

AFRICAN DEVELOPMENT BANK GROUP



GHANA

**REVIEW OF BANK ASSISTANCE TO WATER
SECTOR**

**OPERATIONS EVALUATION DEPARTMENT
(OPEV)**

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LIST OF ABBREVIATIONS AND ACRONYMS.

AfDB(ADB)	African Development Bank
ADF	African Development Fund
AFD	Agence française de Développement
ATMA	Accra Tema Metropolitan Area
TAF	Technical Assistance Fund
CIDA	Canadian Development Agency
CM/D	Cubic Meters per Day
COM	Community Ownership and Management
CWSA	Community Water and Sanitation Agency
DANIDA	Danish Development Agency
DFID	Department for International Development
DRA	Demand Responsive Approaches
EPA	Environmental Protection Agency
ERP	Economic Reform Programme
ESAs	External Supporting Agencies
EU	European Union
GTZ	German Agency for Technical Cooperation
GM	General Manager
GWCL	Ghana Water Company Limited
GWSC	Ghana Water and Sewerage Corporation
HGD	Hydrological Services Department
IDA	International Development Agency, World Bank
IWMI	International Water Management Institute
JICA	Japan International Cooperation Agency
KfW	Kreditanstalt für Wiederaufbau
L/C/D	Litres per Capita per Day
MD	Managing Director
M&E	Monitoring and Evaluation
MGD	Million Gallons per Day
MLGRD	Ministry of Local Government and Rural Development
MOFA	Ministry of Food and Agriculture
MOH	Ministry of Health
MOWCA	Ministry of Women and Children Affairs
MOWH	Ministry of Works and Housing
N/A	Not Applicable
NEPAD	New Partnership For Africa's Development
NGOs	Non-Governmental Organizations
O&M	Operation and Maintenance
OPEV	Operation Evaluation Department- ADB
PIU	Project Implementation Unit
PPP	Public private Partnership
PSP	Private Sector Participation
PURA	Public Utilities Regulatory Authority
RMC	Regional Member Countries
UA	Unit of Account
UFW	Unaccounted For Water
UN	United Nations
UNDP	United Nations Development Programme
WRC	Water Resources Commission

PREFACE

1. The Bank has been engaged in lending and non-lending activities in the Water Supply and Sanitation Sector of Ghana. It financed two studies and three projects with a total loans and grants of UA43.74 million (ADB loans of UA22.85million, ADF loan of 19.25million and TAF grant of UA1.64million) between 1978 and mid-2004. This represented about 11 percent of total Bank Group financing in the country.
2. The objectives of this review are to assess the policies and strategies put in place over the years both by the Government and the Bank in order to guide the development of the Water and Sanitation Sector and the performance of the projects. The review also assesses the contribution of the interventions towards meeting development objectives in general and poverty reduction in particular. The review is carried out employing the standard evaluation benchmarks: Relevance, Efficacy of Bank Assistance, Efficiency of Implementation, Institutional Development Impact, and Sustainability.
3. The evaluation is based on findings from the review of documents such as economic prospects and country programming papers (EPCPs); sector and cross cutting policies; country strategy and poverty reduction papers, appraisal reports, project completion reports, and project performance audit/evaluation reports. These findings were supplemented with a field mission to Ghana in order to share the views of government officials, executing agencies, donors, the private sector and civil societies.
4. The review has documented the Bank's experience from its past and recent assistances and interventions in this sector, drawn lessons and made recommendations for the way forward. The finding of this review will serve as an input for the Country Assistance Evaluation of the Bank Group in Ghana.
5. The Bank expresses its appreciations to the Government officials of Ghana and the various development partners for their cooperation and collaboration that immensely contributed to the successful completion of this task.

EXECUTIVE SUMMARY

1. **Objective, Scope and Methodology of the Review:** The objective of the review is primarily to evaluate the outcomes of the Bank's lending and non-lending activities in the Water Sector of Ghana and the extent they have been guided by the Country's and the Bank's strategies. The review first assessed the congruence of the Country's strategy with that of the Bank and the relevance of the strategies in meeting the development objectives of the sector. With respect to lending activities, the review evaluated the interventions based on the standard benchmarks of relevance, efficacy, efficiency, sustainability, and institutional development impact. The review also assessed the Borrower and Bank performance in the sector. The review highlighted major findings, drew lessons of experience and made recommendations to guide future strategies. The counterfactual of the interventions was covered based on the 'with and without' Bank's assistance scenarios.
2. **Country Socio-Economic Context:** The socio economic conditions of Ghana have traversed different periods of good performance and severe economic recessions. From 1970s through the early 1980s, the economy was performing poorly. Government's Economic Recovery Program (ERP) for the period covering 1983 to 1986 had helped to reverse the situation. The implementation of two phases of structural adjustment program (SAP) over the periods 1987-88 and 1989-90 further addressed the structural problems of the economy. GDP was raised to 4.7 percent during 1986-93 from a rate of 3.7 percent. However, this gain was eroded when policy implementation and fiscal discipline were relaxed from 1992 onwards. Further economic reform program were implemented to stabilize the economy and accelerate private sector development from 1996 onwards. Economic reforms continued effectively helping GDP growth to stabilize around 5.2 percent/annum. The improved economic growth recorded since the mid 1980s have brought about some improvement in a number of social indicators.
3. Despite the progress over the years, however, poverty remains to be a major issue. Inadequate infrastructure and weak institutional and human capacity in all sectors including water supply and sanitation sector continued to be among the major constraints in improving the quality of life of the population, achieving higher growth rates and poverty reduction.
4. Recent statistics indicate that the national average for water supply coverage stood at 36 percent in 1990 and improved to 68 percent by 2002. Sanitation coverage was 37 percent in 1990 and improved to 46 percent by 2002.
5. **Bank Sector Strategy, Relationship to Government Strategy and Relevance:** In the past, sectoral policies and strategies were not well mainstreamed in the development plans of Ghana and the Bank's operations. In 1970s and early 1980s, lending programs were curved out from the development plans of the Government. The first water sector intervention of the Bank was in 1974 with an ADB loan of UA 4.00 million to finance the Accra/Tema Water Supply Expansion Project. Although, there was not any clear strategy at the time, the project was based on master plan study that allowed staged development for the Accra/Tema metropolitan areas.
6. Since mid 1980s priorities were set based on Government's Economic Recovery Programs, which guided its development strategy and Bank's lending program for which Economic Prospects and Country Programming Papers were prepared. The Bank's medium-term lending program for 1988-1990 focused on rehabilitation of economic and social infrastructure in industry, agriculture and social sectors. The water supply and sanitation

sector was not included as a priority sector during this period but the condition of the water sector called for major rehabilitation to restore the facilities in the capital, which the Bank financed in the 1970s. In effect, the Bank financed again the Accra-Tema Water Supply Rehabilitation Project with a blend loan of ADB/ADF for a total amount of UA22.9 million. The Bank and the Government did not have any sectoral policy at the time.

7. The lessons learnt from its earlier interventions in RMCs have paved the way for the Bank to formulate the Public Utility Tariff Policy of 1985, which emphasized the need to introduce appropriate user charges with appropriate cross subsidization for water supply and sanitation services in order to at least cover operation and maintenance costs of the system for rural services and achieve positive rate of return for urban services. This was followed with the Water Supply and Sanitation Sector Policy issued in 1989, which gave more importance to rehabilitation of existing systems, support for capacity building and cost recovery measures in order to improve the performance of the utilities. The Bank's Economic Prospects and Country Programming Paper (EPCPs) prepared for the period 1991-1993 and subsequent EPCPs as well as Country Strategy Papers (since 1999) were in line with the Government's development five year programs and most recently the Government's Poverty Reduction Strategy Papers (PRSPs). However, the water supply and sanitation sector was not given high priority. Particularly in the 1990s no project was financed except one study. The priority during this period was Agriculture and Rural Development, Social Sector and Transport Sector. During this period, the Bank prepared its Integrated Water Resources Management Policy (IWRM), which was issued in 2000. The IWRM encompasses all cross cutting issues and underscored that water resources be viewed as both social and economic good in order to achieve sustainable development of the sector. It was on the basis of this policy, the CSP of 2002-2004 and the Government's PRSP that the Bank initiated the 2004 Rural Water Supply and Sanitation Program with the objective of achieving 85% coverage by 2015. In all, the Government's and the Bank's strategies have been relevant for the sector.
8. **Evaluation of the Bank's Interventions:** The water supply and sanitation sector in Ghana has absorbed about 11 percent of the overall Bank Group interventions in Ghana. The completed projects were considered relevant since they were designed and implemented to respond to the severe shortage of water supply in the Accra and Tema metropolitan towns. The projects are now meeting 85% of the water demand in the towns. The efficacy (achievement of objectives and outcomes) was thus rated satisfactory. However, the projects' implementation and cost effectiveness were rated inefficient considering the delays and cost overruns as well as the low rate of return (resulting from increased costs and low tariff). The overall Bank and Borrower performance was rated satisfactory considering the improvement over the years.
9. The Bank's non-lending activities were limited to studies and some technical assistance for capacity building. It was also absent in institutional reforms and private sector development activities relating to water supply and sanitation services. On the other hand, it has participated in resource mobilization in both projects. In addition, the Bank is engaged with several donors in financing the recently approved Rural Water Supply and Sanitation Program. Bank's relationship with NGOs is on ad hoc basis with no concrete mechanism for sustainable cooperation. It is expected that the current engagement in the rural water supply and sanitation program would help to mainstream the cooperation with relevant NGOs to facilitate the implementation of the program.

10 **Lessons Learnt and Recommendations:**

Lessons

The need for effective communication between Bank and Borrower can reduce delays in project implementation (para.2.2.2.3.3);

Recognition of the dual characteristics of water as a social and economic good in establishing water use charges is necessary to ensure sustainability of the services (para. 2.2.2.5.3);

Effective tripartite partnership amongst the communities, government at different levels, and the independent service providers can enhance success rate of projects (para. 2.2.2.5.5);

Decentralization and localization of water services calls for effective and sustained capacity building (para. 2.2.2.5.5).

Recommendations

Support the on going institutional restructuring efforts of the Government particularly relating to sanitation services through effective capacity building programs (para. 2.2.2.5.5);

Base capacity building assistance on need assessment studies and continue to support more effectively capacity building programmes that encompasses, among others, human resources and systems development (para. 2.2.2.2.5);

Enhance non-lending activities in order to effectively participate in dialogues with other development partners (para. 2.3).

1. BACKGROUND

1.1 Objective of the Review

The objective of the review is primarily to evaluate the outcomes of the Bank's lending and non-lending activities in the Water Sector of Ghana and the extent they have been guided by the Country's and the Bank's strategies. It also assesses the contribution of the interventions towards meeting development objectives in general and poverty reduction in particular.

1.2 Scope and Methodology

The scope of the review covered all lending and non-lending activities of the Bank in the Water Sector of Ghana from 1974 to 2004. The methodology consisted the review of available documents at the Bank and information and data collected during field mission to Ghana for purpose of assessing the Government's and Bank's policies and strategies that have evolved over time and evaluating the interventions during the period under review. With respect to lending activities, the review evaluated the interventions based on the standard benchmarks of relevance, efficacy, efficiency, sustainability, and institutional development impact. The review also assessed the Borrower and Bank performance in the sector. The review drew lessons of experience and made recommendations to guide future strategies. A 'with and without' approach was employed to determine the counterfactual of the Bank assistance.

1.3 Country and Socio-Economic Context

1.3.1 Ghana, which has been independent since 1957, is a country in the Western African region located on the southern coast between 5 and 11 degrees north latitude, and 0.75 degrees east to 3.3 degrees west longitude. Its neighbours are Cote d'Ivoire to the west, Burkina Faso to the north and Togo to the east. Ghana occupies about 239,000 sq. km, half of which is lowland less than 200 meters above Sea level. The climate of Ghana is tropical with two rainy periods of 3 months each.

1.3.2 The socio economic conditions of Ghana have traversed different periods of good performance and severe economic recessions. From 1970s through the early 1980s, the economy was performing poorly. The Government implemented Economic Recovery Program (ERP) for the period covering 1983 to 1986, with the support of the World Bank and IMF. This was followed by two phases of structural adjustment program (SAP) over the periods 1987-88 and 1989-90 to address the structural problems of the economy. Implementation of these programs supported by the World Bank and the Bank helped in reversing and sustaining the annual GDP at 4.7 percent during 1986-93 from a rate of 3.7 percent. The impact of the adjustment programs had been positive but with time, the benefits were eroded when policy implementation and fiscal discipline were relaxed from 1992 onwards. After 1996 general election, further economic reform program were implemented to stabilize the economy and accelerate private sector development. In recent years, the economic reform program has been on track and Ghana's macroeconomic situation continued to improve since 2000, GDP growth stabilizing around 5.2 percent/annum. With a population of about 20 million out of which rural population represented about 42 percent, the economy of Ghana continued to depend on agriculture sector (notably cocoa production) and the mining sector (notably gold production). The improved economic growth recorded since the mid 1980s have brought about some improvement in a number of social indicators.

1.3.3 In spite of the progress over the years, however, poverty remains to be a major issue. Inadequate infrastructure and weak institutional and human capacity in all sectors including water supply and sanitation sector continued to be among the major constraints in improving the quality

of life of the population, achieving higher growth rates and poverty reduction. Debt relief under the HIPIC initiative has helped to improve the fiscal position in recent years. The poverty incidence index has declined from 50 % in the 1990s to 39 % in 2000.

1.3.4 Currently, Ghana has a population of about 20 million, urban population accounts for 38 percent. Population density is 82.5 per sq. km. GNP per capita is estimated at US\$ 390, Population growth is 2.7 percent, and life expectancy at birth is 61.6. Access to safe water was 36 percent in 1990 and improved to 68 percent by 2002. Sanitation coverage was 37 percent in 1990 and improved to 46 percent by 2002¹.

1.4 Brief Description of Historical relationship with the Bank

1.4.1 Up to the end of 2003, the total Bank Group loans and grants to Ghana stood at about UA 855 million. This was 2.6% of total cumulative Bank Group approvals in Africa. The sectoral distribution in percentage terms is given below:

Agriculture and Rural Development	21.9%
Social Sectors	17.3%
Power	4.8%
Telecommunications	0.6%
Water Supply & Sanitation	3.6%
Transport	14.9%
Industry and Mining	14.0%
Financial Sector	10.7%
Multi-sector	<u>12.2%</u>
Total	100%

1.4.2 The agriculture and rural development sector, the social sector, transport sector and industry and mining respectively accounted for 21.9%, 17.3%, 14.9% and 14% of the total Bank Group financing in the country. These sectors make up the priority sectors in the Government's and the Bank's strategy to achieve the overarching objective of poverty reduction.

2 BANK ASSISTANCE TO THE WATER SECTOR

2.1 Bank Sector Strategy, Relationship to Government Strategy and Relevance

2.1.1 In the 1970s the Bank did not have sectoral policies and strategies to guide its interventions. Bank's assistance by and large followed the country's development plans. In the case of the water supply and sanitation sector, the Government had prepared a master plan covering a phased investment programs up to the year 2000. The Bank's first intervention in the sector was for the Accra/Tema Water Supply Expansion Project, which was a part of the programs phased out in the master plan. The project aimed at addressing the severe potable water supply shortages in the capital city and metropolitan town of Accra/Tema. Although, there was not any clear strategy at the time, the Bank had responded to Government's request in order to improve water supply services to the urban population of these two major towns (Accra and Tema).

2.1.2 In subsequent years, Ghana took major steps and introduced successive Economic Recovery Programs, which guided its development strategy and Bank's lending program. The Bank prepared its first Economic Prospects and Country Programming Papers in mid-1980s. The Bank's medium-term lending program for 1988-1990 focused on rehabilitation of economic and

¹ United Nations Statistics Division-Millennium Indicators Dev (internet)

social infrastructure in industry, agriculture and social sectors. The water supply and sanitation sector was not included as a priority sector during this period but the water supply situation continued worsen calling for major rehabilitation to restore the existing facilities, which were installed in the 1970s. Responding to Government's request, the Bank financed again the Accra/Tema Water Supply Rehabilitation Project. The facilities deteriorated mainly due to lack of adequate operation and maintenance resulting from inadequate revenue of the utility, which in turn was a result of low tariffs applied at the time.

2.1.3 The lessons learnt from its earlier interventions in RMCs have paved the way for the Bank to formulate the Public Utility Tariff Policy issued in 1985, which emphasized the need to introduce appropriate user charges (allowing cross subsidization for low-income consumers) for water supply and sanitation services in order at least cover operation and maintenance costs of the system for rural services and positive rate of return for urban services. The Bank issued in 1989 its first Water Supply and Sanitation Sector Policy to address these concerns. Future interventions were to emphasize the rehabilitation of existing systems and support capacity building in order to improve the performance of the utilities. However, the Bank's Economic Prospects and Country Programming Paper (EPCPs) prepared for the period 1991-1993 and subsequent EPCPs as well as the Country Strategy Papers (since 1999), although they were in congruence with the Government's development programs and most recently with the Government's Poverty Reduction Strategy Papers (PRSPs), have given lesser priority to water supply and sanitation sector. As a result of this, Bank's interventions have been thinly spread and were limited to urban areas. Particularly in the 1990s no project was financed except one study.

2.1.4 In late 1990s, the Bank prepared its Integrated Water Resources Management Policy (IWRM), which was issued in 2000. The IWRM encompasses all cross cutting issues and underscored the need to understand the social and economic dimensions of the water resources as a public good in order to achieve sustainable development of the sector. It was on the basis of this policy and the Government's PRSPs that the Bank prepared the Country Strategy Papers for Ghana from 2000 onwards. For the Bank, 1990s have been a period when policies and guidelines were produced in large numbers with the aim of using them to guide future interventions. For the Government of Ghana, it was a period of major sectoral reforms for restructuring in order to bring in private sector participation. As a result, financing for the sector in the 1990s has been low in this period. The Bank revisited the sector again in 2004, but this time through financing a major Rural Water Supply and Sanitation Program to address the issue of poverty. Currently, the Government is finalizing its own Water Policy Paper, which is also based on integrated water resources management. Thus, the Government's and the Bank's strategies have been in congruence and relevant for the development of the various socio-economic sectors of Ghana although the water supply and sanitation sector had received less priority in terms of financing.

2.2 Lending Activities of the Bank Group

2.2.1 Description of lending activities

2.2.1.1 The Bank has extended total loans and grants of UA43.74 million between 1974 and mid 2004 to finance four projects (one with supplementary loan) and two studies. The Accra/Tema Water Supply Expansion project was entirely financed with ADB resources of UA6.40 million. The ADF/ TAF resources were used for the Accra/Tema Rehabilitation Project of 1988 and the Rural Water Supply and Sanitation Program of 2003 and the two studies (the Accra Sewerage Study and the Accra Sewerage Improvement Study). The first two projects and one of the studies stated above were completed while one study is in its final stage of completion. The Rural Water Supply and Sanitation Program was approved in June 2004 and its implementation has not yet started at the time of this review. Details of the projects reviewed are presented in Annex 1.

2.2.1.2. The 2004 Rural Water Supply and Sanitation Program is the first Bank intervention in the sector entirely designed for rural areas. It is based on an integrated approach consisting of engineering components as well as soft components with the aim of enhancing achievements of objectives and addressing effectively sustainability issues.

2.2.2 Evaluation of Water Sector Projects

2.2.2.1 Relevance

2.2.2.1.1 For the Water Sector of Ghana, the Bank's intervention has spanned nearly three decades now. The first intervention was in 1974 for the expansion of the Accra/Tema Metropolitan Area water supply facilities. This project and the Second Accra/Tema Rehabilitation Project constituted priority projects in the Ghana National Water Master plan. They were timely responses to acute and chronic shortages of water supply then plaguing the Accra/Tema Metropolitan area. They were, therefore, considered **relevant**.

2.2.2.2 Efficacy (Achievement of Objective and Outputs)

2.2.2.2.1 The objectives of the two projects (Accra/Tema Water Supply Expansion Project and Accra/Tema Water Supply Rehabilitation Project) were to meet the shortage of water supply for the Accra City and metropolitan areas by augmenting the water supply systems. The first project of 1974 contributed to increase reliability of service and also augment water production to nearly 380,000cm/d, through, among others, rehabilitation and expansion of the different water systems. The main components of the projects include: (a) McCarthy Hill Reservoir, (b) Distribution network, (c) Pumping stations, (d) Weija and Kpong Treatment Plants.

2.2.2.2.2 The Accra/Tema Water Supply Rehabilitation Project of 1988 was coined out of the Master Plan Study. In the second project of 1988, the components included the McCarthy Hill Reservoir, which was not implemented in the first project due to cost overruns), Distribution Systems of DI pipes (instead of AC pipes) and the increased length and diameter of the pipes required following design revision. These changes resulted in additional costs, which called for repackaging the components to permit co-financing from bilateral sources.

2.2.2.2.3 The supplementary loan for the first project and the bilateral assistance for the second project had facilitated to meet the overall objectives and expected outputs successfully. Thus, the Weija and Kpong treatment plants after rehabilitation and expansion are providing the current total water production of about 365,000 CM/D for Accra/Tema metropolitan area (ATMA), which is comparable with the planned output. The installation of pressure main and distribution lines has also allowed the delivery of water to more un-served areas with improved reliability and quality of supply. The rehabilitation had helped reduce the unaccounted for water (UFW) upon project completion (but not sustained in the latter years). In general, the intervention has contributed towards increasing the water supply coverage in the areas served. Currently the projects meet 85 percent of the water supply needs of Accra and Tema areas. The overall objective of increasing the supply of water, improving quality and expanding the service areas has been successfully met. Thus, the efficacy is rated **Satisfactory**.

2.2.2.3 Efficiency

2.2.2.3.1 The total increase in water production by 81,818 CM/D (Annex 2) and the increased coverage of 85 percent of the needs of Accra/Tema area indicative of the improvements in the efficiency of the system. However, there had been considerable delays and cost overruns.

2.2.2.3.2 Commencement of works for the first expansion project was planned for 1974 but actual start up of works was in 1977. Date of completion was planned for 1979 but actual completion was in 1987. Similarly for the rehabilitation project, the start up was planned for 1988 but actual start up was in 1990. Projected completion date for the second project was 1991 but actual was 1998. The overall time overrun was on the average about 8 years. The causes of the delays were many. The delay in loan effectiveness was about seven months for the first project but only about three months for the second project. This is fairly acceptable. But much of the delays were during project implementation. Poor performance of contractors, frequent reorganization of Government agencies, delays in processing procurement and disbursement activities at the level of the Government and the Bank all contributed to add up to the overall delays. In the case of the second project approved in 1988, the procurement delays resulted due to disagreement between the different parties involved in the project on the evaluation of bids. Delays were also experienced as a result of the requirement to carry out additional studies and designs for some components. This shifted the start up date for some components to 1992 instead of 1989. Detail information on project start-up and completion is presented in Annex 3.

2.2.2.3.3 The design changes and delays had contributed to cost overruns leading to supplementary loan for the first project and additional bilateral financing in the second project. Overall the first Accra/Tema Water Supply Extension project had 397 % cost overrun, which was covered through the Bank's supplementary loan and additional financing from the Government; while the Accra/Tema Water Supply Rehabilitation project had 67% cost over run, which was covered through co-financing from bilateral sources.

2.2.2.3.4 Project Completion Reports (PCRs) were prepared for the two projects. According to the PCR, both projects' rate of return were far below the appraisal estimates resulting from increased costs, time lag for the flow of benefits, low tariffs and high unaccounted for water (UFW), which used to be more than 50 percent. For the 1974 project, the economic rate of return dropped (no financial rate of return was calculated) from the appraisal estimate of 17 percent to 1.5% at completion time. For the 1988 project, the financial rate of return dropped from the appraisal estimate of 15 percent to 6 percent (no economic rate of return was calculated). In view of time and cost overruns as well as the low rate of return, the overall implementation and operational performance is rating **Inefficient**.

2.2.2.4 Institutional Development

2.2.2.4.1 During 1970s and 1980s, the Bank did not play a major role in institutional development. The operational support provided by the Bank, which included technical assistance in the form of provision of training and logistics, was only a small component in the projects. The projects had, however, helped in transfer of know how from consultants and contractors to the counterpart staff of the executing agency. In recent years, the Bank is taking a holistic approach in its assistance. For example in the 2004 Rural Water Supply and Sanitation Initiative, the Bank has attempted to make a difference in institutional reforms. The RWSSI has introduced institutional development elements, which included community management, sector capacity building, and management and technical assistance aimed at strengthening of institutions. This is considered as good practice. The overall institutional development impact of the projects is thus, rated **Modest** for the completed projects.

2.2.2.4.2 On a broader scale, the Government have carried out major reforms in policies and sector institutions following the public sector reform program of the Government. These included the decentralization drive and the reorganization of the implementation agency into rural and urban

entities, as well as the division of responsibilities at the regulatory, and implementation and operations levels (details are presented on Annex 4).

2.2.2.4.3 The performance of institutions has been steadily improving during the period of reform. The Ghana Water Company Limited (GWCL), which was transformed into Ghana Water Supply Company (GWSC) and the Ghana Community Water and Sanitation Agency (CWSA), dealing with urban and rural water supply and sanitation respectively, are making structural changes, which will allow them to move towards more facilitative, regulatory and support roles. GWSC has more experience personnel, resources and developed systems. It manages, operates, maintains and expands urban water systems. GWSC has made progress in corporate planning. Due to limitation of finance, further expansion of capacity is not forthcoming and is long overdue. For this and other operational reasons, it has recently completed a firm plan introduce privatisation option based on Management Contract to a private operator. This is expected to materialize in 2005.

2.2.2.5 Sustainability

2.2.2.5.1 In general, the projects are sustainable technically due to the good conditions of the water supply systems. The civil works are of good quality without requiring major overhaul for several years. The machinery, equipment, materials, and tools installed in the systems are modern and are operating efficiently. The technical performance of the pumping stations, the treatment plant and the transmission and distribution lines is considered satisfactory. It is to be noted that current production capacity meets 85 percent of water demand in the Greater Accra/Tema Metropolitan Region as opposed to less than 50 percent before the projects.

2.2.2.5.2 The manpower for technical operations, commercial and administrative duties and O&M is reasonably qualified. Training programs are well in place. Management, accounting, operations and information systems may not be up to the level required at this stage. The privatisation option of Management Contract to private operator, which is now at the stage of bidding process, will contribute to further improve the utility's performance.

2.2.2.5.3 Tariff reform is underway in line with the recognition of water resources as a social and economic good. The aim is to gradually achieve full cost recovery. The new tariff structure, which was made effective in April 2004, has incorporated differentiated rates based on a combination of factors including, monthly consumption rates, types of service, and type of source. It has also introduced reasonably fair for connection and reconnection charges. The Public Utilities Regulatory Commission is now responsible for tariff settings and consumers' protection as well as overseeing the efficiency of the utilities. This is very encouraging for the sustainability of the system and services as a whole.

2.2.2.5.4 Water quality management, including treatment processes, surveillance, monitoring and control are performing well both at Weija and Kpong water works. The operation and maintenance processes have improved and preventive, routine and curative maintenance procedures are well developed. Water supply interruptions due to system malfunctioning are kept to a minimum. However actual improvement on the management of unaccounted for water (UFW) is slipping down. The transition to Management Contract through a Private Operator is expected to improve O&M activities and the level of UFW.

2.2.2.5.5 The tri-partite partnership of consensus building, participatory, and consultative strategy, involving the beneficiaries/communities, the Government and independent service providers plays an important role in sustainability particularly when the newly approved RWSS program becomes operational. However, there is need to streamline the roles and responsibilities of the CWSA, the local governments and active NGOs in the rural water supply and sanitation sector. In addition, the

management, operation and development of sewerage services needs to be addressed effectively since now the responsibility has been transferred to municipals and local governments. There is need for effective and sustained capacity building based on need assessment study particularly for the sanitation services.

2.2.2.5.7 The reform process has introduced innovative strategies for effective delivery of services and sustainability. Private sector participation as well as decentralized management has improved performance. For transitional arrangements to Contract Management Operations, the legal basis for the transfer of Urban Water Utilities to a private operator is complete. Bidding process to select the best operator has started. Transitional institutional arrangements are in place. Capacity building for the changing role of GWSC to Ghana Water Company Ltd (GWCL) is to be one of the priority areas of continued support in the sector. In view of the above, overall sustainability is rated as **Likely**.

2.3 Non Lending Activities

2.3.1 In the water sector, assistance in non-lending activities focused on feasibility studies (phase I) and detail engineering design along with the preparation of tender documents (Phase II) for the ATMA sewerage services. The current status is that Phase 1 was completed and phase 2 is near completion.

2.3.2 The Bank has been largely absent in the sectoral reforms undertaken in Ghana. It has not been engaged in the past and even at present in sectoral reviews to prioritise its lending program and have an effective voice in donors' conferences. On the other hand, its participation in co-financed projects has been satisfactory since both the completed projects and the new project were co-financed with other donors. The new Rural Water Supply and Sanitation Initiative is expected to put the Bank on board in the sector's engagement.

2.4 Overall Assessment

2.4.1 Overall Assessment of Assistance

2.4.1.1 Bank's assistance has evolved over the period from engineering projects to a more integrated approach that encompasses capacity building and cross cutting issues. Bank's strategy has also moved from overall economic development objectives to poverty reduction objectives and pro-poor approaches in line with the country's Poverty Reduction Strategy Paper and the Bank's Country Strategy Paper. Unlike in the past, the PRSP and CSPs are prepared and finalized having been subjected through several discussion sessions with donors and major stakeholders. The Bank has participated in these efforts. However, there is still a concern that the Bank is not engaging itself pro-actively in a sustainable way in donor coordination and consultation meetings. The Bank was also largely absent in public institutions reforms, which have been on going in Ghana for several years. The presence of the Country Office is expected to ease this concern.

2.4.1.2 By and large, the two projects were successfully implemented in spite of the delays and cost overruns. The RWSSI, which is recently approved, has opened the avenue for more integrated assistance incorporating engineering and soft components and cross cutting issues that are expected to enhance achievement of objectives and outcomes on sustainable basis. Overall the aggregate outcome is rated **Satisfactory**. The overall ratings are summarized below, while individual project rating is presented in Annex 5.

2.4.2 Overall Ratings

Table 1: Summary of Ratings

Relevance	Relevant (3)
Efficacy	Satisfactory (3)
Efficiency	Inefficient (2)
Sustainability	Likely (3)
Institutional Development Impact	Modest (3)
Aggregate performance	Satisfactory (3)
Bank Performance	Satisfactory (3)
Borrower Performance	Satisfactory (3)
Overall Outcome	Satisfactory (3)

2.4.3 Overall Impact of Assistance

2.4.3.1 Impact on Poverty

2.4.2.1.1 It is now recognized that water services trigger socio-economic development in those areas where adequate services are available. The development of water dependant industries is likely to increase. In general, however, it is difficult to quantitatively certify the benefits because, on the one hand, water service impacts on health and productivity take considerable time to make statistical differences; and on the other, the lack of reliable baseline data and information makes the task of monitoring and evaluation difficult. In earlier projects no adequate M&E mechanisms were in place. Nevertheless, it can be asserted that the projects have contributed greatly to improve water services in Accra/Tema metropolitan areas. Currently 85% of the needs of these towns have been met. Cross section of the population including the urban poor is getting potable water supply in acceptable quantity and quality. Activities of the informal sector, which have significant contribution to GDP, are facilitated with the availability of water at close ranges either through house connections or public stand posts.

2.4.3.2 Impact on Environment

2.4.2.2.1 Environmental issues were not given due consideration at the time the projects were conceived since such preoccupation were not prevalent at the time. The projects have all the same helped to provide adequate potable water supply to communities thereby improving their quality of life. As most of the works carried out were rehabilitation, the negative impact was minimal. The pipelines were laid with the necessary contract conditions to minimize disturbances during installation. The negative environment impact of the projects may arise due to accumulation of refuse water in an area where it may eventually be a place for mosquito breeding. To avoid this occurrence, every community public stand posts are designed with appropriate drainage to minimize collection of water in a pool. The water treatment plants are environment friendly, mostly utilizing non-polluting chemicals. Sewerage treatment plants are mostly waste stabilization ponds. In recent studies and projects, environmental issues have been scrutinized throughout the project cycle.

2.4.3.3 Impact on Gender

2.4.2.3.1 In areas lacking potable water supply, the responsibility of fetching water rests on women and children. The completed projects have contributed to meeting the water supply needs of the Accra and Tema areas from 50% to 85%. This has, invariably, benefited women and children living in the unserved areas before the project. As women and children are largely involved in the

urban informal sector in trading activities, the improvement in the supply of water could have provided them with more time to be engaged in their trades thereby enhancing their income.

2.4.3.4 Private Sector Participation

2.4.2.4.1 Although the projects may not have strong involvement of the private sector, the public sector reforms carried out in recent years have paved the way for private sector participation. Under mandates of the Ministry of Public Sector Reform and the Ministry of “Private Sector Development”, the privatisation options are now being considered for most publicly owned productive and service activities. In essence, the water sector has made a major departure from its old practices by engaging private operators for the management of urban water supplies. The plan consists of 80 independent utilities with a combined water production of about 200 million cubic meters per year. In rural areas local entrepreneurs, NGOs, and informal sector service providers are encouraged to participate in spare parts supply, and operation and maintenance. Private sector participation in supply, consultancy and construction has been there for a long time and this has been enhanced during the implementation of the projects.

2.4.3.5 Community Participation

2.4.2.5.1 The completed projects basically cater to the urban population where community participation is not very much pronounced and streamlined. With the establishment of the Public Regulatory Commission, communities’ voices are now heard with respect to quality and pricing of services. Currently, the main concern of consumers in the urban areas is reliability of services. Moreover, house connection fees seem to be expensive for some segment of the population.

2.4.2.5.2 Community Participation is now recognized as an indispensable element for sustainable development. The extensive reform in the water sector has prompted more aspects of community participation, which include training, management ownership and full participation in the whole project cycle. It is to be noted that the RWSSI has a component on Community development, attesting to the importance the Bank accorded to the roles of the communities.

2.4.3.6 Regional Integration

2.4.2.6.1 The operational requirements for water supply and sanitation and source development are oftentimes limited in scope. The need for regional integration is not clearly apparent in resource development. On the other hand, regional cooperation for sharing of ideas and experiences is important. Not much has been done in this direction. On the broader domain of water resources, however, (a) cooperation on the management of shared river basins, (b) plans for the management of water resources to become a basis for national and regional cooperation and development, (c) development of irrigation and rain-fed agriculture to improve agriculture production and food security, are some of the main aspects mainstreamed in the Vision of the New Partnership for Africa’s Development (NEPAD). As a result there are now plans to coordinate water management at the shared basin level.

2.4.2.6.2 The Ghanaian Government has provided sufficient support for regional integration efforts thorough the establishment of a full-fledged Ministry for Regional Cooperation and NEPAD, with representations at the local levels. The Ministry is currently active in developing programs and implementing initiatives focused on food security and poverty reduction.

2.4.3.7 Counterfactual

2.4.2.7.1 The two completed projects (the Accra/Tema Expansion Project and the Accr/Tema Rehabilitation Project) were financed in 1970s and 1980s respectively to respond to the acute shortage of potable water supply in the Capital city, Accra and the adjacent town of Tema. A total of UA29.3 million was extended to expand and rehabilitate the water system. The projects were successfully completed and are now meeting about 85% of the water supply needs of Accra/Tema. The first project was co-financed with World Bank/IDA, CIDA and the Government of Ghana. The financing ratio at appraisal and at completion is given below.

Percentage

	Appraisal	Actual
ADB	12.41%	35.28%
IDA	16.67%	10.63%
CIDA	10.47%	6.57%
GOG	60.45%	47.52%
Total	100%	100%

2.4.2.7.2 The Bank's contribution in the first project has been increased from 12.41 percent at appraisal to 35.28 percent (with the inclusion of supplementary loan) at completion, taking the lead next to the Government. It follows that even under the co-financing, the Bank's participation was significant although World Bank/IDA and CIDA of Canada carried out the initial preparation of the project. The project would not have been realized and the full benefits would not have been accrued on time if the Bank did not participate flexibly in the project financing. In the second project also, co-financing was involved as shown below.

Percentage

	Appraisal	Actual
ADB	65%	38%
ADF	25%	15%
GOG	10%	6%
NDF		12%
Dutch Gov't		28%
Total	100%	100%

2.4.2.7.3 The Bank Group's contribution in the second project has been reduced from 65% for ADB and 25% for ADF at appraisal to 38% and 15% respectively at completion following the involvement of Nordic Development Fund and Government of The Netherlands. Here again, the involvement of the Bank was necessary at appraisal to move the project into implementation stage. The others came in during the implementation stage to fill the gap created due to design changes and delays that resulted in cost overruns. The Bank would have provided supplementary loans if the co-financing did not materialize. Thus, the full realization of the project is partially shared by the other co-financiers. Considering the economic condition of the country in 1980s, these blend financing had helped reduce the financial obligations on the Government unlike the first project, which was raised from ADB resources. In general, the Bank's financing has been beneficial to this sector since all the requirements could not be met by one or few donors and government budget.

3 CONTRIBUTOR'S PERFORMANCE

3.1 Government/Executing Agency

3.1.1 In the pre reform period before 1990s, the public institutions related with water supply and sanitation had faced problems in effecting contracts, delays in loan effectiveness and reporting and an unfortunate encounter with a contractor that lacked the relevant skills and resources. In addition, project preparation process was carried out with inadequate involvement of executing agency staff. At that time, implementation performance was not adequately focused. Frequent reorganization in the Ghana Water Supply Company (GWSC), the implementing agency, has hampered the implementation of the projects. There were delays in fulfilment of loan conditions, setting up the Project Implementation Units (PIU), and release of matching funds. In addition, there was lack of understanding of the Bank's procurement and disbursement rules, and insufficient communication and coordination between the executing agency and the Ministry of Finance on one hand and the Bank on the other hand leading to considerable lag in project start up and completion. However, the executing agency's performance has improved over the years. The GWSC has now capable technical, managerial and operational manpower and the necessary facilities and systems.

3.1.2 At the national level, the sectoral policy initiatives and reforms are encouraging. The reforms in the water sector, which has been supported by the World Bank for several years, have brought in appreciable changes in the following areas.

- (i) the inclusion of conservation of water as part of the mandates of the GWSC,
- (ii) The Public Utilities Regulatory Agency is now responsible for tariff setting and consumer protection,
- (iii) Concrete schedules are put in place for management contract to be effected in 2005,
- (iv) Firm transitional arrangements is put in place for GWSC to become holding company;
- (v) With respect to the rural water supply and sanitation, the Community Water Supply Agency (CWSA) is set up with a mandate of facilitation to organize communities to management rural schemes by way of self management or outsourcing to independent private operators including contracting with local suppliers for repair material supply and artisans such as plumbers, electricians, etc to provide required repair services. The establishment of small towns and rural water committees along with the enabling legislation will foster decentralized level of management. However, the legal framework for ownership of the facilities needs to be clearly defined.
- (vi) Enhancing the involvement of the private sector in consultancy, material supply and construction, which is expected to bring about efficiency in the systems and enhance local capacity building at the same time.

3.1.3 The Government's and donors' initiative including that of the Bank is now bearing fruit with the financing of the Rural Water Supply and Sanitation Program, which is an integrated approach towards achieving poverty reduction objectives. Considering all the above, the overall Borrower performance is rated as **Satisfactory**.

3.2 Bank Group Performance

3.2.1 The Bank's interventions in the past have been largely in projects of engineering nature with little consideration of institutional improvement. Although the projects were co-financed with other donors, there was not a well-designed and sustained coordination mechanism with donors and stakeholders. As such, Bank's performance mainly concentrated on lending and project supervision, with little involvement on non-lending activities (such as coordination and influencing reforms in the sector).

3.2.2 Supervision function of the Bank was also limited to monitoring of the engineering and physical works progress. In the earlier period supervision missions were few and far in between. But considerably improved for the 2nd project and in recent years for the study is made in monitoring function of the Bank.

3.2.3 Bank's performance has further improved in the late 1980s, when the incorporation of the logical framework matrix in the project preparation started. Currently, the Bank is taking major steps in providing assistance in a more integrated way. The Rural Water Supply and Sanitation Programme under consideration is a testimony of this effort. Thus, overall Bank performance is **Satisfactory** considering the progress made over the years.

3.3 Other Donors and Partners Performance

3.3.1 The Accra/Tema Expansion and Rehabilitation Projects of 1974 and 1988 were coined out of a Master Plan Study carried out in house. Other donors such as the World Bank/IDA, ODA/UK, OECF/Japan, and Austrian Development Corporation (ADC) had also financed projects coined out from the Master Plan Study under the umbrella of Water Sector Rehabilitation Project with the World Bank being the Chef de file. For the Bank projects, co-financing was involved in these projects, which included the World Bank, CIDA of Canada, NDF and The Government of Netherlands and the Government of Ghana.

3.3.2 The World Bank has 30 years of involvement in the water sector of Ghana. The WB supported "Second Water Sector Rehabilitation Project" is under implementation. Prior to this intervention, a US\$25 million project was successfully carried out under the "First Water Sector Rehabilitation Project". The World Bank is active in the coordination forum for ESAs and NGOs involved in the Water Sector. Its main policy direction is in promoting private sector participation as well as capacity building. The World Bank is now set to support Government efforts to implement in GWSC the "Management Contract" arrangement with a private operator. It has also undertaken pilot studies on how to protect the interests of vulnerable groups when this privatisation option becomes operational.

3.3.3 DANIDA initiated its operation in the sector in 1993 in the Volta region. Since then, it has expanded its operations to rural and small town settlements Eastern regions. The first phase of its expanded operations, with an outlay of about US\$55 million ended in December 2003. It has now started a 5-year program with total resources of US\$65 million in partnership with the World Bank.

3.3.4 DFID has a strong presence in the development sector of Ghana. With an annual budget of about £65million for the country of which £7.7million is allocated for the water sector, it is pursuing the reform agenda especially that is associated with Private Sector Participation. Its main line of intervention is Technical Assistance and Capacity Building, through budget support to the Government Ministries.

3.3.5 In the water sector, a strong NGOs forum has been established and is active in building consensus, integration of resource and effort, and participation in the policy and institutional reform process. This NGOs forum was initiated in 2002, with the formation of a working group. The advisory panel is composed of members from WATERAID, DANIDA, CWSA, World Vision, ADRA Plan International, GTZ, UNICEF and DARKATA Eng. The objective of the coalition is to promote a concerted approach towards more sustainable development of water supply and sanitation in the country through coordination and consultation.

4 LESSONS AND RECOMMENDATIONS

4.1 Lessons

The need for effective communication between Bank and Borrower can reduce delays in project implementation (para.2.2.2.3.3);

Recognition of the dual characteristics of water as a social and economic good in establishing water use charges is necessary to ensure sustainability of the services (para. 2.2.2.5.3);

Effective tripartite partnership amongst the communities, government at different levels, and the independent service providers can enhance success rate of projects (para. 2.2.2.5.5);

Decentralization and localization of water services calls for effective and sustained capacity building (para. 2.2.2.5.5).

4.2 Recommendations

Support the on going institutional restructuring efforts of the Government particularly relating to sanitation services through effective capacity building programs (para. 2.2.2.5.5);

Base capacity building assistance on need assessment studies and continue to support more effectively capacity building programmes that encompasses, among others, human resources and systems development (para. 2.2.2.5);

Enhance non-lending activities in order to effectively participate in dialogues with other development partners (para. 2.3).

GHANA
Water Supply and Sanitation Projects Reviewed
(Loans/Grants in million UA)

Project Title	Date Approved	Source	Loan Approved	Actual Amount Disbursed	Cancelled	% Disbursed
Accra-Tema Water and Sewerage	05/08/74	ADB	4.00	4.00	-	100% and completed
Accra-Tema Water and Sewerage (supplementary loan)	04/06/77	ADB	2.40	2.27	0.13	93% and completed
Accra-Tema Water Supply Rehabilitation	10/18/88	ADB ADF	16.45 6.45	16.45 6.34	- 0.10	100% and 98%, Project is completed
Accra Sewerage Study	10/29/90	TAF	0.69	0.69	-	100% and completed
Accra Sewerage Improvement Study	05/03/00	TAF	0.95	0.23		24% and final study report submitted
Rural Water Supply and Sanitation Program	04/06/04	ADF	12.80			Not yet started
Total			43.74	43.50		

GHANA
Key Performance Indicators: Target and Actual

Development objective	Target	Actual
<p>Outcome: Impact Indicators sustainable access to adequate and safe water supply and sewerage services provided</p>	<ul style="list-style-type: none"> • Population with sustainable access to safe water supply increased by 568182 at 50 % efficiency • Additional installed Capacity 20MGD=90909 CM/D • Increased per capita consumption from 80l/c/d to 100 l/c/d 	<ul style="list-style-type: none"> • Population with sustainable access to safe water supply increased by 454,544 at 50 % efficiency • Additional installed capacity 18MGD=81,818 CM/D • Increased consumption due to rehabilitation and expansion 90 l/c/d-
	No Targets –Spinoffs ??	<ul style="list-style-type: none"> -Poverty reduction -Sector reform – -policies strategies -Institutional reform -Decentralization -PPP -PSP -Training -System development -Tariff increases
Specific Objectives/outcomes	Indicator	Actual
Specific Objective 1:Expansion of ATMA water facilities (ATMA WSP 1&2)	Water production capacity increased from 281,818 CM/D to 372727 CM/D	Water production capacity increased to 363636 CM/D
Specific Objective 2: Rehabilitation and expansion of the ATMA water supply facilities (ATMA WSRPI&II)	Water consumption increased from 80l/c/d to 100 l/c/d	Water consumption increased to 90l/c/d
Specific objective 3: Sewerage feasibility studies and detail engineering studies completed for AMT and ready for implementation	Feasibility study covering 40 % of population completed Detail engineering design covering 40 % of population completed	Feasibility study covering 32 % of population completed Detail engineering design covering 32 % of population completed

Output:	Indicator	Actual achievements
Water supply Component		
Output indicators by components	Reservoir Capacity 22730 CM Treatment plant capacity 2 No Pumping station capacity 19 No Pipelines length 30.24 + 27.88 KM	Reservoir Capacity 22730 CM Treatment plant 1 No Pumping station 17 No Pipelines length 27+40 KM
Improved facilities		
Improved efficiency	Improved water supply system management capacity.	Training in utilities management Training in plant and equipment management on- the- job training in engineering & other technical issues Training in O&M
	Tariffs set to cover recurrent and expansion requirements.	Improvement, but, not covering expansion costs
	Better customer relations.	Yes
	Reduced equipment downtime.	Yes- moderately
	Reduced unaccounted for water.	Yes initially
	Increased revenue.	Yes
	Preventive maintenance program.	Yes
Sewerage component		
	Design Criteria established	Not yet
	Assessment and review of existing situation	Yes
	Feasibility study reviewed	Yes
	Engineering design reviewed	Yes
	Priority of projects	
	Program for O&M of sewerage system	
	Sewerage treatment and disposal options	Yes

GHANA
Projects Implementation Schedule: Appraisal and Actual

Project Title	Date Approved	Project start date Appraisal (Actual)	Project completion date- Appraisal	Project completion date- Actual
Accra-Tema Water and Sewerage	08/05/74	1974 (1977)	1979	1987
Accra-Tema Water and Sewerage(supplementary loan)	06/04/77	1978 (N.A)	N/A	1987
Accra-Tema Water Supply Rehabilitation	18/10/88	1989 (1990)	1991	1998
Accra Sewerage Study(Phase I)	20/10/90	1990 (NA)	1992	1996
Accra Sewerage Improvement Study(Phase II)	03/05/00	2001 (2002)	2001	2003
Rural Water Supply and Sanitation Program	4/06/04	2005		Not yet started

NA= not available

GHANA
Individual Ratings of the Completed Projects

NO	Project	Project start- Completion date (actual)	Performance benchmarks & Scores							
			Relevance	Efficacy	Efficiency	Institutional Development	Sustainab ility	Bank Group performance	Borrower performanc e	Outco me
1	ATMA Water expansion	1977-1987 (pre-reform)	R	S	I	M(Poor)	L	U (U)	U(U)	S
2	ATMA Water Rehabilitation	1990-1998 Post Reform Period: 1992 on- wards	R	HS	I	M(S)	L	S(S)	S(S)	S

Rating Scale**Relevance**

HR=Highly Relevant, R=Relevant, I=Irrelevant, HI= highly Irrelevant.

Efficacy

HS=Highly Satisfactory, S=Satisfactory, U=Unsatisfactory, HS=Highly Unsatisfactory.

Sustainability

HL=Highly Likely, L=Likely, UN=Unlikely, HUN=Highly Unlikely.

Institutional Development

H=High, SU=Substantial, M=Modest, N=Negligible)

Efficiency

HE=Highly Efficient, E=Efficient, I=inefficient, HE=highly inefficient

PCR rating are shown in brackets

GHANA Institutional Development of the Water Sector

1. Water supply services in Ghana started in the 1920s, with a pilot pipe-borne water system managed by the then “Hydraulic Division” of Public Works Department in Cape Coast
2. Over the years, leading to independence, units for both rural and urban water supplies were established under the Ministry of Works and Housing. To this day the Ministry remains the overall overseeing Authority for all water sector issues including Water Supply and Sanitation.
3. Since the development of the National Water Master Plan in 1959, the water sector in Ghana has made remarkable transformations in terms of policy, institutional and operational reforms.
4. During the last two decades, starting in the early 80s, some positive institutional transformations were witnessed in the public water sector of Ghana. These reforms involved the following institutions, (a) The Ministry of Works and Housing, (b) The Water Directorate in the Ministry of Works and Housing, (c) The Public Utilities Regulation Authority, (d) The Water Resources Commission, (e) The Ghana Water Company limited (GWCL), (f) Community Water and Sanitation Agency (CWSA).
5. One aspect of the institutional reform is that in the mandates, missions, goals, objectives and visions of the reformed institutions, there are strong elements of facilitation, coordination assistance. This is in contrast to actual project implementation and direct provision of water supply and sanitation services. Clearly this is a major departure from being the overall project executor, owner-provider and implementer of water projects.
6. The reform is not diminishing the roles of the public sector, as some would suggest; but rather it channels them in the direction of overall guidance, policy, strategy, regulation, standard setting, monitoring and evaluation, support and capacity building. The changed role of public sector agencies enhances the role of government in the pertinent direction, thereby promoting efficiency and sustainability in the sector.
7. The Public sector, divorced from day to day project management, thereby deploying its resources and energy and time to the broader regulatory, support and overseeing themes will open wide avenues to introduce and pursue meaningful reforms in the sector.
8. This reform has paved the way for rational and sustainable Public Private Partnership (PPP), and meaningful Private Sector Participation (PSP). The private sector is now engaged in delivery of services and good in terms of construction and consultancy services as well as supply of materials, equipment, and tools. Much of the private sector participation involves foreign firms, however, there are some indications that the local private sector is also up and coming. Sub-consulting, sub- contracting and providing services for foreign firms are some of the signs. This move, however, requires strategic planning from the government’s side and strong assistance from donors including the Bank.
9. At the highest level there are now the powerful senior cabinet portfolio for Public Sector Reform, and the emerging Ministry of Private Sector Development. In the water sector, the Water Directorate in the Ministry of Works and Housing as well as the Water Resources Commission are increasingly assuming the new roles of regulation, support and facilitation. The Public Utilities Regulatory Authority is now responsible for setting tariff, and providing utility management guidelines. On the next tier the Ghana Water Company Limited and the Community Water and Sanitation Agency are assuming holding company/ overseer and facilitator roles respectively.
10. In 1965 the “Ghana Water and Sewerage Corporation” (GWSC) was established as the Government Agency with the objective of provision, distribution, conservation and supply of water in Ghana for public, domestic and industrial purposes and the establishment of operation and control of sewerage systems for

such purposes. As a result, of the continued reforms in the water sector, there are now two institutions catering for water supply and sanitation on the operational level.

11. Ghana Water Company Limited (GWCL): operates under the general direction of the Ministry of Works and Housing and is governed by an eight-member Board of Directors, which has overall responsibility for the setting of sectoral policies and control of corporate programs. The main objectives of the company are: (a) Planning and development of water supply systems in all urban communities, (b) Provision of operation and maintenance services, (c) Preparation of long term plan and conducting research, (d) Undertaking survey, (e) Construction of Works, (f) Preparation of tariff proposals.

12. Currently GWCL operates 80 urban water supply systems. In the greater Accra region, where all ADB intervention in water was made, present water production is about 364,000 Cubic meters per day. Compared with the actual demand of about 427,758 Cubic meters per day. The present capacity covers about 85 percent. The provision and management of urban sewerage service has devolved to local Governments and in the case of Accra to the AMA

13. Community Water and Sanitation Agency (CWSA): was established by the Community Water and Sanitation Agency Act 564 of 1998. It is managed by a Board acting as a legal Governing body. The agency operates under the general direction of the Ministry of Works and Housing .There are also collaborative activities with the Water Resources Commission, the EPA and GWCL. The objective of the agency is “to facilitate the provision of safe water and related sanitation services for rural communities and small towns”.

14. The agency is guided by Policies enunciated in the “National Community Water and Sanitation Program” (NCWSP), with the cardinal theme of “Community Ownership and Management” (COM.)

15. The CWSA operates some 295 systems in 174 communities across the country. Communities are engaged to raise 5 percent of the capital cost and pay all costs associated with Operation and maintenance.

16. GWCL capacity to operate and maintain its systems is somewhat constrained by lack of financial inputs. The determination of Tariff is closely linked with the social and economic characteristics of water.

17. In general the performance of GWCL is of mixed results. GWCL has strong implementation capacity, but may have to enhance its efficiency for the regulatory roles it will assume any time now, when Contract management is to be introduced throughout the whole country. There are well-coordinated transitional arrangements, catering for the financial logistics and institutional needs during the transition phase.

18. The arrangement to introduce one operator for all over the country has its own virtues and drawbacks. The ease of implementation and regulations is an obvious advantage while a uniform tariff across the country poses limitations on local efficiency and initiatives. The transfer of sewerage services to local government and municipalities, along with solid waste management is a step in the right direction, but needs close follow-up.

19. On the other hand, CWSA is a relatively new agency, with clear mandates of “facilitation” rather than implementation of water projects. It needs institutional and system strengthening in order to carry out its mandates successfully.

20. In addition to the above, other relevant institutions dealing with water include, the Public Utilities Regulatory Commission, the Water Resources Commission and to a lesser extent the Ministries of Public Sector Reform and Private Sector Development. In parallel with the institutional transformations, pertinent policies and regulations were firmly established to usher in the anticipated changes. A summary of Institutions and their corresponding responsibilities is presented below.

Institutions and Responsibilities

No.	Institution	Responsibility	Date Established
1	MOWH	Oversight of the water sector	
2	GWSC	All water functions	1965-1999
3	GWCL	Urban Water	1999
4	CWSA	Ural and small towns	1999
5	Water Resources Commission	Water resources Management	2000
6	PURA	Regulation and standards	2000
7	Water Directorate	Secretariat in the MoWH	Under establishment

21. The institutional arrangement for sanitation has also undergone significant changes. Before the reform sanitation was under the former Ghana Water and Sewerage Corporation, the precursor to the present GWCL. Later on Urban sewerage moved to local municipalities and rural sanitation to community level organizations.

GHANA
List Documents and References

1. Ghana Water Policy
2. ADB water Supply and Sanitation Policy
3. ADB Integrated Water resources Management Policy
4. Ghana Country Strategy Papers
5. ATMA water supply extension project appraisal and PCR reports
6. RWSSI Appraisal Report
7. ATMA water supply Rehabilitation Project appraisal and PCR reports
8. The Budget Statement and Economic policy of Ghana
9. Terms of reference- Accra sewerage system Improvement study
10. ADB-Guidelines for Country assistance Evaluation
11. GWCL- Corporate Plans, 2000-2002, 2003-2005
12. GWCL Annual Report 2000, 2001
13. Supervision mission reports
14. AMA Sewerage Improvement study Phase II-feasibility study review report
15. Guidance notes- Water and sanitation Tariffs
16. ADB-GWCL Correspondence, and project documents
17. NEPAD- Visions of a Better tomorrow
18. Water Resources Commission act- Ghana
19. IWMI- Annual report 2002-2003
20. ADB- Environmental policy Paper
21. ADB- Selected Statistics on African Countries- 2004
22. ADF-Independent Evaluation ADF VII-IX
23. ADB- Compendium of statistics on Bank Group operations
24. ADB- Review of Bank's experience in financing rural water supply projects
25. ADB- Power sector evaluation in Egypt
26. ADB- Review of Bank Group assistance to the Agriculture and rural development sector of Ghana
27. WSP- Public private partnership for health