established for all facilities and have been given some level of training to take care of their water and sanitation facilities.

**1.11** The Community Water and Sanitation Program is managed by the Community Water and Sanitation Agency. The institutional framework for the sector has changed in order to fit the new decentralized structure of the government (at the time of the project preparation and implementation). Decentralization ushered in different modalities and practices in planning and has had institutional, financial and regulatory implications on the entire sector. It also has an impact on monitoring and support activities which require support to local governments to fulfill their new mandate of service delivery and oversight. The Community Water and Sanitation Program serves communities under 50,000 population. Communities are expected to pay a percentage of the capital costs of systems as well as all of operations and

maintenance and are responsible for planning and managing their facilities. The demand driven approach is viewed as key to promoting sustainability of systems. Other key principles include: creating an adequate market for spare parts and repair services, ensuring participation of all stakeholders, promoting the active involvement of women in all phases of water supply and sanitation, and clearly defining and promoting the role of the informal and formal private sector. Despite improvements, the key challenge remaining in the water and sanitation sectors is the failure of past sector reforms to translate into efficient service delivery, which caused Ghana to lag in meeting the Millennium Development Goal target for access to improved sanitation, in particular.

1.12 Key challenges in the community water and sanitation sector include: (a) financial constraints: payments for goods and services being delayed due to inadequate budgetary resources; (b) weak coordination and collaboration: with some of the actors (for example, nongovernmental organizations) using procedures and systems that differ from the government's recommended approach; (c) poor operations and maintenance: insufficient support for community based organizations lead to poor maintenance and lack of access to spare parts and technical skills; (d) decentralization: the slow pace of operationalizing decentralization resulted in weak capacities at the local level; (e) institutional capacity: the decline in skills of service authorities at the local level makes institutional support to community ownership and management weak and fragmented; (f) hygiene education: continued support beyond project closures has been difficult to sustain at times diminishing good progress made after earlier efforts and campaigns; (g) sanitation: has received much less attention and investments than water provision in general, and that the sector deserves in particular. Sustained hygiene awareness messages, technical skills, operations and management and finances are needed in order to have a sustained impact in this subsector.

## 2. Second Urban Environmental Sanitation Project

### Objectives, Design, and Relevance

#### OBJECTIVES

2.1 The project development objective as stated in the Development Credit Agreement (p. 17) is: “to improve urban living conditions in Accra, Kumasi, Sekondi-Takoradi, Tamale and Tema in regard to environmental health, sanitation, drainage, vehicular access, and solid waste management in a sustainable fashion with a special emphasis on the poor.” The project objectives defined in the project appraisal document were similar.

2.2 The project was a follow up to the first Urban Environmental Sanitation Project (Cr. 2836-GH, closed December 2003) which included similar activities. In some cases, this Second Urban Environmental Sanitation Project scaled up or completed activities under the first project.

#### RELEVANCE OF OBJECTIVES

2.3 The project objectives were **highly** relevant to Bank and government strategic objectives. The Country Assistance Strategy (CAS) for the period 2004-07 (dated February 20, 2004) recognizes the need to strengthen government structures to improve urban services in order to address poverty. The CAS supported the government’s efforts to achieve the Millennium Development Goals in water and sanitation. Under Pillar II (Service Provision for Human Development), the objective to increase sustainable water and sanitation services aimed to address the low coverage of water and sanitation, especially in urban areas. This project along with several other rural and urban infrastructure services (with a focus on water and sanitation) and with urban and municipal management projects and technical assistance formed the core of the Bank’s assistance to support the government’s strategy. The government’s policy on Urban Environmental Sanitation (December 2003 updated in 2010) was set in a decentralized framework in accordance with the Local Government Act of 1993 which emphasized the need to control solid and liquid waste, flooding, soil erosion and environmental degradation in Ghana’s cities. Government Strategy and commitment were outlined in the Sector Policy Letter that accompanied the project appraisal document.

2.4 According to the current Country Partnership Strategy (CPS) for the period 2013-16, (dated August 20, 2013), urban sanitation services remained on the development agenda with high importance to continue the good performance in economic growth and poverty reduction in Ghana. Pillar 3 of the CPS: Protecting the poor and vulnerable includes improving access to water and sanitation as one of its three core tools. As in the CPS at appraisal, the current CPS emphasizes urbanization, water and sanitation as key to Ghana’s prosperity. The threat of flood was highlighted in the current CPS (following floods in 2007/8 and 2010) within the agriculture and climate change spectrums. The objectives were reaffirmed in government documents including Ghana’s Medium Term Development Policy Framework (2010-2013), Poverty Reduction Strategy (2006-2009), and the Ghana Shared Growth and Development Agenda (2010-2013), as well as Ghana’s Millennium Development Goals (MDG).

2.5 The government's Environmental Sanitation Policy was updated in November 2010 by the Ministry of Local Government and Rural Development and remains in force. The policy recognized that increasing urbanization and non-adherence to planning directives resulted in unauthorized location of buildings along flood plains and reservations. Inadequate drainage facilities caused flooding in many localities every rainy season. The lack of effective refuse collection led to the use of drains as refuse disposal receptacles exacerbating the problems. The lack of engineered final treatment and disposal facilities across the country, and particularly in Accra, is a cause for concern.

2.6 Poor hygienic practices by individuals and communities are compounded by insufficient and ineffective hygiene education. Vector-borne diseases such as malaria and bilharzia are rife due to the virtual absence of pest and disease vector control programs. More than half of all reported diseases are related to poor environmental sanitation, with attendant social and economic costs. Flooding causes major damage to public infrastructure and private property. Pollution of water resources increases the technical difficulty and cost of providing water supplies. Local governments often resort to ad-hoc interventions such as public clean-up campaigns and periodic evacuation of refuse heaps. The low capacity of central and local government agencies responsible for enforcement of environmental sanitation exacerbates the problems. Relieving urban congestion for increased mobility and for improved health delivery is also recognized in the current CPS.

## DESIGN

2.7 The project comprised six components:

**Component 1: Storm Drainage** (original cost: US\$16.5 million; actual cost: US\$20.32 million). The component included lining of primary and secondary drains, construction of small bridges and erosion control in areas subject to flooding. 16.7 kms of secondary drainage were to be constructed or rehabilitated (lining, erosion control, small bridges). The component required a resettlement action plan due to temporary destruction of walls, rooms, toilets, bath houses etc. Sub-projects required having maintenance plans when they started in each municipality (Project Appraisal Document [PAD] p. 29).

**Component 2: Sanitation** (original cost US\$ 7.8 million; actual cost: US\$8.72 million). The component included (a) construction of household latrines and establishment of a domestic latrine delivery program; (b) rehabilitation and construction of public latrines in public places; (c) rehabilitation and construction of school latrines combined with hygiene education and the provision of water supply where needed; (d) rehabilitation or construction of septic treatment facilities; and (e) improved sewerage management in Tema.

The project aimed to focus on low income communities. For private toilets, the IDA credit provided a subsidy of 50 percent with a ceiling of \$150, which excluded new construction. A marketing strategy and training of artisans was included in the component. A consultant was to manage the household latrine program (including vetting household applications).

**Component 3: Solid Waste Management** (original cost US\$ 25.7 million; actual cost US\$15.94 million). This component included: (a) construction of new sanitary landfills for

Accra and Tema and the completion of one in Sekondi-Takoradi; (b) equipment for sanitary landfills; (c) closure and rehabilitation of existing refuse dumps; (d) operation of sanitary landfills preceded by the improved operation of some; (e) private solid waste collection; and (f) supply of household bins, skips and skip pads.

The cost of the solid waste component dropped by about US\$10 million due to the cancellation of two subcomponents: Kwabenya landfill (estimated base costs of US\$9.5 million) and the Achimota Septage facility (estimated base costs of US\$8 million). An estimated US\$4 million allocated to financing private sector operators for landfill management and solid waste collection were not used for the purpose due to other needs. Finally, the road to the Tema septage facility was not rehabilitated (estimated cost of US\$0.5 million).

**Component 4: Community Infrastructure Upgrading** (original cost US\$ 8.5 million; actual cost US\$ 12.95 million). Infrastructure upgrading in low income communities including access roads, roadside drains, street lighting, water supply and sanitation.

**Component 5: Institutional Strengthening** (original cost US\$ 9.6 million; actual cost US\$ 9.7 million). This component was financed by the Nordic Development Fund and included: (a) technical assistance and training, (b) capacity building in Ministry of Local Government and Rural Development; (c) capacity building in Municipal Assemblies; (d) malaria vector control and HIV/AIDS prevention; (e) project wide monitoring; (f) reconditioning of waste management equipment; (g) house numbering; and (h) a communications strategy.

**Component 6: Project Management** (original cost US\$ 12.8 million; actual cost US\$3.31). This included project management, refunding of Project Preparation Facility, and physical and price contingencies – allocated to a Performance Based Fund (US\$11.1 million). The Performance Based Fund would allocate funds for activities within the project objectives according to achievement of performance criteria by Municipal Assemblies.

## RELEVANCE OF DESIGN

2.8 The project design was **substantially** relevant to the project objectives. Each of the project components (output) addresses each of the sub-objectives (outcomes): i.e. investments to rehabilitate or build drainage, sanitation, solid waste, road networks and street lights improve urban living conditions due to improvements in these sectors. A shortcoming in the design is that the logical framework was not sufficiently robust to measure and assess the direct impact of the project on the outcomes, especially as related to sustainability and addressing the poor<sup>1</sup>.

2.9 The project objectives and design are complicated with seven embedded objectives (environmental health, sanitation, drainage, vehicular access, solid waste management, sustainability, emphasis on the poor) and six components, in five cities in an environment of weak capacity. The project is a follow up on previous similar intervention and the

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<sup>1</sup> This is discussed in detail in the Quality at Entry Section.

institutional set up for its implementation existed at the time of preparation. The project was complex in a new, changing and weak environment of decentralization with insufficient monitoring.

## **Implementation**

2.10 A second level restructuring of the project was approved in June 2010 (restructuring paper dated May 25, 2010). The restructuring was undertaken in order to extend the closing date by 18 months and to reallocate funds among categories depending on project progress and agreements. The project was extended twice more in December 2011 and 2012 for a total extension of 2.5 years. The reasons for the extensions were mainly to complete ongoing activities. The third and final extension in December 2012 introduced a category for compensation payments to persons affected by the work undertaken in the Kwabenya landfill. Although the construction of the landfill was cancelled, the government remained liable to compensate people impacted by the activities.

## **SAFEGUARDS**

2.11 At appraisal, two safeguards policies were triggered —Environmental Assessment (OP/BP 4.01) and Involuntary Resettlement (OP/BP 4.12). The Development Credit Agreement included the conditions for undertaking activities that trigger safeguards which included prior actions to complete resettlement and environmental plans, acquire land, compensation and resettlement, and thereafter to implement the environmental management plans. The project was classified as Environmental Category A because of serious environmental and social issues related to landfills and solid and liquid waste management.

2.12 A Resettlement Policy Framework was completed for the project and disclosed with the Environmental Framework (PAD p. 76). Resettlement Action Plans (RAP) were to be prepared during implementation even when the sites were known. The delay in the preparation of the RAP until implementation is a shortcoming when the project sites are known. This contributed to delays in project implementation. Project preparation relied on old designs, and an update of the United Kingdom's Department for International Development (DfID) environmental assessments for the Kwabenya landfill prepared with DfID financing a few years before the project (construction of access road was started by DfID in 1999).

### Environmental Safeguards

2.13 The PAD (p.12), acknowledged the severity of environmental and social issues for the Kwabenya landfill in particular. At appraisal, five Environmental Management Plans were completed for identified activities, while another 5 were to be prepared based on the project wide Environmental Assessment Framework. Environmental Assessments and the Environmental Frameworks were disclosed in Ghana and at the InfoShop in Washington, DC in January 2004. Municipal Assemblies were provided with the documents for their use and for public information.

### Social Safeguards

2.14 The project triggered OP/BP 4.12 due to significant concerns with involuntary resettlement issues arising from the inclusion of construction or rehabilitation of landfills and due to the existence of informal settlements in the urban areas considered for the project. Overall, the PAD clearly identified these issues and built in mitigating measures to address them (e.g. engaging scavengers and addressing their concerns). The PAD acknowledged previous difficulties, community resistance and lack of agreement with regard to the Kwabenya landfill when the DfID attempted to finance the landfill. There were significant shortcomings in handling the Kwabenya landfill; however the project could not be faulted for including the site and trying to resolve the significant problem of the need for a landfill in Accra.

2.15 Following the involvement of the Inspection Panel, Bank procedures were applied more rigorously. The social issues that emerged in the Kwabenya landfill sub-component greatly affected the pace of implementation of the project. The construction of the landfill was finally dropped from the project at the request of the government due to the non-resolution of the demands by the community. In June 2015, the government informed the Bank that it will revoke the Executive Instrument on which the expropriation was based. By this action, the rights of the affected people will be restored. This development was determined by the Bank to be a resolution to the concerns of the requesters and the outstanding issue from the Action Plan. On October 15, 2015, the Inspection Panel issued its Third and Final Progress Report and concluded that compensation under the RAP was not accepted by the affected people, and some continued to build on the land. These actions reflected the intent of the affected people to contest the expropriation and to seek to remain in place. The report therefore accepted the government's decision.

2.16 The Bank informed IEG mission that it will continue to follow-up with the government regarding the enactment of the cancellation of the Executive Instrument and will issue a final note accordingly. Safeguards for other activities were monitored in a satisfactory manner with minor shortcomings. More details on the developments under the Kwabenya Landfill and Inspection Panel findings are provided in Appendix F.

## **FIDUCIARY**

### Financial Management

2.17 As part of appraisal, the Bank conducted a Financial Management (FM) Assessment for the Ministry of Local Government and Rural Development (MLGRD) and the five participating Municipal Assemblies. The responsibility for FM lay with the MLGRD's Head of Accounts and the Municipal Finance officers of the Municipal Assemblies (MAs), whose capacities were assessed to be adequate. A Financial Procedure Manual for the MAs was prepared to ensure that uniform financial procedures were used, and the project included training in financial management.

2.18 Financial Management was generally satisfactory through implementation, with moderate shortcomings. Quarterly financial reports were submitted to the Bank in a timely manner, and annual audit reports of the project accounts by independent external auditors

raised no significant issues. Shortcomings primarily involved, lack of regular updating of the commitment schedule, and delays in recovering advances made to the MAs. The project complied with the Bank's requirements for financial management of project accounts.

### Procurement

2.19 The project complied with relevant Bank and country procedures during project preparation and implementation, with moderate shortcomings. As part of appraisal, the Bank conducted a Procurement Capacity Assessment for the project. The overall procurement risk was rated moderate at appraisal. Procurement responsibilities for the Institutional Strengthening component and overall backstopping of the Municipal Assemblies lay with the Project Coordination Unit within MLGRD, which was experienced with implementation of Bank projects. The Municipal Assemblies were responsible for procurement of activities in their respective sub-components. Shortcomings in respect to procurement noted during implementation and in the Beneficiary Assessment included difficulties in selection of high quality contractors and suppliers, which led to delays, and poor quality equipment in some cases. Procurement of goods and services under the Institutional Strengthening Component, financed by the Nordic Development Fund was reported to have faced difficulties that prevented access to the funds for certain activities.

### **Achievement of Objectives**

2.20 The project development objective is: "to improve urban living conditions in Accra, Kumasi, Sekondi-Takoradi, Tamale and Tema in regard to environmental health, sanitation, drainage, vehicular access, and solid waste management in a sustainable fashion with a special emphasis on the poor."

2.21 The objective statement includes seven sub-objectives/criteria i.e. environmental health, sanitation, drainage, vehicular access, solid waste management, sustainability, and emphasis on the poor. The efficacy of the objective will be assessed separately under each sub-objective, and the sub-objectives relating to environmental health, sustainability and emphasis on poor will be assessed last as they are embedded in outcomes of sanitation, drainage, vehicular access, and solid waste management sub-objectives.

2.22 The review of the beneficiary assessments (a summary is provided in Appendix G) and the observations of the IEG mission are used in analyzing the efficacy of achieving the project development objectives. There was no baseline of urban living conditions at the time of preparation and a measure of improvement was not monitored during or at the end of the project. The field mission was unable to get data on urban living conditions.

2.23 ***The first sub-objective of improved sanitation is rated Substantial.*** The project aimed to improve urban living conditions by increasing access to sanitary toilets, improve treatment of septage waste/sewerage, and initiate a domestic latrine delivery program with private sector artisans.

## OUTPUTS

2.24 The demand for household latrines was high: 8,500 households were provided with latrines against target of 8,200 set at appraisal. The demand for public latrines was below expectations: 36 public latrines were provided compared to the target of 91 latrines. This reflects the preferences for household latrines and a move away from the publicly provided latrines (except for institutions such as schools and clinics) as outlined in the government's strategic plans. Stakeholders noted to IEG mission that the government policy now does not provide for public latrines for residential communities. Under the project 139 school latrines were built compared to the target of 167.

2.25 The expansion of the Accra Septage facility (Achimota) was not completed. The Tema septage treatment facility was built under the First Urban Environmental Sanitation Project and rehabilitated under this Second Urban Environmental Sanitation Project, but the operation of the facility was sub-optimal and not all the ponds were being used.

## OUTCOMES

2.26 The objective of providing access to sanitation was achieved. The sanitation needs of an estimated 239,000 people were met. 166,000 private household residents obtained sanitary latrines, and an additional 24,000 people have access to public/communal toilets, and 49,000 school children to school latrines. The planned targets were 160,000 private household residents, 70,000 public toilet users and 70,000 school children for a total of 300,000. Interviews during the field visit indicated that attendance of girls in schools have increased due to availability of toilets. Among the respondents to the Beneficiary Assessment surveys, access to latrines after the project improved from 34.2 to 78.8 percent for households; and from 61.3 to 94.2 percent in schools. Overall satisfaction with access to toilets increased from 23.4 to 76 percent.

**Table 2.1: Sanitation situation before and after the project**

Situation	Before		After	
	No. of respondents	%	No. of respondents	%
Bad	43	17.9	19	7.9
Very bad	44	18.3	5	2.1
Not so good	97	40.4	33	13.8
Good	52	21.7	133	55.4
Very good	4	1.7	50	20.8
<b>Total</b>	<b>240</b>	<b>100</b>	<b>240</b>	<b>100</b>

Source: Beneficiary Assessment May 2013

2.27 The domestic latrine delivery program was expected to take off on its own. No monitoring of the situation was undertaken. Discussions during the mission indicated that government regulations require that toilets be installed in all new construction. This is likely to be adhered to in the urban areas of the project given the demonstrated preference for household latrines during the project, and in Ghana in general.

2.28 The IEG mission visited multiple school latrines, one public latrine in four out of five cities. School latrines visited by the IEG mission were relatively clean, but they were not maintained to appropriate standards, e.g. lack of water near the latrines. The importance of clean and working toilet facilities cannot be underestimated due to the effect on the children's health and attitude towards learning, clean sanitation and hygiene, a learning experience they will carry on for life.

2.29 The IEG mission found evidence of hygiene education in schools was lacking. There were no posters or drawings near the toilets or in other visible parts of the school. When adults were asked, they indicated that hygiene education was taught through discussions, songs, etc. At the national level (School Health and Education Project Coordinator at the Ministry of Education), it was confirmed that following an earlier strong hygiene education campaign financed by donors, the printing of posters and other educational materials had declined considerably due to lack of funds. Foreign and local non-governmental organizations remained active in hygiene education. The Beneficiary Assessment for Waste Management and Sanitation noted that 88 percent of respondents indicated they did not have hygiene promotion groups.

2.30 The objective of improving septage treatment was not achieved. The planned Achimota septage facility was not undertaken. The operations of the Tema septage facility was sub-optimal. The visit to the Tema Septage Facility found the facility working with minimum standards and not in accordance with design. Only one person was in charge. Few trucks were observed emptying their content into one of the four existing ponds. According to the technical consultant accompanying the mission, the facility is inadequately operated. The second anaerobic pond which was used as a by-pass during the rehabilitation of the plant is yet to be emptied. The inter-pond connections were not working as designed and the second anaerobic pond, facultative pond and two matriculation ponds were by-passed. The quality of the effluent does not meet the discharge guidelines since more than half of the ponds have been by-passed.

2.31 ***The second sub-objective of improved drainage is rated Substantial.*** The project aimed to improve urban living conditions of people living and/or working in low-lying areas, which were subject to frequent flooding.

## OUTPUTS

2.32 The IDA intervention in the drainage system was a very small part of the drainage system in the respective Municipal Assemblies. The project completed the reconstruction, and lining of a total of 16.8 km of primary and secondary storm drains in Accra, Kumasi, Sekondi Takoradi, and Tema as planned. Drainage Maintenance Units were established through the Institutional Strengthening Component in the Municipal Assemblies, with dedicated annual budgets.

## OUTCOMES

2.33 Respondents to the Beneficiary Assessment of residents and government officials reported improved drainage, and reduced frequency, severity, and duration of floods in the

project areas. Accessibility in the affected areas improved and stagnant water which allowed malaria carrying anopheles mosquito to breed was reduced. About 47 percent of Beneficiary Assessment respondents indicated that they noted improvements in health.

2.34 The IEG mission visited several main, secondary and tertiary drainage sites. Overall, solid waste was observed in a majority of the drains and siltation and plant growth was observed in the primary drains. Following the flooding in June 2015, funds allocated for cleaning the drains was doubled from the original budget. However, IEG was informed by the stakeholders that had the cleanup started earlier in the season (and more importantly had solid waste not been thrown into the drains), flooding would have been less severe with less damage to property, and lower costs of cleanup.

2.35 *The third sub-objective of improving urban living conditions by providing improved solid waste collection, disposal and treatment is rated Substantial.*

## OUTPUTS

2.36 Two landfills were completed (a new \$5 million Tema landfill, and the Sekondi-Takoradi landfill which had been started during the previous project). Construction of a new cell at the Kumasi landfill was completed. Old dump sites at Accra, Sekondi Takoradi and Tema were closed. The construction of US\$10 million, 190-acre Kwabenya landfill for Accra was abandoned due to sustained opposition by people living near the proposed site (see safeguards section for details).

2.37 The project carried out the required treatment of leachate, venting of methane gas, contouring and stabilization of the soil, and fencing off the sites. The project also made alternative provisions for the livelihood of scavengers who worked on these sites. Some were relocated to the new sites. The two new landfills were provided with new equipment (front loaders, compactors, tipper trucks, water tankers, etc.) and landfill staff were trained in their use. Households were provided with refuse bins and waste containers. The collection, transport and disposal of solid waste in four of the cities (except Accra) was contracted out on a competitive basis to the private sector. The plan for the IDA credit to finance private sector contracts on a declining basis did not materialize.

## OUTCOMES

2.38 The objective of improving solid waste collection, management and disposal was achieved — unsanitary landfills were either closed or improved, and staff were trained to operate the new equipment. Environmental conditions were improved through closure of unsafe/unsanitary dumps, and the opening up of new landfills. Scavengers from the old waste dumps were organized into associations and were trained to maintain basic safety standards such as the use of protective gear. The Beneficiary Assessment indicated that 68 percent of the respondents obtained waste bins, and 12 percent more have their waste collected after the project. Table 2.2 provides data on the method of solid waste disposal.

2.39 Beneficiaries from the project sites reported improved conditions, and changed behavior due to the expanded waste collection. The beneficiary survey for Kumasi, Tamale and Sekondi-Takoradi found that 52 percent of survey respondents (240 households) now

throw their trash into project provided skips compared to 37 percent before the project. Only 9 percent of respondents dumped waste into the bush compared to 25 percent before the project. Thirty percent of the respondents still burned their solid waste. Sixty Six percent of the BA respondents noted improved environmental sanitation due to interventions in solid waste management.

2.40 Closure of the four unsanitary dumps improved the surrounding environmental and living conditions. Some of the reclaimed sites were used by communities, e.g., the old Kumasi and Oblogo dumps were used as a community sports ground. IEG mission discussion with the beneficiaries found that there is a risk that the sites are being encroached upon and could lose their community use.

**Table 2.2: Method of Solid Waste Disposal**

Refuse disposal Method	Before the project		After the project	
	Total number of respondents	%	Total number of respondents	%
Burn	76	31.7	68	28.3
Bury it	3	1.3	9	3.8
House to house collection	7	2.9	17	7.1
Into water logged areas	6	2.5		
Skip	42	17.5	125	52.1
Solid waste dump	48	20		
Throw away into bush	58	24.2	21	8.8
<b>Total</b>	<b>240</b>	<b>100</b>	<b>240</b>	<b>100.0</b>

Source: Beneficiary Assessment May 2013

2.41 The IEG mission visited two working landfills (Tema and Kumasi), and the closed Oblogo landfill in Accra. The Oblogo covered landfill site was in overall reasonable condition. Initially after the landfill was covered, the area was used as a community space, and residents were pleased with the change in environment. At the time of the IEG mission, a large informal settlement had encroached around the covered site. Piles of trash were visible in several corners of the site, and methane extraction vents were exposed without use.

2.42 In Tema, the condition of the landfill had in fact improved since the closing of the project, when the facility was deemed incomplete and inappropriately managed. The government had engaged the services of a consultant to undertake a technical assessment of the Tema landfill site, and had put into practice some of the short-term recommendations from the study.<sup>2</sup>

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<sup>2</sup> Technical Audit of Facility Operation and Maintenance (O&M) of Engineered Landfill Site at Kpone near Tema (May 2015): Water Aide Associated for the Ministry of Local Government and Rural Development.

2.43 The Tema landfill plays a critical role in public health and solid waste management for not only Tema and its surroundings, but also benefits Accra. The Tema landfill is receiving solid waste from Accra due to the latter's inability to open a new landfill in Kwabenya because of a dispute with nearby residents (see section on safeguards and Appendix F). Without the Tema landfill, a crisis in solid waste disposal in Accra would have erupted with critical consequences to public health. However, this situation has shortened the lifespan of the Tema landfill which was designed to receive considerably less solid waste from Tema only. The landfill was designed for a lifespan of 10 years. At the current usage rate, the remaining life of the Tema landfill is estimated to be less than 2 years (instead of about 5-6 years). The IEG mission observed during its visit the operation of the site. Trash had been routinely compacted and covered, the weighbridge and billing system were operational, and the site was continuously receiving trucks.

2.44 On the other hand, the visit to the Kumasi landfill, which was reported to be in good working condition at the end of the project, found the landfill to be lacking in appropriate operations and maintenance. The weighbridge was not working, staff indicated that they were able to bill based on previous records of the weights of the trucks. Solid waste was piled high with minimum compaction and months of no cover. Idle heavy equipment and some in non-working condition were observed at the site.

2.45 *The fourth sub-objective of improved vehicular access is rated Substantial.* The project aimed to improve urban living conditions by providing vehicular access in neighborhoods.

## OUTPUTS

2.46 Small roads, side drains, localized water supply and street lighting were built/rehabilitated in 14 low income communities to benefit 100,000 people (original target was 80,800 people in 13 communities). The small roads were paved and side drains dredged.

## OUTCOMES

2.47 Baseline, monitoring or end of project data was not available regarding vehicular access to the areas served. Previously unpassable roads became all weather roads due to improved side drains which reduced flooding. IEG visits to areas where community upgrading had taken place had similar observations as those in the ICR and the beneficiary assessments. Beneficiaries met expressed general satisfaction to the IEG mission regarding the community infrastructure upgrading. Perceived benefits were improved community and neighborhood security from street lights and access roads. The IEG mission observed a marked difference between communities where paved roads were provided and others where the roads remained unpaved. Houses were upgraded, commercial activities were better organized, and overall traffic conditions were improved. Roads were clean and the atmosphere less dusty (in the dry season), and reportedly continues to be passable – unlike the muddy unpaved roads – in the rainy season. Drainage culverts were less polluted than other drains, reflecting community pride and willingness to keep the area clean. Homes were noted to be in better condition than others in the area where roads were not upgraded.

2.48 Small shops lined the paved road and commercial and social activities were noted. A shopkeeper confirmed that some street lights did not work, but indicated she did not report them. Discussions with officials confirmed findings in the ICR and the Beneficiary Assessments that the upgrading encouraged residents to upgrade their home and businesses were attracted. The area became more attractive, yet more expensive to live in.

2.49 ***The fifth sub-objective of improved environmental health is rated Modest.*** The project objective was to improve urban living conditions in regards to environmental health by increasing access to sanitation and solid waste collection, disposal and treatment. This objective is embedded as an outcome of improved sanitation, drainage and hygiene education.

## OUTPUTS

2.50 The project's institutional strengthening component, financed by the Nordic Development Fund, provided training in public health/environmental health to staff of the environmental health units within the Ministry of Local Government and Rural Development and the Municipal Assemblies. Field equipment, insecticides, and health promotional material were provided for use by the environmental health units.

## OUTCOMES

2.51 The project's investments in solid waste management, sanitation and training of public health/environmental health staff of the environmental health units are likely to contribute to environmental health outcomes vis-à-vis reduced diarrheal diseases and vector borne diseases. The extent of the improvement in environmental health is not known as the project did not include any indicator to track this outcome. The Beneficiary Assessment indicates that 46.7 percent of respondents said they have seen improvements in health. High demand for household latrines (reasons reported — safety, privacy and convenience) reflects preferences and trends for the future. 78.8 percent of respondents own latrines, all had access to public latrines, and 94 percent indicate that their neighborhood schools have latrines. Water, soap and hygiene education material were not present in the majority of sites visited during the Beneficiary Assessments and the IEG mission.

2.52 ***The sixth sub-objective of improving urban living conditions in regards to environmental health, sanitation, drainage, vehicular access, and solid waste management in a sustainable fashion is rated Modest.*** This sub-objective overlaps with the "Risk to Development Outcome" section where risks are discussed in greater detail.

## OUTPUTS

2.53 Intensive and wide ranging training, publications, public information, and manuals were prepared for the project, for example training for revenue collection, tariff setting, manuals for operations and maintenance, and hygiene education. Capacity was strengthened at the MLGRD, particularly at the PCU. Municipal Assemblies became responsible for service delivery of sanitation received training and established drainage maintenance and waste management units with annual budgets.

## OUTCOME

2.54 Household latrines are privately owned and are the responsibility of households to be maintained. The operations and maintenance of public latrines rely on the private sector and payment for services by users. The operations and maintenance of the school latrines rely on payments by parents of students. Reportedly some parents resist payment of additional fees for sanitation. Beneficiary Assessment and IEG mission observations indicate that improvements to the O&M of public and school toilets need more attention by users as well as oversight by local authorities.

2.55 School and public latrines visited by IEG mission were relatively clean. However, almost all showed signs of lack of appropriate operations in accordance with technical guidelines. Water facilities that were installed (e.g. tanks, sinks) were not operational. In some schools, water taps were located at a distance from the toilets. In some cases, toilet doors and taps were locked. Parent Teacher Associations in urban areas were active, and in most cases the school was able to hire a janitor. Where parents refused to pay a fee to the school, facilities were left poorly maintained and in some cases cleaned by the students. IEG observations were similar to the Beneficiary Assessment report in which lack of maintenance (table 2.4) was observed by respondents to the sanitation — 68 percent of respondents noted that the lack of maintenance will affect sustainability.

**Table 2.3: Factors that will affect the sustainability of the project**

Factors	Total number of respondents	%
Lack of maintenance	175	68.6
Limited capacity	27	10.6
Limited resources	48	18.8
Lack of supervision	5	2.0
<b>Total</b>	<b>255</b>	<b>100</b>

Source: Beneficiary Assessment May 2013

2.56 The IEG mission noted the weak operations and maintenance of the large investments such as the landfills and septage facilities, including the presence of idle equipment. Weak institutional arrangements and funding of operations and maintenance is well documented in Beneficiary Assessments, in observations of the IEG missions as well as in acknowledgements of official and beneficiary stakeholders. Weak O&M poses a considerable risk to the long term sustainability of the investments. The Tema landfill is serving the immediate needs for solid waste disposal in Accra. However, the large amounts of solid waste from Accra has shortened the life of the landfill almost by half.

2.57 The project introduced the charging of fees for services such as solid waste collection, tipping fees at landfills, and private sector operation of landfills and solid waste collection. Evidence on cost recovery is lacking due to lack of ring-fencing of accounts or monitoring of private sector operators.

2.58 Drainage Maintenance Units were established through the Institutional Strengthening Component in the Municipal Assemblies, with dedicated annual budgets. However, IEG and the Beneficiary Assessments observed signs of prevailing lack of care and stewardship of communities and inadequate maintenance. Silt had been deposited and plants were growing in primary drains, and communities dump waste in the drains.

2.59 The Beneficiary Assessment evaluated the impact of the Institutional Strengthening component and found mixed results of the long term impact of training given changes in staff and need for continuous training.

2.60 *The seventh sub-objective of improved focus on the poor is rated Modest.* The project objective was to improve urban living conditions in regards to environmental health, sanitation, drainage, vehicular access, and solid waste management in a sustainable fashion with special emphasis on the poor.

## **OUTCOME**

2.61 The project teams reported that project interventions were carried out as planned in accordance with the Strategic Sanitation Plans developed by the Municipal Assemblies. These plans had prioritized lists of households, communities, and schools drawn from the cities low-income residents. The plans also laid out the financing arrangements and subsidies for the poor communities. The IEG mission noted that it is usually poor neighborhoods that live near landfills and waste treatment plants (this was evident in the visits to the closed landfills), and the residents are likely to benefit from the improved environment. However, the results framework did not include indicators to track this sub-objective, neither did the beneficiary assessments.

## **Efficiency**

2.62 The appraisal team considered cost benefit analysis inappropriate for the project because the outputs have no market value readily assessed and benefits could not be measured in monetary terms. Instead, the cost effectiveness method was used for the drainage and residential latrines components. The same methodology was repeated at the completion of the project, where the discounted actual costs of the components were compared to the appraisal costs.

2.63 In the case of storm drains, the actual cost of the project was US\$ 20.8 million, corresponded to US\$ 14.5 million in 2004 prices, which is lower than the US\$ 16.5 million estimated at appraisal. The actual cost per km is US\$ 863,000, was 13 percent lower than the US\$ 1 million estimated at appraisal. The results show that the project attained the expected benefits at lower costs than foreseen at appraisal, which makes the drainage component substantially efficient.

2.64 Project appraisal and final data show that public toilets per seat cost more than double private household toilets. In the case of household latrines, the ICR found that actual per capita cost of household latrines (US\$ 25) was about 50 percent higher than appraisal estimate, and 70 percent higher for public latrines and 5 percent of school latrines. Based on

available WASH cost data<sup>3</sup> from Ghana and other countries, the actual costs of the facilities fall within the average range of costs for similar facilities with a maximum of US\$51 per capita cost.

2.65 Several project components were dropped (these were Kwabenya landfill, Achimota Septage rehabilitation, financing of private landfill and solid waste collection operators, Tema Septage road), implying that considerable planned benefits did not materialize. The project closing date was extended by two and half years due to delays in resolving resettlement issues, and delays in contract award and execution, suggesting substantially delayed benefits. For some investments, O&M is weak which would impact long term benefits stream.

2.66 Based on the above, the efficiency rating for the project is **modest**.

## Project Ratings

### OUTCOME

2.67 The objectives of the project respond directly to the strategies of the government of Ghana and the Bank, and therefore the relevance of objectives is rated high. The design of the project is rated substantial because each component aims to achieve each of the objectives stated, but there were shortcomings in the overall implementation and monitoring arrangements. The project efficacy is rated substantial based on the stated planned and actual achievements in terms of improving services in the sectors addressed by the project, with shortcomings in the achievement of sustainability objective and less than robust evidence on poverty and environmental health. The efficiency is rated modest because several components were dropped indicating less benefits achieved. Based on these ratings and analysis, the project outcome is rated **moderately satisfactory**.

### RISK TO DEVELOPMENT OUTCOME

2.68 This section overlaps with the sixth sub-objective section on sustainability which is rated modest. The Government of Ghana is committed to improving the sanitation and public health aspects of its citizens. The government is engaged with donors to address these issues at all levels, and has included them in the national development plans. The government continues to rely heavily on donor support, training and knowledge sharing and private participation to address large needs. The Government of Ghana has declared its adherence to the new Sustainable Development Goals with a special focus on sanitation. It aims to incorporate them into national and regional plans. The turnaround in the operation of the

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<sup>3</sup> Data was based on sanitation expenditure and service levels emerging from WASHCost's research, led by IRC International Water and Sanitation Center WASHcost Programme, which collected and analyzed cost and service level information for water, sanitation and hygiene in rural and peri-urban areas, applying the life-cycle costs approach from Burkina Faso, Ghana, Andhra Pradesh (India) and Mozambique.

Tema landfill indicates that there is a willingness to improve the situation. The Bank is following up with an ongoing project addressing water and sanitation in the Greater Accra Metropolitan Area.

2.69 The institutional sustainability at the national and regional levels has been enhanced through the long engagement in the sector with donors. Capacities are also high in large municipalities, and considerable efforts continue to take place to build the capacity at smaller municipalities and at the community level. With the recent changes in local government structures and responsibilities, the process of building institutional capacity at lower levels of government will take a long time. There are signs that in the long term, with increased efforts and support, sustainability is possible. Metropolitan, Municipal and District Assemblies are building up departments for drainage and sanitation maintenance to increase the sustainability of investments.

2.70 However, the overall risk to the development outcome of the project is rated **Substantial**. There are significant shortcomings in the post operation of the project that render a substantial risk rating to the development outcome. The sustainability of the public civil works and services will depend on (i) the financial resources or revenue-generating capability of the Metropolitan, Municipal and District Assemblies for their upkeep; and (ii) behavior change of the population who have been accustomed to indiscriminate dumping.

2.71 During the IEG mission discussions, there was broad agreement that public toilet facilities built and operated by the private sectors were better operated and maintained than those built by the public sector and operated by the private sector. Reasons mentioned included (a) weak supervision and regulation by Municipal Assemblies, (b) perverse incentives of operators with short term (2 year contracts) to inadequately maintain the facilities at the end of the contract period; and (c) lack of clarity of responsibilities for minor and major repairs. School latrines visited by the IEG mission were relatively clean, but they were not maintained to appropriate standards, e.g. lack of water near the latrines.

2.72 The finances of the Municipal Assemblies are dependent on government transfers. Accounts of revenue generating facilities are not ring fenced in order to enable cost recovery. Private sector operators are engaged to operate the landfills, yet their responsibility for maintenance expenditures (including for heavy equipment) is not clear. During the IEG visit, stakeholders almost unanimously voiced similar concerns related to lack of consistent and sufficient funding, clear assignment of responsibilities, and training on operations and maintenance of all facilities (especially public toilets). The IEG mission observed the less than adequate operation and maintenance of the Tema Septage facility and the Kumasi landfill, and of project equipment indicates there is need for improved operations. The Tema landfill has been receiving solid waste from Accra in large amounts that has shortened the life of the landfill almost by half.

## Bank Performance

### QUALITY AT ENTRY

2.73 The project is a follow up on similar previous interventions in the same sectors to address critical threats to health and human livelihoods due to repeated floods and lack of appropriate sanitation which has caused the outbreak of related diseases in major urban areas in Ghana. The project was prepared in less than a year as a follow up on a previous project and incorporated the scale up and the completion of activities started under the First Urban Environmental Sanitation Project. The project incorporated lessons learned from the many Bank-financed water and sanitation projects in Ghana. At the same time, it incorporated new realities such as decentralization and the delegation of responsibilities for service delivery to the Municipal Assemblies.

2.74 There were significant shortcomings in attention to safeguard issues during preparation. The project relied on old information in then existing Environmental and Safeguard Framework (see section on Safeguards). As the ICR indicates, project preparation did not follow up on the rigorous internal regional panel review, namely to revisit the risk assessment and mitigation as well as to review the implication for safeguards. The Quality Assurance Group's quality of entry assessment in 2005 rated the overall quality at entry unsatisfactory for the following reasons (a) inadequate attention to sustainability issues; (b) weak implementation arrangements given lack of sufficient capacity at the municipal levels; (c) weak assessment of risks and mitigation measures; and (d) lack of readiness for implementation.

2.75 In hindsight, had the team reconsidered the risks and the likelihood of success of the risky activities (Kwabinya landfill), this activity might have been dropped and the difficulties of implementation avoided. However given the dire need in Accra for appropriate solid waste solutions, including the landfill, which persists till today, the team cannot be faulted for reconsidering Kwabinya. A moderate shortcoming is related to the complexity of the project coupled with a monitoring framework that was not designed to capture all the objectives of the project (e.g. environmental health, sustainability). Given the complexity of the project and each of its components, and the overlapping issues and potential shortcomings, Quality at Entry is rated **moderately unsatisfactory**.

### QUALITY OF SUPERVISION

2.76 The project was approved in April 2004 and became effective six months later in October 2004. Despite the major challenge of the Kwabinya resettlement complaint and the ensuing inspection, other components continued to be implemented without major disruptions. The project team delayed the engagement of a social specialist to resolve issues for Kwabinya. While such a delay was not necessary or acceptable, it was unlikely that the Kwabinya issue would have been resolved, and the landfill built, given the refusal of the community to engage in a dialogue with the authorities to arrive at a solution. However, good advice could have been provided to minimize costs to the Bank and the government. After the Inspection Panel ruling (March 2009) the Bank intensified its efforts. The project team leader moved to the field and there were a total of sixteen supervision visits. An updated and

full scale Environmental Impact Assessment and Resettlement Action Plan was undertaken. Borrower comments in the ICR suggested that the Bank's processes had been overly influenced by the small group living nearby who was not as affected by the landfill as claimed.

2.77 Supervision missions were undertaken regularly with staff from headquarters and the resident mission. The two other landfills in Tema, and Sekondi-Takoradi were successfully completed. An additional cell at the Kumasi landfill was also completed. The project closing date was extended by thirty months due to the weak capacities of the newly decentralized local governments who became responsible for the implementation of the activities under the project.

2.78 There were coordination issues between two different Bank projects citing investments in the same location. The planned septage treatment facility for Accra had to be abandoned on the instructions of the city's Mayor due to the proximity to a new bus terminal financed by another Bank project. Likewise a power transmission line (from a Bank energy project) was being erected and crossed the Kwabenya Landfill site, which would have compromised the latter had it not been dropped. The Quality of Supervision is rated **moderately satisfactory**.

2.79 The overall Bank performance is rated **moderately satisfactory**.

## **Borrower Performance**

### **GOVERNMENT**

2.80 The overall performance of the government is rated **moderately satisfactory**. At the national level, the Ministry of Local Government and Rural Development (MLGRD) was responsible for the implementation of the project and for coordination with the Bank and with the five Municipal Assemblies through the project Coordinating Unit. The MLGRD was committed to the project, and kept the PCU well-staffed. At times, the government did not provide the counterpart funds on time.

2.81 The Municipal Assemblies were responsible for the implementation of the project at the local level. Municipalities were undergoing continuous changes in their structure due to decentralization, and the project presented new challenges to them. This new situation caused delays in implementation. Considerable training was provided, but capacity remained weak particularly with regard to putting into action the acquired knowledge and skills with regard to financial management, budgeting and cost recovery (Beneficiary Assessment on Institutional Strengthening Component). The Assemblies appear to be relying on the private sector and communities to undertake the operations and maintenance of the facilities, but not providing the necessary supervision, regulation, monitoring, advocacy and funding that is required to initiate and sustain the systems,

## **IMPLEMENTING AGENCY**

2.82 The performance of the Project Coordinating Unit (PCU) is rated **satisfactory**. The PCU was staffed with highly qualified and experienced staff who were familiar with Bank policies and procedures. It was well integrated in the government's structure. It undertook its responsibilities with respect to reporting requirements to the Bank and coordinated implementation with the five Municipal Assemblies providing them with the required support.

2.83 The overall government performance is rated **moderately satisfactory**.

## **MONITORING AND EVALUATION**

### **M&E DESIGN**

2.84 The adequacy of the M&E design was mixed for a project with such a multi-faceted set of objectives. There is only one project development objectives (PDO) indicator that aims to measure the reduction in complaints about refuse collection and flooding. Five intermediate indicators address the five components of the project: (i) reduced flooding; (ii) access to toilets; (iii) increase in refuse collection (no. of towns); (iv) length of roads; and (v) establishment of Waste Management Departments. The PDO indicator includes two activities (drainage and solid waste) with one target (15 percent), while the first intermediate indicator almost repeats the PDO indicators on flood reduction with a different target (50 percent).

2.85 There were no indicators that would directly link the impact of the project on public health (environmental health); access to sanitation was used as a proxy. Sustainability was measured through the indicator on equipment in working condition. There was no measure to verify empirically that the project was addressing poorer neighborhoods. It was planned that baseline indicators would be available; mid-term and final indicators would be collected through surveys. Collection of data was assigned to four separate entities, and the details of O&M implementation was included in the project implementation manual. The project did not collect baseline data at the start of the project and IEG mission was unable to get additional data.

### **M&E IMPLEMENTATION**

2.86 Project monitoring comprised the monitoring of the progress work and progress towards achieving the objectives. Project monitoring was intensified during Bank supervision missions. The number of beneficiaries of the latrines component was not actual but was estimated based on design criteria (10-12 person/household toilet, and about 40 people per institutional toilet). Surveys or beneficiary assessments were undertaken at the end of the project. Bank supervision routinely reported on the monitoring framework.

### **M&E UTILIZATION**

2.87 The M&E was used to monitor physical progress of work as well as progress toward achievements of targets in the M&E framework. End of project surveys contributed to raising awareness with regards to weaknesses in operations and maintenance and the lack of overall

monitoring of physical assets and impacts. Lessons learned were used in subsequent Bank operations. Officials were aware of the challenges and deficiencies of O&M and in monitoring of outcomes for policy development. Attention to O&M is now on the government's agenda.

2.88 Overall, M&E is rated **modest**.

### 3. Small Towns and Villages Water Supply and Sanitation Project

#### Objectives, Design, and Relevance

##### OBJECTIVES

3.1 The objective of the project as defined in the Development Credit Agreement (39710-GH), p. 15, dated August 13, 2004, was to “increase access to sustainable water supply and sanitation services in small towns in six regions of the Borrower”.

3.2 The project was the second phase of an Adaptable Program Loan (APL). According to the PAD, the original objective of the APL was defined in 1999 “to support the Government of Ghana to extend the coverage of sustainable water and sanitation facilities to 85 percent of the rural population by the year 2009 and establish a sustainable operations and maintenance system in rural communities and small towns.” With the introduction of the Millennium Development Goals (MDGs), the MDG targets (halve the number of people without access to sustainable safe drinking water and basic sanitation) became the focus of the APL objective. In addressing the new program goal, the PAD for this project adds the following to the project objective: to provide 500,000 people with water supply facilities and 50,000 with sanitary facilities to achieve the water and sanitation MDGs.

##### RELEVANCE OF OBJECTIVES

3.3 This Small Towns Water Supply and Sanitation Project was approved three months (July 2004) after the Second Urban Environmental Sanitation Project above (April 2004). Similarly, the objectives of the project were **highly** relevant to government and World Bank strategies applicable at the time and continue to be highly relevant under the current strategies. The project was set in a decentralized framework being implemented by the government and supported by the Bank. The project focused on the provision of water supply and sanitation in deprived towns to contribute to the Millennium Development Goals. The project was in line with the Country Assistance Strategy (CAS) 2004-2007 dated February 20, 2004. Under Pillar II (Service Provision for Human Development), the project contributed to objective of increasing access to sustainable water and sanitation. This project along with several other rural and urban infrastructure services (with a focus on water and sanitation) formed the core of the Bank’s assistance to support the government’s strategy.

3.4 At project closure, the Country Partnership Strategy (CPS August 20, 2013: FY13-16), water and sanitation services remained on the development agenda as highly important to continue the good performance in economic growth and poverty reduction in Ghana. Pillar 3 of the CPS: Protecting the poor and vulnerable includes improving access to water and sanitation as one of its three core tools. According to the 2010 census, 61 percent and 82 percent of Ghana’s rural and urban population respectively lack access to appropriate sanitation methods. Investments did not keep up with economic and population growth and the urbanization rate. The current CPS emphasizes water and sanitation as key to the Ghana’s prosperity. The objectives were reaffirmed in other documents including Ghana’s Medium

Term Development Policy Framework (2010-2013), Poverty Reduction Strategy (2006-2009), Ghana Shared Growth and Development Agenda (2010-2013) as well as Ghana's Millennium Development Goals (MDG) (see chapter 1 "Background and Context for details on MDG).

3.5 The Community Water and Sanitation Agency, under the Ministry of Water Resources, Works and Housing has published the National Community Water and Sanitation Strategy (March 2014) which continues to emphasize the importance of, and plans for, improvements in rural water and sanitation in Ghana. As mentioned earlier, Ghana has been active in the development of the Sustainable Development goals and has taken steps to streamline Goal 6 into the national programs for water and sanitation at all levels of government and at community levels.

## DESIGN

3.6 The project is a second phase in an Adaptable Program Loan (APL). The project covered six regions: Ashanti, Brong-Ahafo, Upper East, Upper West, Central, and Western, and consisted of three components, the same as those in the first phase of the APL: the Community Water and Sanitation Project (CWSP). The project addressed water supply and sanitation provision in small towns, and provided for institution building and capacity enhancement of several sector institutions. The main difference between the first phase and this project was that the second phase focused on water and sanitation in small towns rather than smaller villages.

**Component 1: Community Subprojects Component:** (original cost US\$24.8 million; revised cost US\$ 50.0 million, actual cost US\$42.5 million). This component provided resources for water and sanitation services in: (a) small towns subprojects planned but not implemented under the first phase; (b) new small town systems; (c) rehabilitation of small towns systems; and (d) institutional and household sanitation facilities and hygiene promotion activities in small towns.

This component was designed to provide assistance to small towns and schools through grants to their District Assemblies for: (i) the construction/rehabilitation of water and sanitation facilities; and (ii) financing upfront technical assistance and community development activities to strengthen the capacity of small towns to plan, implement, operate and maintain water and sanitation facilities in an effective and sustainable manner. Subprojects were to respond to community demand, required a financial contribution from the small towns and the District Assemblies (5 percent each for water supply and for institutional latrines and 50 percent for household sanitation), and was to be accompanied by community development and technical assistance support. The target groups for this component were dwellers in small towns in six regions of the country. The component was expected to improve quality of life in several ways, including a reduction in the incidence of water-borne and excreta-related diseases, as well as increased time-savings, productivity, and school enrollment for girls and boys.

**Component 2: Sector Support:** (original cost US\$3.7 million; revised cost US\$4.66 million, actual cost US\$6.3 million). This component was designed to support training and technical assistance for stakeholders to improve their capacity to fulfill their sector roles including support to:

- (a) District Assemblies, District Works Departments, and their District Water and Sanitation Teams (DWST); funds were allocated on an annual basis to provide basic equipment, such as computers and motorbikes; in addition, practical training was to be provided in procurement, contract management, accounting, hygiene and sanitation, and community participation. Support was to be provided to the DWSTs to finance the incremental operational costs associated with project management. Guidelines and eligibility criteria for disbursement were included in the project operational manual;
- (b) Local providers of goods and services, through a voucher scheme to facilitate demand-driven training for the private sector and Community Based Organizations;
- (c) Development of training materials (such as community and district operational manuals) and studies related to M&E;
- (d) Regional structures involved in project monitoring, such as the Regional Coordinating Councils, to receive general orientation on the project and sector and specific training in the area of M&E activities, and Regional Water Supply Teams (RWST) staff to receive training to address their specific capacity building needs; and
- (e) The Directorate for Water in the Ministry of Water Resources Works and Housing (MWRWH) to receive training and technical assistance to enable it to fulfill its role in planning and monitoring overall rural water supply and sanitation access in the country and to monitor progress towards meeting the MDGs.

**Component 3: Program Management:** (original cost US\$2.5 million; revised cost US\$3.13 million; actual cost US\$2.9 million). This component provided Community Water and Sanitation Agency (CWSA) (national and regional levels) with a management fee equal to five percent of the funds disbursed under component 1 to support the incremental costs of implementing the project. The component was designed to support the CWSA to develop its role in sector planning, donor coordination, funds mobilization, and program management. The components aimed to: (a) strengthen the newly created MWH Directorate for Water, (b) increase the ability of the private sector to provide adequate services; and (c) build the capacity of districts Community Water and Sanitation Agency and Regional Water Supply Teams to effectively implement and guide interventions in small towns.

## RELEVANCE OF DESIGN

3.7 The design of the project is **substantially** relevant to its stated objectives. The first component provides funding for the construction and rehabilitation of water supply and sanitation systems in small towns with the objective of reaching 550,000 water users and 50,000 sanitation users. For sustainability of the water and sanitation, the infrastructure component is supplemented by institutional building components with the aim of improving

the monitoring of progress of delivery of services as well as improving other functions of agencies at the central and local levels. The third component provides funding to ensure adequate implementation of the project in accordance with Bank requirements. The implementation arrangements were overly complex and involved several levels of governments and multiple agencies responding to the requirements of a decentralized structure. The results framework was deficient with respect to intermediate indicators that measured the output of the project in terms of numbers (e.g. number of water boards trained, number of towns submitting applications, number of private service providers), without a measure of the impact of the project during or after implementation.

## **Implementation**

### **REVISED COSTS AND OTHER CHANGES**

1.1 In August, 2007, the project received additional financing of US\$10 million to cover higher costs due to: (a) escalation in unit costs; and (b) more smaller towns with higher per capita costs were submitting applications than originally envisaged. In May 2009, the project received an additional financing of US\$15 million to cover the costs of an additional 11 small towns which had below average access to potable water and were experiencing a high prevalence of water-borne diseases. The target for access to water supply was increased by 50,000 people to reach 550,000 people. During the second restructuring, the closing date of the project was extended by one year to April 30, 2010. At project closing, US\$7.5million was cancelled. Appendix E table 2 provides the project costs by component.

### **SAFEGUARDS**

3.8 At appraisal, the project was classified as category B for Environmental Assessment. The project triggered Environmental Assessment (OP/BP 4.01) and Involuntary Resettlement Policy (OP 4.12). Involuntary resettlement policy was triggered because land acquisition was necessary for the construction of pumping stations, storage tanks and communal water points. Safety of Dams Policy (OP/BP 4.37) was not triggered because any dams expected to be built were not expected to exceed 15 meters in height. The government adopted an Environmental and Social Management Framework (ESMF) and a Resettlement Policy Framework (RPF). Prior to commencing work on any water supply system, an Environmental Management Plan was to be prepared in accordance with the principles and institutional procedures established in the ESMF, and all necessary land and other property was to be acquired, compensation paid and any resettlement arising from such works was to be carried out in accordance with the principles and institutional procedures established in the RPF.

### Environment

3.9 During implementation, environmental issues were to be addressed in accordance with the ESMF. Identified potential impacts and mitigation included: (a) water sources must be checked for quality to confirm water quality standards are met; (b) water sources must be checked for safe yield and impact on surrounding water sources; (c) water sources must be designed and constructed to prevent contamination; (d) wastewater at outlets must be

disposed of properly; and (e) measures to mitigate erosion and loss of vegetation must be provided in construction contracts.

### Social

3.10 Resettlement: At appraisal, it was expected that a small amount of land would be needed for pumping stations, storage tanks and communal water points. Construction of these facilities could cause temporary or permanent loss of land, crops and other means of income generation. A Resettlement Policy Framework was prepared. The project followed a demand-driven, participatory approach. The principal stakeholders were the small towns that could benefit from improved systems. The project had a participatory monitoring and evaluation system, and community members were to be involved in periodically assessing the progress of the project.

3.11 A review of Bank documents by IEG indicated that attention to the Environmental and Social requirements was initially weak. By the mid-term review (July 2007), the Bank team noted that the ESMF and the RPF documents were available, but dissemination and familiarity with their provisions was limited especially at the District Assemblies and the communities. This affected the extent of commitment and compliance of the project to the social and environmental safeguards. The mid-term review noted that Community Water and Sanitation Agency was slow to take action on initiating the safeguards implementation despite reminders by the Bank team. In some regions, efforts were made by the Rural Water and Sanitation Teams to ensure environmental compliance through the consultants and contractors, but the Bank team reminded officials that the implementation of the ESMF/RPF should not be left to the consultants.

3.12 In regions where some attempt was made to implement the safeguard provisions, the focus tended to be on construction and the environmental impacts more than the social aspects or the post-construction phases. The Bank team made extensive recommendations to rectify the situation including redistribution and explanation of documents, assigning staff, documentation and compilation of resettlement issues and how they were resolved. In a July 2009 progress report, Community Water and Sanitation Agency reported on the training provided and the requirements for safeguards. Construction workers not wearing safety gear was reported. In May 2009, a Bank mission indicated that compliance with environmental safeguards was satisfactory with minor infractions. The mission noted that there were several, though relatively minor cases of land acquisition and compensations for economic displacements. In Jacobi, Ashanti region, a water tank was built near a primary school posing a hazard to children. The District Assemblies was planning to relocate the children to a new school. The mission reminded the District Assemblies that relocation should take place prior to construction. The mission noted the need for better documentation at the local level and better reporting to and monitoring by the regional and national representatives of the Community Water and Sanitation Agency.

3.13 The ICR did not report on safeguards compliance. It reported that Community Water and Sanitation Agency had good experience and that safeguard issues were addressed, and required compensation paid. The PPAR does not rate safeguards.

## **FIDUCIARY**

### Procurement

3.14 According to Bank supervision mission reports, procurement followed the Bank's guidelines for procurement of goods and services. For each region participating in the project, one consultant was engaged to provide services on small water supply systems. The performance of Regional Water and Sanitation Teams and the District Water and Sanitation Teams were reviewed during implementation and capacity gaps were identified in: (i) procurement planning, updating and implementation monitoring, (ii) preparation of bid evaluation reports, and (iii) contract management. Bank missions often provided training. No significant procurement process issues were reported. Nevertheless, in some cases there were some difficulties in contract implementation, supervision, and payments. Procurement capacity was stronger at the national and regional levels of the Community Water and Sanitation Agency than at the level of the district and community water supply teams.

### Financial Management

3.15 Bank supervision missions reported routinely on financial management issues. The final supervision mission found compliance with financial management requirements to be satisfactory. The project had complied with all audit requirements, including for the final audit report. Audit reports were largely unqualified, and the Bank team reviewed the auditor's comments with the Community Water and Sanitation Agency. The mid-term review (July 2007) included a comprehensive financial management review. It followed up on issues raised in previous missions, assessed the adequacy of financial management systems including the readiness of the two new regions (Central and Western) and discussed with Community Water and Sanitation Agency the issues raised by the external auditors in the 2006 Audit Report. Financial management arrangements were found to be adequate at the head office and the regions. Timely Financial Management Reports were a challenge due to the slow response from the districts. The accounting function was managed by a qualified accountant and four accounts officers. Regional accountants and the district finance officers were also supported by financial management consultants. Overall Bank missions reported that budgeting and internal control for project accounts was adequate, with weaknesses noted at the district levels.

## **Achievement of Objectives**

3.16 The objective of the project as defined in the Development Credit Agreement (39710-GH), dated August 13, 2004, was to "increase access to sustainable water supply and sanitation services in small towns in six regions of the Borrower."

3.17 The technical and beneficiary assessments as well as IEG mission observations were used to assess the efficacy of the project. The Beneficiary Assessment for the Project was not available at the time of the preparation of the ICR.

3.18 *The first sub-objective of increasing access to water supply is rated substantial.*

## **OUTPUTS**

3.19 Water supply systems were constructed as planned in a total of 73 communities in 44 Districts of the Ashanti, Brong-Ahafo, Upper East, Upper West, Central, and Western regions of Ghana.

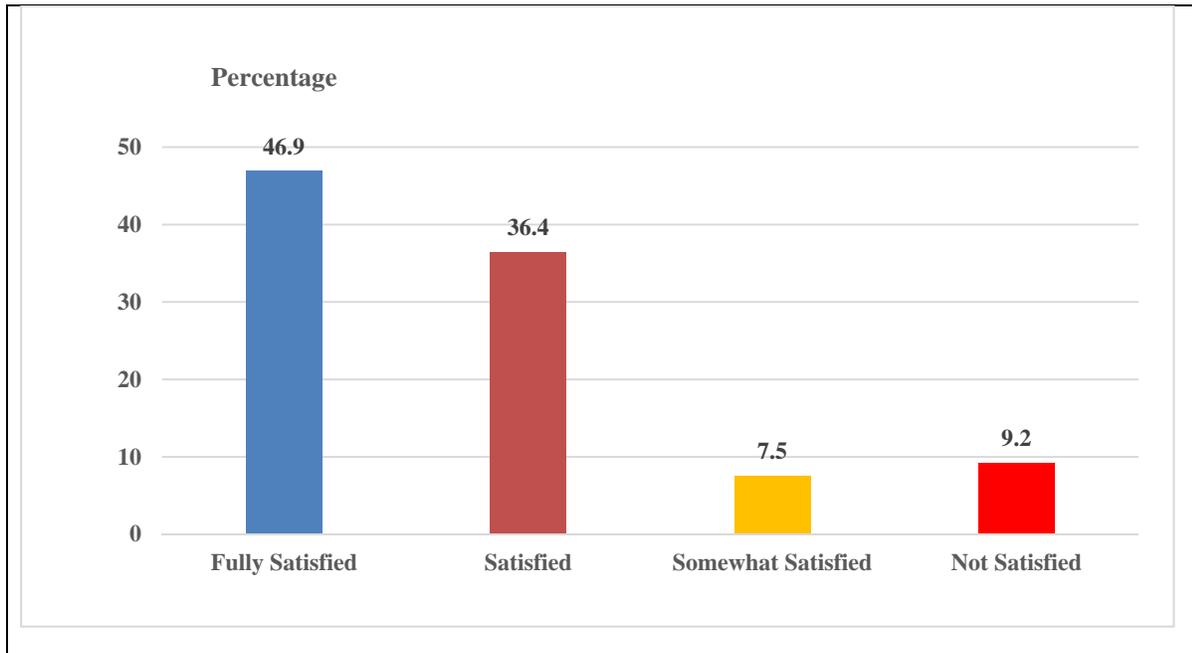
## **OUTCOMES**

3.20 The project exceeded its target with regard to water supply, with 562,000 people (target 550,000) provided with access to potable water, including those in the eleven towns added in 2009. The monitoring framework did not include targets for increased water supply and consumption. The economic analysis in the PAD estimated water production in the project areas at the time was less than 3 million m<sup>3</sup> and estimated that the project will increase production to 7.7 million m<sup>3</sup>. The analysis also indicated that water consumption at the time was 10 liters/capita/day (l/c/d) which was to increase to 20 l/c/d/ and 60 l/c/d/ respectively for water from pumps and connections respectively. There were no records to monitor these indicators at the aggregate levels.

3.21 According to the Beneficiary Assessment, the beneficiaries were satisfied with the water systems both with regard to the services as well as tariffs. Figure 3.1 provides level of community satisfaction with standpipes. On the other hand, the Technical Assessment undertaken at the end of the project found major issues with the systems (see Appendix G). Of the 14 systems that were visited during the Technical Assessment, only two (representing 14 percent) were functioning as designed. The others were having either electro/mechanical problems or the bore holes were suspected to be yielding less than expected.

3.22 The IEG mission visited water supply facilities in 3 of the 6 regions covered under the project. The objective of the visits was to observe facilities that are in good working condition as well as those that are not. The facilities were selected randomly after discussion with the CWSA which provided the list of communities that benefitted from the project. The mission observed that physical facilities of water systems were in working condition and overall adequately maintained. There were no leakages, and the pump area was dry and clean. Stand pumps were locked when not in use, and electric pumps were fenced in and operating. Stakeholders at all levels — national and regional CWSA officers, District Assemblies and community Water and Sanitation Teams were more aware of the operations of the water supply systems than for the sanitation systems, and the institutional set up for reporting malfunctions appeared to be better anchored and understood.

3.23 The water supply installations (hand pumps, electric pumps and water tanks) visited by the IEG mission were observed to be in satisfactory operating conditions. The difference between IEG observations and the Technical Assessments is attributed to the continuous support that the CWSA provides to the communities with regard to water within the follow up projects by donors, and the stronger institutional framework for water supply.

**Figure 3.1. Level of Community Satisfaction with Stand Pipe Locations**

Source: Beneficiary Assessment (April 2011)

3.24 The IEG mission found that larger communities were better organized as they had subcontracted to professional operators who also maintained the system. These communities exhibited more organized budgets and books and reported they used computers to maintain records. One larger town indicated that it is capable of covering O&M costs. Smaller communities on the other hand exhibited lower capacities. They hired minimal staff to maintain the system, and kept rudimentary paper records. They indicated they do not use computers provided by the project. Tariffs differed considerably amongst the communities visited. An on-the-spot review of available records showed that there was not sufficient information to determine potential for cost recovery, even for the large community. The community water management teams indicated that they were facing competition from private operators who built, owned and operated their own facilities (as opposed to facilities being concessioned to private operators under the project) and were capable of providing good service at higher prices. Stakeholders at all levels indicated there is need for sufficient and timely funding for O&M and for monitoring.

3.25 *The second sub-objective of increasing access to sanitation through the provision of household and school latrines is rated Modest.*

## **OUTPUTS**

3.26 The project financed the construction of 4,202 private household latrines and 288 institutional latrines. The results framework in the project appraisal document did not set targets for the number of household and institutional latrines.

## **OUTCOMES**

3.27 The target of sanitation coverage for 50,000 people was met, with 4,202 private and 288 institutional latrines built which served a total of 50,424 and 28,800 people respectively. The Beneficiary Assessment indicated that beneficiaries were satisfied with the household latrines, but complained that there was insufficient coverage. However, the Technical Assessment found a large number of institutional latrines to be not in working order. (See Appendix G for summaries of the Beneficiary and Technical Assessments).

3.28 The Sector Strengthening component provided support for mass media campaigns for disseminating hygiene education, including promotion of the global hand washing initiative. However, the ICR states that “the low level of investment in sanitation and hygiene education, as well as the strategy of providing subsidy to household latrines without prior behavior change awareness campaign poses a challenge to the attainment of the Millennium Development Goals.” Discussions with officials during the IEG mission indicate that after a large and successful media campaign (with and without the project), overall attention to hygiene education has dwindled due to lack of funding. Hygiene messages particularly in schools and near school toilets was evidently lacking. Overall reporting and recording on sector strengthening activities was not sufficient.

3.29 The IEG mission visited school sanitation facilities in 3 of the 6 regions covered under the project. The facilities were selected randomly after discussion with the Community Water and Sanitation Agency and the PCU, which provided the list of communities that benefitted from the project.

3.30 Public/school latrines that were visited were relatively clean, but appeared to have deteriorated over time. Broken and empty water tanks and sinks near school toilets were visible. Other dry toilets were not operated in accordance with the design. Water faucets were available within the school premises, not directly adjacent to the toilets, and there was no soap. It was widely reported that in rural areas, where parents cannot afford fees to hire a janitor for the school, children were trained to clean the bathroom with the supervision of a teacher. It was also widely reported, that communities around the school were using the facilities when the school is closed, and often inadequately, adding to deficient maintenance, and shortening the life of the facility due to use beyond the design capacities. The impact on the learning environment and experiences of the children due to the situation can be negative. The absence of hygiene education materials in the toilets and in the schools was noted.

3.31 *The third sub-objective of sustainable access to water supply services is rated Substantial while sustainable access to sanitation services is rated Modest.*

## **OUTPUTS**

3.32 Seventy three volunteer Water and Sanitation Development Boards (WSDBs) were formed from the participating communities to be the local governance bodies. The gender balanced Boards are functioning as designed with their staff fully trained. The IEG mission visited several WSDBs and noted that they are functioning at varying degrees of capacity which is positively correlated with the size of the community. Most used paper based simple records of revenues, and only one large town showed a budget with revenues and expenditures. All (except for the large WSDB) were not using computers provided. WSDBs comprised volunteers from the community. Communities above 10,000 population hired paid technical and financial staff, and were therefore better served than smaller ones who relied totally on volunteers. Women were well represented in the WSDBs met.

3.33 Staff of 44 District Assemblies were trained in their supervisory functions, including accounting, procurement and selection of contractors, managing contracts, and other fiduciary matters. They also learnt appropriate methods for acquiring land and paying proper compensation to property owners in accordance with the requirements of social safeguard policies, as well as conflict resolution skills. Each District Assembly developed an annual District Water and Sanitation Development Plan from which the sub-projects were identified and prepared.

3.34 Training for 59 private service providers was provided. They comprised contractors and consultants (drilling, sanitation), area mechanics, small town water system operators and providers of training and community development services.

3.35 The project worked with the newly mandated decentralized framework in Ghana utilizing the demand-driven approach, whereby communities, with the help of the District Assemblies, selected and contributed to the design of sub -projects. To be eligible the participant towns had to provide 10 percent of the investment costs (5 percent from the District Assemblies and 5 percent from the community), and commit themselves to the operation and maintenance of constructed facilities. The 5 percent community contribution was eliminated during implementation.

3.36 The Community Water and Sanitation Agency produced several manuals and guidelines to standardize the preparation and implementation of sub-projects including: (a) a Framework for Assessing and Monitoring Rural and Small Town Water Supply Services, (b) a District Operational Manual, (c) a How-to-do Guide for Functionality and Service Monitoring; and (d) a project implementation manual.

## **OUTCOMES**

3.37 Systems were created and capacity has been built in stakeholder institutions to sustain the financing, operation and maintenance of locally managed water supply and sanitation services. The IEG mission noted that for water supply, the staff at the national and regional

levels (CWSA and RWSTs) were highly skilled and knowledgeable. District level staff were also knowledgeable about their areas, but capacities varied according to size of the community. At the community level Water and Sanitation Development Boards (WSDB) were responsible for collecting fees for operation and maintenance of the water systems. WSDBs collected the money from communities. Additional funds were raised when repairs were needed. District Assemblies had recently introduced the practice of auditing WSDB accounts.

3.38 The CWSA introduced a formula for tariff setting that includes all costs, and sets aside funds for replacement and for sanitation. Tariffs varied considerably among the communities visited, and were generally too low to allow for cost recovery. On the other hand, it was reported to the IEG mission that private operators who constructed and maintained their own facilities were more successful in charging higher prices.

3.39 The Borrower's ICR points out that there is a need for a robust Sector Information System for M&E of not only access to water and sanitation, but of the quality of the services provided and the financial sustainability of the decentralized and community owned systems. The establishment of a Sector Information System is being supported by an ongoing IDA financed project (the Greater Accra Metropolitan Area Sanitation and Water Project).

3.40 Capacities, ownership and attention to school sanitation facilities was a serious problem, compounded by lack of clear responsibility for operations and maintenance. The current institutional framework for operations and maintenance of the sanitation facilities is weak and insufficient to provide the necessary support and oversight.

3.41 **Contribution to Program Goals:** The project enabled partial progress to be made towards Ghana's meeting of the Millennium Development Goals.<sup>4</sup> Ghana had a mixed record of achieving Goal 7: Ensure environmental sustainability. The target of halving the proportion of the population without access to safe water has been achieved, but poor sanitation remains pervasive. In the case of water, the target was over achieved with 21 percent of the population not having access to safe water vs. the target of 22 percent. For sanitation, 84 percent of total population remain without access to improved sanitation vs. the target of 48 percent.

## Efficiency

3.42 At appraisal, a cost benefit analysis was undertaken for the project. It was assumed that project investments will increase water supply capacity by 4.7 million cubic meters to 7.7 million cubic meters. The project would increase private connections, rehabilitate networks and improve sanitary conditions. Population growth was assumed to be 3 percent from a base of 625,000. Water consumption at appraisal was estimated at 10 liters per capita per day (l/c/d) and expected to reach 20 l/c/d by the end of the project. Consumption in households connected to the network was estimated to reach 60 l/c/d. Twenty percent of homes were expected to connect directly to the network. Water was sold for 100 Cedis for an

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<sup>4</sup> Ghana – Millennium Development Goals 2015 Report (September 2015)

18 liter bucket, while connected households would pay 25 percent more. Revenues were to cover O&M and potential replacement costs. A standpipe would serve a maximum of 300 people within a 300 meters distance. The direct benefit of the project is the increased provision of water to the families living in small towns. Indirect benefits included: time saved in fetching water, health improvement with higher quality water, and improved hygiene of new latrines. With 20 years life and 12 percent discount rate, a present value of net benefits was calculated at US\$14 million and the internal rate of return was 20.5 percent for water and 17.8 percent for sanitation.

3.43 At completion a similar cost benefit analysis was undertaken. Assumption on water consumption (the main quantifiable benefit) remained the same; i.e. actual consumption figures were not available. Price of water increased from US\$0.6/m<sup>3</sup> to 1.03/m<sup>3</sup>. The main difference was the significant increase in capital costs and associated O&M costs. The internal rate of return was calculated at 24.4 percent.

3.44 No cost benefit analysis was done for the sanitation component at appraisal or completion. IEG mission was informed about health benefits from reduction in fecal related diseases, improved hygiene, and enhanced safety, privacy, and convenience as a result of provision of household toilets. However, no data was provided.

3.45 The project was provided additional financing of US\$ 10 million equivalent (38 percent additional to original credit) to cover cost overruns (due to different size water systems as well as increases in prices). An additional US\$ 15 million was provided to increase the number of beneficiary communities and total beneficiaries by 50,000 (at a cost of (US\$300/beneficiary). On average, the per capita total cost of the project is US\$99/capita vs. the original plan of US\$53 and a revised US\$73.8. The estimated cost per beneficiary of water services doubled from appraisal estimates, while the estimated cost per beneficiary for sanitation increased by 13 percent. The project was extended for one year.

3.46 There were some operational and administrative inefficiencies. The minority of DA and communities which stalled in the payment of their 5 percent contribution delayed the construction of the facilities. The lack of familiarity with safeguards requirements led to delays in land acquisition and implementation.

3.47 Overall, the efficiency of the project is rated **modest**.

## **Project Ratings**

### **OUTCOME**

3.48 The objectives of the project respond directly to the strategies of the Government of Ghana and the Bank, and therefore the relevance of objectives is rated high. The design of the project is rated substantial because each component aimed to satisfy each of the objectives stated. There were shortcomings in the overall implementation and monitoring arrangements that limited the availability of evidence. Efficacy is rated substantial because the project increased access to sustainable water supply facilities, which represented about 85 percent of the investments and about 90 percent of beneficiaries. On sanitation, access was

increased but not in a sustainable manner as water supply have a stronger institutional support than the sanitation investments. Efficiency is rated modest due to high per capita costs. Based on these ratings and analysis, the project outcome is rated **moderately satisfactory**.

#### **RISK TO DEVELOPMENT OUTCOME**

3.49 The overall risk to development outcome of the project is **substantial**. The risk to development outcome related to water systems is modest as the project assisted in building institutions and involved communities in the O&M of water sector as discussed below. However, the risk to access to sanitation outcome is high due to lack of clear responsibility for O&M.

3.50 **Institutional Risks.** The CWSA is a professional well-staffed organization with strong regional outreach. The CWSA has published manuals and procedures to streamline the installation, operation and maintenance of water supply facilities in rural areas. The project assisted in pushing capacity building in the District Assemblies who are responsible for these services in the new decentralized structure. There is heavy reliance on communities to burden the responsibilities of operating the system. Oversight and monitoring is not strong across the board, as the responsibility for water and sanitation shifts from the Ministry of Water Resources and Housing and the CWSA to the District Assemblies and to the Ministry of Local Government and Rural Development at the National Level.

3.51 **Financial Risks.** The CWSA introduced a formula for tariff setting that includes all costs, and sets aside funds for replacement and for sanitation. However, tariffs varied considerably among the communities visited, and were generally too low to allow for cost recovery. On the other hand, it was reported to the mission that private operators who constructed and maintained their own facilities were more successful in charging higher prices. The project has succeeded in engaging communities in the sector and understanding the necessity of paying fees to maintain the system. Financial reporting and monitoring is not sufficiently adequate to provide a picture of financial sustainability.

3.52 **Social Risks.** This is especially relevant to the school sanitation facilities where there is lack of community stewardship, maintenance and monitoring as well as abuse of school facilities by the community.

3.53 **Technical Risks.** The water supply system relies on the community for its operations and maintenance. In small rural communities, technical capacities are not always adequate. The shortage of funds and skills become incentives to postpone maintenance. Technical risks appear to be manageable for water supply, but are high for sanitation, due to the sector's novelty and complex challenges.

## Bank Performance

### QUALITY AT ENTRY

3.54 Quality at entry is rated **moderately satisfactory**. The project is a second phase of an Adaptable Program Loan and has benefitted from experiences of phase 1, which was similar in nature, except that this phase focused on small towns. The project design benefitted from other Bank-funded projects in the water supply and sanitation sector in Ghana, while adapting to new institutional changes such as decentralization. The project complied with all Bank fiduciary and safeguard requirements. The project team worked well with government counterparts.

3.55 Despite learning from experiences, there were shortcomings in the preparation of the project that had an adverse impact on the project including: (a) weak monitoring and evaluation framework that focused on the physical progress, training and institutional framework, but had no measures for effectiveness and efficacy of these interventions; (b) wrong assumptions on size of towns and demand for household latrines; (c) underestimating costs (coupled with inflation) led to requests for additional financing.

### QUALITY OF SUPERVISION

3.56 The Quality of Supervision is rated **moderately satisfactory**. The Bank team was based in Accra and undertook regular and intense supervision missions. Missions visited sub-project sites and met with local level stakeholders (District Assembly officials, traditional authorities, Water and Sanitation Development Boards, consultants, contractors, and community members). The Bank provided support to the District level and local implementing bodies, especially in areas such as technical supervision, procurement, and social and environmental safeguards as well as technical advice in contract supervision.

3.57 The Bank team was proactive in problem solving through restructuring and scaling up the project. A shortcoming in Bank dialogue was the quick agreement with the government to waive the 5 percent matching funds from communities when additional financing was provided, even though it appeared to be a political decision to win an election. This change of rules at a critical point in project implementation (additional financing) de facto penalized communities who abided by established rules and gave the wrong signals in the sector. Although it is recognized that this was the result of a government policy decision, the issue might have been addressed in the context of policy dialogue at an appropriate level. On the other hand, the Bank showed flexibility in a difficult environment with great needs in the sectors. Another shortcoming in the Bank's supervision was the delayed recognition – until the mid-term review - that environmental and social safeguards were not being addressed adequately. Technical supervision and the completion report failed to detect the technical difficulties faced by the project that were outlined in the Technical Assessment that was done following project completion.

3.58 The overall Bank Performance is rated **Moderately Satisfactory**.

## Borrower Performance

### GOVERNMENT

3.59 The Government of Ghana, as represented by the Ministry of Works and Housing (MWH), which later became the Ministry of Water Resources, Works and Housing (MWRWH), placed a high priority on improving access to Water Supply and Sanitation to cover the large gap in service delivery in the country and to reach the agreed Millennium Development Goals. In implementing the project, government performance suffered moderate shortcoming. The government's transfer of funds to District Assemblies (DA) was irregular and adversely affected the DAs' ability to pay their 5 percent contribution which caused delays in implementation (ICR p.35).

3.60 The government diverged from agreed policies for political purposes when it promised to waive the 5 percent contribution from communities, thus giving the sector a wrong signal with regard to the government's resolve to reform the sector and alienating those who had or were willing to contribute to such projects. The result of waiving the required 5 percent impacted community ownership and the financial resources available for operations and maintenance. The government's performance is rated **Moderately Satisfactory**.

### IMPLEMENTING AGENCY

3.61 The project implementation arrangement was complex. The Community Water and Sanitation Agency (CWSA) at the MWRWH had primary responsibility for guiding, promoting, facilitating, supervising, monitoring, evaluating, and reporting on project activities. Project implementation was decentralized to CWSA's regional offices, called Regional Water and Sanitation Teams in 6 regions that provided technical assistance to the District Assemblies (44) and the private sector. The District Assemblies implemented the subprojects on behalf of, and in coordination with, the communities in the small towns.

3.62 The project covered a large differentiated geographic area with different administrations. Few implementation problems were reported. The project faced few delays with a one year extension to increase coverage. There were weaknesses in safeguards implementation although this improved overtime (see section on safeguards). The performance of the implementing agencies is rated **Moderately Satisfactory**.

3.63 The overall rating for the government performance is **Moderately Satisfactory**.

### MONITORING AND EVALUATION

#### M&E DESIGN

3.64 M&E as explained in the PAD (p.14) was designed as a tool for stakeholders to assess implementation where objectives and targets can be evaluated. Data for the outcome and results indicators would come from a variety of sources and would be collected using a mixture of methodologies: (i) traditional methods of data gathering (i.e. CWSA quarterly reporting on activities and outputs as well as periodic technical audits of districts); and (ii)

participatory methods to bring beneficiaries and implementers together to evaluate effectiveness and sustainability of activities, and to provide feedback for improving processes. Annual stakeholder meetings were to be held to share emerging lessons and revise implementation on a timely basis.

3.65 Responsibilities for M&E were to be held at various levels. Data would be gathered at the lowest levels and aggregated upwards. Staff at each level would be responsible for M&E, and the project's sector support component was to provide needed training. As part of the government's decentralization drive to increase the involvement of Regional Coordinating Council (RCC) which reports to the Ministry of Local Government and Rural Development (MLGRD) in the monitoring of activities at the District level, these bodies were to provide parallel monitoring of project activities at the Districts within their jurisdiction.

3.66 A key task of the M&E system was to report on progress towards meeting the MDG targets. Regional Water and Sanitation Teams (RWST) annual work plans would indicate how the annual plan relates to the MDG targets. RWST quarterly reports would indicate if activities are on schedule. RWSTs would share these reports to the Regional Coordinating Committees (RCCs) and to CWSA head office, which would forward them to the MWRWH for aggregation to the national level.

3.67 In an environment of weak capacity and the introduction of decentralization, the M&E design was too complex and multi-faceted with several agencies responsible, but with unclear assignment of responsibilities, particularly for final aggregation of the results of the many tools and analysis of the outcome.

## **M&E IMPLEMENTATION**

3.68 Given the complexities of the designed M&E framework, the M&E system was not fully implemented as designed. CWSA and Bank supervision missions reported on the monitoring framework outlined in the PAD. The results (e.g. beneficiaries reached) were based on design estimates. RWSTs reported to the CWSA, but the mission found there was less reporting across the ministries. Coordination with the RCCs (regional representatives of the MLGRD and overseeing Metropolitan, Municipal and District Assemblies) was weak or non-existent. The IEG mission noted that reporting to RWSTs became less organized once facilities were delivered to the community/District Assembly. Reporting on financial issues was not possible given the variety of account recording and monitoring capacities – which would be necessary as evidence of reporting the required O&M coverage indicator for example. Communities undertook meetings to discuss project issues related to the services provided, aggregating outcomes of those meetings for monitoring and learning was not possible. A technical and beneficiary assessment was undertaken after project closure (April 2011), and is summarized above, but was not included in the ICR.

## **M&E UTILIZATION**

3.69 In recognition of the importance of monitoring, the CWSA has developed a guide for functionality and service monitoring (March 2014), and a Framework for Assessing and Monitoring rural and Small Town Water Supply Services (March 2014). Further efforts are

being undertaken to develop a web-based monitoring system to collect data using mobile phones, analyze data in accordance with sector guidelines, and help communities report water facility faults, order spare parts and access financing.

3.70 Overall, M&E is rated **modest**.

## 4. Lessons

- (a) **For school toilets to be used in a sustained manner, an integrated hygiene education needs to be offered on a continuous basis.** A strong hygiene education campaign was undertaken throughout Ghana prior and during the two projects. Discussions with authorities and visits to schools indicate that the emphasis on the implementation of the hygiene education program diminished due to lack of funds. Sustained provision of hygiene education (availability of information as well as soap and water near toilets) ensures incoming classes continue to learn and use safe hygiene practices.
- (b) **The concept of Community Ownership and Management is not sufficient to ensure sustainability in an environment of weak community stewardship.** Implementation of regulations, strong monitoring, education and enforcement are needed to assure a sustainable operation and maintenance of the facilities. In the case of the drainage component in the Second Urban Environmental Sanitation Project, the communities resorted to old habits of dumping garbage in the rehabilitated drainage system. In the case of the Small Towns Water and Sanitation Project, communities surrounding the schools were using the toilets. In both cases, the behavior contributed to a faster demise of the infrastructure and increased the costs of operations and maintenance.
- (c) **Stakeholder analysis and citizens engagement during project and facility design is important for assessing the willingness to pay for the services.** In the case of the Small Towns Water Supply and Sanitation Project, discussions with community water management teams indicated that they were facing competition from private operators who built, owned and operated their own facilities (as opposed to facilities being concessioned to private operators under the project) and were capable of providing good service at higher prices.
- (d) **Changing the rules of the game for short-term political gains during implementation disrupts community involvement and sends the wrong signal to communities in terms of the government intentions.** In the case of the Small Towns Water and Sanitation Project, the decision to exempt communities from the 5 percent copayment requirement alienated those communities who made the contribution, and may increase resistance to payment of other obligations in hopes of further changes in Government policies.

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## Appendix A. Basic Data Sheet

### GHANA – SECOND URBAN ENVIRONMENTAL SANITATION PROJECT (P082373)

#### Key Project Data (amounts in US\$ million)

##### Cumulative Estimated and Actual Disbursements

	<i>FY05</i>	<i>FY06</i>	<i>FY07</i>	<i>FY08</i>	<i>FY09</i>	<i>FY10</i>	<i>FY11</i>	<i>FY12</i>	<i>FY13</i>	<i>FY14</i>
Appraisal estimate (US\$M)	1.0	8.7	20.7	34.4	47.9	57.4	62.0	0.0	0.0	0.0
Actual (US\$M)	2.6	3.7	5.1	13.9	22.8	30.2	40.3	52.4	61.8	60.6
Actual as % of appraisal	260.0	42.5	24.6	40.4	47.6	52.6	65.0	0.0	0.0	0.0

Date of last disbursement: September 2013.

Source: World Bank Operations Portal.

##### Project Dates

	<i>Original</i>	<i>Actual</i>
Board Approval	04/29/2004	04/29/2004
Effectiveness	10/27/2004	10/27/2004
Closing date	06/30/2010	12/31/2012

##### Staff Time and Cost

<i>Stage of Project Cycle</i>	<i>Staff Time and Cost (Bank Budget Only)</i>	
	<i>No. of staff weeks</i>	<i>USD Thousands (including travel and consultants)</i>
<b>Lending</b>		
FY03		22.80
FY04	0.23	145.85
FY05	19.47	0.00
<b>Total</b>	<b>19.7</b>	<b>168.65</b>
<b>Supervision/ICR</b>		
FY05	35.28	117.32
FY06	43.44	129.40
FY07	31.27	126.25
FY08	50.50	181.96
<b>Total:</b>	<b>160.49</b>	<b>554.93</b>

**Task Team Members**

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Karen Hudes	Senior Counsel	LEGAF	Senior Counsel
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Frederick Yankey	Senior Financial Management Specialist	AFTFM	Financial Management
Olivia Nana Esi Ahlijah	Consultant	AFTUW	

## GHANA SMALL TOWNS WATER SUPPLY AND SANITATION PROJECT (P084015)

### Key Project Data (amounts in US\$ million)

#### Cumulative Estimated and Actual Disbursements

	<i>FY05</i>	<i>FY06</i>	<i>FY07</i>	<i>FY08</i>	<i>FY09</i>	<i>FY10</i>	<i>FY11</i>
Appraisal estimate (US\$M)	1.0	7.0	16.0	22.0	26.0	0.0	0.0
Actual (US\$M)	2.5	4.2	11.5	18.6	27.5	41.1	45.5
Actual as % of appraisal	250.0	60.0	71.9	84.5	105.8	0.0	0.0

Date of last disbursement: June 2011

Source: World Bank Operations Portal.

#### Project Dates

	<i>Original</i>	<i>Actual</i>
Board Approval	07/27/2004	07/27/2004
Effectiveness	11/17/2004	11/17/2004
Closing date	04/30/2009	04/30/2010

**Staff Time and Costs**

<i>Staff Time and Cost (Bank Budget Only)</i>		
<i>Stage of Project Cycle</i>	No. of staff weeks	USD Thousands (including travel and consultants)
<b>Lending</b>		
FY04	36	149.62
FY05	8	29.08
<b>Total</b>	<b>44</b>	<b>178.7</b>
<b>Supervision/ICR</b>		
FY05	18	76.013
FY06	34	44.53
FY07	32	54.28
FY08	40	144.03
FY09	28	116.18
FY10	25	52.23
FY11	5	9.36
<b>Total:</b>	<b>131</b>	<b>318.97</b>

**Mission Data**

<i>Names</i>	<i>Title</i>	<i>Unit</i>	<i>Responsibility/Specialty</i>
<b>Lending</b>			
Paul Kriss	Sr. Water & Sanitation Specialist	AFTU2	Team Leader Phase 1
Arthur Majoribanks Swatson	Water & Sanitation Specialist	AFTU2	Team Leader Phase 2
Ferdinand Tsri Apronti	Procurement Specialist	AFTPC	
Ernestina Attafuah	Senior Program Assistant	AFTUW	
Mbuba Mbungu	Sr. Procurement Specialist	AFTFM	
Wendy E. Wakeman	Sr. Community Dev Specialist	MNSSO	
Lydia Sam	Procurement Assistant	AFC10	
Frederick Yankey	Sr. Financial Management Specialist	AFTFM	
Ayman Abu-Haija	Sr. Financial Management Specialist	LOAG2	
Kristine Schwebach	Operations Analyst, Environment	AFTS1	
Yoav Kislev	Consultant, Economic Analysis		
Richard Verspyck	Lead Water and Sanitation Specialist	AFTUW	Quality Team
Alexander A. McPhail	Lead Water and Sanitation Specialist	AFTUW	Quality Team
Christophe Prevost	Sr. Water & Sanitation Specialist	ETWSA	Quality Team
Eustache Ouayoro	Sr. Sanitary Engineer	AFTU2	Quality Team
Robert J. Roche	Lead Sanitary Engineer	ETWSA	Peer Reviewer
Jennifer J. Sara	Lead Infrastructure Specialist	LCSSD	Peer Reviewer
<b>Supervision</b>			
Arthur Majoribanks Swatson	Water & Sanitation Specialist	AFTU2	TTL No.1
Mathewos Woldu	Sr. Economist	AFTUW	TTL No.2
Ventura Bengoechea	Lead Water and Sanitation Specialist	AFTUW	TTL No.3
Baba Imoru Abdulai	Procurement Specialist	AFTPC	
Adu-Gyamfi Abunyewa	Procurement Specialist	AFTPC	
Beatrix Allah-Mensah	Social Development Specialist	AFTCS	
Ferdinand Tsri Apronti	Procurement Specialist	AFTPC	
Bayo Awosemusi	Lead Procurement Specialist	AFTPC	
Samuel Bruce-Smith	Consultant	AFTFM	
Robert Wallace DeGraft-Hanson	Financial Management Specialist	AFTFM	
Edward Felix Dwumfour	Sr. Environmental Specialist	AFTEN	
Maya El-Azzazi	Program Assistant	MNSSD	
Tracy Hart	Sr. Environmental Specialist	ENV	
Hassan Madu Kida	Sr. Sanitary Engineer	AFTUW	
Anthony Mensa-Bonsu	Consultant	AFTPC	

<i>Names</i>	<i>Title</i>	<i>Unit</i>	<i>Responsibility/Specialty</i>
Nyaneba E. Nkrumah	Sr. Natural Resources Mgmt. Specialist	AFTEN	
Emmanuel Nkrumah	Water & Sanitation Specialist	AFTUW	
Lydia Sam	Procurement Assistant	AFCW1	
Emmanuel Nkrumah	Water and Sanitation Specialist	AFTUW	
Armele Vilceus	Senior Executive Assistant	LCC3C	
Wendy E. Wakeman	Lead Social Development Specialist	MNSSO	
Geraldine Agnes Wilson	Team Assistant	AFCW1	
Frederick Yankey	Sr. Financial Management Specialist	AFTFM	

### **Other Project Data**

#### **Follow-on Operations**

<i>Operation</i>	<i>Amount (US\$ million)</i>	<i>Board date</i>
Greater Accra Metropolitan Area Sanitation and Water Project	150	6 June 2013
Sustainable Rural Water and Sanitation Project	75	23 June 2010

## **Appendix B.: Locations Visited**

### **SECOND URBAN ENVIRONMENTAL SANITATION PROJECT (UESP2)**

LGPCU Office, ILGS, Accra

#### **Accra Metropolitan Assembly**

Covered Landfill at Oblogo

School Toilet at Bubuashie

Storm Drains at Tesano

#### **Tema Municipal Assembly**

Tema Metropolitan Assembly Office

Kpone-Katamanso District Assembly Office

Kpone Community Infrastructure Upgrading  
Landfill

Bridge/Culvert at Kpone

Storm Drain from Community 11 to SOS

Septage Treatment Facility

#### **Kumasi Metropolitan Assembly**

Kumasi Metropolitan Assembly Office

Aboabo Storm Drain

Landfill

Community Infrastructure Upgrading at Aygya

School toilet at Aboabo

#### **Sekondi-Takoradi Metropolitan Assembly**

Sekondi-Takoradi Metropolitan Assembly Office

Storm Drain near Kojokrom

## **SMALL TOWNS WATER SUPPLY AND SANITATION PROJECT**

Community Water and Sanitation Agency (CWSA) Head Office

### **Western Region**

Western Region CWSA Office  
Aiyinase, Ellebelle District  
Asasetre, Ellebelle District  
Water facilities, School Latrines

### **Ashanti Region**

Ashanti Region CWSA Office  
Atwedie, Asante-Akim South District Assembly  
Juaben, Ejisu-Juaben Municipal Assembly  
Water facilities, School Latrines

### **Central Region**

Central Region CWSA Office  
Assin Achiase & Asamankese, Assin South District Assembly  
Water facilities, School Latrines, Derba

## **Appendix C. List of Persons Met**

### **SECOND URBAN ENVIRONMENTAL SANITATION PROJECT (UESP2)**

#### **Local Government Project Coordinating Unit (LGPCU)**

Mr. George Asiedu, Project Coordinator  
 Mr. Fred Dankwa, Institutional Development Expert  
 Mr. Lawrence Awuye, Financial Management Consultant

#### **Accra Metropolitan Assembly**

Mr. Graham Sarbah, Project Coordinator

#### **Tema Metropolitan Assembly**

Mr. Emmanuel A. Nortey, Metropolitan Coordinating Director  
 Mr. Solomon Noi, Head, Waste Management Department  
 Mrs. Bertha Essel, Project Coordinator, GAMA  
 Ms. Lucy Tetteh, Principal Public Health Engineer  
 Mr. Ali Mohammed, Metropolitan Planning Officer  
 Mr. Ernest Ijawan, Landfill Supervisor

#### **Kpone-Katamanso District Assembly**

Mr. Mohammed A. Yakubu, District Coordinating Director  
 Mr. Paul Mac Ofori, District Planning Officer  
 Ms. Augusta Dzadzator, Assistant Director  
 Mr. Anthony Nukpenu, Presiding Member

#### **Sekondi-Takoradi Metropolitan Assembly**

Mr. Emmanuel Kwashie, Head, Waste Management department  
 Mr. Is-Haque Ismaila, Operations Manager, WMD  
 Mr. Ahmed Sulley, Environmental Health Officer  
 Mr. Jonas Duneebom, Head, WMD  
 Mr. Godwin Ametewe, Accountant

#### **Kumasi Metropolitan Assembly**

Mr. Kojo Bonsu, Metropolitan Chief Executive  
 Mr. Donkor, Ag. Head, Waste Management Department  
 Mr. David Agyei, Project Accountant  
 Mrs. Augustina Agyei-Boateng Information Management Officer, WMD

## **SMALL TOWNS WATER SUPPLY AND SANITATION PROJECT**

### **Community Water and Sanitation Agency (CWSA) Head Office**

Mr. Clement Bugase, Chief Executive, CWSA

Mr. Owusu Konadu, Water and Sanitation Systems Coordinator, CWSA

Mrs. Theodora Adomako-Adjei, Extension Services Coordinator, CWSA

### **Community Water and Sanitation Agency, Western Region**

Mr. Mike Adjei, Regional Director

Mr. Henry Ampah Johnson, Chief Water and Sanitation Engineer

Mr. Kuupuolo Gaiten Timothy, Chief Extension Services Specialist

Mr. Bismark Siabi-Mensah, Water and Sanitation Engineer

Mrs. Linda Yeboaa Amponsah, Extension Services Specialist

Mr. Bright Jones Obeng, Hydrogeologist

Mr. Ntimfo Sulemana, Accountant

### **Community Water and Sanitation Agency, Ashanti Region**

Mr. Francis K. Enu, Regional Director

Mr. Ernest Agudetse, Chief Extension Services Specialist

Mr. Edward Ackom, Water and Sanitation Engineer

Mr. Seidu Batuga, Accountant

Mr. Seth Nii Dodoo Amoo, Information Technology Specialist

Mrs. Jennifer Quagraine, Administrative Officer

### **Community Water and Sanitation Agency, Central Region**

Mr. Philip Amanor, Regional Director

Mr. Henry Asangbah Chief Water and Sanitation Engineer

Mr. Pauline Abrafi Oppng, Chief Extension Services Specialist

Mr. Richard Attiogbe, Principal Water and Sanitation Engineer

Mr. Gustav Merritt Osiakwan, Principal Hydrogeologist

Mr. Daniel Adomako, Chief Accountant

### **Assin South District Assembly, Central Region**

Nana Kwabena Anomafo, District Chief Executive

Mr. Richard Blebi District Coordinating Director

Mr. Christopher Doku, Environmental Health Officer

### **Ellembelle District Assembly, Western Region**

Mr. George Yeboah, District Water and Sanitation Team Member

### **Asasetre Water and Sanitation Management Team, Western Region**

Mr. Anthony Ndefu Amoah, Board Chairman

Mr. Francis Ebukoro, System Manager

Mr. Abubakr Mohammed, Technical Opertaor

Ms. Georgina Essilfie, Treasurer

Ms. Regina Asaba, Sanitation Coordinator

Ms. Christina Coffie, Board Member  
 Mr. Paul Ahmed, Board Member  
 Mr. John B. Mensah Board Member  
 Mr. Amos Ndoli, Board Member

**Aiyinase Water and Sanitation Management Team, Western Region**

Mr. Mr. A. K. Homiah, Board Chairman  
 Mr. Ato Tawson Technical Operator  
 Mr. Albert Morkeh-Roberts, Board Secretary  
 Mr. Maxwell Amuah Essien, Treasurer  
 Mrs. Veronica Amakye, Sanitation Coordinator  
 Mr. Ignatius Amuah Yamekeh, Board Member  
 Mr. Solomon Bosomtwi, Accountant  
 Mr. Robert Ackah, Plumber

**Juaben Water and Sanitation Management Team, Ashanti Region**

Mr. Kwabena Oduro-Kwarteng, System Manager  
 Ms. Mandelina Cobbinah, Board Member/Assembly member  
 Mr. George Opoku-Amoako, Board Secretary  
 Mr. Joyce Fokuo, Board Member  
 Mr. Hannah Dei-Amoako, Board Member/Assembly member  
 Mr. Edward Osei, Board Member/Assembly member  
 Mr. K. Sarpong, Board Member

**Atwedie Water and Sanitation Management Team, Ashanti Region**

Mr. David Baffuor Owusu, Board Chairman  
 Ms. Juliet Asantewa Marfo, System Manager  
 Mr. Abudu Nasiru, Board Secretary  
 Mr. Gibson Akrasi, Board Member  
 Mr. Eugene Marfo, Board Member/Assembly member  
 Mrs. Ophelia Mensah, Board Member  
 Nana Marfoa, Queen Mother  
 Nana Kwabena Akrasi, Gyaasehene (Chief)

**Asamankese/Achiase Water and Sanitation Management Team, Central Region**

Mr. Kumi Mensah, Board Chairman  
 Ms. Agatha Osei Begyina, Board Treasurer  
 Mr. Kofi Adu Acheampong, Accountant  
 Mr. Kwadwo Amissah, Board Member  
 Mr. Welbeck Prempeh, Board Member  
 Mr. Kofi Gyamearh, Assembly member  
 Ms. Asi Fosuaa, Board Member  
 Mr. Justice Dzekpey, Board Member  
 Nana Kankam, Board Member  
 Ms. Ama Adoma, Vendor

**School Health Education Programme, Ghana Education Service**

Ms. Ellen Gyekye, Programme Officer

Mr. William Djan Yirenkyi, Accountant

**World Bank Staff**

**Evaluation Team, World Bank**

*Kavita Mathur*, Evaluation Officer, TTL

*Maha Armaly*, Consultant, Author

*Harold Esseku*, Consultant, Technical Advisor

## Appendix D. Project Costs and Financing

**Table 1: Ghana – Second Urban Environmental Sanitation Project**

**Project Costs (US\$M), Planned versus Actual Costs**

	<b>Original</b>	<b>Actual Cost</b>	<b>Actual Cost as % of Appraisal</b>
Component 1: Storm Drainage	16.50	20.32	123%
Component 2: Sanitation	7.75	8.72	112%
Component 3: Solid Waste Management	25.72	15.94	62%
Component 4: Community Infrastructure	8.54	12.95	152%
Component 5: Institutional Strengthening	9.57	9.72	102%
Component 6: Project Management	1.13	2.53	224%
PPF Refund	0.60	0.60	100%
Compensation		0.18	
Total Base Line Costs	69.81	70.96	102%
Total Contingencies	11.12		
<b>Total Project</b>	<b>80.93</b>	<b>70.96</b>	<b>88%</b>

Source: Appraisal Estimates (PAD); Actuals (ICR)

**Table 2: Ghana – Small Towns and Villages Water Supply and Sanitation Project**

Project Costs by components (US\$ millions)

	<b>Appraisal Estimate</b>	<b>Revised Costs after Additional Financing</b>	<b>Actual Costs</b>	<b>Actual Costs as % of Appraisal</b>
Component 1 - Water and Sanitation Subprojects	24.81	50.00	42.50	171%
Component 2 - Sector Support	3.71	4.66	6.30	169%
Component 3 - Program Management	2.48	3.13	2.90	117%
<b>Total Project</b>	<b>31.00</b>	<b>57.79</b>	<b>51.70</b>	<b>166%</b>

Source: Appraisal Estimates (PAD); Actuals (ICR)

## **Appendix E. Safeguards – The Kwabenya Landfill**

In 1999 the United Kingdom's Department for International Development (DfID) decided to finance construction of the Kwabenya landfill (based on a 1993 UNDP study). DfID carried out an Environmental Assessment (EA) and financed an access road and a drainage culvert to the area as part of preliminary activities towards this effort. The project was dropped due to failure to reach a resolution of land right claims with local owners and leaseholders. The area was largely unoccupied then, however, after the construction of the access road with DfID financing, people moved into the area and started economic activities near the site. The Environmental and Social Assessment for the landfill under this project used the DfID EA as a basis, which proved to be deficient under the new circumstances.

The preparation team was aware of the strong opposition even to consultations on compensation and resettlement which posed a risk to the suitability of the site on social ground. The PAD did not consider alternative sites and relied on the Resettlement Plan and the prospects for compensation to change the situation. In 2007, the Agyemankata coalition representing some of the affected community requested an inspection through the Accra-based Centre on Housing Rights and Eviction, on the project's handling of their concerns with the World Bank's Inspection Panel. The community claimed that landfill reconstruction will result in involuntary displacement, and that the site will not be operated and maintained satisfactorily which would threaten the health of the surrounding communities. The community claimed that the local authorities were not conducting consultations in accordance with Bank requirements; that consultation was not meaningful and the community was not well informed of their rights.

The Bank's Independent Inspection Panel conducted an investigation in March 2009, and found that the positions of stakeholders have hardened further. The panel noted that the project did not take all the recommendations of the project's panel review advice in 2003, and concluded that the Bank did not comply with several provisions of Bank policies on Environmental Assessment, Involuntary resettlement, and project supervision, particularly (a) analysis of alternative sites for a landfill, (b) analysis of impacts in the area; (c) environmental management and resettlement planning, and resettlement planning.

The Inspection Panel also noted that the Bank and the government tried to consult with a broad spectrum of potentially affected people, but failed to reach the Agyemankata group. The latter would not attend public hearings. According to the government, the group detained their officials, and letters to the group were returned unopened. The Panel acknowledged that, under the circumstances, it was difficult to take the necessary actions (e.g., consultations, field visits, and resettlement planning) to comply with Bank Policies and implement the component. Positions amongst project stakeholders hardened, trust was lost, and the situation reached an impasse.

In March 2009, the Inspection Panel ruled for better consultation efforts by the Bank. An updated EA and additional studies were thus conducted for the Resettlement Action Plan. Prior to completion of the studies, the Bank was notified by the Mayor of Accra in October 2010 to drop Kwabenya and to reallocate funds to other activities. The ICR noted that until the complaint, supervision reporting did not flag the critical social and environmental safeguards

issues. At the Mid Term Review (October 2010), the request by the government to drop the Kwabenya site from the project and to reallocate the funds to other activities was finalized.

By the end of the project, construction of the landfill was abandoned. In accordance with the Development Credit Agreement, the government remained under obligation to compensate affected people. In April 2012, the government requested Bank approval to use Credit proceeds to pay compensation for the 76 inhabited structures identified in the draft RAP, while committing to pay for the land from government funds. A seven month extension of the closing date (to December 31, 2012) was granted to allow for the processing of payments. The process was not completed by the closing date: some of the affected people refused compensation, in hopes to hold onto the land; others claimed that the compensation did not reflect current market values.

In June 2015, the government informed the Bank that it reversed its earlier decision, and will revoke the Executive Instrument on which the expropriation was based. By this action, the rights of the affected people will be restored. This development was determined by the Bank to be a resolution to the concerns of the requesters and the outstanding issue from the Action Plan.

On October 15, 2015, the Inspection Panel issued its Third and Final Progress Report on the Implementation of Management's Action Plan in Response to the Inspection Panel Investigation Report. The report concluded that actions on the part of the government to complete the expropriation at Kwabenya had stalled. No compensation under the RAP was accepted by the affected people, and some continued to build on the land. These actions reflected the intent of the affected people to contest the expropriation and to seek to remain in place. The October 2015 inspection report was the last Progress Report concerning implementation of the actions of the Management Action Plan, as it was deemed to be completed. The Bank informed IEG that it will continue to follow-up with the government regarding the enactment of the cancellation of the Executive Instrument and will issue a final note accordingly.

## Appendix F. Beneficiary and Technical Assessments

### A. Second Urban Environmental Project

Three beneficiary assessments (BAs) were conducted following the completion of the project (April/May 2013) in preparation for the ICR. They covered: (a) waste management and sanitation; (b) drainage and community upgrading; and (c) institutional strengthening.<sup>5</sup> The assessments used focus group discussions and key stakeholder interviews, supplemented with direct observation, review of administrative records and institutional assessment. These assessments are summarized first before the assessment of the efficacy of the project. IEG mission visited some of the sites covered by the beneficiary assessment.

The **Waste Management and Sanitation Beneficiary Assessment** was conducted in Kumasi, Sekondi Takoradi and Tamale. Eighty households were interviewed in each Metropolitan Municipal Assembly for a total of 240 beneficiary households in 10 beneficiary communities. The selection of communities was based on discussions with the PCU and review of project documents to determine the communities which received infrastructure and services. The selection of final beneficiaries was done with the help of local leaders and respondents were stratified by gender, ethnicity (where relevant), household size, and project type (sanitation, upgrading etc.). Females represented 61.3 percent of respondents. Household size varied from 1-15 persons. The BA provided insight into the achievements and potential sustainability of the projects. More than 75 percent of respondents indicated that the sanitation situation is good/very good compared to 24 percent prior to the project. Access to toilets improved considerably, and 71 percent of respondents found the facilities acceptable. Both males and females give high priority to household latrines (90 percent of respondents).

The BA provided observation on the status of public and school toilets (table A1). In schools visited during the BA survey in Kumasi and Sekondi Takoradi, there was no water in the tanks for flushing, or for hand washing. Only one school indicated that they had a system for providing regular water for the latrine and had soap in the latrine. In most schools visited the latrines were locked. School management also complained of their inability to use the facility because of the lack of water. Lack of water for the school toilet was further confirmed at the BA focus group discussion with opinion leaders and in the communities. For the sanitation component, 47 and 38 percent of respondents noted improved health and environmental sanitation respectively due to the sanitation interventions. The Tables below show access to toilets and satisfaction with the situation before and after the project.

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<sup>5</sup> The quality of the Beneficiary Assessments vary. The Waste Management and Sanitation BA and the Institutional Strengthening BA provide good study results backed by clear data and information. The Drainage and Community Upgrading BA is descriptive, with less quantitative analysis, but it provides an additional opinion backed by photos and points to similar conclusions as to need for more effective O&M and community stewardship of the physical infrastructure.

**Table A1. Access to latrines before and after the project (response is in percent)**

Response	Household Latrines		Public Latrines		School Latrines	
	Before	After	Before	After	Before	After
Yes	34.2	78.8	86.7	100	61.3	94.2
No	65.8	21.3	13.3	0	38.8	5.8
	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Source: Beneficiary Assessment May 2013

**Table A2. Sanitation situation before and after the project**

Situation	Before		After	
	No. of respondents	%	No. of respondents	%
Bad	43	17.9	19	7.9
Very bad	44	18.3	5	2.1
Good	52	21.7	133	55.4
Not so good	97	40.4	33	13.8
Very good	4	1.7	50	20.8
<b>Total</b>	<b>240</b>	<b>100</b>	<b>240</b>	<b>100</b>

Source: Beneficiary Assessment May 2013

With regard to solid waste collection, the majority of the respondents (68.3 percent) owned household dustbins. Many of the respondents (70.4 percent) considered solid waste management as an important priority. Thirty seven percent of the respondents indicated that their waste was not collected, compared with 49 percent reporting the same prior to the project. Sixty six percent of respondents noted improved environmental sanitation due to the solid waste interventions. According to the respondents, factors that would affect the sustainability of the project included lack of maintenance (68.6 percent), limited resources (18.8 percent), limited capacity (10.6 percent) and lack of supervision (2 percent). Table 2.3 shows methods of waste disposal by communities.

**Table A3. Method of Solid Waste Disposal**

Refuse disposal Method	Before the project		After the project	
	Total number of respondents	%	Total number of respondents	%
Burn	76	31.7	68	28.3
Bury it	3	1.3	9	3.8
House to house collection	7	2.9	17	7.1
Into water logged areas	6	2.5		
Skip	42	17.5	125	52.1
Solid waste dump	48	20		
Throw away into bush	58	24.2	21	8.8
<b>Total</b>	<b>240</b>	<b>100</b>	<b>240</b>	<b>100.0</b>

Source: Beneficiary Assessment May 2013

The **Beneficiary Assessment for the Drainage and Community Upgrades Component** used focus group and stakeholder interviews. The number of interviewees was not provided and the questions were theoretical (views on efficiency, effectiveness, and impact). Distributive analysis of responses were not provided. Photos show some of the drains were in a better working conditions than others; and community infrastructure upgrading showed improvements in the quality of the surrounding living environments.

The BA concludes that the outcomes of the project are sustainable if the project beneficiaries become more responsible in safeguarding public facilities and avoid the indiscriminate practice of dumping waste in the drains. Some of the drains visited were filled with waste resulting in stagnant water. Street lights installed to improve safety and security were observed to be malfunctioning. The BA considered the storm drainage to be successful: the component targeted high density low income urban neighborhoods. The outcome was reduced frequency, severity, and duration of flooding. The community infrastructure upgrading provided better access to high density neighborhoods which were difficult or impossible to access with motor vehicle, less flooding, erosion and dust, safety at night, fewer pipe breakages, more registered water consumers, and improved sanitation.

The Beneficiary Assessment of the **Institutional Strengthening Component (ISC)**. The BA was conducted in Kumasi and Sekondi Takoradi. A total of 94 staff from various departments were selected from both Municipal Assemblies of which 64 responded; 65 percent were male. The data was stratified by age, sex, and department and type of training. For selecting the sample size, the BA relied on discussions and estimates from departmental staff because the total number of trainees was not available. The BA concluded:

- (a) At least 10 departments in each of the MAs benefited from the ISC. This was in the form of equipment (including vehicles) supply; office renovation or refurbishment, and staff training;
- (b) Investments in the priority areas of waste management and environmental health were relevant and have multiplier effects in improved health of the beneficiaries;
- (c) 802 employees in Sekondi Takoradi and 610 employees in Kumasi benefited from training courses; training was extended to employees from relevant stakeholder departments such as the Ghana Health Service and Ghana Education Service;
- (d) Training provided enhanced work output, but there were complaints of the difficulty of attending multiple courses run in a short a time;
- (e) Both Municipal Assemblies worked in partnership with private waste collection operators in the area of solid waste management;
- (f) The Kumasi Municipal Assembly had functional Drainage Maintenance Unit due to the support received from the project. Sekondi Takoradi received two well-constructed drains that were not adequately managed, and one uncompleted drainage system;
- (g) The practice of the 'lowest bidder wins' principle led to the supply of poor quality of goods and services by some consultants and contractors. Funds from Nordic Development Fund to recondition waste management equipment could not be accessed due to procurement evaluation difficulties.

A large majority (92 percent) of the respondents indicated that the training courses were either useful or very useful. Satisfaction by individual subjects (e.g. billing and collections, information technology, waste and drainage management), satisfaction was reported as not very high but that is because the analysis included all the sample employees whether they worked or did not work on the subject.

## B. Small Towns Water Supply and Sanitation Project

The Community Water and Sanitation Agency (CWSA) engaged a consultant to assess the technical and social aspects of the project. Two separate reports were prepared — a Technical Report and a Beneficiary Assessment. This consultancy process started late, and the consultant report became available only in April 2011. The reports were therefore not available for the government or to the Bank's during the preparation of the ICR (January 2011). A summary of the reports is provided as a background to evaluate the efficacy of the project.

The **Technical Report** agreed (but with caveats, below) with the CWSA final report that the project achieved its objectives because planned physical assets were installed in the selected communities and the target populations were provided with the water supply and sanitation services. The Beneficiary Assessment report indicated, but without evidence, that the project contributed to minimizing the incidence of water and sanitation related diseases in the beneficiary communities. The DAs were empowered to take on their responsibilities for projects in the water and sanitation sector.

The Technical Report revealed deficiencies in the technical implementation of the project activities based on observations during field visits. Inadequate record keeping made it unclear if revenue of many of the Water and Sanitation Development Boards (WSDBs) could cover their O&M expenses. Some of the water supply systems were not functioning at the time of the visit. Overall, capacity in the WSDBs, DAs, and the private sector was not adequately developed. Most of the DAs and Regional Water and Sanitation Teams (RWST) seemed poorly resourced to play their role as they complained of inadequate staffing and logistics support.

The Technical Report noted that supervision of contract works in some cases fell short of required standards. Many of the water systems newly constructed were malfunctioning. Table 3.1 below shows that 18 of the 35 systems inspected in the six regions were not functioning, a defective ratio of 51.4 percent.

Of the 14 systems that were visited - 12 in the official survey and additional two — only two (representing 14 percent) were functioning as designed. The others were having either electro/mechanical problems or the boreholes were suspected to be yielding less than expected. None of the four institutional latrines at Adubease were completed and the contractor could not be traced.

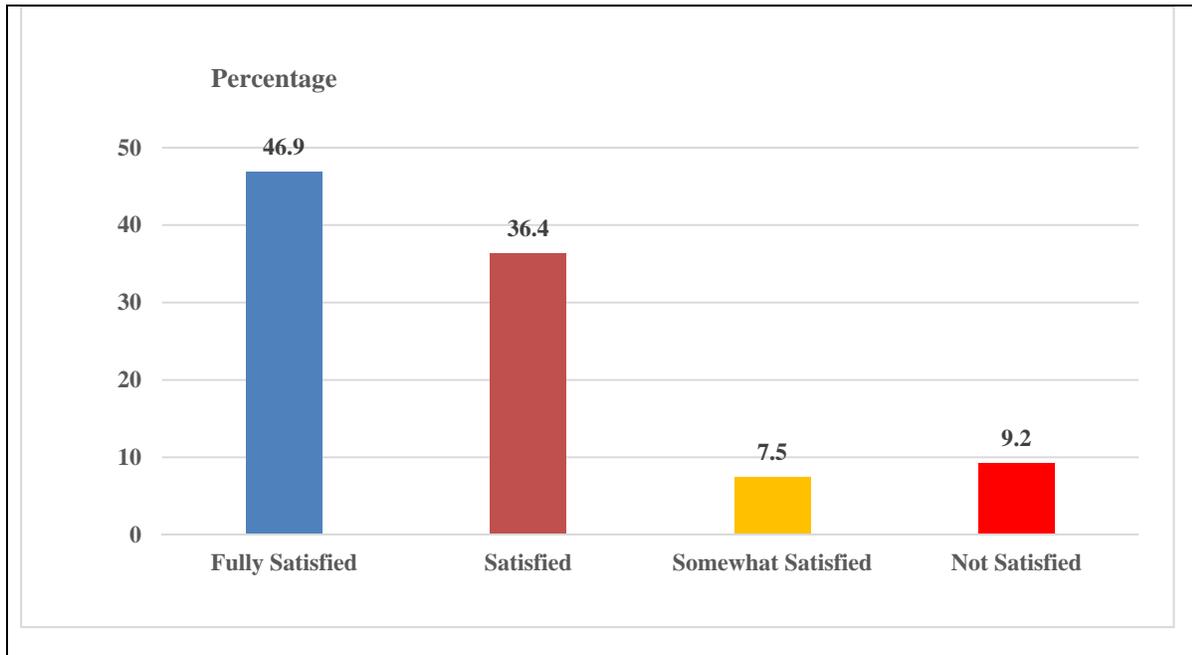
All districts visited had structures to sustain O&M, except for Bongo and Busa, In the case of Bongo, the Board was not effective and the operators needed training in O&M to be able to operate the system satisfactorily. Busa's system was operating below the expected capacity. Apart from Lawra in the Upper West region and Yeji in the Brong-Ahafo region, all other systems are managed by the Water Boards. These Boards invariably employed a Manager and Operators to run the systems. Lawra and Yeji, however, have private operators. The Lawra private operator was performing very well.

**Table B.1. State of Operation of Water Systems Inspected**

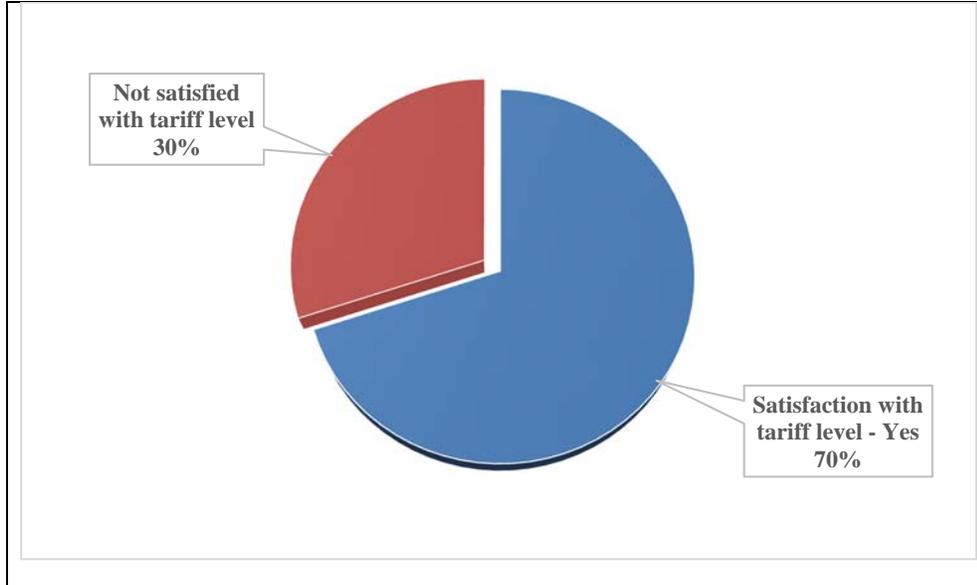
Regions	Community	Number of Water Systems Provided	Number Functioning	Number not Functioning	Nature of Fault	Comments
Ashanti	Atwidie	3	1	2	Defective Pump	Burden on one pump
	Juabeng	3	1	2	Pump got burnt	Burden on one pump
	Jinijini	3	2	1	Low yield	Contract to rectify
Brong-Ahafo	Aworowa	3	1	2	Water not yielding	Burden on one pump
Central Region	Mfoum	2	1	1	Defective Pump	Contractor to replace
	Assin Edubeasi	3	2	1	Low yield	Contractor to rectify
Upper East Region	Garu	3	1	2	Yet to completed	90 percent completed
	Bongo	3	1	2	Iron content in water	Burden on one pump
Upper West Region	- Lawra	3	2	1	Low yield	Contractor to rectify
	Busa	3	2	1	Pump got burnt	Contractor to rectify
Western Region	Manso Amenfi	3	1	2	Pump got burnt	Burden on one pump
	Aiyinasi	3	2	1	Iron content in water	No funds to install iron extractor

Source: Technical Assessment Report (April 2011).

The **Beneficiary Assessment (BA)** covered the six regions supported by the project. The sample included 12 beneficiary communities from 12 districts, two in each region. The BA relied on extensive semi-structured interviews with 1069 household heads. Focus groups and desk reviews were also used. The BA reported that although 37 percent of respondents could not tell who made the decisions on sites of the facilities, 83 percent were satisfied with the location of the hand pumps. While 36 percent of respondents said they were involved in tariff setting, 70 percent were satisfied with the tariff level. Seventy six percent of the respondents use the water from the provided facilities always, while 15 percent use it sometimes, 76.5 percent considered the water not very far, the rest considered it far or very far. Seventy five percent were satisfied with the quantity of water, and 85 percent were satisfied with the quality, with 79 percent of those not satisfied because of the taste.

**Figure B1. Level of Community Satisfaction with Stand Pipe Locations**

Source: Beneficiary Assessment (April 2011)

**Figure B2. Level of Community Satisfaction with Tariff Levels**

Source: Beneficiary Assessment (April 2011)

The BA showed that 65.8 percent of respondents were aware of the sanitation and hygiene promotion component. The majority (86.4 percent) associated the program with household latrines, while 57 percent knew about the institutional latrines, and 32 percent knew about the handwashing with soap campaign (many respondents knew about more than one of the

components). The study found that 48 percent of respondents had household latrines. Beneficiaries were very satisfied with the toilets and over-subscribed the program. The majority (59 percent) of respondents were satisfied with the latrines program, while 41 percent were not satisfied. Of those not satisfied, 80 percent were not satisfied with the distribution of latrines. Hand washing was the most remembered (85 percent) hygiene education followed by prevention of open defecation (50 percent). Disposal of excreta was the least remembered at 31 percent.

The Beneficiary Assessment concluded that beneficiaries were satisfied with the water service improvements (satisfaction with final work was at 77 percent). On the other hand, the Technical Assessments found widespread malfunctioning of the installations. The discrepancy between the technical and perceived achievements is likely due to the low level of water services prior to the project when villagers had to travel distances to get water that was not always clean.

**PROJECT PERFORMANCE ASSESSMENT REPORT**

**GHANA**

**SECOND URBAN ENVIRONMENTAL SANITATION PROJECT  
(IDA CR-38890-GH)**

**SMALL TOWNS WATER SUPPLY AND SANITATION PROJECT  
SECOND PHASE OF APL  
(IDA CR-39710-GH, CR-39711-GH, CR-45660-GH)**

**May 19, 2016**

## Currency Equivalents

*Currency Unit = Ghanaian Cedi*

<b>Year</b>	<b>US\$</b>	<b>Cedi</b>
2004	1.00	9010
2005	1.00	9122
2006	1.00	9222
2007*	1.00	0.960
2008	1.00	1.263
2009	1.00	1.431
2010	1.00	1.488
2011	1.00	1.639
2012	1.00	1.902
2013	1.00	2.365
2014	1.00	3.205
2015	1.00	3.825

\*In July 2007, the New Ghana Cedi was introduced. It completely replaced the old Cedi by December of 2008. The New Ghana Cedi was worth 10,000 old Cedi at the time of its introduction.

## Fiscal Year: January - December

Government: January 1 – December 31

## Abbreviations

APL	Adaptable Program Loan
BA	Beneficiary Assessments
CAS	Country Assistance Strategy
CPS	Country Partnership Strategy
CWSA	Community Water and Sanitation Agency
CWSP	Community Water and Sanitation Program
DA	District Assemblies
DfID	Department for International Development
DWST	District Water and Sanitation Teams
EA	Environmental Assessment
ESMF	Environmental and Social Management Framework
EHU	Environmental Health Units
FM	Financial Management
ICR	Implementation Completion and results Report
IDA	International Development Agency
IEG	Independent Evaluation Group
ISC	Institutional Strengthening Component
MA	Municipal Assemblies
MDG	Millennium Development Goals
MLGRD	Ministry of Local Government and Rural Development
MMDA	Metropolitan, Municipal and District Assemblies
MWH	Ministry of Works and Housing
MWRWH	Ministry of Water Resources, Works and Housing
O&M	Operations and Maintenance
PAD	Project Appraisal Document
PCU	Project Coordination Unit
PDO	Project Development Objective
PPAR	Project Performance Assessment Report
RAP	Resettlement Action Plan
RCC	Regional Coordinating Councils
RPF	Resettlement Policy Framework
RWST	Regional Water Supply Teams
SDG	Sustainable Development Goals
SDR	Special Drawing Rights
WATSAN	Water and Sanitation Committees
WSDB	Water and Sanitation Development Board

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## Principal Ratings

### GHANA – SECOND URBAN ENVIRONMENTAL SANITATION PROJECT

	<i>ICR*</i>	<i>ICR Review*</i>	<i>PPAR</i>
Outcome	Moderately Satisfactory	Moderately Satisfactory	Moderately Satisfactory
Risk to Development Outcome	Significant	Significant	Significant
Bank Performance	Moderately Satisfactory	Moderately Satisfactory	Moderately Satisfactory
Borrower Performance	Moderately Satisfactory	Moderately Satisfactory	Moderately Satisfactory

### GHANA – SMALL TOWNS WATER AND SANITATION PROJECT – SECOND PHASE OF APL

	<i>ICR*</i>	<i>ICR Review*</i>	<i>PPAR</i>
Outcome	Satisfactory	Satisfactory	Moderately Satisfactory
Risk to Development Outcome	Moderate	Moderate	Significant
Bank Performance	Satisfactory	Moderately Satisfactory	Moderately Satisfactory
Borrower Performance	Satisfactory	Moderately Satisfactory	Moderately Satisfactory

\* The Implementation Completion and Results Report (ICR) is a self-evaluation by the responsible World Bank department. The ICR Review is an intermediate product by the Independent Evaluation Group of the World Bank Group that seeks to independently verify the findings of the ICR.

<p>This report was prepared by Maha Armaly (consultant), who assessed the project in January/February 2016. The consultant was supervised by Kavita Mathur (TTL). The report was peer reviewed by Caroline van den Berg and panel reviewed by Ridley Nelson. Romyne Pereira provided administrative support.</p>
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## Key Staff Responsible

### **GHANA – SECOND URBAN ENVIRONMENTAL SANITATION PROJECT**

<i>Project</i>	<i>Task Manager</i>	<i>Division Chief/ Sector Director</i>	<i>Country Director</i>
Appraisal	Gerhard Tschannerl	Inger Andersen	Mats Karlsson
Completion	Ventura Begoechea	Alexander E. Bakalian	Yusupha B. Crookes

### **GHANA – SMALL TOWNS WATER AND SANITATION PROJECT – SECOND PHASE OF APL**

<i>Project</i>	<i>Task Manager</i>	<i>Division Chief/ Sector Director</i>	<i>Country Director</i>
Appraisal	Paul Kriss	Inger Andersen	Mats Karlsson
Completion	Ventura Bengoechea	Junaid Kamal Ahmad	Ishac Diwan

**IEG Mission: Improving World Bank Group development results through excellence in evaluation.**
**About this Report**

The Independent Evaluation Group (IEG) assesses the programs and activities of the World Bank for two purposes: first, to ensure the integrity of the Bank's self-evaluation process and to verify that the Bank's work is producing the expected results, and second, to help develop improved directions, policies, and procedures through the dissemination of lessons drawn from experience. As part of this work, IEG annually assesses 20–25 percent of the Bank's lending operations through field work. In selecting operations for assessment, preference is given to those that are innovative, large, or complex; those that are relevant to upcoming studies or country evaluations; those for which Executive Directors or Bank management have requested assessments; and those that are likely to generate important lessons.

To prepare a Project Performance Assessment Report (PPAR), IEG staff examine project files and other documents, visit the borrowing country to discuss the operation with the government, and other in-country stakeholders, and interview Bank staff and other donor agency staff both at headquarters and in local offices as appropriate.

Each PPAR is subject to internal IEG peer review, Panel review, and management approval. Once cleared internally, the PPAR is commented on by the responsible Bank department. The PPAR is also sent to the borrower for review. IEG incorporates both Bank and borrower comments as appropriate, and the borrowers' comments are attached to the document that is sent to the Bank's Board of Executive Directors. After an assessment report has been sent to the Board, it is disclosed to the public.

**About the IEG Rating System for Public Sector Evaluations**

IEG's use of multiple evaluation methods offers both rigor and a necessary level of flexibility to adapt to lending instrument, project design, or sectoral approach. IEG evaluators all apply the same basic method to arrive at their project ratings. Following is the definition and rating scale used for each evaluation criterion (additional information is available on the IEG website: <http://worldbank.org/ieg>).

**Outcome:** The extent to which the operation's major relevant objectives were achieved, or are expected to be achieved, efficiently. The rating has three dimensions: relevance, efficacy, and efficiency. *Relevance* includes relevance of objectives and relevance of design. Relevance of objectives is the extent to which the project's objectives are consistent with the country's current development priorities and with current Bank country and sectoral assistance strategies and corporate goals (expressed in Poverty Reduction Strategy Papers, Country Assistance Strategies, Sector Strategy Papers, and Operational Policies). Relevance of design is the extent to which the project's design is consistent with the stated objectives. *Efficacy* is the extent to which the project's objectives were achieved, or are expected to be achieved, taking into account their relative importance. *Efficiency* is the extent to which the project achieved, or is expected to achieve, a return higher than the opportunity cost of capital and benefits at least cost compared to alternatives. The efficiency dimension generally is not applied to adjustment operations. *Possible ratings for Outcome:* Highly Satisfactory, Satisfactory, Moderately Satisfactory, Moderately Unsatisfactory, Unsatisfactory, Highly Unsatisfactory.

**Risk to Development Outcome:** The risk, at the time of evaluation, that development outcomes (or expected outcomes) will not be maintained (or realized). *Possible ratings for Risk to Development Outcome:* High, Significant, Moderate, Negligible to Low, Not Evaluable.

**Bank Performance:** The extent to which services provided by the Bank ensured quality at entry of the operation and supported effective implementation through appropriate supervision (including ensuring adequate transition arrangements for regular operation of supported activities after loan/credit closing, toward the achievement of development outcomes. The rating has two dimensions: quality at entry and quality of supervision. *Possible ratings for Bank Performance:* Highly Satisfactory, Satisfactory, Moderately Satisfactory, Moderately Unsatisfactory, Unsatisfactory, Highly Unsatisfactory.

**Borrower Performance:** The extent to which the borrower (including the government and implementing agency or agencies) ensured quality of preparation and implementation, and complied with covenants and agreements, toward the achievement of development outcomes. The rating has two dimensions: government performance and implementing agency performance. *Possible ratings for Borrower Performance:* Highly Satisfactory, Satisfactory, Moderately Satisfactory, Moderately Unsatisfactory, Unsatisfactory, Highly Unsatisfactory.

## Preface

This is a Project Performance Assessment Report (PPAR) for the following two projects:

Ghana—Second Urban Environmental Sanitation Project was approved on April 29, 2004, and closed on June 30, 2012, after a two-year extension. The project was financed with an International Development Association (IDA) Credit (Cr. 38890-GH) of Special Drawing Rights (SDR) 41.6 million (US\$62.0 million equivalent) signed on August 13, 2004.

Ghana—Small Towns Water Supply and Sanitation Project was approved on July 27, 2004, and closed on April 30, 2010, after a one-year extension. The project was financed with an IDA credit (Cr. 39710-GH) in the amount of SDR 17.8 million (US\$26 million equivalent) signed on August 13, 2004. Additional Financing (Cr. 39711-GH) for SDR6.6 million (US\$10 million equivalent) was signed on August 8, 2007. A second additional financing (Cr. 45660-GH) for SDR 10.2 million (US\$ 15 million equivalent) was signed on August 14, 2009. Total credits amounted to SDR 34.6 million (US\$51 million equivalent).

These two projects were selected for field assessment to contribute to the upcoming Independent Evaluation Group (IEG) water and sanitation sector evaluation planned for fiscal year (FY) 17.

IEG visited Ghana from January 26 - February 5, 2016. The team visited four of the five regions covered in the Second Urban Environmental Sanitation Project (Accra, Kumasi, Sekondi-Takoradi, and Tema). For the Small Towns Water Supply and Sanitation Project, the team visited three regions (Ashanti, Central, and Western) out of the six covered by the project (Ashanti, Brong-Ahafo, Upper East, Upper West, Central, and Western Regions) and six of the 73 towns.

In Accra, the IEG team met with officials from the central government including, the Project Coordinating Unit (PCU) at the Ministry of Local Government and Rural Development and the Community Water and Sanitation Agency at the Ministry of Water Resources, Works and Housing. The team also met with Metropolitan, Municipal and District Assemblies, and with regional, district, and community water and sanitation management teams.

IEG acknowledges the attention and cooperation provided by local interlocutors and the excellent planning and support provided by the PCU of the Second Urban Environmental Sanitation Project as well as the staff of the local Metropolitan, Municipal and District Assemblies; the Community Water and Sanitation Agency responsible for the implementation of the Small Towns Water and Sanitation Project as well its regional offices, the District and the Community Water and Sanitation Management Teams, and the World Bank's country office in Accra. A list of locations visited and the persons met by the IEG team are included in Appendix C.

Following IEG procedures, the draft report was sent to government officials and agencies for their reviews and comments but no comments were received.



## Summary

This Project Performance Assessment Report (PPAR) evaluates the development effectiveness of the two projects in Ghana, namely: (i) the Second Urban Environmental Sanitation Project, and (ii) the Small Towns Water Supply and Sanitation Project—in support of the second phase of the Community Water and Sanitation Program.

The two projects were prepared simultaneously and approved within three months of each other in 2004. The projects differed considerably in terms of the ambition of their respective objectives and the complexity of the components. The Second Urban Environmental Sanitation Project focused on sanitation (including drainage and solid waste) and included six components. The Small Towns Water Supply and Sanitation Project focused mainly on delivery of water in rural areas and included funding for sanitation. Additional financing almost doubled the amount of financing available to the project.

Both projects were highly relevant to World Bank and government strategies and addressed severe needs for upgrading of infrastructure and services. Both projects were follow up projects and had complex institutional arrangements related to, at the time of the project preparation and implementation, the new decentralized structure of government and multi-layered institutional composition. The multiple objectives and complex components of the Second Urban Environmental Sanitation Project needed better preparation than it was afforded, and as a result faced more difficult implementation, particularly related to resettlement challenges. The results framework for both projects suffered deficiencies in design leading to difficult and evidence-starved monitoring and evaluation. The Second Urban Environmental Sanitation Project was able to overcome some of these difficulties with the undertaking at the end of the project of three beneficiary assessments that evaluated the technical, social, and institutional development accomplishments of the project. A beneficiary and a technical assessment were undertaken for the Small Towns Water Supply and Sanitation Project, but were not completed at the time the Implementation Completion and Results Report was written.

### **Ghana – Second Urban Environmental Sanitation Project**

The development objective of this project was: “to improve urban living conditions in Accra, Kumasi, Sekondi-Takoradi, Tamale, and Tema in regard to environmental health, sanitation, drainage, vehicular access, and solid waste management in a sustainable fashion, with special emphasis on the poor.” The project objectives were not revised. The objectives continue to be highly relevant to the Government Policy on Urban Environmental Sanitation initiated in December 2003 and updated in 2010, and to the World Bank’s Country Partnership Strategy (CPS August 20, 2013 for FY13-16), which affirm the importance of urban water and sanitation services in Ghana’s development agenda. The objectives were reaffirmed in other documents, including Ghana’s Medium-Term Development Policy Framework (2010-2013), Poverty Reduction Strategy (2006-2009), Ghana Shared Growth and Development Agenda (2010-2013), as well as Ghana’s Millennium Development Goals (MDG).

The project efficacy is rated substantial based on the stated planned and actual achievements in terms of improving services in the sectors addressed by the project, with shortcomings in

the achievement of the sustainability objective and less than robust evidence on poverty and environmental health. The efficiency is rated modest because several components were dropped indicating less benefits achieved. The overall outcome of the project is rated **Moderately Satisfactory**. The risk to development outcome is rated **Significant**. Bank Performance is rated **Moderately Satisfactory**. Borrower Performance is rated **Moderately Satisfactory**.

### **Ghana—Small Towns Water Supply and Sanitation Project**

The development objective of this project was: “to increase access to sustainable water supply and sanitation services in small towns in six regions of the Borrower.” The project is the second phase of an Adaptable Program Loan with the program objective to: “support the Government of Ghana in reaching the Millennium Development Goals in water and sanitation, which are to provide water supply and sanitation access to 72 percent and 56 percent of the rural population, respectively. The project objectives were not revised. Additional financing was provided to include 50,000 additional beneficiaries from water supply investments over the original number of 500,000 beneficiaries.

The project was prepared at the same time as the Second Urban Environmental Sanitation Project above, and focuses on water and sanitation in small towns instead of larger urban areas. The project objectives continue to be highly relevant government and Bank objectives outlined in their strategic documents.

Efficacy is rated substantial because the project increased access to sustainable water supply facilities, which represented about 85 percent of the investments and about 90 percent of beneficiaries. On sanitation, access was increased but not in a sustainable manner as water supply sector has a stronger institutional support than the sanitation sector. Efficiency is rated modest due to high per capita costs. The overall outcome of the project is rated **Moderately Satisfactory**. The risk to development outcome is rated **Significant**. Bank Performance is rated **Moderately Satisfactory**. Borrower Performance is rated **Moderately Satisfactory**.

## Lessons

- (a) **For school toilets to be used in a sustained manner, an integrated hygiene education needs to be offered on a continuous basis.** A strong hygiene education campaign was undertaken throughout Ghana prior and during the two projects. Discussions with authorities and visits to schools indicate that the emphasis on the implementation of the hygiene education program diminished due to lack of funds. Sustained provision of hygiene education (availability of information as well as soap and water near toilets) ensures incoming classes continue to learn and use safe hygiene practices.
- (b) **The concept of Community Ownership and Management is not sufficient to ensure sustainability in an environment of weak community stewardship.** Implementation of regulations, strong monitoring, education and enforcement are needed to assure a sustainable operation and maintenance of the facilities. In the case of the drainage component in the Second Urban Environmental Sanitation Project, the communities resorted to old habits of dumping garbage in the rehabilitated drainage system. In the case of the Small Towns Water and Sanitation Project, communities surrounding the schools were using the toilets. In both cases, the behavior contributed to a faster demise of the infrastructure and increased the costs of operations and maintenance.
- (c) **Stakeholder analysis and citizens engagement during project and facility design is important for assessing the willingness to pay for the services.** In the case of the Small Towns Water Supply and Sanitation Project, discussions with community water management teams indicated that they were facing competition from private operators who built, owned and operated their own facilities (as opposed to facilities being concessioned to private operators under the project) and were capable of providing good service at higher prices.
- (d) **Changing the rules of the game for short-term political gains during implementation disrupts community involvement and sends the wrong signal to communities in terms of government intentions.** In the case of the Small Towns Water and Sanitation Project, the decision to exempt communities from the 5 percent copayment requirement alienated those communities who made the contribution, and may increase resistance to payment of other obligations in hopes of further changes in government policies.

Marvin Taylor-Dormond  
 Director, IEGSP  
 Independent Evaluation Group



# 1. Country and Sector Context

## COUNTRY CONTEXT

1.1 Ghana is a stable nation with a good record of power changing hands peacefully. Ghana is the world's second largest cocoa producer behind Ivory Coast, and Africa's biggest gold miner after South Africa. It is one of the continent's fastest growing economies, and newest oil producer. The country is the second most populous in West Africa after Nigeria, and has maintained an increasing urbanization trend. As Ghana's total population more than doubled between 1984 and 2013, urban population growth outpaced rural population growth, growing 4.4 percent annually. Over this period, Ghana's urban population more than tripled, rising from under 4 million to nearly 14 million people.

1.2 In July 2011, Ghana achieved the Bank's per-capita income threshold for classification as a Lower Middle Income Country. Ghana's economy has been on a high growth pattern for most of the last decade. The estimated national headcount poverty ratio fell by 31.2 percent, from 52.6 percent in 1991 to 21.4 percent in 2012. Poverty is still predominantly rural. The share of the population living in poverty in 2013 was 22.1 percent nationwide, 38.2 percent in rural areas, and 10.4 percent in urban areas. In the rapidly growing urban areas, with a growing services sector, large numbers of the labor force, including migrants from rural areas, were absorbed in better paying jobs in the formal and informal economy. Sustained growth was consolidated, spurred by favorable commodity prices for Ghana's main exports (gold and cocoa), the commercialization of a major oil discovery, and robust growth in the services sector.

## SECTOR CONTEXT

### Ghana's Achievements of the Millennium Development Goals

1.3 Ghana had a mixed record of achieving the Millennium Development Goal 7: Ensure environmental sustainability. The target of halving the proportion of the population without access to safe water has been achieved, but poor sanitation remains pervasive. For sanitation, 84 percent of total population remain without access to improved sanitation compared to the target of 48 percent. In the case of water, the target was over achieved with 21 percent of the population not having access to safe water vs. the target of 22 percent. Most households remain without basic sanitation especially in rural areas. Urban areas recorded 28.6 percent access to improved basic sanitation compared to 10.5 percent for the rural population in 2013. Public toilets are the facility used by the highest proportion of households at national level in 2013, followed by defecation in bush/field/beach. In urban areas, public toilets are the most used facility, followed by water closets. Among rural households, however, defecation in bush/beach/field is the main practice, followed by public toilet and pit latrine. Only 2.3 percent of rural households used water closets in 2013 compared with 23.3 percent in urban areas.

1.4 Key challenges in the sector include: (a) fast rate of urbanization with increasing demand for water for domestic, industrial and commercial consumption; (b) pollution of water bodies by small-scale illegal miners in rural areas; (c) inadequate financial resources to

undertake, operate and maintain water projects, combined with fiscal deficits and a rising debt burden; (d) unreliable supply of electricity to power and pump water to homes; (e) unplanned expansion of settlements; (f) low investment in sanitation delivery; (g) weak environmental sanitation monitoring and enforcement systems; and (h) unavailability of accurate and timely data on sanitation.

1.5 Going forward, Ghana has played a major role at both national and international levels in defining the post-2015 development agenda and in developing the Sustainable Development Goal (SDG). Goal 6 of the SDGs aims to ensure availability and sustainable management of water and sanitation for all. Ghana has undertaken two national consultations and one thematic consultation, and established Inter-ministerial Steering Committees as well as a committee on finance. The objective is to incorporate SDGs into the long-term national development plan. Ghana aims to ensure that the SDGs are reflected in subsequent medium-term development frameworks. Guidelines will be provided to local governments to prepare their development plans. Sector and district plans will be reviewed to ensure compliance with the guidelines and approved for budgetary allocation. A list of indicators of the SDGs and other national indicators will be tracked with the support of the Ghana Statistical Service and the Cross-Sectoral Planning Groups, in line with the follow-up and review process of the Post-2015 Development Agenda.

### **Urban Water and Sanitation Sector**

1.6 Urbanization continues to put severe pressure on urban services such as housing, water supply, sanitation, transport, drainage and solid waste collection and disposal. According to government reports, about 70 percent of Ghana's population lived in slums with improper solid waste collection and disposal, poor road and drainage conditions leading to congestion and floods, public health and safety concerns. The transfer of responsibility for environmental sanitation from central ministries to the Local Assemblies was done without a concomitant transfer of resources, which is likely to lead to difficulties in implementation and in achieving broad national objectives in the sectors.

1.7 **Urban Water Supply.** According to a World Bank study, Ghana's major cities have recently seen a worrying trend toward diminished relative access to basic services (World Bank 2015b). Within urban areas population growth has outpaced service supply, leading to a lower share of the urban population with access to piped water, sanitation, and toilet facilities. The proportion of residents in large metropolitan areas with access to piped water experienced a downward trend within the decade of 2000 to 2010. Accra was the worst off with a decline of 22.2 percentage points in the share of the population with access to piped water, followed by Kumasi (7.7 percentage points) and Tema (5.7 percentage points). This decline was covered by the purchase of bottled water and plastic water "sachets" where costs are typically 5–7 times higher than piped water. Almost 83 percent of residents within Kumasi city had access to piped water in 2000, but this level of access was reduced to 75.1 percent by 2010. System losses, lack of maintenance, and insufficient investments exacerbate the problem in the expanding urban space.

1.8 **Urban Sanitation.** An increasing number of urban residents do not have access to private or public toilet facilities. Between 2000 and 2010, there was an increase in the

proportion of households without any toilet facility in all city size groups. Among the metropolitan areas, Tamale (8.0 percent) and Tema (7.3 percent), and Sekondi-Takoradi (1.5 percent) experienced a deterioration in access to safe toilets. Access to sewerage remains very limited. Most households dispose of liquid waste directly in drainages, and in smaller towns, most liquid waste is simply disposed of outside. Even in Accra and Tema, little more than 10 percent of households discharged their liquid waste through the sewage system. Access to liquid waste disposal services is better closer to the city centers, but a large majority of households in peri-urban areas do not have adequate liquid waste disposal infrastructure.

**1.9 Urban Solid Waste.** Improvements in solid waste disposal and sewerage are limited and most peri-urban areas do not have access to waste disposal services. Throughout Ghana, the majority of households use public dumps to dispose of household solid waste. In 2010, 37.7 percent of households disposed of their solid waste in open spaces at public dumps and about one-quarter (23.8 percent) disposed of their solid waste in public containers. Smaller proportions of households either have their solid waste collected (14.4 percent) or burned (10.7 percent). From 2000 to 2010, disposal of waste in public dumps declined in Greater Accra by 17.3 percentage points and Ashanti region by 1.5 percentage points. Progress has been made in waste collection in general, but this has not translated into improved environmental conditions. This is especially the case in low-income areas in cities such as Kumasi and Accra, where communal disposal containers are constantly overflowing as a result of delay or absence of institutionalized collection mechanisms.

### **Rural Water and Sanitation Sector — Community Water and Sanitation Program**

**1.10** The government's Community Water and Sanitation Program falls within Ghana's National Water Policy (2007). The objective of this program is to "improve the public health and economic well-being of rural and small town communities through the provision of adequate, safe and sustainable water for domestic, commercial and industrial purposes in a planned and coordinated manner, with integrated hygiene education and sanitation interventions." An underlying principle of the Program is its emphasis on community ownership and management, which entails effective community participation in the planning, implementation and management of the water and sanitation facilities in the belief that, as custodians, communities will ensure the sustainability of these systems. Water and Sanitation Development Boards and Water and Sanitation Committees have been established for all facilities and have been given some level of training to take care of their water and sanitation facilities.

**1.11** The Community Water and Sanitation Program is managed by the Community Water and Sanitation Agency. The institutional framework for the sector has changed in order to fit the new decentralized structure of the government (at the time of the project preparation and implementation). Decentralization ushered in different modalities and practices in planning and has had institutional, financial and regulatory implications on the entire sector. It also has an impact on monitoring and support activities which require support to local governments to fulfill their new mandate of service delivery and oversight. The Community Water and Sanitation Program serves communities under 50,000 population. Communities are expected to pay a percentage of the capital costs of systems as well as all of operations and

maintenance and are responsible for planning and managing their facilities. The demand driven approach is viewed as key to promoting sustainability of systems. Other key principles include: creating an adequate market for spare parts and repair services, ensuring participation of all stakeholders, promoting the active involvement of women in all phases of water supply and sanitation, and clearly defining and promoting the role of the informal and formal private sector. Despite improvements, the key challenge remaining in the water and sanitation sectors is the failure of past sector reforms to translate into efficient service delivery, which caused Ghana to lag in meeting the Millennium Development Goal target for access to improved sanitation, in particular.

1.12 Key challenges in the community water and sanitation sector include: (a) financial constraints: payments for goods and services being delayed due to inadequate budgetary resources; (b) weak coordination and collaboration: with some of the actors (for example, nongovernmental organizations) using procedures and systems that differ from the government's recommended approach; (c) poor operations and maintenance: insufficient support for community based organizations lead to poor maintenance and lack of access to spare parts and technical skills; (d) decentralization: the slow pace of operationalizing decentralization resulted in weak capacities at the local level; (e) institutional capacity: the decline in skills of service authorities at the local level makes institutional support to community ownership and management weak and fragmented; (f) hygiene education: continued support beyond project closures has been difficult to sustain at times diminishing good progress made after earlier efforts and campaigns; (g) sanitation: has received much less attention and investments than water provision in general, and that the sector deserves in particular. Sustained hygiene awareness messages, technical skills, operations and management and finances are needed in order to have a sustained impact in this subsector.

## 2. Second Urban Environmental Sanitation Project

### Objectives, Design, and Relevance

#### OBJECTIVES

2.1 The project development objective as stated in the Development Credit Agreement (p. 17) is: “to improve urban living conditions in Accra, Kumasi, Sekondi-Takoradi, Tamale and Tema in regard to environmental health, sanitation, drainage, vehicular access, and solid waste management in a sustainable fashion with a special emphasis on the poor.” The project objectives defined in the project appraisal document were similar.

2.2 The project was a follow up to the first Urban Environmental Sanitation Project (Cr. 2836-GH, closed December 2003) which included similar activities. In some cases, this Second Urban Environmental Sanitation Project scaled up or completed activities under the first project.

#### RELEVANCE OF OBJECTIVES

2.3 The project objectives were **highly** relevant to Bank and government strategic objectives. The Country Assistance Strategy (CAS) for the period 2004-07 (dated February 20, 2004) recognizes the need to strengthen government structures to improve urban services in order to address poverty. The CAS supported the government’s efforts to achieve the Millennium Development Goals in water and sanitation. Under Pillar II (Service Provision for Human Development), the objective to increase sustainable water and sanitation services aimed to address the low coverage of water and sanitation, especially in urban areas. This project along with several other rural and urban infrastructure services (with a focus on water and sanitation) and with urban and municipal management projects and technical assistance formed the core of the Bank’s assistance to support the government’s strategy. The government’s policy on Urban Environmental Sanitation (December 2003 updated in 2010) was set in a decentralized framework in accordance with the Local Government Act of 1993 which emphasized the need to control solid and liquid waste, flooding, soil erosion and environmental degradation in Ghana’s cities. Government Strategy and commitment were outlined in the Sector Policy Letter that accompanied the project appraisal document.

2.4 According to the current Country Partnership Strategy (CPS) for the period 2013-16, (dated August 20, 2013), urban sanitation services remained on the development agenda with high importance to continue the good performance in economic growth and poverty reduction in Ghana. Pillar 3 of the CPS: Protecting the poor and vulnerable includes improving access to water and sanitation as one of its three core tools. As in the CPS at appraisal, the current CPS emphasizes urbanization, water and sanitation as key to Ghana’s prosperity. The threat of flood was highlighted in the current CPS (following floods in 2007/8 and 2010) within the agriculture and climate change spectrums. The objectives were reaffirmed in government documents including Ghana’s Medium Term Development Policy Framework (2010-2013), Poverty Reduction Strategy (2006-2009), and the Ghana Shared Growth and Development Agenda (2010-2013), as well as Ghana’s Millennium Development Goals (MDG).

2.5 The government's Environmental Sanitation Policy was updated in November 2010 by the Ministry of Local Government and Rural Development and remains in force. The policy recognized that increasing urbanization and non-adherence to planning directives resulted in unauthorized location of buildings along flood plains and reservations. Inadequate drainage facilities caused flooding in many localities every rainy season. The lack of effective refuse collection led to the use of drains as refuse disposal receptacles exacerbating the problems. The lack of engineered final treatment and disposal facilities across the country, and particularly in Accra, is a cause for concern.

2.6 Poor hygienic practices by individuals and communities are compounded by insufficient and ineffective hygiene education. Vector-borne diseases such as malaria and bilharzia are rife due to the virtual absence of pest and disease vector control programs. More than half of all reported diseases are related to poor environmental sanitation, with attendant social and economic costs. Flooding causes major damage to public infrastructure and private property. Pollution of water resources increases the technical difficulty and cost of providing water supplies. Local governments often resort to ad-hoc interventions such as public clean-up campaigns and periodic evacuation of refuse heaps. The low capacity of central and local government agencies responsible for enforcement of environmental sanitation exacerbates the problems. Relieving urban congestion for increased mobility and for improved health delivery is also recognized in the current CPS.

## DESIGN

2.7 The project comprised six components:

**Component 1: Storm Drainage** (original cost: US\$16.5 million; actual cost: US\$20.32 million). The component included lining of primary and secondary drains, construction of small bridges and erosion control in areas subject to flooding. 16.7 kms of secondary drainage were to be constructed or rehabilitated (lining, erosion control, small bridges). The component required a resettlement action plan due to temporary destruction of walls, rooms, toilets, bath houses etc. Sub-projects required having maintenance plans when they started in each municipality (Project Appraisal Document [PAD] p. 29).

**Component 2: Sanitation** (original cost US\$ 7.8 million; actual cost: US\$8.72 million). The component included (a) construction of household latrines and establishment of a domestic latrine delivery program; (b) rehabilitation and construction of public latrines in public places; (c) rehabilitation and construction of school latrines combined with hygiene education and the provision of water supply where needed; (d) rehabilitation or construction of septic treatment facilities; and (e) improved sewerage management in Tema.

The project aimed to focus on low income communities. For private toilets, the IDA credit provided a subsidy of 50 percent with a ceiling of \$150, which excluded new construction. A marketing strategy and training of artisans was included in the component. A consultant was to manage the household latrine program (including vetting household applications).

**Component 3: Solid Waste Management** (original cost US\$ 25.7 million; actual cost US\$15.94 million). This component included: (a) construction of new sanitary landfills for

Accra and Tema and the completion of one in Sekondi-Takoradi; (b) equipment for sanitary landfills; (c) closure and rehabilitation of existing refuse dumps; (d) operation of sanitary landfills preceded by the improved operation of some; (e) private solid waste collection; and (f) supply of household bins, skips and skip pads.

The cost of the solid waste component dropped by about US\$10 million due to the cancellation of two subcomponents: Kwabenya landfill (estimated base costs of US\$9.5 million) and the Achimota Septage facility (estimated base costs of US\$8 million). An estimated US\$4 million allocated to financing private sector operators for landfill management and solid waste collection were not used for the purpose due to other needs. Finally, the road to the Tema septage facility was not rehabilitated (estimated cost of US\$0.5 million).

**Component 4: Community Infrastructure Upgrading** (original cost US\$ 8.5 million; actual cost US\$ 12.95 million). Infrastructure upgrading in low income communities including access roads, roadside drains, street lighting, water supply and sanitation.

**Component 5: Institutional Strengthening** (original cost US\$ 9.6 million; actual cost US\$ 9.7 million). This component was financed by the Nordic Development Fund and included: (a) technical assistance and training, (b) capacity building in Ministry of Local Government and Rural Development; (c) capacity building in Municipal Assemblies; (d) malaria vector control and HIV/AIDS prevention; (e) project wide monitoring; (f) reconditioning of waste management equipment; (g) house numbering; and (h) a communications strategy.

**Component 6: Project Management** (original cost US\$ 12.8 million; actual cost US\$3.31). This included project management, refunding of Project Preparation Facility, and physical and price contingencies – allocated to a Performance Based Fund (US\$11.1 million). The Performance Based Fund would allocate funds for activities within the project objectives according to achievement of performance criteria by Municipal Assemblies.

## RELEVANCE OF DESIGN

2.8 The project design was **substantially** relevant to the project objectives. Each of the project components (output) addresses each of the sub-objectives (outcomes): i.e. investments to rehabilitate or build drainage, sanitation, solid waste, road networks and street lights improve urban living conditions due to improvements in these sectors. A shortcoming in the design is that the logical framework was not sufficiently robust to measure and assess the direct impact of the project on the outcomes, especially as related to sustainability and addressing the poor<sup>1</sup>.

2.9 The project objectives and design are complicated with seven embedded objectives (environmental health, sanitation, drainage, vehicular access, solid waste management, sustainability, emphasis on the poor) and six components, in five cities in an environment of weak capacity. The project is a follow up on previous similar intervention and the

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<sup>1</sup> This is discussed in detail in the Quality at Entry Section.

institutional set up for its implementation existed at the time of preparation. The project was complex in a new, changing and weak environment of decentralization with insufficient monitoring.

## **Implementation**

2.10 A second level restructuring of the project was approved in June 2010 (restructuring paper dated May 25, 2010). The restructuring was undertaken in order to extend the closing date by 18 months and to reallocate funds among categories depending on project progress and agreements. The project was extended twice more in December 2011 and 2012 for a total extension of 2.5 years. The reasons for the extensions were mainly to complete ongoing activities. The third and final extension in December 2012 introduced a category for compensation payments to persons affected by the work undertaken in the Kwabenya landfill. Although the construction of the landfill was cancelled, the government remained liable to compensate people impacted by the activities.

## **SAFEGUARDS**

2.11 At appraisal, two safeguards policies were triggered —Environmental Assessment (OP/BP 4.01) and Involuntary Resettlement (OP/BP 4.12). The Development Credit Agreement included the conditions for undertaking activities that trigger safeguards which included prior actions to complete resettlement and environmental plans, acquire land, compensation and resettlement, and thereafter to implement the environmental management plans. The project was classified as Environmental Category A because of serious environmental and social issues related to landfills and solid and liquid waste management.

2.12 A Resettlement Policy Framework was completed for the project and disclosed with the Environmental Framework (PAD p. 76). Resettlement Action Plans (RAP) were to be prepared during implementation even when the sites were known. The delay in the preparation of the RAP until implementation is a shortcoming when the project sites are known. This contributed to delays in project implementation. Project preparation relied on old designs, and an update of the United Kingdom's Department for International Development (DfID) environmental assessments for the Kwabenya landfill prepared with DfID financing a few years before the project (construction of access road was started by DfID in 1999).

### Environmental Safeguards

2.13 The PAD (p.12), acknowledged the severity of environmental and social issues for the Kwabenya landfill in particular. At appraisal, five Environmental Management Plans were completed for identified activities, while another 5 were to be prepared based on the project wide Environmental Assessment Framework. Environmental Assessments and the Environmental Frameworks were disclosed in Ghana and at the InfoShop in Washington, DC in January 2004. Municipal Assemblies were provided with the documents for their use and for public information.

### Social Safeguards

2.14 The project triggered OP/BP 4.12 due to significant concerns with involuntary resettlement issues arising from the inclusion of construction or rehabilitation of landfills and due to the existence of informal settlements in the urban areas considered for the project. Overall, the PAD clearly identified these issues and built in mitigating measures to address them (e.g. engaging scavengers and addressing their concerns). The PAD acknowledged previous difficulties, community resistance and lack of agreement with regard to the Kwabenya landfill when the DfID attempted to finance the landfill. There were significant shortcomings in handling the Kwabenya landfill; however the project could not be faulted for including the site and trying to resolve the significant problem of the need for a landfill in Accra.

2.15 Following the involvement of the Inspection Panel, Bank procedures were applied more rigorously. The social issues that emerged in the Kwabenya landfill sub-component greatly affected the pace of implementation of the project. The construction of the landfill was finally dropped from the project at the request of the government due to the non-resolution of the demands by the community. In June 2015, the government informed the Bank that it will revoke the Executive Instrument on which the expropriation was based. By this action, the rights of the affected people will be restored. This development was determined by the Bank to be a resolution to the concerns of the requesters and the outstanding issue from the Action Plan. On October 15, 2015, the Inspection Panel issued its Third and Final Progress Report and concluded that compensation under the RAP was not accepted by the affected people, and some continued to build on the land. These actions reflected the intent of the affected people to contest the expropriation and to seek to remain in place. The report therefore accepted the government's decision.

2.16 The Bank informed IEG mission that it will continue to follow-up with the government regarding the enactment of the cancellation of the Executive Instrument and will issue a final note accordingly. Safeguards for other activities were monitored in a satisfactory manner with minor shortcomings. More details on the developments under the Kwabenya Landfill and Inspection Panel findings are provided in Appendix F.

## **FIDUCIARY**

### Financial Management

2.17 As part of appraisal, the Bank conducted a Financial Management (FM) Assessment for the Ministry of Local Government and Rural Development (MLGRD) and the five participating Municipal Assemblies. The responsibility for FM lay with the MLGRD's Head of Accounts and the Municipal Finance officers of the Municipal Assemblies (MAs), whose capacities were assessed to be adequate. A Financial Procedure Manual for the MAs was prepared to ensure that uniform financial procedures were used, and the project included training in financial management.

2.18 Financial Management was generally satisfactory through implementation, with moderate shortcomings. Quarterly financial reports were submitted to the Bank in a timely manner, and annual audit reports of the project accounts by independent external auditors

raised no significant issues. Shortcomings primarily involved, lack of regular updating of the commitment schedule, and delays in recovering advances made to the MAs. The project complied with the Bank's requirements for financial management of project accounts.

### Procurement

2.19 The project complied with relevant Bank and country procedures during project preparation and implementation, with moderate shortcomings. As part of appraisal, the Bank conducted a Procurement Capacity Assessment for the project. The overall procurement risk was rated moderate at appraisal. Procurement responsibilities for the Institutional Strengthening component and overall backstopping of the Municipal Assemblies lay with the Project Coordination Unit within MLGRD, which was experienced with implementation of Bank projects. The Municipal Assemblies were responsible for procurement of activities in their respective sub-components. Shortcomings in respect to procurement noted during implementation and in the Beneficiary Assessment included difficulties in selection of high quality contractors and suppliers, which led to delays, and poor quality equipment in some cases. Procurement of goods and services under the Institutional Strengthening Component, financed by the Nordic Development Fund was reported to have faced difficulties that prevented access to the funds for certain activities.

### **Achievement of Objectives**

2.20 The project development objective is: "to improve urban living conditions in Accra, Kumasi, Sekondi-Takoradi, Tamale and Tema in regard to environmental health, sanitation, drainage, vehicular access, and solid waste management in a sustainable fashion with a special emphasis on the poor."

2.21 The objective statement includes seven sub-objectives/criteria i.e. environmental health, sanitation, drainage, vehicular access, solid waste management, sustainability, and emphasis on the poor. The efficacy of the objective will be assessed separately under each sub-objective, and the sub-objectives relating to environmental health, sustainability and emphasis on poor will be assessed last as they are embedded in outcomes of sanitation, drainage, vehicular access, and solid waste management sub-objectives.

2.22 The review of the beneficiary assessments (a summary is provided in Appendix G) and the observations of the IEG mission are used in analyzing the efficacy of achieving the project development objectives. There was no baseline of urban living conditions at the time of preparation and a measure of improvement was not monitored during or at the end of the project. The field mission was unable to get data on urban living conditions.

2.23 ***The first sub-objective of improved sanitation is rated Substantial.*** The project aimed to improve urban living conditions by increasing access to sanitary toilets, improve treatment of septage waste/sewerage, and initiate a domestic latrine delivery program with private sector artisans.

## OUTPUTS

2.24 The demand for household latrines was high: 8,500 households were provided with latrines against target of 8,200 set at appraisal. The demand for public latrines was below expectations: 36 public latrines were provided compared to the target of 91 latrines. This reflects the preferences for household latrines and a move away from the publicly provided latrines (except for institutions such as schools and clinics) as outlined in the government's strategic plans. Stakeholders noted to IEG mission that the government policy now does not provide for public latrines for residential communities. Under the project 139 school latrines were built compared to the target of 167.

2.25 The expansion of the Accra Septage facility (Achimota) was not completed. The Tema septage treatment facility was built under the First Urban Environmental Sanitation Project and rehabilitated under this Second Urban Environmental Sanitation Project, but the operation of the facility was sub-optimal and not all the ponds were being used.

## OUTCOMES

2.26 The objective of providing access to sanitation was achieved. The sanitation needs of an estimated 239,000 people were met. 166,000 private household residents obtained sanitary latrines, and an additional 24,000 people have access to public/communal toilets, and 49,000 school children to school latrines. The planned targets were 160,000 private household residents, 70,000 public toilet users and 70,000 school children for a total of 300,000. Interviews during the field visit indicated that attendance of girls in schools have increased due to availability of toilets. Among the respondents to the Beneficiary Assessment surveys, access to latrines after the project improved from 34.2 to 78.8 percent for households; and from 61.3 to 94.2 percent in schools. Overall satisfaction with access to toilets increased from 23.4 to 76 percent.

**Table 2.1: Sanitation situation before and after the project**

Situation	Before		After	
	No. of respondents	%	No. of respondents	%
Bad	43	17.9	19	7.9
Very bad	44	18.3	5	2.1
Not so good	97	40.4	33	13.8
Good	52	21.7	133	55.4
Very good	4	1.7	50	20.8
<b>Total</b>	<b>240</b>	<b>100</b>	<b>240</b>	<b>100</b>

Source: Beneficiary Assessment May 2013

2.27 The domestic latrine delivery program was expected to take off on its own. No monitoring of the situation was undertaken. Discussions during the mission indicated that government regulations require that toilets be installed in all new construction. This is likely to be adhered to in the urban areas of the project given the demonstrated preference for household latrines during the project, and in Ghana in general.

2.28 The IEG mission visited multiple school latrines, one public latrine in four out of five cities. School latrines visited by the IEG mission were relatively clean, but they were not maintained to appropriate standards, e.g. lack of water near the latrines. The importance of clean and working toilet facilities cannot be underestimated due to the effect on the children's health and attitude towards learning, clean sanitation and hygiene, a learning experience they will carry on for life.

2.29 The IEG mission found evidence of hygiene education in schools was lacking. There were no posters or drawings near the toilets or in other visible parts of the school. When adults were asked, they indicated that hygiene education was taught through discussions, songs, etc. At the national level (School Health and Education Project Coordinator at the Ministry of Education), it was confirmed that following an earlier strong hygiene education campaign financed by donors, the printing of posters and other educational materials had declined considerably due to lack of funds. Foreign and local non-governmental organizations remained active in hygiene education. The Beneficiary Assessment for Waste Management and Sanitation noted that 88 percent of respondents indicated they did not have hygiene promotion groups.

2.30 The objective of improving septage treatment was not achieved. The planned Achimota septage facility was not undertaken. The operations of the Tema septage facility was sub-optimal. The visit to the Tema Septage Facility found the facility working with minimum standards and not in accordance with design. Only one person was in charge. Few trucks were observed emptying their content into one of the four existing ponds. According to the technical consultant accompanying the mission, the facility is inadequately operated. The second anaerobic pond which was used as a by-pass during the rehabilitation of the plant is yet to be emptied. The inter-pond connections were not working as designed and the second anaerobic pond, facultative pond and two matriculation ponds were by-passed. The quality of the effluent does not meet the discharge guidelines since more than half of the ponds have been by-passed.

2.31 ***The second sub-objective of improved drainage is rated Substantial.*** The project aimed to improve urban living conditions of people living and/or working in low-lying areas, which were subject to frequent flooding.

## OUTPUTS

2.32 The IDA intervention in the drainage system was a very small part of the drainage system in the respective Municipal Assemblies. The project completed the reconstruction, and lining of a total of 16.8 km of primary and secondary storm drains in Accra, Kumasi, Sekondi Takoradi, and Tema as planned. Drainage Maintenance Units were established through the Institutional Strengthening Component in the Municipal Assemblies, with dedicated annual budgets.

## OUTCOMES

2.33 Respondents to the Beneficiary Assessment of residents and government officials reported improved drainage, and reduced frequency, severity, and duration of floods in the

project areas. Accessibility in the affected areas improved and stagnant water which allowed malaria carrying anopheles mosquito to breed was reduced. About 47 percent of Beneficiary Assessment respondents indicated that they noted improvements in health.

2.34 The IEG mission visited several main, secondary and tertiary drainage sites. Overall, solid waste was observed in a majority of the drains and siltation and plant growth was observed in the primary drains. Following the flooding in June 2015, funds allocated for cleaning the drains was doubled from the original budget. However, IEG was informed by the stakeholders that had the cleanup started earlier in the season (and more importantly had solid waste not been thrown into the drains), flooding would have been less severe with less damage to property, and lower costs of cleanup.

2.35 *The third sub-objective of improving urban living conditions by providing improved solid waste collection, disposal and treatment is rated Substantial.*

## OUTPUTS

2.36 Two landfills were completed (a new \$5 million Tema landfill, and the Sekondi-Takoradi landfill which had been started during the previous project). Construction of a new cell at the Kumasi landfill was completed. Old dump sites at Accra, Sekondi Takoradi and Tema were closed. The construction of US\$10 million, 190-acre Kwabenya landfill for Accra was abandoned due to sustained opposition by people living near the proposed site (see safeguards section for details).

2.37 The project carried out the required treatment of leachate, venting of methane gas, contouring and stabilization of the soil, and fencing off the sites. The project also made alternative provisions for the livelihood of scavengers who worked on these sites. Some were relocated to the new sites. The two new landfills were provided with new equipment (front loaders, compactors, tipper trucks, water tankers, etc.) and landfill staff were trained in their use. Households were provided with refuse bins and waste containers. The collection, transport and disposal of solid waste in four of the cities (except Accra) was contracted out on a competitive basis to the private sector. The plan for the IDA credit to finance private sector contracts on a declining basis did not materialize.

## OUTCOMES

2.38 The objective of improving solid waste collection, management and disposal was achieved — unsanitary landfills were either closed or improved, and staff were trained to operate the new equipment. Environmental conditions were improved through closure of unsafe/unsanitary dumps, and the opening up of new landfills. Scavengers from the old waste dumps were organized into associations and were trained to maintain basic safety standards such as the use of protective gear. The Beneficiary Assessment indicated that 68 percent of the respondents obtained waste bins, and 12 percent more have their waste collected after the project. Table 2.2 provides data on the method of solid waste disposal.

2.39 Beneficiaries from the project sites reported improved conditions, and changed behavior due to the expanded waste collection. The beneficiary survey for Kumasi, Tamale and Sekondi-Takoradi found that 52 percent of survey respondents (240 households) now

throw their trash into project provided skips compared to 37 percent before the project. Only 9 percent of respondents dumped waste into the bush compared to 25 percent before the project. Thirty percent of the respondents still burned their solid waste. Sixty Six percent of the BA respondents noted improved environmental sanitation due to interventions in solid waste management.

2.40 Closure of the four unsanitary dumps improved the surrounding environmental and living conditions. Some of the reclaimed sites were used by communities, e.g., the old Kumasi and Oblogo dumps were used as a community sports ground. IEG mission discussion with the beneficiaries found that there is a risk that the sites are being encroached upon and could lose their community use.

**Table 2.2: Method of Solid Waste Disposal**

Refuse disposal Method	Before the project		After the project	
	Total number of respondents	%	Total number of respondents	%
Burn	76	31.7	68	28.3
Bury it	3	1.3	9	3.8
House to house collection	7	2.9	17	7.1
Into water logged areas	6	2.5		
Skip	42	17.5	125	52.1
Solid waste dump	48	20		
Throw away into bush	58	24.2	21	8.8
<b>Total</b>	<b>240</b>	<b>100</b>	<b>240</b>	<b>100.0</b>

Source: Beneficiary Assessment May 2013

2.41 The IEG mission visited two working landfills (Tema and Kumasi), and the closed Oblogo landfill in Accra. The Oblogo covered landfill site was in overall reasonable condition. Initially after the landfill was covered, the area was used as a community space, and residents were pleased with the change in environment. At the time of the IEG mission, a large informal settlement had encroached around the covered site. Piles of trash were visible in several corners of the site, and methane extraction vents were exposed without use.

2.42 In Tema, the condition of the landfill had in fact improved since the closing of the project, when the facility was deemed incomplete and inappropriately managed. The government had engaged the services of a consultant to undertake a technical assessment of the Tema landfill site, and had put into practice some of the short-term recommendations from the study.<sup>2</sup>

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<sup>2</sup> Technical Audit of Facility Operation and Maintenance (O&M) of Engineered Landfill Site at Kpone near Tema (May 2015): Water Aide Associated for the Ministry of Local Government and Rural Development.

2.43 The Tema landfill plays a critical role in public health and solid waste management for not only Tema and its surroundings, but also benefits Accra. The Tema landfill is receiving solid waste from Accra due to the latter's inability to open a new landfill in Kwabenya because of a dispute with nearby residents (see section on safeguards and Appendix F). Without the Tema landfill, a crisis in solid waste disposal in Accra would have erupted with critical consequences to public health. However, this situation has shortened the lifespan of the Tema landfill which was designed to receive considerably less solid waste from Tema only. The landfill was designed for a lifespan of 10 years. At the current usage rate, the remaining life of the Tema landfill is estimated to be less than 2 years (instead of about 5-6 years). The IEG mission observed during its visit the operation of the site. Trash had been routinely compacted and covered, the weighbridge and billing system were operational, and the site was continuously receiving trucks.

2.44 On the other hand, the visit to the Kumasi landfill, which was reported to be in good working condition at the end of the project, found the landfill to be lacking in appropriate operations and maintenance. The weighbridge was not working, staff indicated that they were able to bill based on previous records of the weights of the trucks. Solid waste was piled high with minimum compaction and months of no cover. Idle heavy equipment and some in non-working condition were observed at the site.

2.45 *The fourth sub-objective of improved vehicular access is rated Substantial.* The project aimed to improve urban living conditions by providing vehicular access in neighborhoods.

## OUTPUTS

2.46 Small roads, side drains, localized water supply and street lighting were built/rehabilitated in 14 low income communities to benefit 100,000 people (original target was 80,800 people in 13 communities). The small roads were paved and side drains dredged.

## OUTCOMES

2.47 Baseline, monitoring or end of project data was not available regarding vehicular access to the areas served. Previously unpassable roads became all weather roads due to improved side drains which reduced flooding. IEG visits to areas where community upgrading had taken place had similar observations as those in the ICR and the beneficiary assessments. Beneficiaries met expressed general satisfaction to the IEG mission regarding the community infrastructure upgrading. Perceived benefits were improved community and neighborhood security from street lights and access roads. The IEG mission observed a marked difference between communities where paved roads were provided and others where the roads remained unpaved. Houses were upgraded, commercial activities were better organized, and overall traffic conditions were improved. Roads were clean and the atmosphere less dusty (in the dry season), and reportedly continues to be passable – unlike the muddy unpaved roads – in the rainy season. Drainage culverts were less polluted than other drains, reflecting community pride and willingness to keep the area clean. Homes were noted to be in better condition than others in the area where roads were not upgraded.

2.48 Small shops lined the paved road and commercial and social activities were noted. A shopkeeper confirmed that some street lights did not work, but indicated she did not report them. Discussions with officials confirmed findings in the ICR and the Beneficiary Assessments that the upgrading encouraged residents to upgrade their home and businesses were attracted. The area became more attractive, yet more expensive to live in.

2.49 ***The fifth sub-objective of improved environmental health is rated Modest.*** The project objective was to improve urban living conditions in regards to environmental health by increasing access to sanitation and solid waste collection, disposal and treatment. This objective is embedded as an outcome of improved sanitation, drainage and hygiene education.

## OUTPUTS

2.50 The project's institutional strengthening component, financed by the Nordic Development Fund, provided training in public health/environmental health to staff of the environmental health units within the Ministry of Local Government and Rural Development and the Municipal Assemblies. Field equipment, insecticides, and health promotional material were provided for use by the environmental health units.

## OUTCOMES

2.51 The project's investments in solid waste management, sanitation and training of public health/environmental health staff of the environmental health units are likely to contribute to environmental health outcomes vis-à-vis reduced diarrheal diseases and vector borne diseases. The extent of the improvement in environmental health is not known as the project did not include any indicator to track this outcome. The Beneficiary Assessment indicates that 46.7 percent of respondents said they have seen improvements in health. High demand for household latrines (reasons reported — safety, privacy and convenience) reflects preferences and trends for the future. 78.8 percent of respondents own latrines, all had access to public latrines, and 94 percent indicate that their neighborhood schools have latrines. Water, soap and hygiene education material were not present in the majority of sites visited during the Beneficiary Assessments and the IEG mission.

2.52 ***The sixth sub-objective of improving urban living conditions in regards to environmental health, sanitation, drainage, vehicular access, and solid waste management in a sustainable fashion is rated Modest.*** This sub-objective overlaps with the "Risk to Development Outcome" section where risks are discussed in greater detail.

## OUTPUTS

2.53 Intensive and wide ranging training, publications, public information, and manuals were prepared for the project, for example training for revenue collection, tariff setting, manuals for operations and maintenance, and hygiene education. Capacity was strengthened at the MLGRD, particularly at the PCU. Municipal Assemblies became responsible for service delivery of sanitation received training and established drainage maintenance and waste management units with annual budgets.

## OUTCOME

2.54 Household latrines are privately owned and are the responsibility of households to be maintained. The operations and maintenance of public latrines rely on the private sector and payment for services by users. The operations and maintenance of the school latrines rely on payments by parents of students. Reportedly some parents resist payment of additional fees for sanitation. Beneficiary Assessment and IEG mission observations indicate that improvements to the O&M of public and school toilets need more attention by users as well as oversight by local authorities.

2.55 School and public latrines visited by IEG mission were relatively clean. However, almost all showed signs of lack of appropriate operations in accordance with technical guidelines. Water facilities that were installed (e.g. tanks, sinks) were not operational. In some schools, water taps were located at a distance from the toilets. In some cases, toilet doors and taps were locked. Parent Teacher Associations in urban areas were active, and in most cases the school was able to hire a janitor. Where parents refused to pay a fee to the school, facilities were left poorly maintained and in some cases cleaned by the students. IEG observations were similar to the Beneficiary Assessment report in which lack of maintenance (table 2.4) was observed by respondents to the sanitation — 68 percent of respondents noted that the lack of maintenance will affect sustainability.

**Table 2.3: Factors that will affect the sustainability of the project**

Factors	Total number of respondents	%
Lack of maintenance	175	68.6
Limited capacity	27	10.6
Limited resources	48	18.8
Lack of supervision	5	2.0
<b>Total</b>	<b>255</b>	<b>100</b>

Source: Beneficiary Assessment May 2013

2.56 The IEG mission noted the weak operations and maintenance of the large investments such as the landfills and septage facilities, including the presence of idle equipment. Weak institutional arrangements and funding of operations and maintenance is well documented in Beneficiary Assessments, in observations of the IEG missions as well as in acknowledgements of official and beneficiary stakeholders. Weak O&M poses a considerable risk to the long term sustainability of the investments. The Tema landfill is serving the immediate needs for solid waste disposal in Accra. However, the large amounts of solid waste from Accra has shortened the life of the landfill almost by half.

2.57 The project introduced the charging of fees for services such as solid waste collection, tipping fees at landfills, and private sector operation of landfills and solid waste collection. Evidence on cost recovery is lacking due to lack of ring-fencing of accounts or monitoring of private sector operators.

2.58 Drainage Maintenance Units were established through the Institutional Strengthening Component in the Municipal Assemblies, with dedicated annual budgets. However, IEG and the Beneficiary Assessments observed signs of prevailing lack of care and stewardship of communities and inadequate maintenance. Silt had been deposited and plants were growing in primary drains, and communities dump waste in the drains.

2.59 The Beneficiary Assessment evaluated the impact of the Institutional Strengthening component and found mixed results of the long term impact of training given changes in staff and need for continuous training.

2.60 *The seventh sub-objective of improved focus on the poor is rated Modest.* The project objective was to improve urban living conditions in regards to environmental health, sanitation, drainage, vehicular access, and solid waste management in a sustainable fashion with special emphasis on the poor.

## **OUTCOME**

2.61 The project teams reported that project interventions were carried out as planned in accordance with the Strategic Sanitation Plans developed by the Municipal Assemblies. These plans had prioritized lists of households, communities, and schools drawn from the cities low-income residents. The plans also laid out the financing arrangements and subsidies for the poor communities. The IEG mission noted that it is usually poor neighborhoods that live near landfills and waste treatment plants (this was evident in the visits to the closed landfills), and the residents are likely to benefit from the improved environment. However, the results framework did not include indicators to track this sub-objective, neither did the beneficiary assessments.

## **Efficiency**

2.62 The appraisal team considered cost benefit analysis inappropriate for the project because the outputs have no market value readily assessed and benefits could not be measured in monetary terms. Instead, the cost effectiveness method was used for the drainage and residential latrines components. The same methodology was repeated at the completion of the project, where the discounted actual costs of the components were compared to the appraisal costs.

2.63 In the case of storm drains, the actual cost of the project was US\$ 20.8 million, corresponded to US\$ 14.5 million in 2004 prices, which is lower than the US\$ 16.5 million estimated at appraisal. The actual cost per km is US\$ 863,000, was 13 percent lower than the US\$ 1 million estimated at appraisal. The results show that the project attained the expected benefits at lower costs than foreseen at appraisal, which makes the drainage component substantially efficient.

2.64 Project appraisal and final data show that public toilets per seat cost more than double private household toilets. In the case of household latrines, the ICR found that actual per capita cost of household latrines (US\$ 25) was about 50 percent higher than appraisal estimate, and 70 percent higher for public latrines and 5 percent of school latrines. Based on

available WASH cost data<sup>3</sup> from Ghana and other countries, the actual costs of the facilities fall within the average range of costs for similar facilities with a maximum of US\$51 per capita cost.

2.65 Several project components were dropped (these were Kwabenya landfill, Achimota Septage rehabilitation, financing of private landfill and solid waste collection operators, Tema Septage road), implying that considerable planned benefits did not materialize. The project closing date was extended by two and half years due to delays in resolving resettlement issues, and delays in contract award and execution, suggesting substantially delayed benefits. For some investments, O&M is weak which would impact long term benefits stream.

2.66 Based on the above, the efficiency rating for the project is **modest**.

## Project Ratings

### OUTCOME

2.67 The objectives of the project respond directly to the strategies of the government of Ghana and the Bank, and therefore the relevance of objectives is rated high. The design of the project is rated substantial because each component aims to achieve each of the objectives stated, but there were shortcomings in the overall implementation and monitoring arrangements. The project efficacy is rated substantial based on the stated planned and actual achievements in terms of improving services in the sectors addressed by the project, with shortcomings in the achievement of sustainability objective and less than robust evidence on poverty and environmental health. The efficiency is rated modest because several components were dropped indicating less benefits achieved. Based on these ratings and analysis, the project outcome is rated **moderately satisfactory**.

### RISK TO DEVELOPMENT OUTCOME

2.68 This section overlaps with the sixth sub-objective section on sustainability which is rated modest. The Government of Ghana is committed to improving the sanitation and public health aspects of its citizens. The government is engaged with donors to address these issues at all levels, and has included them in the national development plans. The government continues to rely heavily on donor support, training and knowledge sharing and private participation to address large needs. The Government of Ghana has declared its adherence to the new Sustainable Development Goals with a special focus on sanitation. It aims to incorporate them into national and regional plans. The turnaround in the operation of the

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<sup>3</sup> Data was based on sanitation expenditure and service levels emerging from WASHCost's research, led by IRC International Water and Sanitation Center WASHcost Programme, which collected and analyzed cost and service level information for water, sanitation and hygiene in rural and peri-urban areas, applying the life-cycle costs approach from Burkina Faso, Ghana, Andhra Pradesh (India) and Mozambique.

Tema landfill indicates that there is a willingness to improve the situation. The Bank is following up with an ongoing project addressing water and sanitation in the Greater Accra Metropolitan Area.

2.69 The institutional sustainability at the national and regional levels has been enhanced through the long engagement in the sector with donors. Capacities are also high in large municipalities, and considerable efforts continue to take place to build the capacity at smaller municipalities and at the community level. With the recent changes in local government structures and responsibilities, the process of building institutional capacity at lower levels of government will take a long time. There are signs that in the long term, with increased efforts and support, sustainability is possible. Metropolitan, Municipal and District Assemblies are building up departments for drainage and sanitation maintenance to increase the sustainability of investments.

2.70 However, the overall risk to the development outcome of the project is rated **Substantial**. There are significant shortcomings in the post operation of the project that render a substantial risk rating to the development outcome. The sustainability of the public civil works and services will depend on (i) the financial resources or revenue-generating capability of the Metropolitan, Municipal and District Assemblies for their upkeep; and (ii) behavior change of the population who have been accustomed to indiscriminate dumping.

2.71 During the IEG mission discussions, there was broad agreement that public toilet facilities built and operated by the private sectors were better operated and maintained than those built by the public sector and operated by the private sector. Reasons mentioned included (a) weak supervision and regulation by Municipal Assemblies, (b) perverse incentives of operators with short term (2 year contracts) to inadequately maintain the facilities at the end of the contract period; and (c) lack of clarity of responsibilities for minor and major repairs. School latrines visited by the IEG mission were relatively clean, but they were not maintained to appropriate standards, e.g. lack of water near the latrines.

2.72 The finances of the Municipal Assemblies are dependent on government transfers. Accounts of revenue generating facilities are not ring fenced in order to enable cost recovery. Private sector operators are engaged to operate the landfills, yet their responsibility for maintenance expenditures (including for heavy equipment) is not clear. During the IEG visit, stakeholders almost unanimously voiced similar concerns related to lack of consistent and sufficient funding, clear assignment of responsibilities, and training on operations and maintenance of all facilities (especially public toilets). The IEG mission observed the less than adequate operation and maintenance of the Tema Septage facility and the Kumasi landfill, and of project equipment indicates there is need for improved operations. The Tema landfill has been receiving solid waste from Accra in large amounts that has shortened the life of the landfill almost by half.

## Bank Performance

### QUALITY AT ENTRY

2.73 The project is a follow up on similar previous interventions in the same sectors to address critical threats to health and human livelihoods due to repeated floods and lack of appropriate sanitation which has caused the outbreak of related diseases in major urban areas in Ghana. The project was prepared in less than a year as a follow up on a previous project and incorporated the scale up and the completion of activities started under the First Urban Environmental Sanitation Project. The project incorporated lessons learned from the many Bank-financed water and sanitation projects in Ghana. At the same time, it incorporated new realities such as decentralization and the delegation of responsibilities for service delivery to the Municipal Assemblies.

2.74 There were significant shortcomings in attention to safeguard issues during preparation. The project relied on old information in then existing Environmental and Safeguard Framework (see section on Safeguards). As the ICR indicates, project preparation did not follow up on the rigorous internal regional panel review, namely to revisit the risk assessment and mitigation as well as to review the implication for safeguards. The Quality Assurance Group's quality of entry assessment in 2005 rated the overall quality at entry unsatisfactory for the following reasons (a) inadequate attention to sustainability issues; (b) weak implementation arrangements given lack of sufficient capacity at the municipal levels; (c) weak assessment of risks and mitigation measures; and (d) lack of readiness for implementation.

2.75 In hindsight, had the team reconsidered the risks and the likelihood of success of the risky activities (Kwabinya landfill), this activity might have been dropped and the difficulties of implementation avoided. However given the dire need in Accra for appropriate solid waste solutions, including the landfill, which persists till today, the team cannot be faulted for reconsidering Kwabinya. A moderate shortcoming is related to the complexity of the project coupled with a monitoring framework that was not designed to capture all the objectives of the project (e.g. environmental health, sustainability). Given the complexity of the project and each of its components, and the overlapping issues and potential shortcomings, Quality at Entry is rated **moderately unsatisfactory**.

### QUALITY OF SUPERVISION

2.76 The project was approved in April 2004 and became effective six months later in October 2004. Despite the major challenge of the Kwabinya resettlement complaint and the ensuing inspection, other components continued to be implemented without major disruptions. The project team delayed the engagement of a social specialist to resolve issues for Kwabinya. While such a delay was not necessary or acceptable, it was unlikely that the Kwabinya issue would have been resolved, and the landfill built, given the refusal of the community to engage in a dialogue with the authorities to arrive at a solution. However, good advice could have been provided to minimize costs to the Bank and the government. After the Inspection Panel ruling (March 2009) the Bank intensified its efforts. The project team leader moved to the field and there were a total of sixteen supervision visits. An updated and

full scale Environmental Impact Assessment and Resettlement Action Plan was undertaken. Borrower comments in the ICR suggested that the Bank's processes had been overly influenced by the small group living nearby who was not as affected by the landfill as claimed.

2.77 Supervision missions were undertaken regularly with staff from headquarters and the resident mission. The two other landfills in Tema, and Sekondi-Takoradi were successfully completed. An additional cell at the Kumasi landfill was also completed. The project closing date was extended by thirty months due to the weak capacities of the newly decentralized local governments who became responsible for the implementation of the activities under the project.

2.78 There were coordination issues between two different Bank projects citing investments in the same location. The planned septage treatment facility for Accra had to be abandoned on the instructions of the city's Mayor due to the proximity to a new bus terminal financed by another Bank project. Likewise a power transmission line (from a Bank energy project) was being erected and crossed the Kwabenya Landfill site, which would have compromised the latter had it not been dropped. The Quality of Supervision is rated **moderately satisfactory**.

2.79 The overall Bank performance is rated **moderately satisfactory**.

## **Borrower Performance**

### **GOVERNMENT**

2.80 The overall performance of the government is rated **moderately satisfactory**. At the national level, the Ministry of Local Government and Rural Development (MLGRD) was responsible for the implementation of the project and for coordination with the Bank and with the five Municipal Assemblies through the project Coordinating Unit. The MLGRD was committed to the project, and kept the PCU well-staffed. At times, the government did not provide the counterpart funds on time.

2.81 The Municipal Assemblies were responsible for the implementation of the project at the local level. Municipalities were undergoing continuous changes in their structure due to decentralization, and the project presented new challenges to them. This new situation caused delays in implementation. Considerable training was provided, but capacity remained weak particularly with regard to putting into action the acquired knowledge and skills with regard to financial management, budgeting and cost recovery (Beneficiary Assessment on Institutional Strengthening Component). The Assemblies appear to be relying on the private sector and communities to undertake the operations and maintenance of the facilities, but not providing the necessary supervision, regulation, monitoring, advocacy and funding that is required to initiate and sustain the systems,

## **IMPLEMENTING AGENCY**

2.82 The performance of the Project Coordinating Unit (PCU) is rated **satisfactory**. The PCU was staffed with highly qualified and experienced staff who were familiar with Bank policies and procedures. It was well integrated in the government's structure. It undertook its responsibilities with respect to reporting requirements to the Bank and coordinated implementation with the five Municipal Assemblies providing them with the required support.

2.83 The overall government performance is rated **moderately satisfactory**.

## **MONITORING AND EVALUATION**

### **M&E DESIGN**

2.84 The adequacy of the M&E design was mixed for a project with such a multi-faceted set of objectives. There is only one project development objectives (PDO) indicator that aims to measure the reduction in complaints about refuse collection and flooding. Five intermediate indicators address the five components of the project: (i) reduced flooding; (ii) access to toilets; (iii) increase in refuse collection (no. of towns); (iv) length of roads; and (v) establishment of Waste Management Departments. The PDO indicator includes two activities (drainage and solid waste) with one target (15 percent), while the first intermediate indicator almost repeats the PDO indicators on flood reduction with a different target (50 percent).

2.85 There were no indicators that would directly link the impact of the project on public health (environmental health); access to sanitation was used as a proxy. Sustainability was measured through the indicator on equipment in working condition. There was no measure to verify empirically that the project was addressing poorer neighborhoods. It was planned that baseline indicators would be available; mid-term and final indicators would be collected through surveys. Collection of data was assigned to four separate entities, and the details of O&M implementation was included in the project implementation manual. The project did not collect baseline data at the start of the project and IEG mission was unable to get additional data.

### **M&E IMPLEMENTATION**

2.86 Project monitoring comprised the monitoring of the progress work and progress towards achieving the objectives. Project monitoring was intensified during Bank supervision missions. The number of beneficiaries of the latrines component was not actual but was estimated based on design criteria (10-12 person/household toilet, and about 40 people per institutional toilet). Surveys or beneficiary assessments were undertaken at the end of the project. Bank supervision routinely reported on the monitoring framework.

### **M&E UTILIZATION**

2.87 The M&E was used to monitor physical progress of work as well as progress toward achievements of targets in the M&E framework. End of project surveys contributed to raising awareness with regards to weaknesses in operations and maintenance and the lack of overall

monitoring of physical assets and impacts. Lessons learned were used in subsequent Bank operations. Officials were aware of the challenges and deficiencies of O&M and in monitoring of outcomes for policy development. Attention to O&M is now on the government's agenda.

2.88 Overall, M&E is rated **modest**.

### 3. Small Towns and Villages Water Supply and Sanitation Project

#### Objectives, Design, and Relevance

##### OBJECTIVES

3.1 The objective of the project as defined in the Development Credit Agreement (39710-GH), p. 15, dated August 13, 2004, was to “increase access to sustainable water supply and sanitation services in small towns in six regions of the Borrower”.

3.2 The project was the second phase of an Adaptable Program Loan (APL). According to the PAD, the original objective of the APL was defined in 1999 “to support the Government of Ghana to extend the coverage of sustainable water and sanitation facilities to 85 percent of the rural population by the year 2009 and establish a sustainable operations and maintenance system in rural communities and small towns.” With the introduction of the Millennium Development Goals (MDGs), the MDG targets (halve the number of people without access to sustainable safe drinking water and basic sanitation) became the focus of the APL objective. In addressing the new program goal, the PAD for this project adds the following to the project objective: to provide 500,000 people with water supply facilities and 50,000 with sanitary facilities to achieve the water and sanitation MDGs.

##### RELEVANCE OF OBJECTIVES

3.3 This Small Towns Water Supply and Sanitation Project was approved three months (July 2004) after the Second Urban Environmental Sanitation Project above (April 2004). Similarly, the objectives of the project were **highly** relevant to government and World Bank strategies applicable at the time and continue to be highly relevant under the current strategies. The project was set in a decentralized framework being implemented by the government and supported by the Bank. The project focused on the provision of water supply and sanitation in deprived towns to contribute to the Millennium Development Goals. The project was in line with the Country Assistance Strategy (CAS) 2004-2007 dated February 20, 2004. Under Pillar II (Service Provision for Human Development), the project contributed to objective of increasing access to sustainable water and sanitation. This project along with several other rural and urban infrastructure services (with a focus on water and sanitation) formed the core of the Bank’s assistance to support the government’s strategy.

3.4 At project closure, the Country Partnership Strategy (CPS August 20, 2013: FY13-16), water and sanitation services remained on the development agenda as highly important to continue the good performance in economic growth and poverty reduction in Ghana. Pillar 3 of the CPS: Protecting the poor and vulnerable includes improving access to water and sanitation as one of its three core tools. According to the 2010 census, 61 percent and 82 percent of Ghana’s rural and urban population respectively lack access to appropriate sanitation methods. Investments did not keep up with economic and population growth and the urbanization rate. The current CPS emphasizes water and sanitation as key to the Ghana’s prosperity. The objectives were reaffirmed in other documents including Ghana’s Medium

Term Development Policy Framework (2010-2013), Poverty Reduction Strategy (2006-2009), Ghana Shared Growth and Development Agenda (2010-2013) as well as Ghana's Millennium Development Goals (MDG) (see chapter 1 "Background and Context for details on MDG).

3.5 The Community Water and Sanitation Agency, under the Ministry of Water Resources, Works and Housing has published the National Community Water and Sanitation Strategy (March 2014) which continues to emphasize the importance of, and plans for, improvements in rural water and sanitation in Ghana. As mentioned earlier, Ghana has been active in the development of the Sustainable Development goals and has taken steps to streamline Goal 6 into the national programs for water and sanitation at all levels of government and at community levels.

## DESIGN

3.6 The project is a second phase in an Adaptable Program Loan (APL). The project covered six regions: Ashanti, Brong-Ahafo, Upper East, Upper West, Central, and Western, and consisted of three components, the same as those in the first phase of the APL: the Community Water and Sanitation Project (CWSP). The project addressed water supply and sanitation provision in small towns, and provided for institution building and capacity enhancement of several sector institutions. The main difference between the first phase and this project was that the second phase focused on water and sanitation in small towns rather than smaller villages.

**Component 1: Community Subprojects Component:** (original cost US\$24.8 million; revised cost US\$ 50.0 million, actual cost US\$42.5 million). This component provided resources for water and sanitation services in: (a) small towns subprojects planned but not implemented under the first phase; (b) new small town systems; (c) rehabilitation of small towns systems; and (d) institutional and household sanitation facilities and hygiene promotion activities in small towns.

This component was designed to provide assistance to small towns and schools through grants to their District Assemblies for: (i) the construction/rehabilitation of water and sanitation facilities; and (ii) financing upfront technical assistance and community development activities to strengthen the capacity of small towns to plan, implement, operate and maintain water and sanitation facilities in an effective and sustainable manner. Subprojects were to respond to community demand, required a financial contribution from the small towns and the District Assemblies (5 percent each for water supply and for institutional latrines and 50 percent for household sanitation), and was to be accompanied by community development and technical assistance support. The target groups for this component were dwellers in small towns in six regions of the country. The component was expected to improve quality of life in several ways, including a reduction in the incidence of water-borne and excreta-related diseases, as well as increased time-savings, productivity, and school enrollment for girls and boys.

**Component 2: Sector Support:** (original cost US\$3.7 million; revised cost US\$4.66 million, actual cost US\$6.3 million). This component was designed to support training and technical assistance for stakeholders to improve their capacity to fulfill their sector roles including support to:

- (a) District Assemblies, District Works Departments, and their District Water and Sanitation Teams (DWST); funds were allocated on an annual basis to provide basic equipment, such as computers and motorbikes; in addition, practical training was to be provided in procurement, contract management, accounting, hygiene and sanitation, and community participation. Support was to be provided to the DWSTs to finance the incremental operational costs associated with project management. Guidelines and eligibility criteria for disbursement were included in the project operational manual;
- (b) Local providers of goods and services, through a voucher scheme to facilitate demand-driven training for the private sector and Community Based Organizations;
- (c) Development of training materials (such as community and district operational manuals) and studies related to M&E;
- (d) Regional structures involved in project monitoring, such as the Regional Coordinating Councils, to receive general orientation on the project and sector and specific training in the area of M&E activities, and Regional Water Supply Teams (RWST) staff to receive training to address their specific capacity building needs; and
- (e) The Directorate for Water in the Ministry of Water Resources Works and Housing (MWRWH) to receive training and technical assistance to enable it to fulfill its role in planning and monitoring overall rural water supply and sanitation access in the country and to monitor progress towards meeting the MDGs.

**Component 3: Program Management:** (original cost US\$2.5 million; revised cost US\$3.13 million; actual cost US\$2.9 million). This component provided Community Water and Sanitation Agency (CWSA) (national and regional levels) with a management fee equal to five percent of the funds disbursed under component 1 to support the incremental costs of implementing the project. The component was designed to support the CWSA to develop its role in sector planning, donor coordination, funds mobilization, and program management. The components aimed to: (a) strengthen the newly created MWH Directorate for Water, (b) increase the ability of the private sector to provide adequate services; and (c) build the capacity of districts Community Water and Sanitation Agency and Regional Water Supply Teams to effectively implement and guide interventions in small towns.

## RELEVANCE OF DESIGN

3.7 The design of the project is **substantially** relevant to its stated objectives. The first component provides funding for the construction and rehabilitation of water supply and sanitation systems in small towns with the objective of reaching 550,000 water users and 50,000 sanitation users. For sustainability of the water and sanitation, the infrastructure component is supplemented by institutional building components with the aim of improving

the monitoring of progress of delivery of services as well as improving other functions of agencies at the central and local levels. The third component provides funding to ensure adequate implementation of the project in accordance with Bank requirements. The implementation arrangements were overly complex and involved several levels of governments and multiple agencies responding to the requirements of a decentralized structure. The results framework was deficient with respect to intermediate indicators that measured the output of the project in terms of numbers (e.g. number of water boards trained, number of towns submitting applications, number of private service providers), without a measure of the impact of the project during or after implementation.

## **Implementation**

### **REVISED COSTS AND OTHER CHANGES**

1.1 In August, 2007, the project received additional financing of US\$10 million to cover higher costs due to: (a) escalation in unit costs; and (b) more smaller towns with higher per capita costs were submitting applications than originally envisaged. In May 2009, the project received an additional financing of US\$15 million to cover the costs of an additional 11 small towns which had below average access to potable water and were experiencing a high prevalence of water-borne diseases. The target for access to water supply was increased by 50,000 people to reach 550,000 people. During the second restructuring, the closing date of the project was extended by one year to April 30, 2010. At project closing, US\$7.5million was cancelled. Appendix E table 2 provides the project costs by component.

### **SAFEGUARDS**

3.8 At appraisal, the project was classified as category B for Environmental Assessment. The project triggered Environmental Assessment (OP/BP 4.01) and Involuntary Resettlement Policy (OP 4.12). Involuntary resettlement policy was triggered because land acquisition was necessary for the construction of pumping stations, storage tanks and communal water points. Safety of Dams Policy (OP/BP 4.37) was not triggered because any dams expected to be built were not expected to exceed 15 meters in height. The government adopted an Environmental and Social Management Framework (ESMF) and a Resettlement Policy Framework (RPF). Prior to commencing work on any water supply system, an Environmental Management Plan was to be prepared in accordance with the principles and institutional procedures established in the ESMF, and all necessary land and other property was to be acquired, compensation paid and any resettlement arising from such works was to be carried out in accordance with the principles and institutional procedures established in the RPF.

### Environment

3.9 During implementation, environmental issues were to be addressed in accordance with the ESMF. Identified potential impacts and mitigation included: (a) water sources must be checked for quality to confirm water quality standards are met; (b) water sources must be checked for safe yield and impact on surrounding water sources; (c) water sources must be designed and constructed to prevent contamination; (d) wastewater at outlets must be

disposed of properly; and (e) measures to mitigate erosion and loss of vegetation must be provided in construction contracts.

### Social

3.10 Resettlement: At appraisal, it was expected that a small amount of land would be needed for pumping stations, storage tanks and communal water points. Construction of these facilities could cause temporary or permanent loss of land, crops and other means of income generation. A Resettlement Policy Framework was prepared. The project followed a demand-driven, participatory approach. The principal stakeholders were the small towns that could benefit from improved systems. The project had a participatory monitoring and evaluation system, and community members were to be involved in periodically assessing the progress of the project.

3.11 A review of Bank documents by IEG indicated that attention to the Environmental and Social requirements was initially weak. By the mid-term review (July 2007), the Bank team noted that the ESMF and the RPF documents were available, but dissemination and familiarity with their provisions was limited especially at the District Assemblies and the communities. This affected the extent of commitment and compliance of the project to the social and environmental safeguards. The mid-term review noted that Community Water and Sanitation Agency was slow to take action on initiating the safeguards implementation despite reminders by the Bank team. In some regions, efforts were made by the Rural Water and Sanitation Teams to ensure environmental compliance through the consultants and contractors, but the Bank team reminded officials that the implementation of the ESMF/RPF should not be left to the consultants.

3.12 In regions where some attempt was made to implement the safeguard provisions, the focus tended to be on construction and the environmental impacts more than the social aspects or the post-construction phases. The Bank team made extensive recommendations to rectify the situation including redistribution and explanation of documents, assigning staff, documentation and compilation of resettlement issues and how they were resolved. In a July 2009 progress report, Community Water and Sanitation Agency reported on the training provided and the requirements for safeguards. Construction workers not wearing safety gear was reported. In May 2009, a Bank mission indicated that compliance with environmental safeguards was satisfactory with minor infractions. The mission noted that there were several, though relatively minor cases of land acquisition and compensations for economic displacements. In Jacobi, Ashanti region, a water tank was built near a primary school posing a hazard to children. The District Assemblies was planning to relocate the children to a new school. The mission reminded the District Assemblies that relocation should take place prior to construction. The mission noted the need for better documentation at the local level and better reporting to and monitoring by the regional and national representatives of the Community Water and Sanitation Agency.

3.13 The ICR did not report on safeguards compliance. It reported that Community Water and Sanitation Agency had good experience and that safeguard issues were addressed, and required compensation paid. The PPAR does not rate safeguards.

## **FIDUCIARY**

### Procurement

3.14 According to Bank supervision mission reports, procurement followed the Bank's guidelines for procurement of goods and services. For each region participating in the project, one consultant was engaged to provide services on small water supply systems. The performance of Regional Water and Sanitation Teams and the District Water and Sanitation Teams were reviewed during implementation and capacity gaps were identified in: (i) procurement planning, updating and implementation monitoring, (ii) preparation of bid evaluation reports, and (iii) contract management. Bank missions often provided training. No significant procurement process issues were reported. Nevertheless, in some cases there were some difficulties in contract implementation, supervision, and payments. Procurement capacity was stronger at the national and regional levels of the Community Water and Sanitation Agency than at the level of the district and community water supply teams.

### Financial Management

3.15 Bank supervision missions reported routinely on financial management issues. The final supervision mission found compliance with financial management requirements to be satisfactory. The project had complied with all audit requirements, including for the final audit report. Audit reports were largely unqualified, and the Bank team reviewed the auditor's comments with the Community Water and Sanitation Agency. The mid-term review (July 2007) included a comprehensive financial management review. It followed up on issues raised in previous missions, assessed the adequacy of financial management systems including the readiness of the two new regions (Central and Western) and discussed with Community Water and Sanitation Agency the issues raised by the external auditors in the 2006 Audit Report. Financial management arrangements were found to be adequate at the head office and the regions. Timely Financial Management Reports were a challenge due to the slow response from the districts. The accounting function was managed by a qualified accountant and four accounts officers. Regional accountants and the district finance officers were also supported by financial management consultants. Overall Bank missions reported that budgeting and internal control for project accounts was adequate, with weaknesses noted at the district levels.

## **Achievement of Objectives**

3.16 The objective of the project as defined in the Development Credit Agreement (39710-GH), dated August 13, 2004, was to "increase access to sustainable water supply and sanitation services in small towns in six regions of the Borrower."

3.17 The technical and beneficiary assessments as well as IEG mission observations were used to assess the efficacy of the project. The Beneficiary Assessment for the Project was not available at the time of the preparation of the ICR.

3.18 *The first sub-objective of increasing access to water supply is rated substantial.*

## **OUTPUTS**

3.19 Water supply systems were constructed as planned in a total of 73 communities in 44 Districts of the Ashanti, Brong-Ahafo, Upper East, Upper West, Central, and Western regions of Ghana.

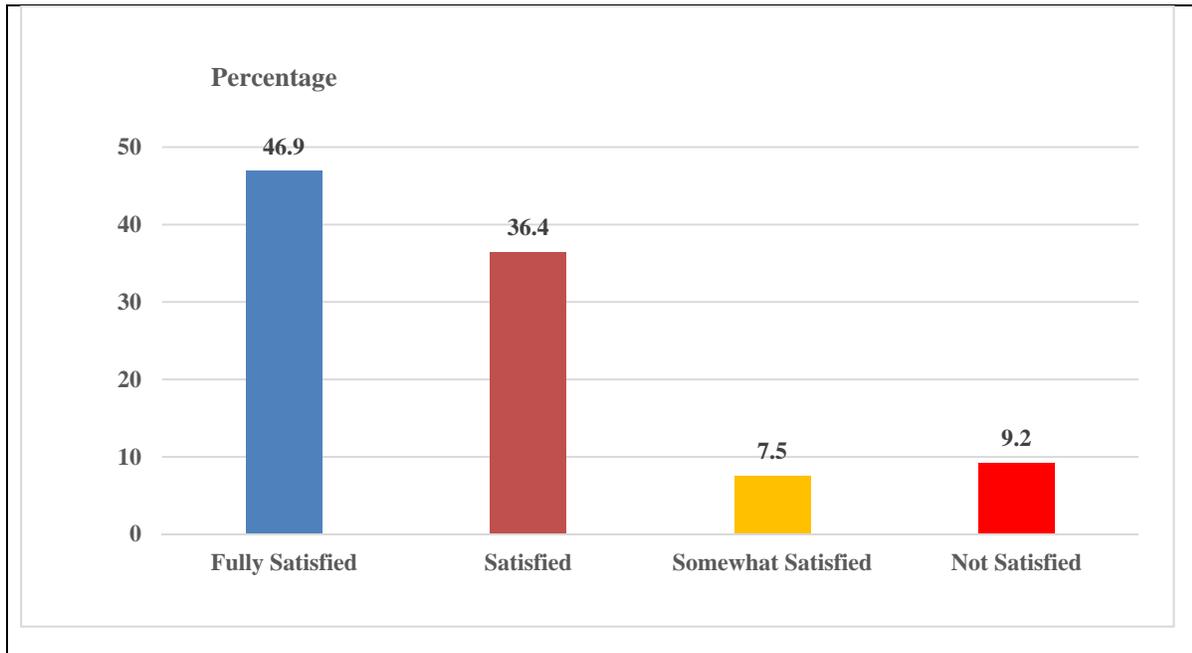
## **OUTCOMES**

3.20 The project exceeded its target with regard to water supply, with 562,000 people (target 550,000) provided with access to potable water, including those in the eleven towns added in 2009. The monitoring framework did not include targets for increased water supply and consumption. The economic analysis in the PAD estimated water production in the project areas at the time was less than 3 million m<sup>3</sup> and estimated that the project will increase production to 7.7 million m<sup>3</sup>. The analysis also indicated that water consumption at the time was 10 liters/capita/day (l/c/d) which was to increase to 20 l/c/d/ and 60 l/c/d/ respectively for water from pumps and connections respectively. There were no records to monitor these indicators at the aggregate levels.

3.21 According to the Beneficiary Assessment, the beneficiaries were satisfied with the water systems both with regard to the services as well as tariffs. Figure 3.1 provides level of community satisfaction with standpipes. On the other hand, the Technical Assessment undertaken at the end of the project found major issues with the systems (see Appendix G). Of the 14 systems that were visited during the Technical Assessment, only two (representing 14 percent) were functioning as designed. The others were having either electro/mechanical problems or the bore holes were suspected to be yielding less than expected.

3.22 The IEG mission visited water supply facilities in 3 of the 6 regions covered under the project. The objective of the visits was to observe facilities that are in good working condition as well as those that are not. The facilities were selected randomly after discussion with the CWSA which provided the list of communities that benefitted from the project. The mission observed that physical facilities of water systems were in working condition and overall adequately maintained. There were no leakages, and the pump area was dry and clean. Stand pumps were locked when not in use, and electric pumps were fenced in and operating. Stakeholders at all levels — national and regional CWSA officers, District Assemblies and community Water and Sanitation Teams were more aware of the operations of the water supply systems than for the sanitation systems, and the institutional set up for reporting malfunctions appeared to be better anchored and understood.

3.23 The water supply installations (hand pumps, electric pumps and water tanks) visited by the IEG mission were observed to be in satisfactory operating conditions. The difference between IEG observations and the Technical Assessments is attributed to the continuous support that the CWSA provides to the communities with regard to water within the follow up projects by donors, and the stronger institutional framework for water supply.

**Figure 3.1. Level of Community Satisfaction with Stand Pipe Locations**

Source: Beneficiary Assessment (April 2011)

3.24 The IEG mission found that larger communities were better organized as they had subcontracted to professional operators who also maintained the system. These communities exhibited more organized budgets and books and reported they used computers to maintain records. One larger town indicated that it is capable of covering O&M costs. Smaller communities on the other hand exhibited lower capacities. They hired minimal staff to maintain the system, and kept rudimentary paper records. They indicated they do not use computers provided by the project. Tariffs differed considerably amongst the communities visited. An on-the-spot review of available records showed that there was not sufficient information to determine potential for cost recovery, even for the large community. The community water management teams indicated that they were facing competition from private operators who built, owned and operated their own facilities (as opposed to facilities being concessioned to private operators under the project) and were capable of providing good service at higher prices. Stakeholders at all levels indicated there is need for sufficient and timely funding for O&M and for monitoring.

3.25 *The second sub-objective of increasing access to sanitation through the provision of household and school latrines is rated Modest.*

## **OUTPUTS**

3.26 The project financed the construction of 4,202 private household latrines and 288 institutional latrines. The results framework in the project appraisal document did not set targets for the number of household and institutional latrines.

## **OUTCOMES**

3.27 The target of sanitation coverage for 50,000 people was met, with 4,202 private and 288 institutional latrines built which served a total of 50,424 and 28,800 people respectively. The Beneficiary Assessment indicated that beneficiaries were satisfied with the household latrines, but complained that there was insufficient coverage. However, the Technical Assessment found a large number of institutional latrines to be not in working order. (See Appendix G for summaries of the Beneficiary and Technical Assessments).

3.28 The Sector Strengthening component provided support for mass media campaigns for disseminating hygiene education, including promotion of the global hand washing initiative. However, the ICR states that “the low level of investment in sanitation and hygiene education, as well as the strategy of providing subsidy to household latrines without prior behavior change awareness campaign poses a challenge to the attainment of the Millennium Development Goals.” Discussions with officials during the IEG mission indicate that after a large and successful media campaign (with and without the project), overall attention to hygiene education has dwindled due to lack of funding. Hygiene messages particularly in schools and near school toilets was evidently lacking. Overall reporting and recording on sector strengthening activities was not sufficient.

3.29 The IEG mission visited school sanitation facilities in 3 of the 6 regions covered under the project. The facilities were selected randomly after discussion with the Community Water and Sanitation Agency and the PCU, which provided the list of communities that benefitted from the project.

3.30 Public/school latrines that were visited were relatively clean, but appeared to have deteriorated over time. Broken and empty water tanks and sinks near school toilets were visible. Other dry toilets were not operated in accordance with the design. Water faucets were available within the school premises, not directly adjacent to the toilets, and there was no soap. It was widely reported that in rural areas, where parents cannot afford fees to hire a janitor for the school, children were trained to clean the bathroom with the supervision of a teacher. It was also widely reported, that communities around the school were using the facilities when the school is closed, and often inadequately, adding to deficient maintenance, and shortening the life of the facility due to use beyond the design capacities. The impact on the learning environment and experiences of the children due to the situation can be negative. The absence of hygiene education materials in the toilets and in the schools was noted.

3.31 *The third sub-objective of sustainable access to water supply services is rated Substantial while sustainable access to sanitation services is rated Modest.*

## **OUTPUTS**

3.32 Seventy three volunteer Water and Sanitation Development Boards (WSDBs) were formed from the participating communities to be the local governance bodies. The gender balanced Boards are functioning as designed with their staff fully trained. The IEG mission visited several WSDBs and noted that they are functioning at varying degrees of capacity which is positively correlated with the size of the community. Most used paper based simple records of revenues, and only one large town showed a budget with revenues and expenditures. All (except for the large WSDB) were not using computers provided. WSDBs comprised volunteers from the community. Communities above 10,000 population hired paid technical and financial staff, and were therefore better served than smaller ones who relied totally on volunteers. Women were well represented in the WSDBs met.

3.33 Staff of 44 District Assemblies were trained in their supervisory functions, including accounting, procurement and selection of contractors, managing contracts, and other fiduciary matters. They also learnt appropriate methods for acquiring land and paying proper compensation to property owners in accordance with the requirements of social safeguard policies, as well as conflict resolution skills. Each District Assembly developed an annual District Water and Sanitation Development Plan from which the sub-projects were identified and prepared.

3.34 Training for 59 private service providers was provided. They comprised contractors and consultants (drilling, sanitation), area mechanics, small town water system operators and providers of training and community development services.

3.35 The project worked with the newly mandated decentralized framework in Ghana utilizing the demand-driven approach, whereby communities, with the help of the District Assemblies, selected and contributed to the design of sub -projects. To be eligible the participant towns had to provide 10 percent of the investment costs (5 percent from the District Assemblies and 5 percent from the community), and commit themselves to the operation and maintenance of constructed facilities. The 5 percent community contribution was eliminated during implementation.

3.36 The Community Water and Sanitation Agency produced several manuals and guidelines to standardize the preparation and implementation of sub-projects including: (a) a Framework for Assessing and Monitoring Rural and Small Town Water Supply Services, (b) a District Operational Manual, (c) a How-to-do Guide for Functionality and Service Monitoring; and (d) a project implementation manual.

## **OUTCOMES**

3.37 Systems were created and capacity has been built in stakeholder institutions to sustain the financing, operation and maintenance of locally managed water supply and sanitation services. The IEG mission noted that for water supply, the staff at the national and regional

levels (CWSA and RWSTs) were highly skilled and knowledgeable. District level staff were also knowledgeable about their areas, but capacities varied according to size of the community. At the community level Water and Sanitation Development Boards (WSDB) were responsible for collecting fees for operation and maintenance of the water systems. WSDBs collected the money from communities. Additional funds were raised when repairs were needed. District Assemblies had recently introduced the practice of auditing WSDB accounts.

3.38 The CWSA introduced a formula for tariff setting that includes all costs, and sets aside funds for replacement and for sanitation. Tariffs varied considerably among the communities visited, and were generally too low to allow for cost recovery. On the other hand, it was reported to the IEG mission that private operators who constructed and maintained their own facilities were more successful in charging higher prices.

3.39 The Borrower's ICR points out that there is a need for a robust Sector Information System for M&E of not only access to water and sanitation, but of the quality of the services provided and the financial sustainability of the decentralized and community owned systems. The establishment of a Sector Information System is being supported by an ongoing IDA financed project (the Greater Accra Metropolitan Area Sanitation and Water Project).

3.40 Capacities, ownership and attention to school sanitation facilities was a serious problem, compounded by lack of clear responsibility for operations and maintenance. The current institutional framework for operations and maintenance of the sanitation facilities is weak and insufficient to provide the necessary support and oversight.

3.41 **Contribution to Program Goals:** The project enabled partial progress to be made towards Ghana's meeting of the Millennium Development Goals.<sup>4</sup> Ghana had a mixed record of achieving Goal 7: Ensure environmental sustainability. The target of halving the proportion of the population without access to safe water has been achieved, but poor sanitation remains pervasive. In the case of water, the target was over achieved with 21 percent of the population not having access to safe water vs. the target of 22 percent. For sanitation, 84 percent of total population remain without access to improved sanitation vs. the target of 48 percent.

## Efficiency

3.42 At appraisal, a cost benefit analysis was undertaken for the project. It was assumed that project investments will increase water supply capacity by 4.7 million cubic meters to 7.7 million cubic meters. The project would increase private connections, rehabilitate networks and improve sanitary conditions. Population growth was assumed to be 3 percent from a base of 625,000. Water consumption at appraisal was estimated at 10 liters per capita per day (l/c/d) and expected to reach 20 l/c/d by the end of the project. Consumption in households connected to the network was estimated to reach 60 l/c/d. Twenty percent of homes were expected to connect directly to the network. Water was sold for 100 Cedis for an

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<sup>4</sup> Ghana – Millennium Development Goals 2015 Report (September 2015)

18 liter bucket, while connected households would pay 25 percent more. Revenues were to cover O&M and potential replacement costs. A standpipe would serve a maximum of 300 people within a 300 meters distance. The direct benefit of the project is the increased provision of water to the families living in small towns. Indirect benefits included: time saved in fetching water, health improvement with higher quality water, and improved hygiene of new latrines. With 20 years life and 12 percent discount rate, a present value of net benefits was calculated at US\$14 million and the internal rate of return was 20.5 percent for water and 17.8 percent for sanitation.

3.43 At completion a similar cost benefit analysis was undertaken. Assumption on water consumption (the main quantifiable benefit) remained the same; i.e. actual consumption figures were not available. Price of water increased from US\$0.6/m<sup>3</sup> to 1.03/m<sup>3</sup>. The main difference was the significant increase in capital costs and associated O&M costs. The internal rate of return was calculated at 24.4 percent.

3.44 No cost benefit analysis was done for the sanitation component at appraisal or completion. IEG mission was informed about health benefits from reduction in fecal related diseases, improved hygiene, and enhanced safety, privacy, and convenience as a result of provision of household toilets. However, no data was provided.

3.45 The project was provided additional financing of US\$ 10 million equivalent (38 percent additional to original credit) to cover cost overruns (due to different size water systems as well as increases in prices). An additional US\$ 15 million was provided to increase the number of beneficiary communities and total beneficiaries by 50,000 (at a cost of (US\$300/beneficiary). On average, the per capita total cost of the project is US\$99/capita vs. the original plan of US\$53 and a revised US\$73.8. The estimated cost per beneficiary of water services doubled from appraisal estimates, while the estimated cost per beneficiary for sanitation increased by 13 percent. The project was extended for one year.

3.46 There were some operational and administrative inefficiencies. The minority of DA and communities which stalled in the payment of their 5 percent contribution delayed the construction of the facilities. The lack of familiarity with safeguards requirements led to delays in land acquisition and implementation.

3.47 Overall, the efficiency of the project is rated **modest**.

## **Project Ratings**

### **OUTCOME**

3.48 The objectives of the project respond directly to the strategies of the Government of Ghana and the Bank, and therefore the relevance of objectives is rated high. The design of the project is rated substantial because each component aimed to satisfy each of the objectives stated. There were shortcomings in the overall implementation and monitoring arrangements that limited the availability of evidence. Efficacy is rated substantial because the project increased access to sustainable water supply facilities, which represented about 85 percent of the investments and about 90 percent of beneficiaries. On sanitation, access was

increased but not in a sustainable manner as water supply have a stronger institutional support than the sanitation investments. Efficiency is rated modest due to high per capita costs. Based on these ratings and analysis, the project outcome is rated **moderately satisfactory**.

#### **RISK TO DEVELOPMENT OUTCOME**

3.49 The overall risk to development outcome of the project is **substantial**. The risk to development outcome related to water systems is modest as the project assisted in building institutions and involved communities in the O&M of water sector as discussed below. However, the risk to access to sanitation outcome is high due to lack of clear responsibility for O&M.

3.50 **Institutional Risks.** The CWSA is a professional well-staffed organization with strong regional outreach. The CWSA has published manuals and procedures to streamline the installation, operation and maintenance of water supply facilities in rural areas. The project assisted in pushing capacity building in the District Assemblies who are responsible for these services in the new decentralized structure. There is heavy reliance on communities to burden the responsibilities of operating the system. Oversight and monitoring is not strong across the board, as the responsibility for water and sanitation shifts from the Ministry of Water Resources and Housing and the CWSA to the District Assemblies and to the Ministry of Local Government and Rural Development at the National Level.

3.51 **Financial Risks.** The CWSA introduced a formula for tariff setting that includes all costs, and sets aside funds for replacement and for sanitation. However, tariffs varied considerably among the communities visited, and were generally too low to allow for cost recovery. On the other hand, it was reported to the mission that private operators who constructed and maintained their own facilities were more successful in charging higher prices. The project has succeeded in engaging communities in the sector and understanding the necessity of paying fees to maintain the system. Financial reporting and monitoring is not sufficiently adequate to provide a picture of financial sustainability.

3.52 **Social Risks.** This is especially relevant to the school sanitation facilities where there is lack of community stewardship, maintenance and monitoring as well as abuse of school facilities by the community.

3.53 **Technical Risks.** The water supply system relies on the community for its operations and maintenance. In small rural communities, technical capacities are not always adequate. The shortage of funds and skills become incentives to postpone maintenance. Technical risks appear to be manageable for water supply, but are high for sanitation, due to the sector's novelty and complex challenges.

## Bank Performance

### QUALITY AT ENTRY

3.54 Quality at entry is rated **moderately satisfactory**. The project is a second phase of an Adaptable Program Loan and has benefitted from experiences of phase 1, which was similar in nature, except that this phase focused on small towns. The project design benefitted from other Bank-funded projects in the water supply and sanitation sector in Ghana, while adapting to new institutional changes such as decentralization. The project complied with all Bank fiduciary and safeguard requirements. The project team worked well with government counterparts.

3.55 Despite learning from experiences, there were shortcomings in the preparation of the project that had an adverse impact on the project including: (a) weak monitoring and evaluation framework that focused on the physical progress, training and institutional framework, but had no measures for effectiveness and efficacy of these interventions; (b) wrong assumptions on size of towns and demand for household latrines; (c) underestimating costs (coupled with inflation) led to requests for additional financing.

### QUALITY OF SUPERVISION

3.56 The Quality of Supervision is rated **moderately satisfactory**. The Bank team was based in Accra and undertook regular and intense supervision missions. Missions visited sub-project sites and met with local level stakeholders (District Assembly officials, traditional authorities, Water and Sanitation Development Boards, consultants, contractors, and community members). The Bank provided support to the District level and local implementing bodies, especially in areas such as technical supervision, procurement, and social and environmental safeguards as well as technical advice in contract supervision.

3.57 The Bank team was proactive in problem solving through restructuring and scaling up the project. A shortcoming in Bank dialogue was the quick agreement with the government to waive the 5 percent matching funds from communities when additional financing was provided, even though it appeared to be a political decision to win an election. This change of rules at a critical point in project implementation (additional financing) de facto penalized communities who abided by established rules and gave the wrong signals in the sector. Although it is recognized that this was the result of a government policy decision, the issue might have been addressed in the context of policy dialogue at an appropriate level. On the other hand, the Bank showed flexibility in a difficult environment with great needs in the sectors. Another shortcoming in the Bank's supervision was the delayed recognition – until the mid-term review - that environmental and social safeguards were not being addressed adequately. Technical supervision and the completion report failed to detect the technical difficulties faced by the project that were outlined in the Technical Assessment that was done following project completion.

3.58 The overall Bank Performance is rated **Moderately Satisfactory**.

## Borrower Performance

### GOVERNMENT

3.59 The Government of Ghana, as represented by the Ministry of Works and Housing (MWH), which later became the Ministry of Water Resources, Works and Housing (MWRWH), placed a high priority on improving access to Water Supply and Sanitation to cover the large gap in service delivery in the country and to reach the agreed Millennium Development Goals. In implementing the project, government performance suffered moderate shortcoming. The government's transfer of funds to District Assemblies (DA) was irregular and adversely affected the DAs' ability to pay their 5 percent contribution which caused delays in implementation (ICR p.35).

3.60 The government diverged from agreed policies for political purposes when it promised to waive the 5 percent contribution from communities, thus giving the sector a wrong signal with regard to the government's resolve to reform the sector and alienating those who had or were willing to contribute to such projects. The result of waiving the required 5 percent impacted community ownership and the financial resources available for operations and maintenance. The government's performance is rated **Moderately Satisfactory**.

### IMPLEMENTING AGENCY

3.61 The project implementation arrangement was complex. The Community Water and Sanitation Agency (CWSA) at the MWRWH had primary responsibility for guiding, promoting, facilitating, supervising, monitoring, evaluating, and reporting on project activities. Project implementation was decentralized to CWSA's regional offices, called Regional Water and Sanitation Teams in 6 regions that provided technical assistance to the District Assemblies (44) and the private sector. The District Assemblies implemented the subprojects on behalf of, and in coordination with, the communities in the small towns.

3.62 The project covered a large differentiated geographic area with different administrations. Few implementation problems were reported. The project faced few delays with a one year extension to increase coverage. There were weaknesses in safeguards implementation although this improved overtime (see section on safeguards). The performance of the implementing agencies is rated **Moderately Satisfactory**.

3.63 The overall rating for the government performance is **Moderately Satisfactory**.

### MONITORING AND EVALUATION

#### M&E DESIGN

3.64 M&E as explained in the PAD (p.14) was designed as a tool for stakeholders to assess implementation where objectives and targets can be evaluated. Data for the outcome and results indicators would come from a variety of sources and would be collected using a mixture of methodologies: (i) traditional methods of data gathering (i.e. CWSA quarterly reporting on activities and outputs as well as periodic technical audits of districts); and (ii)

participatory methods to bring beneficiaries and implementers together to evaluate effectiveness and sustainability of activities, and to provide feedback for improving processes. Annual stakeholder meetings were to be held to share emerging lessons and revise implementation on a timely basis.

3.65 Responsibilities for M&E were to be held at various levels. Data would be gathered at the lowest levels and aggregated upwards. Staff at each level would be responsible for M&E, and the project's sector support component was to provide needed training. As part of the government's decentralization drive to increase the involvement of Regional Coordinating Council (RCC) which reports to the Ministry of Local Government and Rural Development (MLGRD) in the monitoring of activities at the District level, these bodies were to provide parallel monitoring of project activities at the Districts within their jurisdiction.

3.66 A key task of the M&E system was to report on progress towards meeting the MDG targets. Regional Water and Sanitation Teams (RWST) annual work plans would indicate how the annual plan relates to the MDG targets. RWST quarterly reports would indicate if activities are on schedule. RWSTs would share these reports to the Regional Coordinating Committees (RCCs) and to CWSA head office, which would forward them to the MWRWH for aggregation to the national level.

3.67 In an environment of weak capacity and the introduction of decentralization, the M&E design was too complex and multi-faceted with several agencies responsible, but with unclear assignment of responsibilities, particularly for final aggregation of the results of the many tools and analysis of the outcome.

## **M&E IMPLEMENTATION**

3.68 Given the complexities of the designed M&E framework, the M&E system was not fully implemented as designed. CWSA and Bank supervision missions reported on the monitoring framework outlined in the PAD. The results (e.g. beneficiaries reached) were based on design estimates. RWSTs reported to the CWSA, but the mission found there was less reporting across the ministries. Coordination with the RCCs (regional representatives of the MLGRD and overseeing Metropolitan, Municipal and District Assemblies) was weak or non-existent. The IEG mission noted that reporting to RWSTs became less organized once facilities were delivered to the community/District Assembly. Reporting on financial issues was not possible given the variety of account recording and monitoring capacities – which would be necessary as evidence of reporting the required O&M coverage indicator for example. Communities undertook meetings to discuss project issues related to the services provided, aggregating outcomes of those meetings for monitoring and learning was not possible. A technical and beneficiary assessment was undertaken after project closure (April 2011), and is summarized above, but was not included in the ICR.

## **M&E UTILIZATION**

3.69 In recognition of the importance of monitoring, the CWSA has developed a guide for functionality and service monitoring (March 2014), and a Framework for Assessing and Monitoring rural and Small Town Water Supply Services (March 2014). Further efforts are

being undertaken to develop a web-based monitoring system to collect data using mobile phones, analyze data in accordance with sector guidelines, and help communities report water facility faults, order spare parts and access financing.

3.70 Overall, M&E is rated **modest**.

## 4. Lessons

- (a) **For school toilets to be used in a sustained manner, an integrated hygiene education needs to be offered on a continuous basis.** A strong hygiene education campaign was undertaken throughout Ghana prior and during the two projects. Discussions with authorities and visits to schools indicate that the emphasis on the implementation of the hygiene education program diminished due to lack of funds. Sustained provision of hygiene education (availability of information as well as soap and water near toilets) ensures incoming classes continue to learn and use safe hygiene practices.
- (b) **The concept of Community Ownership and Management is not sufficient to ensure sustainability in an environment of weak community stewardship.** Implementation of regulations, strong monitoring, education and enforcement are needed to assure a sustainable operation and maintenance of the facilities. In the case of the drainage component in the Second Urban Environmental Sanitation Project, the communities resorted to old habits of dumping garbage in the rehabilitated drainage system. In the case of the Small Towns Water and Sanitation Project, communities surrounding the schools were using the toilets. In both cases, the behavior contributed to a faster demise of the infrastructure and increased the costs of operations and maintenance.
- (c) **Stakeholder analysis and citizens engagement during project and facility design is important for assessing the willingness to pay for the services.** In the case of the Small Towns Water Supply and Sanitation Project, discussions with community water management teams indicated that they were facing competition from private operators who built, owned and operated their own facilities (as opposed to facilities being concessioned to private operators under the project) and were capable of providing good service at higher prices.
- (d) **Changing the rules of the game for short-term political gains during implementation disrupts community involvement and sends the wrong signal to communities in terms of the government intentions.** In the case of the Small Towns Water and Sanitation Project, the decision to exempt communities from the 5 percent copayment requirement alienated those communities who made the contribution, and may increase resistance to payment of other obligations in hopes of further changes in Government policies.

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## Appendix A. Basic Data Sheet

### GHANA – SECOND URBAN ENVIRONMENTAL SANITATION PROJECT (P082373)

#### Key Project Data (amounts in US\$ million)

#### Cumulative Estimated and Actual Disbursements

	<i>FY05</i>	<i>FY06</i>	<i>FY07</i>	<i>FY08</i>	<i>FY09</i>	<i>FY10</i>	<i>FY11</i>	<i>FY12</i>	<i>FY13</i>	<i>FY14</i>
Appraisal estimate (US\$M)	1.0	8.7	20.7	34.4	47.9	57.4	62.0	0.0	0.0	0.0
Actual (US\$M)	2.6	3.7	5.1	13.9	22.8	30.2	40.3	52.4	61.8	60.6
Actual as % of appraisal	260.0	42.5	24.6	40.4	47.6	52.6	65.0	0.0	0.0	0.0

Date of last disbursement: September 2013.

Source: World Bank Operations Portal.

#### Project Dates

	<i>Original</i>	<i>Actual</i>
Board Approval	04/29/2004	04/29/2004
Effectiveness	10/27/2004	10/27/2004
Closing date	06/30/2010	12/31/2012

#### Staff Time and Cost

<i>Stage of Project Cycle</i>	<i>Staff Time and Cost (Bank Budget Only)</i>	
	<i>No. of staff weeks</i>	<i>USD Thousands (including travel and consultants)</i>
<b>Lending</b>		
FY03		22.80
FY04	0.23	145.85
FY05	19.47	0.00
<b>Total</b>	<b>19.7</b>	<b>168.65</b>
<b>Supervision/ICR</b>		
FY05	35.28	117.32
FY06	43.44	129.40
FY07	31.27	126.25
FY08	50.50	181.96
<b>Total:</b>	<b>160.49</b>	<b>554.93</b>

**Task Team Members**

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## GHANA SMALL TOWNS WATER SUPPLY AND SANITATION PROJECT (P084015)

### Key Project Data (amounts in US\$ million)

#### Cumulative Estimated and Actual Disbursements

	<i>FY05</i>	<i>FY06</i>	<i>FY07</i>	<i>FY08</i>	<i>FY09</i>	<i>FY10</i>	<i>FY11</i>
Appraisal estimate (US\$M)	1.0	7.0	16.0	22.0	26.0	0.0	0.0
Actual (US\$M)	2.5	4.2	11.5	18.6	27.5	41.1	45.5
Actual as % of appraisal	250.0	60.0	71.9	84.5	105.8	0.0	0.0

Date of last disbursement: June 2011

Source: World Bank Operations Portal.

#### Project Dates

	<i>Original</i>	<i>Actual</i>
Board Approval	07/27/2004	07/27/2004
Effectiveness	11/17/2004	11/17/2004
Closing date	04/30/2009	04/30/2010

**Staff Time and Costs**

<i>Staff Time and Cost (Bank Budget Only)</i>		
<i>Stage of Project Cycle</i>	No. of staff weeks	USD Thousands (including travel and consultants)
<b>Lending</b>		
FY04	36	149.62
FY05	8	29.08
<b>Total</b>	<b>44</b>	<b>178.7</b>
<b>Supervision/ICR</b>		
FY05	18	76.013
FY06	34	44.53
FY07	32	54.28
FY08	40	144.03
FY09	28	116.18
FY10	25	52.23
FY11	5	9.36
<b>Total:</b>	<b>131</b>	<b>318.97</b>

**Mission Data**

<i>Names</i>	<i>Title</i>	<i>Unit</i>	<i>Responsibility/Specialty</i>
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Christophe Prevost	Sr. Water & Sanitation Specialist	ETWSA	Quality Team
Eustache Ouayoro	Sr. Sanitary Engineer	AFTU2	Quality Team
Robert J. Roche	Lead Sanitary Engineer	ETWSA	Peer Reviewer
Jennifer J. Sara	Lead Infrastructure Specialist	LCSSD	Peer Reviewer
<b>Supervision</b>			
Arthur Majoribanks Swatson	Water & Sanitation Specialist	AFTU2	TTL No.1
Mathewos Woldu	Sr. Economist	AFTUW	TTL No.2
Ventura Bengoechea	Lead Water and Sanitation Specialist	AFTUW	TTL No.3
Baba Imoru Abdulai	Procurement Specialist	AFTPC	
Adu-Gyamfi Abunyewa	Procurement Specialist	AFTPC	
Beatrix Allah-Mensah	Social Development Specialist	AFTCS	
Ferdinand Tsri Apronti	Procurement Specialist	AFTPC	
Bayo Awosemusi	Lead Procurement Specialist	AFTPC	
Samuel Bruce-Smith	Consultant	AFTFM	
Robert Wallace DeGraft-Hanson	Financial Management Specialist	AFTFM	
Edward Felix Dwumfour	Sr. Environmental Specialist	AFTEN	
Maya El-Azzazi	Program Assistant	MNSSD	
Tracy Hart	Sr. Environmental Specialist	ENV	
Hassan Madu Kida	Sr. Sanitary Engineer	AFTUW	
Anthony Mensa-Bonsu	Consultant	AFTPC	

<i>Names</i>	<i>Title</i>	<i>Unit</i>	<i>Responsibility/Specialty</i>
Nyaneba E. Nkrumah	Sr. Natural Resources Mgmt. Specialist	AFTEN	
Emmanuel Nkrumah	Water & Sanitation Specialist	AFTUW	
Lydia Sam	Procurement Assistant	AFCW1	
Emmanuel Nkrumah	Water and Sanitation Specialist	AFTUW	
Armele Vilceus	Senior Executive Assistant	LCC3C	
Wendy E. Wakeman	Lead Social Development Specialist	MNSSO	
Geraldine Agnes Wilson	Team Assistant	AFCW1	
Frederick Yankey	Sr. Financial Management Specialist	AFTFM	

### Other Project Data

#### Follow-on Operations

<i>Operation</i>	<i>Amount (US\$ million)</i>	<i>Board date</i>
Greater Accra Metropolitan Area Sanitation and Water Project	150	6 June 2013
Sustainable Rural Water and Sanitation Project	75	23 June 2010

## **Appendix B.: Locations Visited**

### **SECOND URBAN ENVIRONMENTAL SANITATION PROJECT (UESP2)**

LGPCU Office, ILGS, Accra

#### **Accra Metropolitan Assembly**

Covered Landfill at Oblogo

School Toilet at Bubuashie

Storm Drains at Tesano

#### **Tema Municipal Assembly**

Tema Metropolitan Assembly Office

Kpone-Katamanso District Assembly Office

Kpone Community Infrastructure Upgrading  
Landfill

Bridge/Culvert at Kpone

Storm Drain from Community 11 to SOS

Septage Treatment Facility

#### **Kumasi Metropolitan Assembly**

Kumasi Metropolitan Assembly Office

Aboabo Storm Drain

Landfill

Community Infrastructure Upgrading at Aygya

School toilet at Aboabo

#### **Sekondi-Takoradi Metropolitan Assembly**

Sekondi-Takoradi Metropolitan Assembly Office

Storm Drain near Kojokrom

## **SMALL TOWNS WATER SUPPLY AND SANITATION PROJECT**

Community Water and Sanitation Agency (CWSA) Head Office

### **Western Region**

Western Region CWSA Office  
Aiyinase, Ellebelle District  
Asasetre, Ellebelle District  
Water facilities, School Latrines

### **Ashanti Region**

Ashanti Region CWSA Office  
Atwedie, Asante-Akim South District Assembly  
Juaben, Ejisu-Juaben Municipal Assembly  
Water facilities, School Latrines

### **Central Region**

Central Region CWSA Office  
Assin Achiase & Asamankese, Assin South District Assembly  
Water facilities, School Latrines, Derba

## **Appendix C. List of Persons Met**

### **SECOND URBAN ENVIRONMENTAL SANITATION PROJECT (UESP2)**

#### **Local Government Project Coordinating Unit (LGPCU)**

Mr. George Asiedu, Project Coordinator  
 Mr. Fred Dankwa, Institutional Development Expert  
 Mr. Lawrence Awuye, Financial Management Consultant

#### **Accra Metropolitan Assembly**

Mr. Graham Sarbah, Project Coordinator

#### **Tema Metropolitan Assembly**

Mr. Emmanuel A. Nortey, Metropolitan Coordinating Director  
 Mr. Solomon Noi, Head, Waste Management Department  
 Mrs. Bertha Essel, Project Coordinator, GAMA  
 Ms. Lucy Tetteh, Principal Public Health Engineer  
 Mr. Ali Mohammed, Metropolitan Planning Officer  
 Mr. Ernest Ijawan, Landfill Supervisor

#### **Kpone-Katamanso District Assembly**

Mr. Mohammed A. Yakubu, District Coordinating Director  
 Mr. Paul Mac Ofori, District Planning Officer  
 Ms. Augusta Dzadzator, Assistant Director  
 Mr. Anthony Nukpenu, Presiding Member

#### **Sekondi-Takoradi Metropolitan Assembly**

Mr. Emmanuel Kwashie, Head, Waste Management department  
 Mr. Is-Haque Ismaila, Operations Manager, WMD  
 Mr. Ahmed Sulley, Environmental Health Officer  
 Mr. Jonas Duneebom, Head, WMD  
 Mr. Godwin Ametewe, Accountant

#### **Kumasi Metropolitan Assembly**

Mr. Kojo Bonsu, Metropolitan Chief Executive  
 Mr. Donkor, Ag. Head, Waste Management Department  
 Mr. David Agyei, Project Accountant  
 Mrs. Augustina Agyei-Boateng Information Management Officer, WMD

## **SMALL TOWNS WATER SUPPLY AND SANITATION PROJECT**

### **Community Water and Sanitation Agency (CWSA) Head Office**

Mr. Clement Bugase, Chief Executive, CWSA

Mr. Owusu Konadu, Water and Sanitation Systems Coordinator, CWSA

Mrs. Theodora Adomako-Adjei, Extension Services Coordinator, CWSA

### **Community Water and Sanitation Agency, Western Region**

Mr. Mike Adjei, Regional Director

Mr. Henry Ampah Johnson, Chief Water and Sanitation Engineer

Mr. Kuupuolo Gaiten Timothy, Chief Extension Services Specialist

Mr. Bismark Siabi-Mensah, Water and Sanitation Engineer

Mrs. Linda Yeboaa Amponsah, Extension Services Specialist

Mr. Bright Jones Obeng, Hydrogeologist

Mr. Ntimfo Sulemana, Accountant

### **Community Water and Sanitation Agency, Ashanti Region**

Mr. Francis K. Enu, Regional Director

Mr. Ernest Agudetse, Chief Extension Services Specialist

Mr. Edward Ackom, Water and Sanitation Engineer

Mr. Seidu Batuga, Accountant

Mr. Seth Nii Dodoo Amoo, Information Technology Specialist

Mrs. Jennifer Quagraine, Administrative Officer

### **Community Water and Sanitation Agency, Central Region**

Mr. Philip Amanor, Regional Director

Mr. Henry Asangbah Chief Water and Sanitation Engineer

Mr. Pauline Abrafi Oppng, Chief Extension Services Specialist

Mr. Richard Attiogbe, Principal Water and Sanitation Engineer

Mr. Gustav Merritt Osiakwan, Principal Hydrogeologist

Mr. Daniel Adomako, Chief Accountant

### **Assin South District Assembly, Central Region**

Nana Kwabena Anomafo, District Chief Executive

Mr. Richard Blebi District Coordinating Director

Mr. Christopher Doku, Environmental Health Officer

### **Ellembelle District Assembly, Western Region**

Mr. George Yeboah, District Water and Sanitation Team Member

### **Asasetre Water and Sanitation Management Team, Western Region**

Mr. Anthony Ndefu Amoah, Board Chairman

Mr. Francis Ebukoro, System Manager

Mr. Abubakr Mohammed, Technical Opertaor

Ms. Georgina Essilfie, Treasurer

Ms. Regina Asaba, Sanitation Coordinator

Ms. Christina Coffie, Board Member  
 Mr. Paul Ahmed, Board Member  
 Mr. John B. Mensah Board Member  
 Mr. Amos Ndoli, Board Member

**Aiyinase Water and Sanitation Management Team, Western Region**

Mr. Mr. A. K. Homiah, Board Chairman  
 Mr. Ato Tawson Technical Operator  
 Mr. Albert Morkeh-Roberts, Board Secretary  
 Mr. Maxwell Amuah Essien, Treasurer  
 Mrs. Veronica Amakye, Sanitation Coordinator  
 Mr. Ignatius Amuah Yamekeh, Board Member  
 Mr. Solomon Bosomtwi, Accountant  
 Mr. Robert Ackah, Plumber

**Juaben Water and Sanitation Management Team, Ashanti Region**

Mr. Kwabena Oduro-Kwarteng, System Manager  
 Ms. Mandelina Cobbinah, Board Member/Assembly member  
 Mr. George Opoku-Amoako, Board Secretary  
 Mr. Joyce Fokuo, Board Member  
 Mr. Hannah Dei-Amoako, Board Member/Assembly member  
 Mr. Edward Osei, Board Member/Assembly member  
 Mr. K. Sarpong, Board Member

**Atwedie Water and Sanitation Management Team, Ashanti Region**

Mr. David Baffuor Owusu, Board Chairman  
 Ms. Juliet Asantewa Marfo, System Manager  
 Mr. Abudu Nasiru, Board Secretary  
 Mr. Gibson Akrasi, Board Member  
 Mr. Eugene Marfo, Board Member/Assembly member  
 Mrs. Ophelia Mensah, Board Member  
 Nana Marfoa, Queen Mother  
 Nana Kwabena Akrasi, Gyaasehene (Chief)

**Asamankese/Achiase Water and Sanitation Management Team, Central Region**

Mr. Kumi Mensah, Board Chairman  
 Ms. Agatha Osei Begyina, Board Treasurer  
 Mr. Kofi Adu Acheampong, Accountant  
 Mr. Kwadwo Amisah, Board Member  
 Mr. Welbeck Prempeh, Board Member  
 Mr. Kofi Gyamearh, Assembly member  
 Ms. Asi Fosuaa, Board Member  
 Mr. Justice Dzekpey, Board Member  
 Nana Kankam, Board Member  
 Ms. Ama Adoma, Vendor

**School Health Education Programme, Ghana Education Service**

Ms. Ellen Gyekye, Programme Officer

Mr. William Djan Yirenkyi, Accountant

**World Bank Staff**

**Evaluation Team, World Bank**

*Kavita Mathur*, Evaluation Officer, TTL

*Maha Armaly*, Consultant, Author

*Harold Esseku*, Consultant, Technical Advisor

## Appendix D. Project Costs and Financing

**Table 1: Ghana – Second Urban Environmental Sanitation Project**

**Project Costs (US\$M), Planned versus Actual Costs**

	<b>Original</b>	<b>Actual Cost</b>	<b>Actual Cost as % of Appraisal</b>
Component 1: Storm Drainage	16.50	20.32	123%
Component 2: Sanitation	7.75	8.72	112%
Component 3: Solid Waste Management	25.72	15.94	62%
Component 4: Community Infrastructure	8.54	12.95	152%
Component 5: Institutional Strengthening	9.57	9.72	102%
Component 6: Project Management	1.13	2.53	224%
PPF Refund	0.60	0.60	100%
Compensation		0.18	
Total Base Line Costs	69.81	70.96	102%
Total Contingencies	11.12		
<b>Total Project</b>	<b>80.93</b>	<b>70.96</b>	<b>88%</b>

Source: Appraisal Estimates (PAD); Actuals (ICR)

**Table 2: Ghana – Small Towns and Villages Water Supply and Sanitation Project**

Project Costs by components (US\$ millions)

	<b>Appraisal Estimate</b>	<b>Revised Costs after Additional Financing</b>	<b>Actual Costs</b>	<b>Actual Costs as % of Appraisal</b>
Component 1 - Water and Sanitation Subprojects	24.81	50.00	42.50	171%
Component 2 - Sector Support	3.71	4.66	6.30	169%
Component 3 - Program Management	2.48	3.13	2.90	117%
<b>Total Project</b>	<b>31.00</b>	<b>57.79</b>	<b>51.70</b>	<b>166%</b>

Source: Appraisal Estimates (PAD); Actuals (ICR)

## **Appendix E. Safeguards – The Kwabenya Landfill**

In 1999 the United Kingdom's Department for International Development (DfID) decided to finance construction of the Kwabenya landfill (based on a 1993 UNDP study). DfID carried out an Environmental Assessment (EA) and financed an access road and a drainage culvert to the area as part of preliminary activities towards this effort. The project was dropped due to failure to reach a resolution of land right claims with local owners and leaseholders. The area was largely unoccupied then, however, after the construction of the access road with DfID financing, people moved into the area and started economic activities near the site. The Environmental and Social Assessment for the landfill under this project used the DfID EA as a basis, which proved to be deficient under the new circumstances.

The preparation team was aware of the strong opposition even to consultations on compensation and resettlement which posed a risk to the suitability of the site on social ground. The PAD did not consider alternative sites and relied on the Resettlement Plan and the prospects for compensation to change the situation. In 2007, the Agyemankata coalition representing some of the affected community requested an inspection through the Accra-based Centre on Housing Rights and Eviction, on the project's handling of their concerns with the World Bank's Inspection Panel. The community claimed that landfill reconstruction will result in involuntary displacement, and that the site will not be operated and maintained satisfactorily which would threaten the health of the surrounding communities. The community claimed that the local authorities were not conducting consultations in accordance with Bank requirements; that consultation was not meaningful and the community was not well informed of their rights.

The Bank's Independent Inspection Panel conducted an investigation in March 2009, and found that the positions of stakeholders have hardened further. The panel noted that the project did not take all the recommendations of the project's panel review advice in 2003, and concluded that the Bank did not comply with several provisions of Bank policies on Environmental Assessment, Involuntary resettlement, and project supervision, particularly (a) analysis of alternative sites for a landfill, (b) analysis of impacts in the area; (c) environmental management and resettlement planning, and resettlement planning.

The Inspection Panel also noted that the Bank and the government tried to consult with a broad spectrum of potentially affected people, but failed to reach the Agyemankata group. The latter would not attend public hearings. According to the government, the group detained their officials, and letters to the group were returned unopened. The Panel acknowledged that, under the circumstances, it was difficult to take the necessary actions (e.g., consultations, field visits, and resettlement planning) to comply with Bank Policies and implement the component. Positions amongst project stakeholders hardened, trust was lost, and the situation reached an impasse.

In March 2009, the Inspection Panel ruled for better consultation efforts by the Bank. An updated EA and additional studies were thus conducted for the Resettlement Action Plan. Prior to completion of the studies, the Bank was notified by the Mayor of Accra in October 2010 to drop Kwabenya and to reallocate funds to other activities. The ICR noted that until the complaint, supervision reporting did not flag the critical social and environmental safeguards

issues. At the Mid Term Review (October 2010), the request by the government to drop the Kwabenya site from the project and to reallocate the funds to other activities was finalized.

By the end of the project, construction of the landfill was abandoned. In accordance with the Development Credit Agreement, the government remained under obligation to compensate affected people. In April 2012, the government requested Bank approval to use Credit proceeds to pay compensation for the 76 inhabited structures identified in the draft RAP, while committing to pay for the land from government funds. A seven month extension of the closing date (to December 31, 2012) was granted to allow for the processing of payments. The process was not completed by the closing date: some of the affected people refused compensation, in hopes to hold onto the land; others claimed that the compensation did not reflect current market values.

In June 2015, the government informed the Bank that it reversed its earlier decision, and will revoke the Executive Instrument on which the expropriation was based. By this action, the rights of the affected people will be restored. This development was determined by the Bank to be a resolution to the concerns of the requesters and the outstanding issue from the Action Plan.

On October 15, 2015, the Inspection Panel issued its Third and Final Progress Report on the Implementation of Management's Action Plan in Response to the Inspection Panel Investigation Report. The report concluded that actions on the part of the government to complete the expropriation at Kwabenya had stalled. No compensation under the RAP was accepted by the affected people, and some continued to build on the land. These actions reflected the intent of the affected people to contest the expropriation and to seek to remain in place. The October 2015 inspection report was the last Progress Report concerning implementation of the actions of the Management Action Plan, as it was deemed to be completed. The Bank informed IEG that it will continue to follow-up with the government regarding the enactment of the cancellation of the Executive Instrument and will issue a final note accordingly.

## Appendix F. Beneficiary and Technical Assessments

### A. Second Urban Environmental Project

Three beneficiary assessments (BAs) were conducted following the completion of the project (April/May 2013) in preparation for the ICR. They covered: (a) waste management and sanitation; (b) drainage and community upgrading; and (c) institutional strengthening.<sup>5</sup> The assessments used focus group discussions and key stakeholder interviews, supplemented with direct observation, review of administrative records and institutional assessment. These assessments are summarized first before the assessment of the efficacy of the project. IEG mission visited some of the sites covered by the beneficiary assessment.

The **Waste Management and Sanitation Beneficiary Assessment** was conducted in Kumasi, Sekondi Takoradi and Tamale. Eighty households were interviewed in each Metropolitan Municipal Assembly for a total of 240 beneficiary households in 10 beneficiary communities. The selection of communities was based on discussions with the PCU and review of project documents to determine the communities which received infrastructure and services. The selection of final beneficiaries was done with the help of local leaders and respondents were stratified by gender, ethnicity (where relevant), household size, and project type (sanitation, upgrading etc.). Females represented 61.3 percent of respondents. Household size varied from 1-15 persons. The BA provided insight into the achievements and potential sustainability of the projects. More than 75 percent of respondents indicated that the sanitation situation is good/very good compared to 24 percent prior to the project. Access to toilets improved considerably, and 71 percent of respondents found the facilities acceptable. Both males and females give high priority to household latrines (90 percent of respondents).

The BA provided observation on the status of public and school toilets (table A1). In schools visited during the BA survey in Kumasi and Sekondi Takoradi, there was no water in the tanks for flushing, or for hand washing. Only one school indicated that they had a system for providing regular water for the latrine and had soap in the latrine. In most schools visited the latrines were locked. School management also complained of their inability to use the facility because of the lack of water. Lack of water for the school toilet was further confirmed at the BA focus group discussion with opinion leaders and in the communities. For the sanitation component, 47 and 38 percent of respondents noted improved health and environmental sanitation respectively due to the sanitation interventions. The Tables below show access to toilets and satisfaction with the situation before and after the project.

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<sup>5</sup> The quality of the Beneficiary Assessments vary. The Waste Management and Sanitation BA and the Institutional Strengthening BA provide good study results backed by clear data and information. The Drainage and Community Upgrading BA is descriptive, with less quantitative analysis, but it provides an additional opinion backed by photos and points to similar conclusions as to need for more effective O&M and community stewardship of the physical infrastructure.

**Table A1. Access to latrines before and after the project (response is in percent)**

Response	Household Latrines		Public Latrines		School Latrines	
	Before	After	Before	After	Before	After
Yes	34.2	78.8	86.7	100	61.3	94.2
No	65.8	21.3	13.3	0	38.8	5.8
	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Source: Beneficiary Assessment May 2013

**Table A2. Sanitation situation before and after the project**

Situation	Before		After	
	No. of respondents	%	No. of respondents	%
Bad	43	17.9	19	7.9
Very bad	44	18.3	5	2.1
Good	52	21.7	133	55.4
Not so good	97	40.4	33	13.8
Very good	4	1.7	50	20.8
<b>Total</b>	<b>240</b>	<b>100</b>	<b>240</b>	<b>100</b>

Source: Beneficiary Assessment May 2013

With regard to solid waste collection, the majority of the respondents (68.3 percent) owned household dustbins. Many of the respondents (70.4 percent) considered solid waste management as an important priority. Thirty seven percent of the respondents indicated that their waste was not collected, compared with 49 percent reporting the same prior to the project. Sixty six percent of respondents noted improved environmental sanitation due to the solid waste interventions. According to the respondents, factors that would affect the sustainability of the project included lack of maintenance (68.6 percent), limited resources (18.8 percent), limited capacity (10.6 percent) and lack of supervision (2 percent). Table 2.3 shows methods of waste disposal by communities.

**Table A3. Method of Solid Waste Disposal**

Refuse disposal Method	Before the project		After the project	
	Total number of respondents	%	Total number of respondents	%
Burn	76	31.7	68	28.3
Bury it	3	1.3	9	3.8
House to house collection	7	2.9	17	7.1
Into water logged areas	6	2.5		
Skip	42	17.5	125	52.1
Solid waste dump	48	20		
Throw away into bush	58	24.2	21	8.8
<b>Total</b>	<b>240</b>	<b>100</b>	<b>240</b>	<b>100.0</b>

Source: Beneficiary Assessment May 2013

The **Beneficiary Assessment for the Drainage and Community Upgrades Component** used focus group and stakeholder interviews. The number of interviewees was not provided and the questions were theoretical (views on efficiency, effectiveness, and impact). Distributive analysis of responses were not provided. Photos show some of the drains were in a better working conditions than others; and community infrastructure upgrading showed improvements in the quality of the surrounding living environments.

The BA concludes that the outcomes of the project are sustainable if the project beneficiaries become more responsible in safeguarding public facilities and avoid the indiscriminate practice of dumping waste in the drains. Some of the drains visited were filled with waste resulting in stagnant water. Street lights installed to improve safety and security were observed to be malfunctioning. The BA considered the storm drainage to be successful: the component targeted high density low income urban neighborhoods. The outcome was reduced frequency, severity, and duration of flooding. The community infrastructure upgrading provided better access to high density neighborhoods which were difficult or impossible to access with motor vehicle, less flooding, erosion and dust, safety at night, fewer pipe breakages, more registered water consumers, and improved sanitation.

The Beneficiary Assessment of the **Institutional Strengthening Component (ISC)**. The BA was conducted in Kumasi and Sekondi Takoradi. A total of 94 staff from various departments were selected from both Municipal Assemblies of which 64 responded; 65 percent were male. The data was stratified by age, sex, and department and type of training. For selecting the sample size, the BA relied on discussions and estimates from departmental staff because the total number of trainees was not available. The BA concluded:

- (a) At least 10 departments in each of the MAs benefited from the ISC. This was in the form of equipment (including vehicles) supply; office renovation or refurbishment, and staff training;
- (b) Investments in the priority areas of waste management and environmental health were relevant and have multiplier effects in improved health of the beneficiaries;
- (c) 802 employees in Sekondi Takoradi and 610 employees in Kumasi benefited from training courses; training was extended to employees from relevant stakeholder departments such as the Ghana Health Service and Ghana Education Service;
- (d) Training provided enhanced work output, but there were complaints of the difficulty of attending multiple courses run in a short a time;
- (e) Both Municipal Assemblies worked in partnership with private waste collection operators in the area of solid waste management;
- (f) The Kumasi Municipal Assembly had functional Drainage Maintenance Unit due to the support received from the project. Sekondi Takoradi received two well-constructed drains that were not adequately managed, and one uncompleted drainage system;
- (g) The practice of the 'lowest bidder wins' principle led to the supply of poor quality of goods and services by some consultants and contractors. Funds from Nordic Development Fund to recondition waste management equipment could not be accessed due to procurement evaluation difficulties.

A large majority (92 percent) of the respondents indicated that the training courses were either useful or very useful. Satisfaction by individual subjects (e.g. billing and collections, information technology, waste and drainage management), satisfaction was reported as not very high but that is because the analysis included all the sample employees whether they worked or did not work on the subject.

## B. Small Towns Water Supply and Sanitation Project

The Community Water and Sanitation Agency (CWSA) engaged a consultant to assess the technical and social aspects of the project. Two separate reports were prepared — a Technical Report and a Beneficiary Assessment. This consultancy process started late, and the consultant report became available only in April 2011. The reports were therefore not available for the government or to the Bank's during the preparation of the ICR (January 2011). A summary of the reports is provided as a background to evaluate the efficacy of the project.

The **Technical Report** agreed (but with caveats, below) with the CWSA final report that the project achieved its objectives because planned physical assets were installed in the selected communities and the target populations were provided with the water supply and sanitation services. The Beneficiary Assessment report indicated, but without evidence, that the project contributed to minimizing the incidence of water and sanitation related diseases in the beneficiary communities. The DAs were empowered to take on their responsibilities for projects in the water and sanitation sector.

The Technical Report revealed deficiencies in the technical implementation of the project activities based on observations during field visits. Inadequate record keeping made it unclear if revenue of many of the Water and Sanitation Development Boards (WSDBs) could cover their O&M expenses. Some of the water supply systems were not functioning at the time of the visit. Overall, capacity in the WSDBs, DAs, and the private sector was not adequately developed. Most of the DAs and Regional Water and Sanitation Teams (RWST) seemed poorly resourced to play their role as they complained of inadequate staffing and logistics support.

The Technical Report noted that supervision of contract works in some cases fell short of required standards. Many of the water systems newly constructed were malfunctioning. Table 3.1 below shows that 18 of the 35 systems inspected in the six regions were not functioning, a defective ratio of 51.4 percent.

Of the 14 systems that were visited - 12 in the official survey and additional two — only two (representing 14 percent) were functioning as designed. The others were having either electro/mechanical problems or the boreholes were suspected to be yielding less than expected. None of the four institutional latrines at Adubease were completed and the contractor could not be traced.

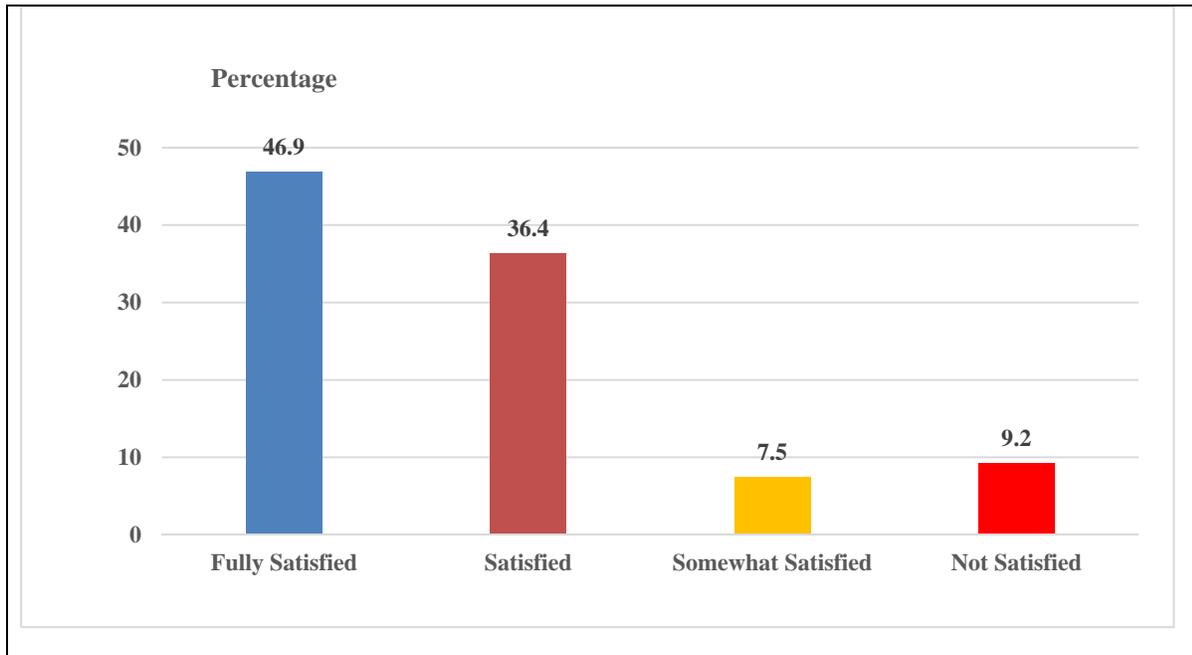
All districts visited had structures to sustain O&M, except for Bongo and Busa, In the case of Bongo, the Board was not effective and the operators needed training in O&M to be able to operate the system satisfactorily. Busa's system was operating below the expected capacity. Apart from Lawra in the Upper West region and Yeji in the Brong-Ahafo region, all other systems are managed by the Water Boards. These Boards invariably employed a Manager and Operators to run the systems. Lawra and Yeji, however, have private operators. The Lawra private operator was performing very well.

**Table B.1. State of Operation of Water Systems Inspected**

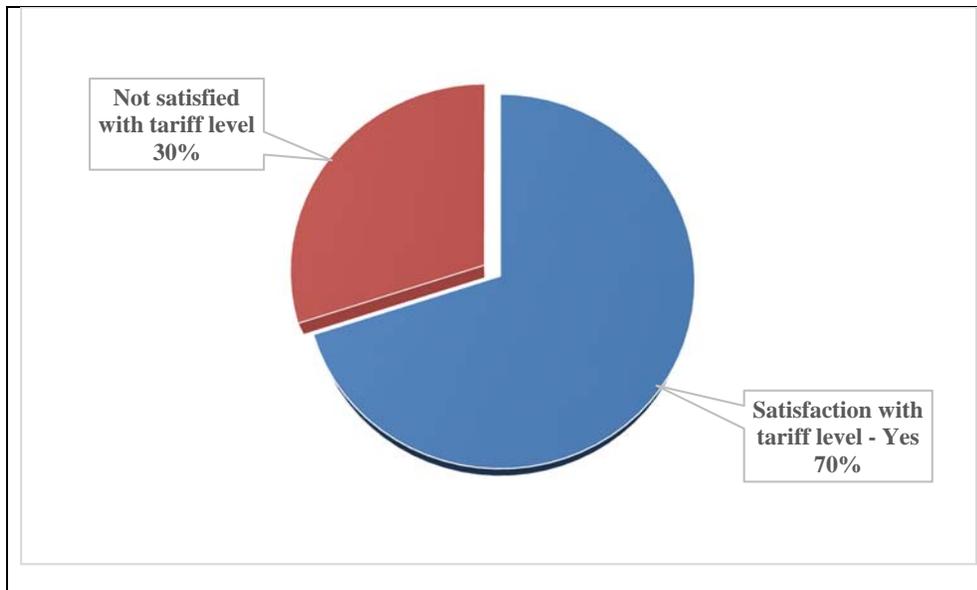
Regions	Community	Number of Water Systems Provided	Number Functioning	Number not Functioning	Nature of Fault	Comments
Ashanti	Atwidie	3	1	2	Defective Pump	Burden on one pump
	Juabeng	3	1	2	Pump got burnt	Burden on one pump
	Jinijini	3	2	1	Low yield	Contract to rectify
Brong-Ahafo	Aworowa	3	1	2	Water not yielding	Burden on one pump
Central Region	Mfoum	2	1	1	Defective Pump	Contractor to replace
	Assin Edubeasi	3	2	1	Low yield	Contractor to rectify
Upper East Region	Garu	3	1	2	Yet to completed	90 percent completed
	Bongo	3	1	2	Iron content in water	Burden on one pump
Upper West Region	- Lawra	3	2	1	Low yield	Contractor to rectify
	Busa	3	2	1	Pump got burnt	Contractor to rectify
Western Region	Manso Amenfi	3	1	2	Pump got burnt	Burden on one pump
	Aiyinasi	3	2	1	Iron content in water	No funds to install iron extractor

Source: Technical Assessment Report (April 2011).

The **Beneficiary Assessment (BA)** covered the six regions supported by the project. The sample included 12 beneficiary communities from 12 districts, two in each region. The BA relied on extensive semi-structured interviews with 1069 household heads. Focus groups and desk reviews were also used. The BA reported that although 37 percent of respondents could not tell who made the decisions on sites of the facilities, 83 percent were satisfied with the location of the hand pumps. While 36 percent of respondents said they were involved in tariff setting, 70 percent were satisfied with the tariff level. Seventy six percent of the respondents use the water from the provided facilities always, while 15 percent use it sometimes, 76.5 percent considered the water not very far, the rest considered it far or very far. Seventy five percent were satisfied with the quantity of water, and 85 percent were satisfied with the quality, with 79 percent of those not satisfied because of the taste.

**Figure B1. Level of Community Satisfaction with Stand Pipe Locations**

Source: Beneficiary Assessment (April 2011)

**Figure B2. Level of Community Satisfaction with Tariff Levels**

Source: Beneficiary Assessment (April 2011)

The BA showed that 65.8 percent of respondents were aware of the sanitation and hygiene promotion component. The majority (86.4 percent) associated the program with household latrines, while 57 percent knew about the institutional latrines, and 32 percent knew about the handwashing with soap campaign (many respondents knew about more than one of the

components). The study found that 48 percent of respondents had household latrines. Beneficiaries were very satisfied with the toilets and over-subscribed the program. The majority (59 percent) of respondents were satisfied with the latrines program, while 41 percent were not satisfied. Of those not satisfied, 80 percent were not satisfied with the distribution of latrines. Hand washing was the most remembered (85 percent) hygiene education followed by prevention of open defecation (50 percent). Disposal of excreta was the least remembered at 31 percent.

The Beneficiary Assessment concluded that beneficiaries were satisfied with the water service improvements (satisfaction with final work was at 77 percent). On the other hand, the Technical Assessments found widespread malfunctioning of the installations. The discrepancy between the technical and perceived achievements is likely due to the low level of water services prior to the project when villagers had to travel distances to get water that was not always clean.