

AFRICAN DEVELOPMENT BANK
ADB/BD/IF/2006/307

AFRICAN DEVELOPMENT FUND
ADF/BD/IF/2006/266
8 December 2006
Prepared by: OPEV
Original: English

**Probable Date for Presentation to the
Committee on Operations and
Development Effectiveness:**
Not Applicable

FOR INFORMATION

MEMORANDUM

TO: THE BOARDS OF DIRECTORS

FROM: Modibo I. TOURE
Secretary General

SUBJECT: ETHIOPIA: REVIEW OF BANK GROUP ASSISTANCE TO THE
PUBLIC UTILITY SECTOR*

Please find attached the above-mentioned document.

Attach.

Cc.: The President

***Questions on this document should be referred to:**

Mr. D. A. BARNETT	Ag. Director	OPEV	Ext. 2041
Mrs. G. HALL-YIRGA	Principal Evaluation Officer	OPEV	Ext. 2263

**African Development
Bank**

**African Development
Fund**



**ADB/ADF/OPEV/06/05
NOVEMBER 2006
ORIGINAL: ENGLISH
DISTRIBUTION: LIMITED**

ETHIOPIA

**REVIEW OF BANK GROUP ASSISTANCE TO THE
PUBLIC UTILITY SECTOR**

OPERATIONS EVALUATION DEPARTMENT

TABLE OF CONTENTS

	<u>Page N°.</u>
ABBREVIATIONS AND ACRONYMS	i
EXECUTIVE SUMMARY	iii
1. BACKGROUND	1
1.1 Objective of the Review	1
1.2 Scope and Methodology	1
1.3 Country Socio-Economic Context	1
1.4 Historical Relationship of the Sector with Bank Group	2
1.5 Descriptions of Lending and Non-Lending Operations	2
2. EVALUATION OF BANK ASSISTANCE TO THE PUBLIC UTILITY SECTOR	4
2.1 Bank and Government Policies and Strategies: Relevance and Congruence	4
2.2 Water sub-Sector	6
2.2.1 Relevance	6
2.2.2 Efficacy	7
2.2.3 Efficiency	8
2.2.4 Institutional Development Impact	9
2.2.5 Sustainability	10
2.3 Power sub-Sector	11
2.3.1 Relevance	11
2.3.2 Efficacy	12
2.3.3 Efficiency	13
2.3.4 Institutional Development Impact	13
2.3.5 Sustainability	14
2.4 Telecommunications sub-Sector	14
2.4.1 Relevance	14
2.4.2 Efficacy	15
2.4.3 Efficiency	15
2.4.4 Institutional Development Impact	15
2.4.5 Sustainability	16
2.5 Non-Lending Operations	16
2.6 Overall Ratings	18
3. OVERALL DEVELOPMENTAL CONTRIBUTION	19
3.1 General	19
3.2 Social Development and Gender Equity	20
3.3 Environmental Safeguards	20
3.4 Private Sector Development	21
3.5 Community Participation	22
3.6 Regional Integration	22

4.	CONTRIBUTORS' PERFORMANCE	24
4.1	Borrower Performance	24
4.2	Bank Performance	25
5.	OVERALL ASSESSMENT OF THE ASSISTANCE	27
5.1	Assessment of Performance	27
5.2	Challenge Ahead	28
6.	MAIN FINDINGS/LESSONS AND RECOMMENDATIONS	29
6.1	Findings / Lessons	29
6.2	Recommendations	30

LIST OF TABLES

Page N°.

Table 1.1	Number of Projects/Studies Financed in the Sector	3
Table 2.1	Overall Rating on Interventions in the Sector (1975 – 2004)	18
Table 4.1	Borrower Performance Rating	25
Table 4.2	Bank Performance Rating	26

ANNEXES

N° of Pages

Annex 1	Administrative Regions and Zones of Ethiopia	1
Annex 2	Evolution of Government's Sector Policy, Strategy, Sector Reforms and Institutional Arrangements	4
Annex 3	Project/Study Details	8
Annex 4	Efficiency Assessment of Individual Projects	3
Annex 5	Evaluation Ratings	16
Annex 6	Reference Documents	2

This report was prepared by Mr. Zahid K. KHAN, Public Utilities Consultant under the overall supervision of Mrs. G. HALL-YIRGA, Principal Evaluation Officer, Operations Evaluation Department (OPEV), following their field mission to Ethiopia. Any further matters relating to this report may be referred to Mr. D. A. BARNETT, Acting Director, OPEV, on extension 2041 or to Mrs. G. Hall-Yirga, on extension 2263.

ABBREVIATIONS & ACRONYMS

AAWSA	:	Addis Ababa Water and Sewerage Authority
ADB	:	African Development Bank
ADF	:	African Development Fund
ADLIS	:	Agriculture Development Led Industrialization Strategy
AFD	:	Agence Française de Développement
APR	:	Annual Progress Report
BOR	:	Back to Office Report
BOT	:	Build/Own/Operate
CPA	:	Country Performance Assessment
CPRR	:	Country Portfolio Review Report
CSP	:	Country Strategy Paper
DAG	:	Development Assistance Group
DFID	:	Department of International Development (UK)
EEA	:	Ethiopian Electric Agency
EELPA	:	Ethiopian Electric Light and Power Authority
EEPCo	:	Ethiopian Electric Power Corporation
EIA	:	Environmental Impact Assessment
EIRR	:	Economic Internal Rate of Return
EPA	:	Environmental Protection Agency
ETC	:	Ethiopian Telecommunications Corporation
EU	:	European Union
FIRR	:	Financial Internal Rate of Return
GDP	:	Gross Domestic Product
GNP	:	Gross National Product
GoE	:	Government of Ethiopia
ICB	:	International Competitive Bidding
IMF	:	International Monetary Fund
IWRM	:	Integrated Water Resources Management
JICA	:	Japan International Cooperation Agency
kWh	:	Kilowatt Hour
l/c/d	:	liters per capita per day
MDGs	:	Millennium Development Goals
MoFED	:	Ministry of Finance and Economic Development
MoWR	:	Ministry of Water Resources
MW	:	Mega Watt
NBI	:	Nile Basin Initiative
NGO	:	Non-Government Organization
NTF	:	Nigerian Trust Fund
OPEV	:	Operations Evaluation Department
PAD	:	Project Appraisal Document
PASDEP	:	Plan for Accelerated Sustainable Development to End Poverty
PCR	:	Project Completion Report
PIU	:	Project Implementation Unit

PPAR	:	Project Performance Audit Report
PPER	:	Project Performance Evaluation Report
PRSP	:	Poverty Reduction Strategy Paper
PSP	:	Private Sector Participation
RMC	:	Regional Member Country
SAP	:	Structural Adjustment Program
SDPRP	:	Sustainable Development and Poverty Reduction Program
SMR	:	Supervision Mission Report
SVP	:	Shared Vision Program
TAF	:	Technical Assistance Fund
UA	:	Unit of Account
WB	:	World Bank
WSDB	:	Water Sector Development Program
WSSAs	:	Water Supply & Sewerage Authorities

EXECUTIVE SUMMARY

Objective, Scope and Methodology of the Review

1. The objective of this review is to assess the contribution of the Bank's assistance to the development of the Public Utility Sector of Ethiopia comprising the water, power and telecommunications sub-sectors. The review covered both the lending and non-lending interventions and the assessment was made, in the light of policies, strategies and development programs that existed at the time of design and implementation of the reviewed operations. The contribution of the interventions to cross cutting issues such as social aspects and gender equality, environment, private sector development, and regional integration was also assessed in order to draw lessons of experience. This review is expected to serve as an input for Ethiopia's Country Assistance Evaluation.
2. The Bank Group assistance in the public utility sector in Ethiopia commenced in 1975. The scope of the review covered all operations since then to 2004. The review is based on available documents and on findings of a field mission. The review was segmented into two periods: those financed up to 1995 in the pre-CSP period and those financed during the CSP era beginning 1996. The three CSPs covered the periods 1996-1998, 1999-2001 and 2002-2004.

Bank Strategy and its Relationship to GoE Strategy: Relevance and Congruence

3. In the past, the Bank's lending operations were guided by its programming documents, which reflected the country's development plans and strategic focus of the time. For almost three decades, the Bank was financing all major sectors in Ethiopia in response to the lack or inadequacy of basic infrastructure in the country. Some selectivity had been exercised in the Bank's interventions during the three CSP periods starting 1996.
4. During the 1993 to 2000 period, Bank financing of the sector had altogether dried up. This was mainly because the overall ADF resources and those earmarked for Ethiopia during the period were highly constrained and even from the available funds, most were channeled to the Agriculture and Rural Development, Social and Transportation Sectors. This was in pursuance of the Government's policy to reorient donors' assistance towards meeting poverty reduction objectives and to support its efforts towards economic policy and sector reforms.
5. The Bank's assistance in the public utility sector resumed from 2000 onwards in only the water and power sub-sectors based on the Bank's 1999-2001 and 2002-2004 CSPs, which closely mirrored its new strategy in the allocation of its limited ADF resources to interventions with focus on poverty reduction. The policy also reflected the Government's strategic shift towards operations oriented to poverty alleviation. Such a shift was timely in view of the current advocacy for selectivity in allocation of limited resources. The Government's and Bank's strategy was congruent and relevant for the respective periods.

Evaluation of Assistance to Public Utility Sector

6. ***Lending Operations:*** The project level evaluation covers all the 22 projects and studies financed from 1975 to 2004. Of this, 18 projects and studies (10 projects and 8 studies) were completed, while four (which are financed during the CSP periods) are under implementation. The objectives of the project level lending assistance in each of the sub-sectors comprising water (water supply and sanitation), power and telecommunications were to improve the basic infrastructure for accessible and affordable services in the areas served. The projects in both pre and post CSP periods were timely and relevant and fitted within the Government's and the Bank's strategies of the time. This evaluation applied the remaining evaluation criteria (efficacy, efficiency, institutional development impact and sustainability) for the completed projects only. The overall efficacy or achievement of the objectives of the completed projects is evaluated satisfactory (although there is variation in the sub-sectors and the individual projects). No cost overruns were experienced in almost all the completed projects due to competitive price and/or prudent management of project resources. In spite of the implementation delays, most of the projects have satisfactory outcomes and benefits to the areas served. Thus, the efficiency criterion is rated satisfactory since the completed projects are continuing to generate benefits to the present time and have contributed to improving public utility services in the country.

7. The Bank's assistance with respect to institutional development and capacity building was limited to implementation-related training and logistical support to a few of the financed projects. Drawing lessons from past interventions, the recently approved projects in the CSP era have included relatively higher allocation for capacity building component. In general, for the completed projects, the Bank's impact on institutional development was modest.

8. With respect to sustainability, the outcomes of the projects have been sustained over the years due to adequate maintenance. Independent regulatory bodies have been set up, which oversee the utilities' performance and tariff setting. In recent years, the sector reforms carried out by the government have brought about greater autonomy to the utilities, allowing them to put in place improved cost recovery mechanisms that, in turn, contribute to sustainability with respect to operation, maintenance and revenue generation. Thus, overall sustainability of outcomes of all the completed public utility projects is rated satisfactory.

9. ***Non-Lending Operations:*** The Bank's non-lending activities lacked sectoral focus. Other donors, notably the World Bank, provided the sector level assistance. With Bank's complete withdrawal from financing public utility projects for almost the whole decade since 1992, even its limited advantage to influence the country's sectoral policies through project funding was undermined. The Bank's sector level assistance was limited to provision of grant funds for undertaking feasibility studies. Some of the studied projects were implemented on piece meal basis as and when funds were available. The realization of the potential benefits of the Bank's initiative has been delayed due to the absence of complementary efforts towards assisting the Government in resource mobilization upon completion of the studies. In particular, the studied hydropower projects would have benefited the country to earn the scarce foreign currency if implemented to meet regional demand.

10. The non-lending activities of the Bank in the area of economic and sector works, resource mobilization and aid coordination was lacking in the public utility sector. The Bank's programming and strategy documents including the CSPs need to address the non-lending activities in a more concrete ways with performance indicators to monitor their achievements.

11. Thus, Bank's non-lending activities at sectoral and project level were evaluated as unsatisfactory. More recently, the Bank is able to participate on regular basis in donors' meetings thanks to the opening of a Country office.

12. **Overall Sector and Project Performance:** The overall public utility sector performance in the country has shown progress over the years but at a slow pace. Access to public utility services is still low and huge investment is required to increase access to the population at large. The overall performance of the completed projects is rated satisfactory. They have benefited the various areas served. In 1970, for the first time, the Addis Ababa city had a conventional sewerage system. Several small and medium towns have been able to get potable water supply. The electricity projects have enhanced the supply to various parts of the country through extension of the hydroelectric fed national grid. Likewise, telecommunication services have reached increased number of urban cities and small towns. Thanks to the good operation and maintenance of the Executing Agencies, the projects outcomes and benefits have been sustained to the present time. Overall, the sectoral and project level performance is rated satisfactory.

13. **Borrower Performance:** The Borrower has taken the initiative to make policy changes for a transition from a socialist regime to a market led economy and carried out several sector reforms in the various socio-economic sectors including in the public utility sector. The sectoral policy, strategy and institutional reforms in the water sub-sector have been profound. The domestic resource mobilization efforts in the telecommunication sub-sector has been encouraging but public/private participation is required to enhance investment in this sub-sector. The electricity sub-sector level performance is rated unsatisfactory due to the missed opportunity in developing the huge hydropower potential in the country for regional market and earning the needed foreign exchange for the country's infrastructure development. It is only recently that the Borrower has started investing for regional market (the Ethiopia-Djibouti Power System Interconnection Project). The borrower's project level performance has been satisfactory in spite of implementation delays associated to generic problems such as delays related to fulfillment of conditions for entry into force, processing of procurement and disbursement documentation and reporting. Overall, the Borrower's performance is evaluated satisfactory.

14. **Bank Assistance and Performance:** Bank's assistance particularly by way of concessionary loans and grants had been useful to ease the debt burden and partly meet the huge development funding needs of the country. However, the Bank's past sectoral level assistance was unsatisfactory since it was lacking in areas such as selectivity, sustained presence, and resource mobilization for the studied projects. The limited ADF resources for the country had partly constrained the sustained presence in the public utility sector in the 1990s. The Bank's project level performance was just satisfactory. It shared implementation delays through its slow response time for giving no objections on procurement and disbursement matters and lack or ineffective field supervision. The Bank's timely preparation of PCRs, Mid-term Reviews and Portfolio Performance Review reports has not been achieved. Thus, the Bank's overall performance during the pre CSP era was unsatisfactory.

15. The Bank's performance has, however improved during the CSP periods in areas of dialogue and aid coordination. The Bank has also been more selective in its financing, currently concentrating in the public utility sector for rural electricity and water supply services and regional integration projects. This strategic shift from urban biased to rural favored interventions has been a direct response to the Bank's and Government strategies to accelerate economic development and poverty reduction in line with the MDGs. Its monitoring function has also improved with increased field missions and the opening of the Country office. However, the Task Managers and Country Office Staff lack adequate authority to make decisions on the ground.

16. The Way forward: Public utility services in Ethiopia have improved over the years, but the overall service coverage in the country is still low. Potable water is available to only about 42 percent of the population while sanitation coverage is still lower at about 18 percent. Only 13 percent of the population has access to electricity. The telecommunication services coverage is similarly very low particularly in rural areas. Development of the hydropower potential of the country is needed to provide cheaper and cleaner electricity for the domestic market. In addition, the on going regional integration efforts need to be enhanced to provide economic viability for large- scale hydropower projects. Substantial resources are required, in capital investment and capacity building, to meet the MDGs related to infrastructure development. Government and donors' assistance alone would not be sufficient to meet the resource needs. There is, therefore, a need to enhance the enabling environment for public/private participation in the public utility sector particularly in the power and telecommunications sub-sectors to attract direct foreign and domestic investments. The Government has taken the initial steps for private sector development in the country. There is need for the Bank to have continued dialogue with the Government to improve the enabling environment for public/private partnership and accelerate infrastructure development in the country.

Main Findings/Lessons and Recommendations

Findings/Lessons

17. The review highlights the following main findings/lessons.
- A. Access to public utility services in the country is still low. The pace of inflow of private resources is slow. Enhanced enabling environment is required (paras 2.1.8, 5.2.1 & 5.2.7).
 - B. In Ethiopia, studies show that the expected bulk sale tariff of electric power supplied from private thermal or hydropower generation are too high to be affordable at retail level since majority of the population are from the low income segment. As such, at least in the short- to medium-term, the Government and donors' would have to continue financing (with concessionary terms) any new hydropower projects required to supply power to the population at large particularly in rural areas. Participation of the private sector is more viable in large-scale hydroelectric generation projects that also cater to regional demands (paras. 3.4.4).

- C. Sustained institutional support based on a comprehensive need assessment study is required to have a substantive institutional development impact. The water sub-sector in particular needs significant capacity building assistance from the government and donors. The decentralization of the water services to the various regions has resulted in spreading thinly the already limited available skill (paras. 2.2.4.1 & 4.2.2).
- D. In the past, the Bank did not engage proactively in non-lending assistance such as policy and institutional reforms, resource mobilization and aid coordination activities as well as economic and sector works. Its engagement in some of these activities has improved since the opening of Country office. But, it is the view of some of the donors that the Bank with its intimate knowledge of the RMCs should play a more central and proactive role in non-lending assistance such as economic and sector works, resource mobilization and aid coordination activities in Ethiopia (paras. 2.5.2, 2.5.3, & 4.2.1).
- E. All the completed projects had faced the generic problems related to implementation delays such as delays in the fulfillment of loan conditions for entry into force and lack of familiarity of procurement and disbursement rules of the Bank, particularly resulting from turnover of staff in the executing agencies (paras. 2.2.3.2, 2.3.3.2, 2.4.3.1, 2.5.1 & 4.1.1).
- F. Bank's Supervision Summary Reports in SAP system are incomplete and there is backlog in the preparation of Project Completion Reports on the completed projects (para. 4.2.2).
- G. The frequency of Bank's field missions has improved in recent years but timeliness and effectiveness of field missions could further improve portfolio management and performance on the ground (para. 4.2.8).

Recommendations

18. The following major recommendations address some of the findings and lessons to guide future strategy and interventions in the sector.
 - A. The Bank needs to continue its assistance in the public utility priority sub-sectors in order to accelerate infrastructure development in the country.
 - B. The Bank needs to invigorate and enhance its non-lending assistance in order to further improve the enabling environment for public/private partnership in the country. This is expected to pave the way for private sector financing of infrastructure projects, particularly those that have an economic advantage in regional spread.

- C. The Bank needs to join hands with other donors to enhance its institutional and capacity building assistance, particularly for the water sub-sector, in order to make the decentralization and institutional reforms effective and sustainable.
- D. There is need to revisit the Matrix for Delegation of Authority so that the Task Managers and Country Office staff will be given adequate decision-making authority for timely decisions and actions. Additionally, there is need to encourage increased visitation of Senior Management, who has the authority and capacity to make higher-level decisions on the ground.

1. BACKGROUND

1.1 Objective of the Review

The objective of this review is to assess the contribution of the Bank's assistance to the Public Utility Sector of Ethiopia comprising the water, power and telecommunications sub-sectors. The assessment was carried out for the reviewed operations in the light of policies, strategies and development programs that existed at the time of the interventions. This review helps provide sectoral insights on the Bank's overall assistance and its contribution to cross cutting issues such as social aspects and gender equality, environment, private sector development, and regional integration. This review is expected to serve as an input for Ethiopia's Country Assistance Evaluation.

1.2 Scope and Methodology

1.2.1 The Bank Group assistance in the public utility sector in Ethiopia commenced in 1975. The scope of the review covered all operations since then to 2004. The review is based on available documents and on findings of a field mission. The review was segmented into two periods: those financed up to 1995 in the pre-CSP period and those financed during the CSP era beginning 1996. The three CSPs covered the periods 1996-1998, 1999-2001 and 2002-2004. The review applied the standard evaluation benchmarks: Relevance, Efficacy, Efficiency of Implementation, Institutional Development Impact and Sustainability. The "with and without" evaluation approach was applied for the completed projects to situate the counterfactual related to the Bank's assistance in the sector.

1.2.2 This review is carried out at sector and project levels, the latter to make up for the lack of PCRs for many of the completed projects. The review also covers performance in non-lending activities and assesses the outcome of the interventions on major crosscutting issues. The performance of the Borrower/executing agencies and the Bank is also assessed to draw lessons of experience.

1.2.3 There were information and data gaps that hindered evaluation of the implementation performance of projects financed in the 1970s and 1980s. For example, project completion reports were prepared for a few of the completed projects. There was also loss of institutional memory resulting from staff turnover and inaccessibility of project files for the older projects. The review used the available documents (such as Appraisal Reports, Project Completion Reports, Project Performance Evaluation Reports, Bank's Supervision Summary Reports, Country Portfolio Performance Reports, policy documents, Economic Programming and Country Prospect Documents, Country Strategy Papers) and findings from a field mission to Ethiopia. The discussions with Bank staff and various stakeholders in the country have provided insights and helped bridge some of the information gaps.

1.3 Country Socio-Economic Context

1.3.1 Ethiopia's current population is about 75 million, with an average annual growth rate of 2.4 %. Its growing population, low productivity in all economic sectors, infrastructure

bottlenecks, capacity constraints and the unstable political environment, all combine to create challenges to the on-going efforts of the Government for its socio-economic growth. The prevalent extreme poverty and periodic droughts further accentuate the challenges.

1.3.2 The reform program implemented since mid-1992 resulted in an improved macroeconomic performance, with the annual real GDP growth rate averaging over 5% during 1992/93 to 1996/97. There were also improvements in the area of macroeconomic management. However, the subsequent war with Eritrea and the drought recurrence had contributed to the decline of the real GDP growth rate to – 1.4% in 1997/98.

1.3.3 The expectation of continuous improvement in the GDP growth rate did not materialize due to the impact of the prolonged drought. However, in 2003/04 real GDP growth rebounded strongly, growing 11.6 percent, largely accounted for by an impressive agricultural GDP growth of 18.9 percent. During the Sustainable Development and Poverty Reduction Program (SDPRP) period (2002/03-2004/05), the real GDP growth averaged 5.5 percent. The recent unstable political situation of the country may again prove to be a roadblock in achieving the targeted 7 percent. Ethiopia has benefited significantly from the initiatives for Heavily Indebted Poor Countries (HIPC).

1.3.4 Inadequate infrastructure and the slow development of the public utility sector has been a major setback in the efforts to achieve economic growth and poverty reduction. Water and sanitation coverage in Ethiopia is still low at 42 percent and 18 percent respectively. Although Ethiopia possesses vast hydro potential with estimates, ranging from anywhere between 15,000 and 30,000 Megawatts, only less than 5 percent of its potential is exploited. Only 13 percent of the population has access to electricity. Access to telecommunication services is equally low.

1.4 Historical Relationship of the Sector with Bank Group

The Bank's assistance started in 1975 and covered all major sectors in the country. A total of about UA1.3 billion was extended from 1975 to 2004¹. The percentage distribution of Bank Group financing by sector shows that the key sectors were Agriculture and Rural Development accounting for 31.8%, Transport Sector for 15.7% and Public Utility Sector for 23.2%. In other sectors, the assistance amounted to 6.3 % for Social, 1.6% for Industry and Mining, and 21.4% in multisector. The assistance was spread among all sectors. The sources of financing were ADF resources (75%), ADB resources (23%) and NTF (2%). The Bank's intervention in Ethiopia commenced, with financing of the first sanitation project (Addis Ababa Sewerage I Project), in the Public Utility Sector.

1.5 Descriptions of Lending and Non-Lending Operations

1.5.1 Table 1.1 shows the number of projects and studies financed in the public utility sector. Details of the projects such as loan/grant approval dates, loan amounts, project/study objectives, components and implementation status are included in Annex 3. Out of 22 projects studies, 18 of them (10 projects and all the 8 studies) are completed.

¹ One of the projects was appraised in 2004 but the loan was approved on 12.01.2005

Table 1.1: Number of Projects/Studies Financed in the Sector

Project /Studies	Water**	Power	Telecommunications	Total
Completed Projects	5	3	2	10
On-Going Projects				
a) National	2 (under CSP 2002-2004)	1 (under 2001-2002 CSP)	0	3
b) Multinational	-	1	-	1
Sub-total of on-going projects	2	2	0	4
Studies (one is Multinational)- all are completed	4	4	0	8
Total	11	9	2	22

**Water includes both water supply and sanitation sub-sectors

Lending Operations

1.5.2 Bank assistance in the public sector, excluding studies, amounted to UA317 million. The percentage distribution among the three sub-sectors was 27% for the water, 51% for the power and 22% for telecommunications.

1.5.3 The lending interventions in the water sub-sector involved 7 projects² out of which 5 projects were for water supply and two for sanitation. Of these, 3 water supply and 2 sanitation projects were completed. However, among the completed projects, only one PCR on the Addis Ababa Sewerage Project (Phase II) was available. Two water supply projects- the City of Harar Water Supply Project and the Rural Water Supply and Sanitation Initiative (which both fall within the 2002-2004 CSP period) are currently under implementation.

1.5.4 The lending interventions in the power sub-sector included 2 rural electrification projects, 2 power transmission projects and one regional power interconnection project. Of these, 3 power projects (financed in the pre-CSP period) are completed but only one PCR was prepared. In the post-CSP era, the Rural Electrification Project (which falls within the 2002-2004 CSP period) is under implementation. The Ethiopia-Djibouti Power Interconnection Project was approved in December 2004 and signed on May 2005, but entry into force was not yet effective at the time of this review.

1.5.5 In the telecommunications sub-sector, the Bank funded only 2 projects (one in 1984 and another in 1992), both prior the pre-CSP era and both were completed. A PCR was prepared for the Telecommunications I Project. After 1992, financing in the telecommunications sector ceased since it was no longer a priority sub-sector considering the limited ADF resources available for the country.

² Excludes the Assab Water Supply Project, which is no longer in Ethiopia.

Non-Lending Operations

1.5.6 The Bank's non-lending activities were limited to financing of studies. A total of 8 studies for an amount of UA12.47 million³ (net of cancellations) were financed between 1982 and 1992. The studies were for urban water supply and hydropower generation projects. All the studies are completed.

2. EVALUATION OF BANK ASSISTANCE TO THE PUBLIC UTILITY SECTOR

2.1 Bank and Government Policies and Strategies: Relevance and Congruence

2.1.1 For almost three decades, the Bank was financing all major sectors including the public utility sector comprising the sub-sectors of water, power and telecommunications. Until 1996, the Bank's lending operations were guided by its programming documents, which generally reflected the country's development plans and strategic focus of the time. Such broad based interventions were justified on the ground that the basic infrastructure was inadequate for socio-economic development. Within the public utility sector too, the Bank was engaged in all the sub-sectors of water supply and sanitation, power and telecommunications until 1992. In effect, there was absence of any real selectivity at the time.

2.1.2 All the completed water sector projects/studies were financed prior to formulation of the Bank's Water Supply & Sanitation Policy of April 1989. Similarly, in the power sub-sector, six out of the seven projects/studies were funded prior to issuance of the Bank's Energy Policy of 1994. However, notwithstanding the lack of formal sector policies at the time, the Government's development plans and the Bank's programming documents were used to guide those past interventions.

2.1.3 A new Government (that took over power in 1991) undertook major sectoral reforms, particularly in the water sub-sector to refocus future donor's interventions. These included major structural changes from a centrally planned economy to market driven economy through public sector and institutional reforms and decentralization of the public administration and services to the lowest level of local government apparatus. It also covered capacity building and preparation of sectoral policies, strategies, and development programs to guide the overall development of the country and meet poverty reduction objectives (for details see Annex 2). This was in pursuance of the new government policy to support its efforts towards economic policy and sector reforms and to reorient donors' assistance towards meeting poverty reduction objectives.

2.1.4 Also during the 1990s, the Bank's overall ADF resources and those earmarked for Ethiopia were highly constrained. The shift in government priorities and the limited ADF resources resulted in reallocation of the available ADF funds to the Agriculture and Rural Development, Social and Transportation Sectors. Consequently, during the 1992-2000 Bank financing to the sector had completely dried up.

³ ADF loan amounting to UA3.13 million is not included here but is instead considered as a part of project funding. This was because this amount was used to finance drilling of wells for testing purposes but which were later to be converted into production wells after completion of the study to augment the water supply sources in Addis Ababa. The wells are now functioning as production wells.

2.1.5 From 2000 onwards, the Bank financing in the public utility sector in water and power sub-sectors was resumed and guided by the Bank's Vision and the country's goal of poverty reduction through improvement of rural infrastructure. The formulation of Bank's 1999-2001 and 2002-2004 CSPs and their allocation of the limited ADF resources also closely reflected Government's strategic shift that focused on poverty reduction. The Bank's CSPs are now largely derived from country's SDPRP. The Agriculture Development Led Industrialization Strategy (ADLIS) too influenced the 1999-2001 CSP. The policy shift was timely in view of the current advocacy for selectivity in allocation of limited resources.

2.1.6 A major segment of Bank's non-lending activities was the provision of funds for studies. Some of the completed studies were implemented over the years as and when funds were available from the Government and/or from other donors' assistance. Thus, the Bank has been instrumental in assisting the Government to have a shelf of fundable projects. However, its role in resource mobilization for the resultant projects was not fully exercised in the past.

2.1.7 Other non-lending activities of the Bank were policy dialogue, aid coordination and economic and sector work. Although in the past, the Bank had attended some of the aid consultative meetings, it was not proactive in other activities such as economic and sector work and sustained policy dialogue with the Government. In recent years, the Bank enhanced its engagement with the government in areas such as consultative meetings, public expenditure review meetings and other in-country coordination meetings. The recent interventions (Rural Electricity Project and Rural Water and Sanitation Project) have been initiated based on more effective donor coordinated efforts.

2.1.8 Another important non-lending activity of the Bank is to facilitate creation of an enabling environment for private sector investments. The public sector is still the major provider of utility services in the country. The Government is aware that on the one hand huge investment is required in all sectors to translate the many policies, strategies and development programs into action, and on the other, the limited resources both from the Government own budgets and external donors' assistance cannot fully meet these requirements. Hence, Government has taken the initiative in creating the enabling environment for the private sector involvement. However, the enabling environment related to land tenure system and the business climate in the country are considered still inadequate. Financial sector reforms too are still in their infancy. The Bank needs to enhance its role in private sector development and work more closely with other donors so that there is greater commitment of the Government in encouraging public/private partnership in a more sustainable way.

2.1.9 A judgment on relevance broadly involves evaluating consistency of the interventions with the country's macro economic conditions, sector development strategy and the Bank's assistance strategy for that country. In general, the selected projects in the public utility sector aimed at improving the grossly inadequate public utility services in the country; and the assistance fitted within the country's development plans and the Bank's lending program. Only about 42% of the total population has access to safe drinking water, only 18% have proper sanitation facilities and about 13% have access to electricity. The pre-1992 pre-CSP era projects, all seeking to improve the access levels, are thus considered relevant. There was no funding in the 1992-2000 period. The subsequent CSP era projects, though still under implementation, are also considered relevant.

2.1.10 Non-lending activities were not well covered in the past development plans and Bank's programming documents. The Bank assisted in financing studies relevant for the sectors. Some of the studies projects were implemented as and when funds were available. Some had to wait until the present time. The unfunded water supply studied-projects are now been incorporated in the urban water development program. The Government is seeking funds for this program. The Bank and other donors are considering the hydropower-studied projects for financing. The completed studies are thus relevant despite delays in the financing and implementation of the studied projects.

2.2 Water sub-Sector

2.2.1 Relevance

2.2.1.1 In the past, the Bank was not involved at sector level interventions such as sector policy reforms, institutional reforms and sustained capacity building assistance. Its assistance was primarily project or study orientated. Nevertheless, its lending assistance in the sector was rooted in the country's development plans and its programming documents of the time that laid out the priority sectors of the country.

2.2.1.2 At project level, the Bank has been financing projects in the water sector since 1975 when it first financed the Addis Ababa Sewerage project – Phase I. The Bank assistance to the water supply and sanitation sub-sector in the pre-CSP era comprised 5 projects. These were the 2 sewerage projects for Addis Ababa city, the Six and Eight Centers⁴ Water Supply projects and the Addis Ababa Water Supply Stage IIIA Study/Project.

2.2.1.3 The very poor sanitation situation and inadequate water supply in the capital city as well as the non-existence of potable water supply in the selected urban areas made Bank's interventions appropriate and in line with the infrastructure development objectives of both the Government and the Bank at the time. The Bank's project assistance in all the 5 projects in the water sub-sector from 1975 to 1992 i.e., the pre-CSP era, even while being limited to project financing, was thus quite relevant.

2.2.1.4 During the 1992-2000 periods, the Bank had ceased financing of the sector due to priority shift for the limited resources (para. 2.1.4). During the period of the two latest CSPs (1999-2001 and 2002-2004), the Bank's assistance included the Harar Water Supply Project (approved in May 2002) and the Rural Water Supply and Sanitation Initiative Program (approved in December 2005). The funding of the Harar project was long overdue as there had been severe shortage of potable water supply in this town for well over 10 years. It was in the priority sector in the CSP. Moreover, UNESCO had declared the City of Harar as a historical city of heritage. The Rural Water Supply Initiative Program was a result of concerted efforts of several donors including the Bank and the World Bank and some other stakeholders. Thus, both these projects are considered relevant.

⁴ Due to limitation of funds, the project scope was reduced to only 3 centers.

2.2.2 Efficacy

2.2.2.1 **Efficacy** is an evaluation of the achievement of the extent to which project achieved development objectives articulated at approval and specified in categories such as policy goals, physical, financial, institutional, social or environmental recognizing any change introduced in the project during implementation.

2.2.2.2 The sectoral goal for the Bank's assistance was to improve quality of life of the country's population through provision of adequate and affordable potable water supply and sanitation facilities to the population at large. Project level objectives were provision of new and/or rehabilitation and expansion of existing systems to improve the services in the areas served. The efficacy of each project is assessed in the following sections.⁵

2.2.2.3 In the pre-CSP era, there were 5 projects in this sub-sector. The sewerage system in Addis Ababa was financed by the Bank's first 2 loans in the sub sector. It is one of few sewerage collection and treatment plants in the country. It has contributed to improvement in sanitary conditions in Addis Ababa. Initially, the plant had technical problems arising from inappropriate technology and even a partial resolution took about 15 years.⁶ The trunk system is still underutilized at 3000 sewer connections compared to the design capacity of 7000.

2.2.2.4 The 6 and 8 (3) Centers⁷ Water Supply projects⁸, have also met their objectives of providing potable water supply in the areas served. The installed systems at the six centers of Combolcha, Debre Markos, Debre Zeit, Deder, Goba and Mojo in the western and central part of the country are still operational. The centers served under the 8 centers project (curtailed to 3) were Jimma, (in the west), Dire Dawa (in the east) and Moyale (in the south). Despite delays in implementation, these projects were successfully completed. At the time of appraisal, these centers had inadequate or no piped water supply systems. The systems had a 15-year economic life, which is already completed but were reported to continue to provide the needed services to the communities. The site visit of one of the centers Dire Dawa confirmed that because of satisfactory maintenance, the facilities are still in good operational condition.

2.2.2.5 The Addis Ababa Water Supply Stage IIIA Study and Project had a study component for carrying out a feasibility study for new water sources and construction of a dam to meet the future needs of the city. In addition, it also had a project component of augmenting water supply to the city by converting the wells drilled for source investigation into production wells, once the study was completed. This study-cum-project faced implementation delays and cost increases due to increased scope of work. The completed project component has been supplying additional water to the Addis Ababa city.

⁵ The assessment of the achievement of the objectives for the sector was constrained due to the absence of PCR for most of the completed projects. However, various other secondary sources as indicated in the methodology have been used for assessment of efficacy.

⁶ The Executing Agency recently managed to come up with some partial homegrown solutions. The plant is now used only for sludge removed from septic tanks. The night soil emptied from pit latrines are handled separately thereby protecting the digestion tanks from being clogged.

⁷ Due to limitation of funds, the project scope was reduced to only 3 centers.

⁸ In the absence of PCRs, assessment of efficacy of the Six and Eight Centers Water Supply projects was made based on findings of field visit and discussion with the Borrower and executing agencies.

2.2.2.6 Of the 5 pre-CSP projects, the 2 sewerage projects are rated unsatisfactory and the 3 water supply projects (including the project component of the project cum study intervention⁹) are rated satisfactory on the efficacy criterion.

2.2.2.7 The post-CSP era projects comprising the Harar Water Supply Project and the Rural Water Supply Initiative were still under implementation at the time of this review. Hence, it is too early to assess their efficacy.

2.2.3 Efficiency

2.2.3.1 Efficiency is an evaluation of the extent to which project benefits were commensurate with inputs, looking at cost and implementation time. Economic and financial rates of return and/ or other measures of cost-effectiveness, cost recovery targets etc., are also considered.

2.2.3.2 The evaluation shows that due to long time overruns, implementation performance of individual projects was inefficient for all the water supply and sanitation projects resulting in delaying expected project benefits and outcomes. The actual implementation periods ranged from 11 to 16 years from loan approval dates for three of the projects. There were delays in loan effectiveness caused by delays in fulfilling conditions for entry into force and first disbursement of the loan. There were also procurement and disbursement delays resulting from delays in response times at the level of the Government, executing agencies and the Bank. Furthermore, there were delays caused by turnover of project implementation unit (PIU) personnel. Delays in completion of civil works resulted from poorly equipped contractors, poor equipment and lack of adequate working capital (particularly for those engaged in water supply projects). In one project, there was serious disagreement between the executing agency and the external consulting firm, which resulted in termination of the contract and the ensuing litigation. Ultimately, the executing agency had to pick up the pieces and complete the project/study covering the additional costs. Exogenous factors such as non-availability of local construction materials and security problems of the time and delayed supply of goods from suppliers had also contributed to the overall implementation delays. The implementation performance of the projects is rated unsatisfactory.

2.2.3.3 As far as costs are concerned, all the projects (except the Addis Ababa Water Supply Stage IIIA Study/Project) were implemented within budget and some have registered savings due to competitive prices and prudent management of project resources. The overall interventions in the water sector have resulted in satisfactory outcomes after completion, notwithstanding the implementation problems and delays. The projects have provided the needed basic infrastructure services. Following the decentralization policy, water service entities in the different administrative regions are applying tariff rates to cover full cost in bigger cities and at the minimum meet operation and maintenance costs in smaller towns (less than 20,000 people) and in rural areas.

2.2.3.4 Water tariffs have inbuilt surcharge to cover at least the operation and maintenance (O&M) cost of sanitation services in urban areas with or without conventional sewerage system and an additional collection charge is applied for emptying septic tanks and pit latrines. The

⁹ The study component is evaluated separately in the section covering non-lending activities.

average water supply tariff currently ranges from Birr 0.50 to 3.50/M³ for Addis Ababa. In some urban areas, the rates can go as high as Birr 5.00/M³ (about US \$0.62/M³). Billing and collections systems have also improved over the years and unaccounted for water is considered to be at acceptable level, considering the old age of the distribution lines in older section of the cities and towns. The institutional reforms as well as the capacity building measures undertaken in recent years to improve the performance of the water entities in the regions have also contributed to the efficiency of the completed projects.

2.2.3.5 Efficient provision of water supply improves the health conditions of the population served and prevents women and children from traveling long distances in search of water from dubious sources. Times saved in this respect can be used for more productive and income generating activities. The 6 centers and 8 (reduced to 3) centers water supply projects have provided these advantages to the areas served. Sanitation services in Addis Ababa also contribute to improved health of the population served. Factoring in the continued benefits from the completed projects and the cost recovery efforts in the water services entities, the efficiency with respect to overall benefits of the water sub-sector projects as a whole is rated satisfactory (Annex 4 covers the details on the efficiency assessment).

2.2.4 Institutional Development Impact

2.2.4.1 Bank assistance to the water sector did not involve technical assistance at the sectoral level. In all the projects financed in the water sub-sector, limited technical assistance was provided for capacity building and logistics (such as staff training and acquisition of equipment, vehicle and other operational and maintenance supplies). Generally, assigning suitable qualified local counterpart to work with consultants and contractors was a loan condition for enhancing local skills. Thus in the projects and studies financed, there had been some transfer of skill through working with external consultants and contractors. The Bank also used other conditions such as organizational restructuring, tariff studies, reduction in account receivables, training, etc. with the expectation that their fulfillment would improve the overall performance of the utilities. However, in most cases, conditions were not fully met or their fulfillments were delayed. Thus, much of the assistance was mainly in capital investment. Development of institutional capacity and capacity building at the regional water service entities, created following decentralization of the services at local government level, was largely unaddressed. So far, other donors have provided assistance but the needs are enormous.

2.2.4.2 Bank's interventions during the last 2 CSPs have been broader to enhance the performance and sustainability of the projects and programs. In the case of the Harar Water Supply Project and the Rural Water Supply and Sanitation Initiative Program, training components have been included for improving customer database and revenue collection. Training for raising awareness on use of potable water and hygiene, creation of awareness for prevention of HIV/AIDS and need for paying for the services has also been included. These projects accordingly include both technical and institutional capacity building. However, the overall institutional development impact arising from the Bank's water projects is modest.

2.2.4.3 The Government on its own, and with the assistance of other donors, has taken several steps towards enhancing the efficiency of the sector through decentralization of the water sector activities to regional and local levels and providing capacity building. However, efforts in capacity building need to be enhanced as decentralization has stretched the limited qualified personnel available for the sector.

2.2.4.4 The Government has also been taking measures to improve the overall performance of water sector utilities through restructuring and strengthening the sector institutions. Policies in the water sector focus on reforms of the regulatory framework and the separation of operation from regulatory roles to improve operational efficiency and accountability as well as tariff reforms to facilitate cost recovery. The Ministry of Water Resources (MoWR) has taken responsibility for policy and guideline formulation and the regulatory function at federal level, while regional water resource bureaus have been entrusted with the responsibility of overseeing the management of the water supply and sanitation services in the respective regions outside Addis Ababa. The water service entities set up at regional and local levels are responsible for the implementing, operating and managing the water and sanitation systems as well as delivering the services to customers (see details in Annex 2).

2.2.4.5 Presently, MoWR is actively engaged in setting up and supporting vocational schools in the 9 regions countrywide to provide technical training in water technology. The water boards give scholarships to meriting students as an incentive to retain them after graduation. Regional and local water service entities have also provided work guarantees to many students after completion of their training. MoWR provides certification to graduates of these schools. The water service entities are expected to gainfully employ the technically trained graduates. Thus, the Government efforts in capacity building have been significant but more investment is needed to enhance institutional development in the sector as a whole.

2.2.5 Sustainability

2.2.5.1 There was no sustained flow of Bank assistance to this sub-sector in Ethiopia. After providing thinly spread assistance during the 1975- 1991 period, the Bank was totally absent in the sector from 1992 to 2002. There was thus no support for sustainability at the sector level. The Bank assistance resumed from 2002 onwards when it financed the Harar Water Supply and Sanitation Project approved in May 2002 followed by the Rural Water Supply and Sanitation Initiative approved in January 2005. These are sporadic long-spaced interventions and the Bank has yet to provide assistance on a sustained basis to the sector.

2.2.5.2 Project level sustainability has however been ensured by the individual utilities. The Addis Ababa Water Supply Authority (AAWSA) has qualified personnel to run and operate the systems. Its water and sewerage systems have been operating reasonably well, serving even beyond their useful economic lives. The utility has addressed the technological issues related to the Bank-financed Addis Ababa Sewerage Projects, though partially, to enhance the plant's utilization. The project component of the Addis Ababa Water Supply Stage IIIA continues to contribute towards meeting the increasing water demand of the city's growing population.

2.2.5.3 The regional urban water services entities of the six and eight centers projects operate satisfactorily due to the regular maintenance. The parent Ministry of Water Resources has continued to provide its technical support but there is a need for more capital investment and capacity building to augment and sustain the infrastructure.

2.2.5.4 The regional entities are operating as autonomous utilities, reporting to a locally elected Board. The entities are now gradually moving to operate on full cost recovery. Smaller regional urban towns with population of less than 20,000 residents and rural areas are expected to meet at least the operation and maintenance costs through levy of user charges. The capital investment comes from government budget and/ or donors' assistance. Within this framework of tariff policy, there was a major revision of tariffs for water services. The user charges are set to allow cost recovery allowing cross subsidization to address affordability by the poorer segment of the population. Currently, water rates (including surcharges for sanitation services) in Addis Ababa range from Birr 1.15 (about US \$0.12) to Birr 3.50 per m³, while tariffs in regional towns in some cases are as high as Birr 5 per m³ (about US\$0.67 per m³) to meet the higher cost of providing the services. These rates are lower when compared to consumers' willingness to pay and the high cost of providing the services. There will be gradual increase over the coming years. As far as collection of bills is concerned, it is satisfactory at an average of 90 % both in the regions and in Addis Ababa.

2.2.5.5 Overall, all the completed projects have been sustained and, hence, rated satisfactory. However, the overall water sub-sector long-term development hinges on the availability of sustained resources for investment in physical infrastructure and capacity building.

2.3 Power sub-Sector

2.3.1 Relevance

2.3.1.1 Like the water sub-sector, the Bank's past assistance to the energy sub-sector was also largely limited to project assistance.

2.3.1.2 The Bank's project level assistance in this sub-sector first started in 1979 with its financing of the Rural Electrification project. In the pre-CSP era, two more projects i.e., Electric Power Transmission project (1986) and Northern Ethiopia Power Transmission project (1992) followed. The Government had provided the feasibility studies for these projects and all are financed before the Bank's Energy Policy of 1994. In a total population of about 75 million, the access to electricity in the country is still hovering around 13%. The projects fall within the then GoE and Bank development strategies for improving population's access to electricity, and hence relevant.

2.3.1.3 There was no financing in the power sub-sector between 1992 and 2001 for reasons stated earlier (para. 2.1.4). Project level assistance was resumed in December 2001 with the financing of a second Rural Electrification Project. The Ethiopia-Djibouti Power Interconnection project financed in 2004 followed as a regional intervention.

2.3.1.4 The Government's current policy is to accelerate electrification in order to provide access to the broadest cross-section of the population and facilitate socio-economic development. To attain this objective, the Government is implementing a five-year development program to electrify 164 out of 304 *woredas*. The target is to increase the population's access to electricity from the current 13% to 17% in the short/medium term and increase it further in the long-term. The Rural Electrification Project (approved in 2001) was carved out of the Five-Year Power Sector Development Program (2000/01-2004/05), which underpins the ADLIS and based on which the 1999-2001 CSP was formulated. Similarly, the Ethiopia-Djibouti Power Interconnection Project of 2004 is in line with the regional integration policy of the Bank. The post-2000, post-CSP era projects and the on-going policy thus conforms to the strategies of the Government that support extension of the national electricity grid to rural economic centers that have a potential of agro-industrial processing and other small and medium scale economic activities and social services, such as schooling and primary care health services. All the post-CSP era power projects are, therefore, relevant.

2.3.2 Efficacy

2.3.2.1 The sector goal for the Bank's assistance was to expand the electricity infrastructure base in the country to facilitate economic development and improve quality of life through provision of adequate and affordable electricity to the population at large. However, the Bank was not involved in sector level assistance by way of any policy review or institutional reforms to improve the performance of the sector in this sub-sector as well. The Bank assistance was again at project level. The assessment of efficacy of the projects follows.

2.3.2.2 At the time of the first Rural Electrification Project and the Electricity Power Transmission Project, access to utility's electricity supply was about 7%. More than 80% of the demand was satisfied with power produced from isolated diesel generators spread all over the country. For a country with large hydropower potential, extension of the grid was the least cost solution to increase accessibility. These two projects were to meet the electricity demand of the areas through extension of the grid system thereby replacing the expensively run isolated diesel generators. In some places, it was to supply electricity for the first time. In the Rural Electrification Project, the objective was to extend the grid to Jijiga, Meisso and Deder located in the Eastern part of the Country. The Electricity Power Transmission Project involved the construction of 230 kV Koka-Diredawa Transmission Line and related sub-stations as a back bone and 66 kV transmission lines and distribution lines to serve nine towns located along the lines. The two projects have fully met their objectives by providing electricity to several towns along the transmission lines in addition to improving the power supply and reliability in the areas served. The efficacy of these projects is rated satisfactory.

2.3.2.3 The Northern Ethiopia Power Transmission project involved the construction of 230 kV, 132 kV, and 66 kV transmission lines, a 15 kV distribution line, distribution networks and related substations to meet the objectives of supplying electricity to the Northern part of the country that had no electricity or was served from isolated diesel generators. The project's efficacy is satisfactory as evaluated in the PCR and PPER prepared for this project.

2.3.2.4 Among the CSP era projects, the Rural Electrification project is currently under implementation. The Ethiopia-Djibouti Power Interconnection project's loan was signed in May 2005 and the loan is yet to become effective at the time of this review. Thus, it is too early to rate the 2 post-CSP era projects.

2.3.3 Efficiency

2.3.3.1 The Bank's assistance did not involve any sector level interventions in terms of policy review and institutional reform. The project level efficiency was mixed. In general, there was implementation delays with actual periods for three of the completed projects ranged from 7 to 9 years from loan approval dates. However, there have been positive outcomes and benefits from the completed projects. In a country where fuel wood accounts for more than 90% of Ethiopia's current total energy consumption, where charcoal accounts for 79% while dung, crop residue and biogases provide a further 16.4%, and where the Ethiopian household use of biomass fuels accounts for 99.4% of the total energy usage, any shift to using electricity is a positive achievement. Thus, the completed power projects have helped in substituting a part, though small, of biomass fuels by electricity. Electricity from hydroelectric sources is a cleaner and cheaper substitute. Households in such areas have been able to save on utilization of expensive and depleting biomass resource and other environmentally unfriendly fuels. There is full cost recovery for electricity services based on the principle of cross subsidization.

2.3.3.2 Overall, the projects have continued providing benefits to the power utility and the areas serviced. Thus, the overall efficiency is rated satisfactory. Annex 4 gives the details on the efficiency assessment of the individual projects.

2.3.4 Institutional Development Impact

2.3.4.1 The Bank's assistance did not include sectoral level institutional support to bring reforms. It did not also include any component to encourage private sector participation in the sector. The Government has now initiated some of these reforms on a limited scale. The Government fully owns the electricity utility, Ethiopian Electric Power Corporation (EEPCo), but in recent years, there have been policy reforms that encourage private sector participation in generation of electricity by allowing independent power producers (IPPs).

2.3.4.2 The GoE has also taken measures to improve the overall performance of power utility through restructuring and strengthening the sector institutions and separating the policy function from the regulatory and operational functions. Ethiopian Electricity Agency is now the regulatory body for the sector (see details in Annex 2).

2.3.4.3 Bank assistance at the level of projects mainly involved financing physical components such as civil works, plants and machinery. To enable the transfer of skills in implementing projects, the Bank had nevertheless provided for the assignment of counterpart staff to the consultants and contractors. This had the desired and positive impact of staff acquiring skills by working as counterparts with the consultants and contractors. The overall institutional development impact for the completed projects was, therefore, modest.

2.3.4.4 For the recently approved projects in the CSP era, the approach has been broader. For example, institutional support components have been included in the Rural Electrification and the Ethiopian-Djibouti Interconnection projects. However, it is too early to evaluate the institutional development impact of these two on-going projects.

2.3.5 Sustainability

2.3.5.1 Like the water sub-sector, over the years there was no sustained flow of Bank assistance to this sub-sector. After providing thinly spread assistance during the 1975-1991 periods, the Bank was totally absent in this sub-sector too from 1992 to 2002 (para. 2.1.4). There was thus no support for sustainability at the sector level. Later, the Bank assistance resumed with the financing of Rural Electrification Project in December 2001. The regional Ethiopia-Djibouti Power Interconnection Project approved in December 2004 followed. However, these are all sporadic long-spaced interventions and the Bank has yet to provide assistance on a sustained basis to the sector.

2.3.5.2 At the project level, the sustainability aspect is assessed from the performance of the completed projects and the executing agencies. The Ethiopian Electric Power Corporation (EEPCo) has satisfactory operating capability. It has successfully managed and sustained technically, managerially, and financially the implementation and operations of Bank financed completed projects. All the power projects are serving beyond their useful economic life. The financial performance of EEPCo has been satisfactory. The current electricity tariff is fixed within a framework of cost-based tariffs. There are plans to increase tariffs gradually to reach the Long Run Marginal Cost of Supply, which is about US \$0.09/kWh compared with the current average tariff of US \$ 0.05/ kWh. Billing and collection system has been decentralized and improved significantly. Current receivables stand at less than three months' bills. Average recovery rate, which used to be only 56% in 1992, is now more than 90%. The current transmission and distribution losses are at an acceptable level of 18.5%. EEPCo is taking additional measures to reduce this level to 15%. Based on new consumer-friendly procedures, EEPCo currently carries out new connection within 7 days of receipt of the request for connection.

2.3.5.3 Overall, EEPCo operates satisfactorily, the completed projects are technically well maintained and operated, system losses are low, the personnel are skilled, tariffs are revised periodically and collections are at acceptable levels. The sustainability of the completed power projects is, thus assured and rated satisfactory. It is too early to evaluate the sustainability of the on-going projects.

2.4 Telecommunications sub-Sector

2.4.1 Relevance

2.4.1.1 The Bank's assistance to the telecommunications sub-sector of the country like the water and power sub-sectors was also limited to project assistance. In the sub-sector, the Bank does not even have a separate sector policy.

2.4.1.2 The Government's development program had guided the investment in this sector at the time. The Telecommunication I and II projects formed a part of the 6th and 7th Development Programs, covering the periods 1985-1991 and 1992-1997. The programs aimed to expand the country's backbone network and provide services to urban and rural centers during the program periods. The programs fitted well in the Bank's general policy on basic infrastructure development in RMCs. In Ethiopia, telecommunication services coverage are still low particularly in rural areas. These two projects, both of pre-CSP era, were timely and relevant since they have greatly contributed to expand the needed basic telecommunications infrastructure in the country.

2.4.2 Efficacy

2.4.2.1 The Bank did not have sectoral level objectives in terms of engagement in policy and reforms and institutional development. The two pre-CSP era Telecommunication (I and II) projects of 1985 and 1992 were long-spaced and after 1992, even the limited project assistance to the sector completely dried up.

2.4.2.2 The two projects aimed at increasing the capacity of the telecommunications network in the urban areas and upgrade rural networks to increase service coverage. The main components of the projects comprised local network, trunk and junction network systems. These projects have achieved their objectives. The overall efficacy of these projects is rated satisfactory.

2.4.3 Efficiency

2.4.3.1 At project level, the evaluation showed that there was time overrun ranging from 7 to 10 years from loan approval dates. Major reasons were delays in loan effectiveness and laxity on the part of the executing agency, the Ethiopian Telecommunication Authority (ETA) in meeting reporting requirements. However, there was no cost overrun and the projects realized the expected benefits in spite of the delays. The corporation continues to be a monopoly and private sector involvement is only encouraged for partnership and not for competition. There is no competitive pressure in pricing of its services, particularly for those value-added services such as mobile and internet services. The corporation, however, is well-managed and financially sound.

2.4.3.2 The Bank financed projects have contributed to expanding the backbone of the system and reaching out to consumers in both urban and small provisional towns. The increased access to telecommunication services has facilitated business communications, thereby supporting socio-economic activity and income generation in the areas served. The projects are functional even after their normal economic lives. Considering the sustained benefits, the overall efficiency is rated satisfactory. Annex 4 covers the details on the efficiency assessment of the individual projects.

2.4.4 Institutional Development Impact

2.4.4.1 The Bank's assistance did not include sectoral level institutional support to bring reforms to encourage private sector participation in the sector. The Bank's assistance at the level of projects was mainly in engineering components. The utility has the capacity to operate and maintain the system. ETC is fully owned by the Government but in recent years, private sector participation has been encouraged i.e., to operate in partnership but not in competition with ETC.

2.4.4.2 At the country level, the GoE has taken measures to improve the overall performance of utility through restructuring and strengthening the sector institutions. There is now a regulatory body for the sector (for details see Annex 2).

2.4.5 Sustainability

2.4.5.1 In this sub-sector also, there was no sustained flow of Bank's assistance. Even at the project level, the Bank's assistance ceased after 1992. However, ETC, the utility has ensured the sustainability of the two individual telecommunications projects. The completed projects have been operating well and are serving even beyond their useful economic lives. ETC has good managerial capabilities and financial performance to sustain its activities. It is financially sound and capable of raising funds from the local commercial banks. ETC has manpower development program to meet its human resources needs for its expanding infrastructure.

2.4.5.2 In general, the completed projects are technically well run and maintained, tariffs have been adjusted, training of manpower has been assured and billing and collection systems have been improved over the years. Thus, overall the sustainability of the completed projects is rated Satisfactory.

2.5 Non-Lending Operations

Studies

2.5.1 The Bank's non-lending activities were limited to financing of studies, which were 8 in total for an amount of UA12.47 million¹⁰ net of cancellations were financed (details in Annex 3). The studies were mainly for urban water supply and hydropower generation. There were implementation delays of 7 years on average from approval dates, mainly due to delays in loan effectiveness, increased scope of work and security problems in some of the areas of the studies.

2.5.2 Bank's initiative to fund these studies was a welcome input for preparation of fundable projects. However, not all of the viable projects could be taken up for implementation soon after completion of studies due to constraint of funds. They were taken up in piecemeal as and when funds were available from internal or external sources. The ADB has recently financed the on going Harar Water Supply Project, which was among the schemes studied. The remaining schemes are now included in the Urban Water Supply Development Program for which financing is being sought. The Bank and the World Bank are now considering financing the projects that have emanated from the hydropower studies.

2.5.3 After the studies were completed, the Bank did not actively try to champion those projects for financing. Thus, the potential benefits of the Bank initiative to fund these studies were not realized immediately. Scarcity of Bank's resources and the preoccupation of the

¹⁰ UA 3.13 million was initially earmarked in the Study for drilling of wells for testing purposes. After completion of the study these were to be and actually finally converted into a functional asset in the water supply system i.e., production wells to augment the water supply sources in Addis Ababa. This loan amount of UA3.13 million is not included here.

Government in reform activities in the 1990s have contributed to delaying the implementation of the studied projects. Notwithstanding, the Bank could have more forcefully played its facilitator and catalytic role in resource mobilization for the projects emanating from its funded studies. Considering the implementation delays and the fact that there was no immediate enough demand for the projects arising from the studies, the overall Bank's performance in its grant activities is evaluated unsatisfactory. Drawing lessons from the experience of past studies, it has now become a regular practice in recently financed studies of the Bank to allocate funds for convening a donors meeting soon after studies are completed. Such good practice would facilitate faster resource mobilization for future interventions.

Resource Mobilization and Aid Coordination

2.5.4 All the projects financed in the past were stand-alone without involving co-financing. This imposed a limitation on the availability of resources for individual projects- projects had to be scaled-down to fit the available resources. For example, the Bank's 8 centers water supply project was reduced to 3 centers to fit the limited ADF resources available at the time.

2.5.5 In general, Ethiopia is getting considerable support from the donor communities. These include the World Bank, the European Investment Bank (EIB), the Japan International Cooperation Agency (JICA), the Agence Française de Développement (AFD), the European Union (EU), the Swedish International Development Agency (SIDA), and the British Department for International Development (DFID) to name a few. Most of them have country offices in Addis Ababa. In the past, donors were often not aware of the plans and fundings of other agencies active in the country.

2.5.6 For the completed projects, the Bank's efforts in resource mobilization and proactive engagement in aid coordination for the public utility sector is, thus, evaluated unsatisfactory (Annex 5 for details).

2.5.7 In recent years, the World Bank has been actively involved in supporting both rural water supply and rural electrification projects and has committed funds to finance hydropower generation projects. The Bank too has moved into financing rural water supply and rural electricity projects jointly with the World Bank. The EU is involved in assisting the transportation sector but is not active in power and water sectors. JICA is playing a major role in assisting in rural water supply development and training. SIDA's major emphasis is in health and education sectors. AFD is involved in supporting AAWSA and other rural water supply development programs. DFID is currently providing technical assistance to MoWR. In the past DFID was more focused in poverty reduction and capacity building support.

2.5.8 Co-financing programs and donor coordination are more commonly practiced in recent years. For streamlining and harmonization of assistance donors periodically, hold individual and joint meetings with the Government. Development Assistance Group (DAG) brings together all the development partners. Its meetings are held quarterly and annually among donors separately and jointly with the government. In addition, there are ad-hoc meetings too. The DAG has technical working groups for the water and road sectors that meet monthly. However, the coordination in the other public utility sub-sectors such as power and telecommunications is

not equally strong. Donors are not fully familiar with the activities of the other major donors. It is the view of some of the donors that the Bank with its intimate knowledge of the RMCs should play a more central and proactive role in aid coordination in Ethiopia.

2.6 Overall Ratings

2.6.1 On a consolidated basis, the overall performance of the Bank's lending and non-lending assistance to the public utility sector is rated satisfactory with an overall rating of 2.92. Ratings for the individual criteria vary among the sub-sectors as shown in Table 2.1 (Annex 5 provides details).

Table 2.1 Overall Rating on Interventions in the Sector (1975-2004)

SUB SECTOR	RELEVANCE	EFFICACY	EFFICIENCY	INSTITUTIONAL DEVELOPMENT	SUSTAINABILITY	OVERALL OUTCOME
Water& Sanitation	3.30	2.80	2.60	2.16	2.90	2.75
Power	3.17	3.00	3.08	2.60	3.17	3.00
Telecom	3.25	3.25	3.13	2.00	3.50	3.03
OVERALL RATING	3.24	3.02	2.94	2.25	3.19	2.92

Notes: (1) The performances of indicators are rated on a four-point scale, with 4 being a highly satisfactory rating and 1 being a highly unsatisfactory performance.

(2) All ratings in the table are rounded to two decimal points.

(3) Ratings rounded to 2.6 and above are considered satisfactory

2.6.2 *Relevance*: In the first and second-generation pre-CSP era (1970s to 1990s) projects, the Bank's direct assistance for the public sector as a whole was limited to undertaking studies and stand-alone projects. In the past, the Bank was not proactively associated with policy reviews and institutional reforms undertaken in the country. In addition, the Bank assistance was spread thinly across sub-sectors. Thus, the Bank's sectoral level assistance is rated unsatisfactory. On the other hand, the relevance of the interventions at project level is rated satisfactory since all the projects responded to the Government policy and the Bank's strategy of providing and strengthening the grossly inadequate basic infrastructure services, in all the sub-sectors. The four on-going projects, approved between 1996 and 2005 (the Harar Water Supply, the Rural Electrification Project, the Ethiopia-Djibouti Power Interconnection Project and the Rural Water Supply and Sanitation Project), are also evaluated to be relevant. For the public utility sector as a whole, the relevance is rated at 3.24, which is satisfactory.

2.6.3 *Efficacy*: With a few exceptions, the projects generally met their objectives and the overall efficacy with rating at 3.02 is considered satisfactory.

2.6.4 *Efficiency*: Overall sector rating on efficiency is satisfactory at rating of 2.94 because of the positive outcomes and benefits of the projects. However, the implementation performance of most of the projects was unsatisfactory due to delays as discussed earlier. The Bank's response time on recently approved projects has improved since opening of the Country office.

2.6.5 *Institutional Development Impact*: The Bank's assistance in the pre-CSP era was inadequate in institutional development support. In the past, the Bank did not provide long-term sector development assistance. Such endeavor requires comprehensive institutional analysis to determine needs and provide the support required. Piecemeal sporadic and project oriented assistance will not bring lasting impact.¹¹ The recently financed projects that fall within the CSP periods have included relatively higher allocation for capacity building components drawing lessons from past interventions. The aggregate score for this criterion is 2.25 (modest) pointing to the need for more efforts. The disaggregated scores indicate the water sub-sector need significant capacity building assistance from the government and donors. In the water sector, the decentralization of the services to the various regions has resulted in spreading thinly the already limited available work force. It would be useful for the Bank to join hands with other donors and move effectively and aggressively in providing technical assistance for capacity building in its future interventions in the water sub-sector.

2.6.6 *Sustainability*: The sectoral reforms and the increased autonomy provided to the utilities to perform on cost recovery basis with cross-subsidized tariffs for affordability of the services, particularly in water and power sector, have contributed greatly to improve the performance of the utilities. The completed projects are all performing well even after their useful economic lives due to good maintenance regime. The aggregate score for this criterion is 3.19 (satisfactory). The challenge ahead is the huge resource requirements to expand the infrastructure and enhance the utilities ability to provide affordable and sustained services.

2.6.7 The overall aggregate rating performance of the public utility sector related to the interventions of the Bank is 2.92, which is also satisfactory.

3. OVERALL DEVELOPMENTAL CONTRIBUTION

3.1 General

Effective policies, strategies and institutional arrangements are most critical for performance of the sector and for a lasting development impact. The Bank's sectoral level assistance and association with the Government in policies, strategies and institutional development was limited. This constrained the Bank's contribution to the many cross cutting developmental issues such as social development and gender equality, environment safeguards, private sector development and regional integration. All of the completed projects have contributed positively in these areas. The following section provides some qualitative assessment

¹¹ Bank Guidelines for project preparation and appraisal in the water supply and sanitation sub-sector recognize that institutions in the sector play a fundamental role in ensuring that projects are well planned, implemented properly and cost effectively; and that the installed systems are well maintained and operated to provide sustained and affordable services to the consumers. The guidelines provide for an institutional analysis about organizational autonomy, leadership management and administration, commercial orientation, consumer orientation, technical capability, staff development and retention, and linkages with external institutions.

on the development contribution of the completed projects in this regard. It is however to be noted that commonly lacking of baseline data and effective monitoring systems has often hindered to quantifiably account on development outcomes.

3.2 Social Development and Gender Equality

3.2.1 There was no focus on gender in past strategies and interventions. In recent years, gender mainstreaming has received prominence in development thinking. The Ethiopia's SDPRP underscores this necessity in view of the fact that women make up nearly 50% of the Ethiopian population. GoE has issued a National Policy on Ethiopian Women and it places strong emphasis on gender equality and development.

3.2.2 The water sector interventions of the Bank and extension of piped water supply and increase in number of boreholes have improved the lives of women and children, the traditional water haulers. The 6 Centers and 8 Centers (reduced to 3 centers) water supply projects have provided potable water through house connections or standpipes in the areas once lacking or inadequately supplied.

3.2.3 Electricity as a clean energy for households similarly reduced the drudgery of women and children, as they again are the traditional fuel wood haulers.¹² Access to electricity can help reduce burning firewood for cooking thus protecting the environment. The women and children who spend greater time at home are spared the hazard of inhaling of polluting smoke within their dwellings. Their improved health facilitates greater economic activity. However, in view of the small size of Bank's completed projects as well as affordability issues, the social and gender impact was limited.

3.3 Environmental Safeguards

3.3.1 In their areas of coverage, the water projects had generally contributed toward the betterment of the urban and rural environment. The Addis Ababa Sewerage Projects were the first systems to provide conventional sewerage system for the city. On the other hand, there was environmental degradation in several cases because of additional wastewater generation and a general lack and inadequacy of systems to handle collection, transport and disposal of human excreta and solid waste. Environmental concerns are now receiving adequate coverage in all new developmental interventions in the water sub-sector. In recent time, every water project will include sanitation component as well as soft component for training and hygiene education. The Harar Water Supply and the Rural Water Supply and Sanitation Initiative have both addressed these aspects.

¹² The condition of those women engaged in fulfilling their traditional role as fuel wood haulers is captured in the following: "Late every afternoon, as the sun begins to set, the traffic thickens on the roads coming down from the forested hills around the capital city. Not with cars, but with as many as 15,000 women carrying bundles of branches, leaves and twigs weighing between 70 to 100 pounds each. Their pace is slow, stooped trot, propelled by the weight of the load balanced on their shoulders. The bundles are more than six feet wide, wider than the women are tall. By the time the women reach the city markets, it is dark and they have covered as many as 10 miles on foot. If they are lucky, they will receive top price for their bundle: about 70 cents. These are Ethiopia's women fuel-wood carriers." (Reference: *Ethiopian Herald* Volume 4 Number 187, November 30, 2003); Source: *Ethiopia- Northern Ethiopia Power Transmission Project, ADB/BD/WP/2004/99, ADF/BD/WP/2004/114, 11 August 2004*

3.3.2 With respect to the power sub-sector, there is no negative environmental impact from the implemented projects. Major electricity transmission lines sometimes result in environmental degradation if the transmission lines are located in farms, sensitive wildlife areas, or national parks. In such cases, appropriate safeguards are required to mitigate negative impacts through environmental management plans for implementation. The country's hydro-generation station supply the power projects implemented, which is clean and generally environmentally sound. Switchover to electricity for cooking purposes, substituting fuel wood, could contribute to halting the on going environmental degradation in the country provided the supply is affordable to the low-income consumers who heavily depend on firewood for cooking. A more pragmatic approach to resolving issues of affordability and accessibility is needed to make an observable impact on the overall social benefits and status of women and as well as on the environment.

3.3.3 The telecommunication sector interventions by the Bank did not report any significant negative impact on the environment. The GoE is currently moving towards extending the services to rural areas with wireless technology.

3.4 Private Sector Development

3.4.1 Provision of basic infrastructure is a prerequisite for private sector development. Development of these basic utilities can encourage private sector development in the areas served. Lack of potable water supply is a handicap in location of industries in any new area and the water supply projects have removed this handicap in the areas served. Likewise, the electricity projects have facilitated replacement of isolated diesel generators or opened up new areas so that stable cheaper electric power is available in the project served areas. For example, the Northern Ethiopia Transmission Lines Project has allowed access to a much larger section of population in the Northern part of the country particularly the Tigray region. This has significantly changed the socio-economic condition of the population there and several medium to large as well as small-scale industries and businesses have flourished.

3.4.2 The telecommunication projects have also provided communication access to more urban and rural areas, thereby facilitating the establishment of private businesses in such areas. Bank's studies and projects as well as growth in businesses have also contributed to a spurt in the work of private consulting firms and contractors. It has also helped in the setting up of more local contracting industry. The local contracting industry has however to be nurtured. Training programs for local technical personnel and arrangements for financing for the procurement of construction equipment and adequate working capital are essential.

3.4.3 In recent years, the Government has decentralized the water sub-sector to the local *woreda* level. Local private consultants and NGOs as well as contractors have been encouraged to provide their services at regional and *woreda* level. In addition, the regional water bureaus sponsor the training of young individuals to acquire maintenance skills of water systems particularly in small towns and rural areas.

3.4.4 In the power sub-sector, the EEPCo retains complete control on the power transmission and distribution systems. Under present regulations, EEPCo allows private investors to generate and sell electricity only to rural communities not connected to the grid. The GoE has solicited proposals from Independent Private Producers (IPPs) for large hydroelectric projects. However, studies show that the private sector bulk supply tariffs are too expensive to be affordable by the EEPCo's consumers who are largely domestic. Financing options for new hydropower projects are thus limited to donor financing and GoE budget, at least in the short- to medium-term. In the longer term, GoE efforts are required to attract private investment particularly for regional power projects that carry the benefit of economies of scale.

3.4.5 The telecom sector offers substantial opportunity for private sector participation through direct private investment. However, the GoE or ETC does not allow the private sector to compete in the fixed line or mobile phone markets yet. Experience worldwide suggests that the large-scale private sector investments in telecommunications sector not only attract other major investments but also promote competitive efficiencies. The GoE needs to consider opening up the sub-sector to private investment.

3.4.6 Budgetary and donor resources are limited and inadequate to meet the resource demands of the public utility sector. Public/private partnership is required to raise additional funds. However, in Ethiopia, the pace of inflow of private resources is slow. The Bank needs to enhance its dialogue with Government to improve the enabling environment for public/private partnership in the utility sector.

3.5 Community Participation

3.5.1 The pre-CSP era did not bring onboard community participation in the planning, implementation, and operation of projects. However, in recent years, an approach of community participation has been mainstreamed in the investment and operations of water supply and sanitation projects. For example, the Harar Water Supply Project and the Rural Water Supply and Sanitation Initiative were prepared based on participatory approach involving the communities in decision-making processes regarding the sources of water supply, the choice of technology and the pricing of the services.

3.5.2 In recent years, there is periodic adjustment in utility tariffs with cross subsidy to take account of affordability issues. However, in the case of electricity, the tariff rates are high for the low-income groups discouraging them to shift to electric cooking appliances in substitution of firewood. The establishment of regulatory bodies as a part of sector reforms would encourage the involvement of stakeholders and the communities in future projects and programs, particularly in the discussions on tariff settings. Lack of competition in the telecommunications services is stifling the communities' power in demanding better quality services at competitive rates.

3.6 Regional Integration

3.6.1 In the past, only a few projects had a regional focus. As Bank's focus on regional integration grows, there are greater opportunities for regional oriented Bank Group interventions.

The Bank's Ethiopia-Djibouti Power transmission line project is an example of a recent project. The transmission line would allow transmission of an average 37 MW or 300 giga-watt hours of electricity per year to Djibouti. In 2009, peak supply could rise to about 69 MW. The base level tariff is 6 cents per kWh and rises to 14 cents per kWh for peak supply. This project would be beneficial to both countries. Ethiopia will be able to boost its export earnings and Djibouti will be able to substitute its expensive electricity from stand-alone diesel generators by cheaper hydro-based electricity transmitted from Ethiopia. There are several potential for regional integration such as Ethiopian-Sudan and Ethiopia-Egypt power system interconnection.

3.6.2 Eleven of the twelve rivers originating in Ethiopia flow to neighboring countries. The Nile gets about 70% of water flowing out of Ethiopia. Ethiopia thus has tremendous hydropower potential, which could be economically harnessed for regional supply. This will allow further cross-subsidization at domestic level to reach out the lower segment of the domestic market thus making electricity accessible and affordable. This will also be in conformity with the Bank objectives of promoting regional integration.

3.6.3 Recognizing their common concerns and interests, the Nile riparian countries¹³ have cooperated in the establishment in 1999 of the Nile Basin Initiative (NBI). It is a collaborative regional water development effort among countries impacted by the Nile River. The NBI is a regional partnership partly funded by the Bank. The initiative is guided by a Shared Vision "to achieve sustainable socio-economic development through the equitable utilization of, and benefit from, the common Nile Basin water resources", among the basin states of the Nile, which provides a forum for cooperative development of the water resources of the Nile River.

3.6.4 The Shared Vision Program comprises seven thematic projects including a regional power trade project (RPT). The long-term goal of the RPT is to improve access to reliable and low-cost power in the Nile Basin in an environmentally sustainable manner. An important element in achieving this goal is to create an effective institutional mechanism to promote and develop power trade opportunities among the countries participating in the NBI. The creation of a regional electricity market can play a key role in furthering cooperation among the Nile Basin states and in ensuring that the hydropower resources of the Nile Basin are developed and managed in an integrated and sustainable manner.

3.6.5 The Bank's active engagement in the Nile Basin Initiative and its continued support to financing projects and programs emanating from this initiative could further contribute to meeting its regional integration objectives for the continent. Both the NEPAD and Africa Water Sector Facility Program also aim at enhancing regional integration in the continent as a whole.

¹³ The NBI currently includes nine Nile riparian countries: Burundi, Democratic Republic of Congo, Egypt, Ethiopia, Kenya, Rwanda, Sudan, Tanzania, and Uganda.

4. CONTRIBUTORS' PERFORMANCE

4.1 Borrower Performance

4.1.1 The Borrower performance in soliciting funding from the Bank has been satisfactory over the years. It has carried out the feasibility studies for all the completed projects. Nevertheless, the inevitable sectoral prioritization has limited the funds that went to the Public Utility Sector. In general, the Borrower was slow in fulfilling conditions prior into entry into force of the loans. It also shares with the executing agencies and the Bank some of the project implementation delays in areas of procurement and disbursements. On a more positive note, the Borrower displayed a commitment to its development programs by generally providing the needed counterpart funds allocated for the projects. It had also utilized the loan and grant resources effectively and efficiently through appropriate procurement methods and proper management despite the delays.

4.1.2 In addition, the Borrower has, on its own and with the assistance of other major donors such as the World Bank carried out some sector reforms to improve the performance of the public utilities. It has also prepared new policies and strategies in response to its market driven economy. The utilities have now become self-financing especially for services provided to major urban areas. The Government has also moved, albeit slow, in the direction of private sector development to encourage foreign and local direct investment. While the sectoral level performance in the water and telecommunication sectors is satisfactory with respect to reforms and resource mobilization that of the power sector is unsatisfactory. The Government has missed the opportunity of developing the country's hydropower potential through encouraging public/private partnership not only for the domestic supply but also for regional supply that provides foreign exchange earnings for the country.

4.1.3 Performance at the executing agencies level was mixed but in general satisfactory. The then Executing Agency for the water and sanitation sector projects outside Addis Ababa was the Ministry of Water Resources (MoWR). It is technically a strong Ministry and has successfully implemented past Bank funded projects and studies, albeit with delays. Since decentralization, it has also, made considerable efforts with the assistance of other donors at building institutional capacity at the regional bureaus and the local water service entities. MoWR implemented all the completed projects successfully despite implementation delays. Overall, MoWR's performance was satisfactory.

4.1.4 The Addis Ababa Water and Sanitation Authority (AAWSA) is an autonomous public authority. AAWSA implemented three projects and two studies (one of them being study cum project) financed by the Bank. In all these projects and studies, there were significant implementation delays. From the start, the technology recommended for the sewerage project became ineffective. AAWSA has managed to come up with some partial solutions for the technical problems. The utility has improved its operational and financial performance over the years. Overall, the Executing Agency has performed satisfactorily.

4.1.5 The Executing Agency for power sector projects in Ethiopia is the government-owned Ethiopia Electric Power Corporation (EEPCo). As stated in para. 4.1.2, the sub-sector level performance is rated unsatisfactory due to the missed opportunity in developing the hydropower potential in the country for regional market and earning the needed foreign exchange for further investment in the sub-sector.. Its project level performance was satisfactory. EEPCo has qualified engineers that are capable of designing and coordinating implementation activities. Except for implementation delays, EEPCo has been successful in satisfactorily implementing the projects in the past and is effectively carrying out the implementation of the on going rural electrification project.

4.1.6 The Ethiopian Telecommunications Corporation (ETC), a publicly owned corporation, was the Executing Agency for the two Bank funded telecommunication projects. Its sectoral level performance is rated satisfactory due to its capacity to prepare its development programs and raise investment from the bilateral and domestic sources as well as internally generated funds. ETC has successfully implemented the Bank projects despite the delays in meeting reporting requirements of the Bank.

4.1.7 The common problems shared by all the executing agencies relate to implementation delays with respect to processing procurement and disbursement documents. Turnover of the staff of the Project Implementation Unit (PIU) also contributed to delays as new staff took time to get familiar with Bank rules.

4.1.8 Thus, from the foregoing and as shown in Table 4.1, the performance varies at sector and project level. However, when assessed in totality, the overall performance of the Borrower/executing agencies is satisfactory (details are in Annex. 5).

Table 4.1: Borrower Performance Rating

	Water Sector	Power Sector	Telecom. Sector
Overall sub-Sector Level Performance	2.85 (satisfactory)	2.33 (unsatisfactory)	3.0 (satisfactory)
Overall Project Level Performance under the sub-sector	2.89 (satisfactory)	3.36 (satisfactory)	2.83 (satisfactory)
Overall Performance in the Sub-Sector (Sectoral and Project level)	2.80 (satisfactory)	2.84 (satisfactory)	2.91 (satisfactory)

Note: ratings of 2.6 and above are considered satisfactory.

4.2 Bank Performance

4.2.1 The Bank's sector level assistance to the public sector of Ethiopia relating to policy and institutional reforms was non-existent in the past. Its assistance in the sector was largely for stand-alone projects requiring little cooperation with other development partners. In addition, the Bank's efforts at resource mobilization for funding of projects arising from studies financed by it were not strong in the past.

4.2.2 The Bank's responses in giving no objections on procurement and disbursement matters were slow at times and contributed to the implementation delays. Further, timely preparation lacks in PCRs, Mid-term Reviews and Portfolio Performance Review reports. Out of the ten completed projects, only three had PCRs. Similarly, the Supervision Summary Reports were not complete. Lack of incentive for monitoring and self-evaluation in addition to lack of resources may have contributed to the delays. In addition, the Bank did not fully articulate the non-lending activities in the programming and strategy documents in the past. The Bank's institutional development efforts were limited to project level assistance.

4.2.3 Table 4.2 gives summary of the ratings on Bank Performance. The ratings cover only the completed pre-CSP era projects. The Bank was absent from the sector in most part of 1990s and no ratings have been given for the projects financed in 2001, 2002 and 2005 since they are still under implementation (details is in Annex 5).

4.2.4 The Bank's sectoral performance was unsatisfactory. Its project level performance was just about satisfactory. The overall Bank performance in the pre-CSP era is, thus, rated unsatisfactory.

Table 4.2: Bank Performance Rating

	Water Sector	Power Sector	Telecom. Sector
Overall sub-Sectoral Level Performance	1.93 (unsatisfactory)	1.96 (unsatisfactory)	2.14 (unsatisfactory)
Overall Project Level Performance under each sub-sector	2.67 (satisfactory)	2.84 (satisfactory)	2.66 (satisfactory)
Overall Performance in the sub-Sector	2.30 (unsatisfactory)	2.40 (unsatisfactory)	2.40 (unsatisfactory)

Note: ratings rounded to 2.6 and above are considered satisfactory.

4.2.5 During the CSP era and particularly since 2000, there has been significant improvement in the Bank's performance in the public utility sector since it restarted its financing in the water and power sub-sectors. Since then, the Bank has become more proactive in sector and policy dialogue and aid coordination. With the preparation of Country Strategy Papers built around the country's program for sustainable development, Bank assistance has become broader. The Bank is currently engaged in the country in major rural electricity, regional power, and rural water supply projects. A noteworthy feature is that these projects are all prepared involving major stakeholders. These projects aim at contributing to meeting the MDG and regional integration objectives.

4.2.6 The opening of the Country Office has helped in timely interaction and resolution of problems with government and the executing agencies. The Country Office also participates in donor coordination activities including the Joint Budget Support. It is also assisting the Government in all phases of the project cycle and in particular in the follow up on fulfillment of conditions prior to entry into force of the loans, one of the chronic problems in the past.

4.2.7 The establishment of Bank's Country Office in Addis Ababa also facilitates timely reference of important issues to the Task Managers in the Headquarters through monthly reports and special notes. This has helped enhance the visibility of the Bank in the country and in minimizing delays. In addition, the frequency of Bank's field missions has improved. However, timeliness of field missions and decision-making powers of Task Managers are still inadequate. This impedes timely addressing of issues and problem solving on the ground. The Task Managers and Country Office staff needs to have adequate decision-making authority to provide real time solutions to problems related to portfolio management. There is also need to encourage increased visitation of senior management, who have the authority and capacity to make decisions on the ground.

5. OVERALL ASSESSMENT OF THE ASSISTANCE

5.1 Assessment of Performance

5.1.1 The "with and without" approach helps assess the overall contribution of the Bank's assistance to the development of the public utility sector. The Bank's contribution particularly by way of concessionary loans and grants had been useful to ease the debt burden and partly meet the huge development funding needs of the country. In a 'without' Bank funding situation, the alternative for GoE would have been to turn to other donors to support the projects. However, all the donors were also facing limitations in aid funding. With shift in priority and limitations of aid funding with all the donors, it is doubtful if substitute additional soft loan assistance would have been forthcoming. In recent time, prioritization has become even more important considering the availability of limited donor funds. Currently the Bank and World Bank among other donors are involved in rural water and electrification, where the needs are enormous. Thus, the Bank's past assistance and its recent presence in the priority sub-sectors of water and power has been beneficial to the country to improve the basic infrastructure to the rural population.

5.1.2 The overall public utility sector performance is satisfactory mainly because of the good operational performance of the completed projects and the benefits accruing over the years. The assistance has benefited diverse parts of the country. Several urban and small towns have potable water from the completed projects. The capital city of Addis Ababa, for the first time in 1970, had conventional sewerage system. The electricity projects have increased supply from the hydropower generation to various parts of the country. Likewise, telecommunication services have reached increased number of urban and small towns in the country.

5.1.3 Bank's non-lending activities had not been satisfactory in the past. Its project level performance was just satisfactory. Overall, the Bank's performance in the public utility sector in Ethiopia was unsatisfactory for the completed interventions. However, there has been improvement in recent years with respect to resource mobilization and aid coordination as well as selectivity of its financing. The on-going projects (rural electricity and water supply services and regional integration projects) are selected with the view of meeting poverty reduction and regional integration objectives. The Bank's monitoring function has also improved since the opening of the Country Office. For the way forward, future CSPs should clearly articulate Bank's non-lending activities with appropriate performance indicators. In addition, there is need to make the field supervision missions more timely and effective. There is a need to revisit the

Matrix of Delegation of Authority to give the Task Managers and Country Office Staff as appropriate more decision-making authority in order to improve portfolio management and performance.

5.1.4 The Borrower's overall sectoral and project level performance has been satisfactory despite differences at sub-sector level. The Borrower has on its own, and with the help of other donors, taken the initiative to carry out sectoral reforms over the years. The water sector has undergone significant reforms relating to sector policies and institutional arrangements. Based on the decentralization policy, the Government has created water bureaus and service entities at regional and local levels throughout the country. Private sector participation is encouraged in particular in small towns and rural areas in the area of provision of repair and maintenance services to the water utilities and communities. There have also been reforms in the power and telecommunications sectors. There are now regulatory bodies independent of the executive authority. Rural services in all these sub-sectors are being encouraged and financed with the objective of meeting the MDGs. It is with this objective that the Bank included in the 2002-2004 CSPs the financing of rural electrification and rural water supply and sanitation projects. However, the Government needs to enhance the enabling environment for public/private partnership.

5.2 Challenge Ahead

5.2.1 There are still immense challenges to achieving the objective of poverty reduction and equity in the distribution of the fruits of development to all sections of the society. The percentage of population that has public utility services is still low. There is a need for substantial investment in physical infrastructure and capacity building to meet the MDGs related to public utility sector. Budgetary and donor resources are limited. This requires a well-thought policy for public/private partnership. At present, the pace of inflow of private resources is slow. There is need for the Bank to have continued dialogue with the Government to enhance the enabling environment for public/private sector. Simultaneously the Bank needs to continue its lending and non-lending assistance so that the sector policies and institutional reforms already carried out could be effectively implemented and sustained.

5.2.2 Bank's assistance is called for in particular in the water sector to realize the NEPAD and Water Sector Facility program of the Bank. The GoE aims to improve access to the water supply and sanitation services to the whole population of the country by 2015. Current levels of access to safe water supply and sanitation services are 46% and 18% respectively. Under the National Water Supply and Sanitation Program, by 2015 the Government aims to increase the national coverage for water supply and sanitation services to 62% and 54% respectively. The Bank has recently financed Rural Water Supply and Sanitation Initiative Program and this was a part of the overall Government program. The program includes enhanced institutional capacity building to improve the performance of regional and rural water entities. The realization of this program requires significant and sustained donors' assistance.

5.2.3 In the capital city of Addis Ababa, the population has grown exponentially in recent years. Consequently, the demand for water and generation of wastewater has also significantly increased. The AAWSA is already predicting a serious drinking water shortfall. Funding is

required for new production sources and for the overall water supply system enhancement. AAWSA has estimated a total cost of US dollars 350 million to upgrade the whole city's water supply and sanitation systems. The sustainability and system augmentation are thus big challenges in the years to come to meet the increasing demand in Addis Ababa.

5.2.4 Likewise, in the power sub-sector substantial investment is required to expand and sustain the electricity system to improve current access of 13% of the population. The Government's commitment to provide electricity to all rural areas with population of less than 5000 can be met only if the country's huge potential of hydropower generation is tapped. Already several master plan studies were conducted to determine additional hydro-generation potential and several sites have been identified and for some, feasibility studies are available. Funds are expected from the World Bank and other donors to finance new large scale hydropower projects. The on-going Bank's Rural Electrification Project co-financed with the World Bank in 2001 aims at providing electricity to some 36 regional centers for about 40,000 consumers in the next 5 years. The on-going Ethiopia-Djibouti Power System Interconnection aims to redress the missed opportunities in the past and such regional integration needs to be enhanced to enable the country earn the needed foreign currency for the infrastructure development in the country.

5.2.5 With the view of enhancing its management, EEPCo has now opted to secure external assistance through management contracts. This will help it improve its performance and prepare it for future challenges. The management contract foresees further strengthen EEPCo's in areas such as corporate planning, IT assistance, engineering design, financial and accounting training, capacity building, and customer relations.

5.2.6 The penetration of telecommunications services is also very low. This sub-sector is now commercially viable and capable of attracting private sector investment on its own. However, the enabling environment in the country is still inadequate for private sector participation.

5.2.7 The pace of inflow of private sector funds is slow. The Government needs to accelerate its efforts in enhancing the enabling environment to encourage public/private partnership and attract private sector investment particularly in the power and telecommunication sub-sectors. Continued and sustained donors assistance including that of the Bank is also critical for achieving the MDGs of the public utility sector.

6. MAIN FINDINGS/LESSONS AND RECOMMENDATIONS

6.1 Findings/Lessons

The review highlights the following main findings/lessons.

- A. Access to public utility services in the country is still low. The pace of inflow of private resources is slow. Enhanced enabling environment is required (paras 2.1.8, 5.2.1 & 5.2.7).

- B. In Ethiopia, studies show that the expected bulk sale tariff of electric power supplied from private thermal or hydropower generation are too high to be affordable at retail level since majority of the population are from the low income segment. As such, at least in the short- to medium-term, the Government and donors' would have to continue financing (with concessionary terms) any new hydropower projects required to supply power to the population at large particularly in rural areas. Participation of the private sector is more viable in large-scale hydroelectric generation projects that also cater to regional demands (paras. 3.4.4).
- C. Sustained institutional support based on a comprehensive need assessment study is required to have a substantive institutional development impact. The water sub-sector in particular needs significant capacity building assistance from the government and donors. The decentralization of the water services to the various regions has resulted in spreading thinly the already limited available skill (paras. 2.2.4.1 & 4.2.2).
- D. In the past, the Bank did not engage proactively in non-lending assistance such as policy and institutional reforms, resource mobilization and aid coordination activities as well as economic and sector works. Its engagement in some of these activities has improved since the opening of Country office. But, it is the view of some of the donors that the Bank with its intimate knowledge of the RMCs should play a more central and proactive role in non-lending assistance such as economic and sector works, resource mobilization and aid coordination activities in Ethiopia (paras. 2.5.2, 2.5.3, & 4.2.1).
- E. All the completed projects had faced the generic problems related to implementation delays such as delays in the fulfillment of loan conditions for entry into force and lack of familiarity of procurement and disbursement rules of the Bank, particularly resulting from turnover of staff in the executing agencies (paras. 2.2.3.2, 2.3.3.2, 2.4.3.1, 2.5.1 & 4.1.1).
- F. Bank's Supervision Summary Reports in SAP system are incomplete and there is backlog in the preparation of Project Completion Reports on the completed projects (para. 4.2.2).
- G. The frequency of Bank's field missions has improved in recent years but timeliness and effectiveness of field missions could further improve portfolio management and performance on the ground (para. 4.2.8).

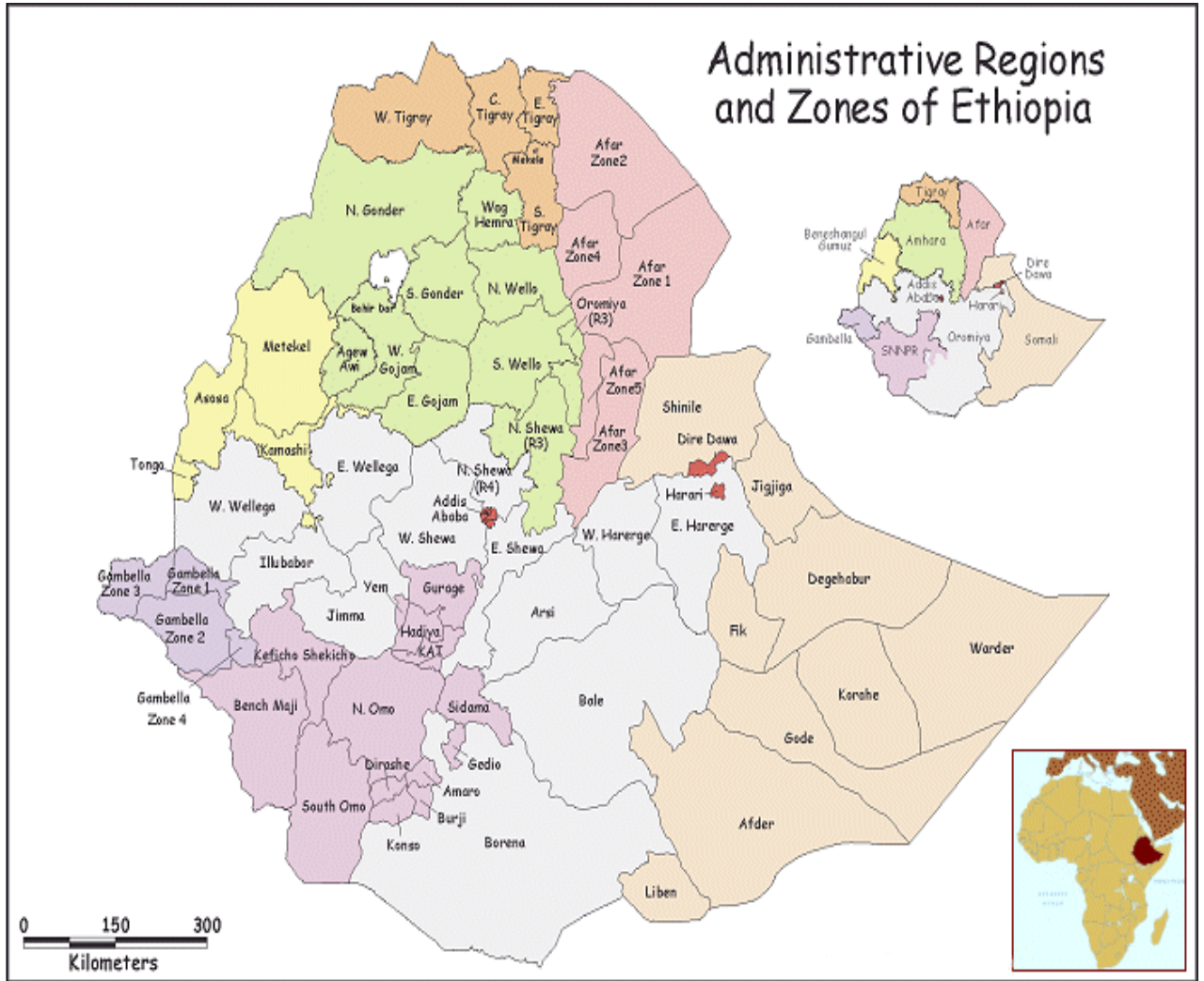
6.2 Recommendations

The following major recommendations address some of the findings and lessons to guide future strategy and interventions in the sector.

- A. The Bank needs to continue its assistance in the public utility priority sub-sectors in order to accelerate infrastructure development in the country.

- B. The Bank needs to invigorate and enhance its non-lending assistance in order to further improve the enabling environment for public/private partnership in the country. This is expected to pave the way for private sector financing of infrastructure projects, particularly those that have an economic advantage in regional spread.
- C. The Bank needs to join hands with other donors to enhance its institutional and capacity building assistance, particularly for the water sub-sector, in order to make the decentralization and institutional reforms effective and sustainable.
- D. There is need to revisit the Matrix for Delegation of Authority so that the Task Managers and Country Office staff will be given adequate decision-making authority for timely decisions and actions. Additionally, there is need to encourage increased visitation of Senior Management, who has the authority and capacity to make higher-level decisions on the ground.

Annex 1



EVOLUTION OF GOVERNMENT'S SECTOR POLICY, STRATEGY, SECTOR REFORMS AND INSTITUTIONAL ARRANGEMENTS

Sector Policy and Strategy

1. MoWR has developed a Water Sector Development Program (WSDP) covering the period from 2002 to 2016. This WSDP has been prepared in support of the principles and objectives endorsed and issued by the Government of Ethiopia (GoE) in its Water Resources Management Policy and Water Sector Strategy. About 44% of Ethiopia's population lives in absolute poverty in rural communities of less than 5000 population. The GoE has made a decision to commit itself for achieving the Millennium Development Goals (MDGs).
2. The policy and strategy of the water sector aim to enhance and promote all national efforts towards the efficient, equitable, and optimum utilization of the available water resources of Ethiopia for significant socio-economic development on a sustainable basis with emphasis of enhancing rural water supply and sanitation services. The WSDP contains programs that are expected to contribute towards poverty eradication in Ethiopia. Presently, access to safe drinking water as well as sanitation in Ethiopia are among the lowest in the world and less than 25% of the rural population has access to potable water supply.
3. The planning horizon for the WSDP is 15 years and divided into three five-year periods of short term (2002-2006), medium term (2007-2011), and long term (2012-2016) in order to suit the existing practice of 5 year development plans of regional and federal institutions. The GoE goal is to increase the urban water supply coverage to 98% of the population by 2016. To achieve this goal, the regional and local Water Supply & Sewerage Authorities (WSSA) have now the responsibility to develop their own water supply and sanitation plans. Similarly, the GoE has an ambitious goal to provide 100 % potable water access to rural communities, under its policy of universal access for water supply & sanitation, prior to 2016.
4. Similarly, in the power and telecommunications sub-sectors, the policy and strategy aim at developing the infrastructure in general and enhancing access to rural areas in particular in order to contribute towards meeting poverty reduction goals. Similar development programs and planning horizons are being followed in these sub-sectors as well. Currently, the country taps only 1.5% of its hydropower potential and telephone access is still very low. The aim is to achieve 60 % rural electrification accessibility and strengthen telecommunications activity by providing telephone services to some 6000 centers by 2010.
5. In general, the overall policy, strategy and action plans of the GoE for the public utility sector are being fine-tuned in line with the country's SDPRP. The action plans are very ambitious aiming to meeting the MDGs set for 2012 ahead of schedule by 2015. The government is currently aggressively funding several development projects in this sector from budgetary allocation and through external donors' assistance. Parallel capacity building efforts are on going based on need assessment studies and donors' assistance such as the World Bank with the aim of enhancing the capability of the regional water service authorities, the small town water services units and the operators of the rural water supply schemes.

6. The country's priorities were set based on development plans spanning a 5-year period. Between 1974 and 1992, the country was following a centralized economic planning with limited role of the private sector. But since 1992, the Government has been making major reforms in all areas such as setting up of federal system of government; carrying out policies and strategies that foster for rural growth, accelerating private sector growth in the market driven economy; and strengthening of public institutions to improve transparency, accountability and overall performance. The Agriculture Development Led Industrialization Strategy (ADLIS) was the cornerstone of the Government's Interim Poverty Reduction Strategy Paper (2000/01-2002/03), which led to the preparation of the first full-fledged Sustainable Development and Poverty Reduction Program (SDPRP) endorsed by the Bretton Woods Institution in September 2002. At the time of this evaluation, the GoE is in the process of finalizing its second program document covering the period 2002- 2004, entitled "Plan for Accelerated Sustainable Development to End Poverty (PASDEP).

7. The country is now known to have several policies, strategies, sectoral studies and feasibility studies for projects to guide the development of the various socio-economic sectors including the public utility sector. .

Sector Reforms and Institutional Arrangements

Water Sector

8. Over the past 50 years, the institutional structure of the water sector has undergone significant changes. The Water Resources Department was established in 1956 under the Ministry of Public Works. In 1980, the Water Resources Commission was created and the Commission was converted to The Ministry of Natural Resources in 1992. Since 1995, the water sector is under the Ministry of Water Resources (MoWR).

9. In accordance with the GoE decentralization policy, the responsibility for both urban and rural water supply was transferred to the regional governments in 1995 while Addis Ababa Water and Sewerage Authority (AAWSA) remained an autonomous public authority to serve the Addis Ababa administrative area. The MoWR's role is now more in policy formulation and assisting regions outside Addis Ababa in capacity building and providing technical advice. The MoWR is now engaged with its new role of improving the water sector by setting appropriate policies, strategies, goals, rules, regulations and priorities. Each of the nine regions and the Dire Dawa Administrative area in the country has a Regional Water Bureau. The planning and management of town water supply and sewerage services are the responsibility of Town Water Boards operating under the Regional Water Boards. MoWR has developed a Water Sector Development Program (WSDP) covering the period from 2002 to 2015 to improve the water supply and sanitation coverage from the current national coverage of 42% and 18% to 62% and 54% respectively.

10. At present, the Addis Ababa Water and Sewerage Authority (AAWSA) is responsible for water supply and sewerage collection in the City of Addis Ababa. Since 2002, following the decentralization policy of the GoE, a Water Supply and Sanitation Authority has been set up in each of the regional capitals. The rural communities have now the responsibility to run and operate the water schemes in their respective areas. The AAWSA has continued to provide its services for the greater Addis Ababa area. Urban water services are run on full cost recovery (allowing cross subsidization among consumers), while small towns and rural water services are to cover operations and maintenance costs.

Water tariff rates have been as low as Birr 0.50 per m³ over the last decades. Water tariffs increased for the first time in 1995/96. Since then, there has been gradual tariff rate increases to cover costs. Current water rates (including sanitation services) range from Birr 1.15 to 3.50 per m³ in Addis Ababa, while tariffs could be as high as Birr 5 per m³ in regional towns.

Electricity Sector

11. Electricity generation, transmission, and distribution in Ethiopia are the responsibility of Ethiopia Electric Power Corporation (EEPCo). EEPCo is a 100% government owned autonomous utility formerly known as Ethiopia Electric Light & Power Authority (EELPA) created in 1956. Since 1976, EELPA was under the Ministry of Mines and Energy and presently it is under the Ministry of Infrastructure. EEPCo prepares the sector's development program on a 5-year basis.

12. EEPCo is the countrywide public utility responsible for except for some minor private operations, all electricity activities. EEPCo is operating the interconnected national grid, enter into agreements with potential private hydropower generators, and sell to all customers. Consequently EEPCo is operating under the single buyer model; it purchases or will purchase all power generated by the private sector and will enter into power purchase agreements (PPAs) with the independent power producers. EEPCo needs substantial additional capital for new generation, transmission, and /or distribution assets. The utility is looking into the possibility of GoE injection of equity.

13. The GoE energy sector strategy is to develop indigenous energy resources including hydropower, geothermal, wind, and coal fired power plants. EEPCo has offered investment incentives to investors for development of hydro power through a system of build, operate and transfer (BOT). GoE has concluded that rural areas with population of less than 5000 cannot maintain a sustainable rural electrification program. Therefore, Government is to support all population centers less than 5000. The GoE has an ambitious goal of rural electrification of 6000 rural centers by 2010.

14. EEPCo has now formulated a strategy for expanding rural electrification comprising grid extension by EEPCo and via private sector investment in power supply to off-grid areas. The GoE has set up a Rural Electrification Fund to support off grid rural electrification. Currently, only about 13% of the population in Ethiopia has access to electricity. EEPCo has a five-year power sector program targeted to increase the country's electricity access rate from 13% to 17% by 2005/2006.

Telecommunication Sector

15. The Ethiopian Telecom Corporation (ETC), a publicly owned corporation, is responsible for providing telecommunications service throughout Ethiopia. ETC has been undergoing organizational restructuring since 1996 and its direction is to decentralize and grant greater autonomy to regional offices. The regional offices will be responsible for operations, installation, repairs and maintenance. In 1983, at the time of first Bank intervention in the Ethiopian telecom sector the country had only 107,400 installed telephone terminals and 84,000 connected direct exchange lines. At present access to telecommunication, services have significantly improved in urban areas particularly with the advent of mobile services. Rural telecommunication services are still at embryonic stage. ETC is now undertaking a major plan to expand its services to rural areas through wireless technology.

16. Activities in the telecommunications sector are somewhat the same as the power sector, i.e., the GoE is focused on providing and connecting the rural areas with telephone service. Presently, the GoE has no plan for privatization of the telecommunication sector. However, private companies can enter into partnership with Ethiopian Telecom. At present, selling of prepaid mobile SIM cards is outsourced to the private sector.

17. ETC has planned expanding its operations countrywide. It has plans to expand mobile service to 5000 villages in 2006/7. Presently only 1% of the population is served by mobile phones. Also ETC is targeting installation of an additional 1.5 million new-fixed lines in 2006/7.

18. In the past, ADB and the World Bank assisted ETC. Both have ceased financing ETC as sector is expected to cover cost of new investments through internally generated funds or through credit from commercial banks. Currently, ETC raises resources from local commercial banks and through selling bonds. ETC claims that in 2004, through sale of bonds it raised USD 315 million and in 2005 USD 300 million.

19. ETC is actively looking into installation of wireless technology, fiber optic system on a regional interconnection to Sudan and Djibouti. The Council of Ministers approves baseline telephone tariffs. ETC has flexibility in setting up fees for value added services, which are set sufficiently high to generate adequate profit to compensate for the low baseline telephone tariffs.

Parent Ministry

20. The Ministry of Infrastructure is the lead institution responsible for management and development of the sub-sectors under infrastructure (energy sector, transport (roads, airlines, railways, and civil aviation), telecommunications, and construction works). A cabinet level minister heads the Ministry, which has two departments: one dealing with construction and public utilities management affairs and the other with the regulatory affairs. The Ministry of Infrastructure coordinates with the MoWR for purposes of hydropower development. Further, the Ministry of Infrastructure supervises several regulatory institutions such as the Ethiopian Electricity Agency (EEA) and the Ethiopian Telecommunications Agency (ETC).

21. The Ethiopian Electricity Agency (EEA) is responsible for regulating the power sector. It reports to the Ministry of Infrastructure. EEA became operational in 2000. It operates with budget allocation from the Ministry of Infrastructure. It is still striving to fulfill its role as an independent regulating agency. However, its present role is very limited as the Council of Ministers set up the regulations and approves tariffs. The current average electricity tariff (which is just above US\$0.05 per kWh is considered to be on the low side considering that the potential cost of generation from new hydro power plants ranges between US\$0.04 and US\$0.05 per kWh. The EEA role is to ensure viability of the electricity utility as the same time protecting customers. In particular, consumers are protected from unwarranted tariffs increases to pass over operational inefficiencies. The EEA tries to regulate this to protect consumer's interest while at the same time recommending appropriate increases.

PROJECT/STUDY DETAILS

Project Title	Date Approved	Source	Loan/ Grant Approved (UA) Million	Objectives	Components	Time/cost variations	Achievements/Outcomes (Rate of Return or expected benefits)
WATER & SANITATION PROJECTS							
Addis Ababa Water and Sewerage Phase I	12/12/75	ADF	4.61	Construct new sewerage treatment plant with waste water collectors and sewerage pumping station for the City	Construction of 60 km of major and minor sewers; sewerage pumping station; and sewage treatment plant	Signature= Entry into force= Date of completion= 1982 (7 years from approval) Details not available	FIRR 2.95% (appraisal) Benefits not fully achieved
Addis Ababa Water and Sewerage Phase II	22/03/79	ADF	6.63	Extend Sewer system to Central and South-eastern Part of City and establish a sewerage laboratory.	Construction of additional secondary lines, civil works, construction of manholes, purchase equipment. For sewerage system and laboratory. Water wastage study, compensation payment for right of way sewer lines, recruitment of expatriate personnel for initial operation, training of locally recruited staff, funding for consultancy services.	Signature=16.05.79 Entry into force= 04.08.80 Date of completion= October 1993 (12 years from approval) Significant time overrun for a project (more than 5 years) No cost overrun (fully disbursed)	Not calculated (at appraisal) PCR done in 1996 FIRR=-4% (PCR) ERR= 5% (PCR) Benefits not fully achieved
Assab Water Supply	20/11/79	ADF	6.45	Improve quality of drinking water in Assab	Drilling of wells, water lines, construction of reservoirs, and construction of access roads.	Date of completion= 1990 (No longer in Ethiopia)	FIRR = 10.5% (appraisal). This project not included in the review since Assab is no long in Ethiopia

Project Title	Date Approved	Source	Loan/ Grant Approved (UA) Million	Objectives	Components	Time/cost variations	Achievements/Outcomes (Rate of Return or expected benefits)
Water Supply for 6 Centers	11/11/82	ADF	13.82	Supply safe and adequate water supply to 145,000 residents of Combolcha, Debre Markos, Debre Zeit, Deder, Goba and Mojo.	Supply and installation of 17 borehole submersible pumps, 8 centrifugal pumps, diesel generators. Construct 114 km pipelines, nine reservoirs, buildings, civil works, and engineering supervision consulting services.	Signature= 02.03.83 Entry into force= 20.10.83 Date of completion Five Centres in 1992 (10 years from approval) Last centre completed in December 1995 (13 years from approval) Significant time overrun for a project (more than 5 years) Loan savings (UA231,562.65 cancelled)	FIRR=2% (appraisal); No PCR Objectives and Benefits reported to have been achieved
Water Supply for 8 Centres (funded only for 3 centres due to inadequate ADF resources at the time)	24/11/83	ADF	13.77	Provide safe water supply to 3 centers (Jimma, Dira Dawa, and Moyale)	Construction of treatment plant, water lines, and pumping station.	Signature= 04.05.84 Entry into force= 16.08.85 Date of completion= June 1997 (14 years from approval) Significant time overrun for a project (more than 5 years) Loan savings (UA2,170.978.28 cancelled)	FIRR at appraisal=2% No PCR Objectives and benefits reported to have been achieved
5 Towns Water Supply and Sanitation Study	17/04/89	TAF Grant	1.63	Prepare detailed Feasibility Study for Bahar Dar, Dessie, Gondar, Mekele, and Gore	Prepare detailed design report and tender documents	Completion date =1995 (6 years from approval) Significant time overrun for a study (more than 2 years) No cost overrun (fully disbursed)	Studied projects implemented in piece meal as and when funds were made available Unfunded centers are now included in the Urban Water Supply Program

Project Title	Date Approved	Source	Loan/ Grant Approved (UA) Million	Objectives	Components	Time/cost variations	Achievements/Outcomes (Rate of Return or expected benefits)
Addis Ababa Wastewater Master Plan Study	18/09/89	TAF Grant	1.09	Prepare Master Plan for development of wastewater facilities in Addis Ababa and contract documents.	Prepare long term strategy for wastewater disposal and a Master Plan.	Signature =12/03/93 Entry into force= 31/12/93 for the Loan and 23 February 1994 for the grant Completion date = 1997 (eight years from approval) Significant time overrun for a study (more than 2 years) No cost overrun (fully disbursed)	Not followed by project (some part being implemented in a piece meal as and funds became available)
12 Towns Water Supply and Sanitation Study	28/08/91	TAF Grant	2.30	Investigate and confirm adequacy of water resources and define cost effective scheme for 12 centers. (Harrar, Debre Berhane, Gode, Mizan Teferi, Agaro, awash, Metehara, Meki, Asebe Teferi, Bale Robe, Arsi Negele, Bedele).	Confirm adequacy of water resources, define cost effective schemes. Investigate appropriate sanitation.	Signature= 19.03.92 Entry into force=31.10.93 Date of completion=1997 (6 years from appraisal) Significant time overrun for a study (more than 2 years) Loan savings (UA512,095.03 was cancelled)	Not followed by project. Only Harar was picked up for further study which now lead to Bank's financing of the Harar Water Supply Project. The other centers now included in the overall urban water supply program
Addis Ababa Water Supply Stage IIIA Study cum Project	10/02/92	ADF and TAF Grant	3.13 2.95	Prepare detailed design and tender documents for water supply in Addis Ababa	Assessment of groundwater potential, hydro geological studies, geotechnical studies, final design report, and preparation of tender documents.	Oct. 1998 (Project was Terminated). Later completed with Government's funds and bilateral assistance Significant time overrun for a study (more than 2 years) cost overrun covered by Government	Project/study has been completed with Government finance and bilateral financing. Objectives of the project part have been achieved although delayed and high cost incurred

Project Title	Date Approved	Source	Loan/ Grant Approved (UA) Million	Objectives	Components	Time/cost variations	Achievements/Outcomes (Rate of Return or expected benefits)
Harar Water Supply and Sanitation	28/05/02	ADF TAF Grant	19.89 1.12	Improve access to water supply and sanitation services in Harar, Alemaya, Awudai, Adele and Dengego through improved water production, distribution and sanitation for improved health, poverty alleviation and economic growth.	Installation of 4 new wells, laying of 75 km of 24 inch water transmission line with 4 booster stations. Rehabilitation and extension of distribution network; provision of community managed public water fountains, procurement of 4000 consumer meters, construction of drainage system, communal latrines; purchase of vacuum tankers, refuse collection containers and vehicles. Conduct sanitation study. Public Education awareness on water, health and AID/HIV and water tariffs.	Signature= 08.11.02 Entry into force= 09.12.03 On going	FIRR not calculated at appraisal EIRR= 35% at appraisal On going
Rural Water Supply Initiative	21/12/06	ADF	43.61	Improve access to rural water supply and sanitation services in 120 <i>Woredas</i> in all 9 regions	Water facilities, sanitation facilities with hygiene education, capacity building and program support (design and supervision, implementation support, audit and M&E)	On going	On going
Sub Total			116.39				
Cancellation			3.75				
Net Loans & Grants			112.64				
POWER PROJECTS							
Rural Electrification	27/02/79	ADB and NTF	1.50 5.00	Extend power service to rural area	Electrify rural towns	Signature= 1984 Details not available	FIRR 7.6% (at appraisal) No PCR Objectives and Benefits reported to have been achieved
Chemoga Yeda Electric Power Study	20/11/85	ADF	0.55	Pre-feasibility Study	Complete report to feasibility stage	Details not available	Not followed by project. But now the study is being updated for World Bank financing

Project Title	Date Approved	Source	Loan/ Grant Approved (UA) Million	Objectives	Components	Time/cost variations	Achievements/Outcomes (Rate of Return or expected benefits)
Electricity Power Transmission	12/12/86	ADB and ADF	25.02 10.00	Expand existing grid and transmission lines	Construct 473 Km of 230 kV from Koka-Diredawa and Gilgel-ghedo lines. Construct 450 km 66 kV lines. Construct 475 km of 15 kV distribution lines in 20 towns. Purchase equipment. Fund consultancy services.	Signature= 24.04.87 Entry into force=21.09.87 (for ADB) Entry into force =25.04.87 (for ADF) Date of Completion= April 1999 (13 years from approval) Significant time overrun for a project (more than 5 years) Loan savings (ADB loan of UA 633,029.24 and ADF loan of UA114,965.96 cancelled)	No PCR Objectives and benefits reported to have been achieved
Aleltu Hydroelectric Feasibility Study	29/10/90	ADF	1.65	Determine technical feasibility of Aleltu Hydropower project	Complete Feasibility Study	Signature= 21.02.91 Entry into force=02.01.92 Completion date= Dec. 1998 (8 years from approval) Significant time overrun for a study (more than 2 years) Loan savings (UA75,499.15 cancelled)	Not followed by project
Multinational Ethiopia-Sudan Power System Interconnection Study	02/10/92	ADF	2.30	Determine technical feasibility of transmitting power to Sudan	Feasibility Study and detailed engineering design and preparation of tender documents and training of staff	Signature= 07/01/93 Entry into force=31/10/94 Completion date=December 1997 (5 years from approval) Moderate time overrun for a study (less than 2 years) Loan savings (UA1,756,503.75 was cancelled limiting the study to only phase one (feasibility study))	Study partially completed. Not followed by project

Project Title	Date Approved	Source	Loan/ Grant Approved (UA) Million	Objectives	Components	Time/cost variations	Achievements/Outcomes (Rate of Return or expected benefits)
Northern Ethiopia Power Transmission	14/12/92	ADB and ADF	24.40 27.63	Develop hydropower potential and transmit power to different regions.	Install 500 km of 230 kV power line from Bahir Dar to Mekele through Alamata. Install 100 km of 132 kV line from Mekele to Adigrat. Install 140 km 132 kV line from Mekele to Adwa. 367 km of 66 kV lines from various substations to various towns. Install 327 km of 15 kV lines. Install 140 km of low voltage distribution network. Construction of 230, 132, and 66kV substations.	Signature =14.04.93 Entry into force=31.08.93 Completion date= July 1998 (6 years from approval) Insignificant time overrun for a project Loan savings (ADB loan of UA4,291,373.15 and ADB loan of UA912,215.45 were cancelled)	FIRR = 11.55% (appraisal) EIRR = 16.00% (appraisal) PCR done in 2000 and PPER done in 2003 FIRR= 11.4% (PCR) EIRR = 17.75% (PCR) FIRR= 12.40% (PPER) EIRR = 17.52 (PPER)
Hydroelectric Feasibility Study	24/11/93	ADF	4.25	Compare feasibility of four hydro projects and determine least cost option	Load forecast and generation plan. Feasibility study and EIA reports.	Signature= 06/01/94 Entry into force = 17/07/94 Completion date =June, 2001 (8 years from approval) Significant time overrun for a study (more than 2 years) Loan savings UA1,903,276.46	Not followed by project
Rural Electrification	17/12/01	ADF	37.67	To extend the national electricity grid to supply electricity to 36 rural <i>Woredas</i> towards promoting socioeconomic development in rural areas.	Construct 18 66/33 kV substations. Construct transformers/distribution lines and streetlights. Procure tools and equipment; install energy meters. Install 2448 km distribution lines 288 km low voltage lines Install 2177/3-phase meters and 37,916 single-phase meters.	Signature=14.03.02 Entry into force=12.12.02 On-going	On-going

Project Title	Date Approved	Source	Loan/ Grant Approved (UA) Million	Objectives	Components	Time/cost variations	Achievements/Outcomes (Rate of Return or expected benefits)
Multinational Ethiopia/Djibouti Power Interconnection Project	13/12/04	ADB and ADF	20.88 (Ethiopia portion of loan)	To establish power trade between Ethiopia and Djibouti and increase electricity access at affordable prices.	Construct 283 km of power line. Extension of 230 kV Substation at Dire Dawa and construction of a new substation at Adigala in Ethiopia. Construction of a new 230 kV substation at PK 12 and 63 kV at Ali Sabeih in Djibouti. Install 283 km optical fiber communication for interconnector. Electrification of Adigala, Aysha, Dewelle, and Harewa in Ethiopia. Training of EEPCo and EdD engineers and commercial staff.	Signature=16.05.05 Entry into force= Loan not yet effective	FIRR= 15.8% (appraisal) EIRR=25% (appraisal) Implementation yet to start
Sub Total			160.85				
Cancellation			3.88				
Net Loans & Grants			157.97				
TELECOM PROJECTS							
Telecommunication I	13/06/84	ADB	24.03	Extend service to 200 rural areas	Install automatic exchange lines in 13 towns. Extend 14 exchanges by a total of 34,000 lines. Extend cable distribution network for 55,000 connections. Install microwave links to Sudan, Yemen & Djibouti. Upgrade activities of Training Institute.	Signature- 11.11.84 Entry into force=18.05.85 Completion date=Dec 1991 (7 years from Approval) Moderate time overrun for a project (less than 3 years) No cost overrun	FIRR=12% (appraisal) PCR done in 1992 FIRR=25.3% (PCR)

Project Title	Date Approved	Source	Loan/ Grant Approved (UA) Million	Objectives	Components	Time/cost variations	Achievements/Outcomes (Rate of Return or expected benefits)
Telecommunication II	01/12/92	ADB and ADF	32.40 14.32	Upgrade existing network and phone subscribers. Upgrade rural services.	Increase equipment capacity and cable lines. Install 22,320 channels of multiplex equipment. Install digital microwave link, Enhance Project Implementation Procedures.	Signature = 14.04.93 Entry into force=27.01.95 Completion date=June 2002 (10 years from approval) Significant time overrun for a project (more than 5 years) Loan savings (ADB loan of UA8,606,831.31 and ADF loan of UA2,970552.77 cancelled)	FIRR = 12% (appraisal) No PCR Objectives and benefits have been met
Sub Total			70.75				
Cancellation			11.60				
Net Loans & Grants			59.15				
GRAND TOTAL LOANS AND GRANTS (Net)			UA 329.76				

EFFICIENCY ASSESSMENT OF INDIVIDUAL PROJECTS

WATER SUB-SECTOR

Phase I of the Addis Ababa Water & Sewerage project: This project involved construction of a sewerage plant and, as stated earlier, the technology installed was inappropriate resulting in underutilization of the plant. Phase II involved expansion of the same plant and laying of the trunk mains and provision of operational equipments as well as training. These projects faced with delays in implementation. The delays in Phase II resulted from technological problems. The inability of the consulting firm to find solutions to the inappropriate technology of the digestion tanks resulted in reducing the benefits of the overall sewerage project. In addition, there is no full cost recovery in the sewerage services.

The Water Supply for 6 Centers project: There was time overrun but loan savings in this project.¹⁴ Project implementation ended in 1990 against the scheduled date of 1985. The loan savings were used for additional works (such as 2 additional water schemes at the towns of Woldia and Ghimbi). However, there was further delay in the construction of these two additional water schemes because of the civil war and the poor performance of the local contractor. The project served satisfactorily once completed. The systems are still operational even after their useful economic life because of adequate maintenance practice. In recent years, the tariff rates applied allowed for full operation and maintenance costs.

The Water Supply for 8 Centers project: The Band financing covered only 3 centers although the name of the project remained as Water Supply for 8 Centers due to funding limitations. The project also suffered delays in the initial stages because of the changes in the water source locations. The poor performance of the contractor also added to the delays. Despite the delays, there was loan savings of about UA2.17 million at completion in 1995. Since the centers are large towns such as Jimma and Dire Dawa, the applied tariffs allows full cost recovery. The systems are operating well to the present time.

The Addis Ababa Water Supply Stage IIIA Project/ Study: The consulting firm for this project failed to deliver as per the contract, which led to termination in 1999 due to protracted dispute between executing agency, AAWSA and the selected consulting engineering firm. The two parties could not come to terms and ended in prolonged litigation. However, on a positive note, AAWSA and a bilateral donor later picked up the unfinished work. As envisaged, the production wells facilitated the augmentation of the water supply for the city. AAWSA covered from its own budget the cost overrun, resulting from additional works and delays.

Summing up, of the 5 pre-CSP projects, the 2 sewerage projects and the project component¹⁵ of Addis Ababa Water Supply Stage IIIA Project/ Study are rated unsatisfactory. The 2 water supply projects, in spite of the implementation delays, are rated satisfactory considering the overall positive outcomes and benefits. Thus, the overall efficiency is rated satisfactory.

¹⁴ No PCR was prepared for this project.

¹⁵ The study component is evaluated separately in the section covering the non-lending activities.

The Harar Water Supply & Sanitation Project and Rural Water Supply & Sanitation Initiative

Program: These post-CSP era projects are still in the early stages of project cycle. It is too early to rate the efficiency of these projects.

POWER SUB-SECTOR

The Rural Electrification and Electric Power Transmission Projects: These projects fell under the pre-CSP era. Both faced implementation delays. Increase in the scope of work and the civil strife in the country contributed to the delays. The non-performance of consultants and suppliers as well as the non-compliance with the Bank's procurement rules added to the delays. However, despite the delays the executing agency successfully completed the projects, which have been serving several semi-urban and rural towns spread in the country satisfactorily.

The Northern Ethiopia Power Transmission Project: This project is the only project in the sub-sector that has both a PCR and a PPER. The project implementation run between 1994 and 1998 resulting in about 28 month delay over the appraisal estimates. The delays related to meeting loan conditions and completing design review, bid evaluation, and construction. Compared with the pattern of delays in other projects in the public utility sector, these delays look modest. There was saving on foreign currency costs and drawl from ADB/ADF loans due to good competitive bidding but on the other hand there was cost overrun on local costs due to depreciation of Birr. Overall, there was a net cost under-run. The rate of returns re-calculated in the PCR and PPER reports were comparable with appraisal estimates. The recalculated Financial Rate of Return in the PPER was 12.40% and the Economic Rate of Return was 17.52%, compared to the appraisal estimates of 11.55% and 16% respectively.

On the efficiency criterion, all the 3 pre-CSP projects are rated satisfactory in spite of the implementation delays because of the overall outcomes and the benefits of these projects.

The post-CSP projects i.e., the Rural Electrification and the Ethiopia-Djibouti Power Interconnection Projects are at early stages of project cycle and hence it is too early to evaluate their efficiency.

TELECOMMUNICATION SUB-SECTOR

The Telecommunication I Project: The PCR for the Telecommunication I project reports successful completion within budget but with some implementation delays. The recalculated Financial Rate of Return (FIRR) was 25.3% compared to 12% estimated at appraisal.

The Telecommunication II Project: This project faced from the beginning a delay of 21 months from loan approval date to entry into force due to difficulty in fulfilling one condition relating to the approval of the executing agency's (Ethiopian Telecommunication Corporation's- ETC) new organization structure. Further delays occurred due to slow processing in procurement activities, mainly resulting from the then organizational restructuring in the Bank in 1995. About 35% of the total loan (UA 8.61million from ADB loan and UA 7.91million from ADF loan) were cancelled mainly because the ETC decided to exclude quite a few items from the original list of goods and

services. ETC instead used its own funds and turnkey method of procurement for the urgently needed junction network for Addis Ababa to reduce procurement time that would have been required if International Competitive Bidding (ICB) were to be followed.¹⁶

Despite the delays, by 2000 the project was more than 70% complete and the financial health of the Corporation was very satisfactory. It had a net profit margin of 38%, a return on total assets of 14%, a gearing ratio of 0.63, a current ratio of 3 to 1, and a liquidity ratio of 1.2¹⁷. By 2002, the executing agency completed the project including the components excluded from the loan and self-financed by the ETC. The project has realized the full benefits over the years. Thus, the project's efficiency with respect to benefits is rated as satisfactory.

On the efficiency criterion, both the projects undertaken in the pre-CSP era, are rated satisfactory despite the implementation delays because of the outcomes and the benefits.

¹⁶Although the loan balances were cancelled, the project is still not officially closed. This is attributable to outstanding retention payments to be settled by the Bank and the Borrower's complaints on the manner of disbursements by the Bank in the two loans. The Government's point was that instead of first disbursing from ADF loan, the Bank was disbursing from the ADB portion of the loan thus creating an additional liability for the borrower for the interest on amount disbursed over the years. The protracted correspondence between the Bank and ETC in the past failed to resolve the matter. Now the Country Office has taken up the matter.

¹⁷ Supervision Mission BOR, 12 June 1999

EVALUATION RATINGS

1. LENDING OPERATIONS

Ratings of Water Sector Project 1975-2004

PROJECT	APPROVAL DATE	RELEVANCE	EFFICACY	IMPLEMENTATION PERFORMANCE	OUTCOMES/BENEFITS	OVERALL EFFICIENCY	INSTITUTIONAL DEVELOPMENT	SUSTAINABILITY	RATING SCORE
1	2	3	4	5	6	7	8	9	10
						5+6/2			(3+4+7+8+9)/5
Addis Ababa Water and Sewerage Phase I	12/12/75	3.5	2.5	2.5	2.5	2.5	2.0	2.5	2.6
Addis Ababa Water and Sewerage Phase II	03/22/79	3.5	2.5	2.5	2.5	2.5	2.8	2.5	2.8
Assab Water Supply	11/29/79	NA	NA	NA	NA	NA	NA	NA	NA
Water Supply for 6 Centers	11/11/82	3	3	2.8	3	2.9	2.0	3	2.8
Water Supply for 8 Centers	11/24/83	3	3	2.8	3	2.9	2.0	3	2.8
Addis Ababa Water Supply Stage IIIA Project cum Study	10/02/92	3.5	3	2.5	3.5	3.0	2.0	3.5	3.0
Aggregate Score		3.30	2.8	2.6	2.9	2.8	2.2	2.9	2.8
Harar Water Supply and Sanitation	28/05/02	Project's implementation has just started							
Rural Water Supply and Sanitation Initiative	21/12/05	Project launched in April 2006							

NA= Not Applicable- excluded since Assab is no long part of Ethiopia. Ratings of 2.6 and above are considered satisfactory.

Ratings of Power Sector Projects 1975-2004

PROJECT	APPROVAL DATE	RELEVANCE	EFFICACY	IMPLEMENTATION EFFICIENCY	OUTCOMES/BENEFITS	OVERALL EFFICIENCY	INSTITUTIONAL DEVELOPMENT	SUSTAINABILITY	RATING SCORE
1	2	3	4	5	6	7	8	9	10
						5+6/2			(3+4+7+8+9)/5
Rural Electrification	02/27/79	3	3	2.5	3.0	2.75	2.5	3.0	2.85
Electricity Power Transmission	12/12/86	3	3	2.5	3.5	3.00	2.5	3.0	2.90
Northern Ethiopia Power Transmission	12/14/92	3.5	3	3.5	3.5	3.50	2.8	3.5	3.26
Aggregate Score		3.17	3	2.8	3.33	3.08	2.6	3.17	3.00
Rural Electrification	12/17/01	Implementation of this project is just starting							

Notes:

- (1) The performances of indicators are rated on a four-point scale, with 4 being a highly satisfactory rating and 1 being a highly unsatisfactory performance.
 - (2) All ratings in the table are rounded up.
 - (3) Ratings 2.6 and above are considered satisfactory
- NA= Not Applicable

Ratings of Telecommunications Sector Projects 1975-2004

PROJECT	APPROVAL DATE	RELEVANCE	EFFICACY	IMPLEMENTATION EFFICIENCY	OUTCOMES/BENEFIT	OVERALL EFFICIENCY	INSTITUTIONAL DEVELOPMENT	SUSTAINABILITY	RATING SCORE
1	2	3	4	5	6	7	8	9	10
						5+6/2			(3+4+7+8+9)/5
Telecommunication I	06/13/84	3.5	3.5	3	3.5	3.25	2	3.5	3.15
Telecommunication II	12/01/92	3	3	2.5	3.5	3.00	2	3.5	2.90
Aggregate Score		3.25	3.25	2.5	3	3.13	2	3.5	3.03

Overall Rating for Public Utility Sector Project Performance 1975-2004

<u>SUB SECTOR</u>	RELEVANCE	EFFICACY	EFFICIENCY	INSTITUTIONAL DEVELOPMENT	SUSTAINABILITY	AGGREGATE SECTOR SCORE
Water & Sanitation	3.30	2.80	2.76	2.16	2.90	2.80
Power	3.17	3.00	3.08	2.60	3.17	3.00
Telecom	3.25	3.25	3.13	2.00	3.50	3.03
OVERALL RATING	3.24	3.02	2.94	2.25	3.19	2.92

Note: ratings of 2.6 and above are considered satisfactory

2. NON-LENDING OPERATIONS-STUDIES

PROJECT	APPROVAL DATE	RELEVANCE	EFFICACY	EFFICIENCY	INSTITUTIONAL DEVELOPMENT	SUSTAINABILITY	RATING SCORE
<u>Water Supply and Sanitation Sector</u>							
5 Towns Water Supply and Sanitation Study	04/17/89	3.0	3.5	2.5	2.0	N.A	2.63
Addis Ababa Wastewater Master Plan Study	90/18/89	3.5	3.5	2.5	2.5	N.A	3.00
12 Towns Water Supply and Sanitation Study	08/28/91	3.0	3.5	2.0	2.0	N.A	2.63
Addis Ababa Water Supply Stage IIIA Study cum Project	10/02/92	3.5	3.0	1.5	1.5	N.A	2.38
Sub-total aggregate							2.66
<u>Power Sector</u>							
Chemoga Yeda Electric Power Study	12/20/85	3.0	3.5	2.5	2.5	N.A	2.88
Alelu Hydroelectric Feasibility Study	10/29/90	3.0	3.5	2.5	2.5	N.A	2.88
Ethiopia-Sudan Power System Interconnection Study	02/10/92	3.5	2.0	2.0	2.5	N.A	2.50
Hydroelectric Feasibility Study	12/24/93	3.0	3.5	2.5	2.5	N.A	2.88
Sub-total aggregate		3.19	3.25	2.25	2.25	N.A	2.79

Note: ratings of 2.6 and above are considered satisfactory

N.A. = not applicable

BORROWER PERFORMANCE RATINGS

WATER SECTOR

No.	Component Indicator	Score	REMARK
	Overall Sector Level Performance	2.85	Satisfactory
	Sector Policies and Reforms	3.50	Major reforms have been undertaken since 1992 to decentralize services and improve efficiency. Utilities have been decentralized into the regions, tariffs have been reviewed and the structure and rates revised. Regulatory body set up.
	Resource Mobilization for the sector	2.50	The investment requirement of the sector is substantial but resource mobilization effort was not very strong.
	Aid Coordination for the sector	2.50	Aid coordination in the sector is just starting with the implementation of the Rural Water Supply Initiative.
	Over all Project Level Performance	2.89	Satisfactory
1.	Quality of Preparation:	2.83	Satisfactory
	- Availability and quality of Studies	2.50	Studies were available but quality were at times inadequate leading to revisions during implementation
	- Ownership, Beneficiaries participation	2.80	All the projects completed were based on Government's feasibility studies. Old projects did not involve beneficiary participation but on going projects did
	- Government commitment	3.00	Government commitment was demonstrated in carrying out feasibility studies and securing resources for the projects
	- Institutional Arrangements	3.00	The Ministry of Water Resources has capable manpower to design and implement projects. Project Implementation Units were set up to oversee implementation. Current institutional arrangement is based on decentralized services that resulted from the reforms. PIUs are set up under the utilities in the concerned regions and the Ministry provides technical advice. The Addis Ababa Water Supply Authority is self-standing and has the ability to prepare projects. PIUs are set up to oversee implementation of projects. All the projects completed were prepared in house with the assistance of consultants.

No.	Component Indicator	Score	REMARK
2.	Quality of Implementation - Assignment of Key Staff - Managerial Performance of executing Agency - Use of Technical Assistance - Mid-Course Adjustments - Adherence to time schedule - Adherence to costs	2.63 2.80 3.00 2.50 2.50 2.00 3.00	Unsatisfactory Key staffs were appointed to form the Project Implementation Unit, but at times there was turnover of staff that lead to not following the Banks procurement and disbursement rules. The Executing Agencies are all well managed and have adequate staff except for newly opened regional water utilities following the decentralization policy of the Government. Technical assistance for capacity building was taken up from time to time through bilateral donors assistance but a lot is needed still particularly for the decentralized utilities in the region Revisions were made for some projects due to lack of detailed designs before project approval. Detailed design was included as component during appraisal. But on going projects were all based on detailed design studies prior to appraisal in order to minimize revisions during implementation All the projects were faced with implementation delays Costs were adhered to leading to savings in most of the projects. Counterpart funds were availed and any cost overrun was covered by the government.
3.	Compliance with covenants	2.50	Unsatisfactory. Fulfillment of conditions particularly prior to entry into force was delayed and other conditions were fulfilled but with delays
4.	Adequacy of Monitoring and Evaluation Reporting	3.00	Satisfactory. The Ministry of Water Resources and the Addis Ababa Water Supply Authority were capable of monitoring the projects at the time. Reporting to ADB was satisfactory.
5.	Satisfactory Operations (if applicable.)	3.50	Satisfactory. All the projects completed are operating satisfactorily even after completion of their useful economic lives due to adequate maintenance of the system installed
	Overall Borrower Performance	2.8	Satisfactory. Overall the Borrower performance was satisfactory due the government's sectoral policy reforms and institutional arrangements carried out over the years, the commitment of the executing agencies to implement the projects despite the delays, management of loan resources, and satisfactory operations of the systems.

POWER SECTOR

No.	Component Indicator	Score	REMARK
	Sector Level Performance	2.33	Unsatisfactory
	Policy and Sector Reforms	2.50	Enabling environment for private sector participation is not adequate yet and the utility is fully owned by the government
	Resource Mobilization for the sector	2.50	This has not been strong considering the huge requirement of the sector
	Aid Coordination for the sector	2.00	This is also not strong in the past , only started with rural electrification project
	Project Level Assistance	3.36	
1.	Quality of Preparation:	3.2	Satisfactory
	- Availability and quality of Studies	3.0	Well prepared feasibility Studies were available
	- Ownership, Beneficiaries participation	n.a	Projects usually do not involve beneficiary participation.
	- Government commitment	3.0	Government commitment was demonstrated in carrying out feasibility studies and implementing the projects
	- Institutional Arrangements	2.8	Major institutional arrangements undertaken in recent years to enhance the efficiency of the sector but the utility is still owned fully by the government
2.	Quality of Implementation	2.6	Unsatisfactory
	- Assignment of Key Staff	3.0	Key staffs were appointed to form the Project Implementation Unit, but there are times turnover of staff.
	- Managerial Performance of executing Agency	3.0	Executing Agencies are all well managed and have adequate staff except for newly opened regional water utilities following the decentralization policy of the Government.
	- Use of Technical Assistance	2.80	Technical assistance for capacity building was selectively used through bilateral assistance
	- Mid-Course Adjustments	3.00	Revisions were made for some projects to achieve efficiency and cost reduction
	- Adherence to time schedule	2.50	Some of the projects were faced with implementation delays
	- Adherence to costs	3.00	Costs were adhered to leading to savings in most of the projects. Counterpart funds were availed and any cost overrun was covered by the government.

No.	Component Indicator	Score	REMARK
3.	Compliance with covenants	2.50	Unsatisfactory. Fulfillment of conditions particularly prior to entry into force was delayed and other conditions were fulfilled but with delays.
4.	Adequacy of Monitoring and Evaluation Reporting	3.00	Satisfactory. Executing Agencies were capable of monitoring their projects and progress reports were sent to ADB.
5.	Satisfactory Operations (if applicable.)	3.50	Satisfactory. All the projects completed are operating satisfactorily even after completion of their useful economic lives due to adequate maintenance of the system installed.
	Overall Borrower Performance	2.84	Satisfactory. Overall, the Borrower performance is rated satisfactory mainly due to its commitment, management of loan resources, and satisfactory operations of the systems.

TELECOMMUNICATION SECTOR

No.	Component Indicator	Score	REMARK
	Sector Level Performance	3.00	Satisfactory
	Policy and Sector Reforms	2.50	Sector has been reformed separating regulatory body from execution function. However, enabling environment for private sector participation is not adequate yet and the utility is fully owned by the government.
	Resource Mobilization for the sector	3.5	The utility is financially strong to raise funds from the commercial banks and through issue of bonds
	Aid Coordination for the sector	n.a	Aid coordination is not very much required in the sector since donors' financing is reduced over the years.
	Project Level Assistance	2.83	Satisfactory
1.	Quality of Preparation:	2.83	Satisfactory
	- Availability and quality of Studies	3.0	Well prepared feasibility Studies were available
	- Ownership, Beneficiaries participation	n.a	Projects usually do not involve beneficiary participation.
	- Government commitment	3.0	Government commitment was demonstrated in carrying out feasibility studies and implementing the projects
	- Institutional Arrangements	2.5	The Ethiopian Telecommunication Authority (ETA) is well organized and but separate PIU and account was not created for the project
2.	Quality of Implementation	2.86	Satisfactory
	- Assignment of Key Staff	2.50	Lack of PIU and separate project accounts created a lot of delays and poor reporting to ADB
	- Managerial Performance of executing Agency	3.00	Executing Agencies are all well managed and have adequate staff though reporting was not respected
	- Use of Technical Assistance	n.a	Technical assistance for capacity building was not called for as the utility has good in house training program
	- Mid-Course Adjustments	2.80	Revisions were made for some projects to finance them from own sources thus reducing the loan amounts which were later cancelled
	- Adherence to time schedule	2.50	One of the projects was delayed because of issues relating to disbursement.

No.	Component Indicator	Score	REMARK
	- Adherence to costs	3.50	Costs were adhered leading to savings.
3.	Compliance with covenants	2.50	Fulfillment of condition prior to entry into force was delayed and other conditions were fulfilled but with delays.
4.	Adequacy of Monitoring and Evaluation Reporting	2.50	The executing agency though capable of implementing the project was known for its poor reporting to ADB.
5.	Satisfactory Operations (if applicable.)	3.50	The two projects financed in this sector were completed and are operating satisfactorily even after completion of their useful economic lives due to adequate maintenance of the system installed.
	Overall Borrower Performance	2.91	Satisfactory. Overall, the Borrower performance is rated satisfactory mainly due to its commitment, management of loan resources, and satisfactory operations of the systems.

Note: ratings rounded to 2.6 and above are considered satisfactory.

4. BANK PERFORMANCE RATINGS

WATER SECTOR

No.	Component Indicator	Score	REMARKS
	Sector Level Assistance and Performance	1.93	Unsatisfactory
	Economic and Sector Work	1.50	These non-lending activities are not carried out for the sector during past interventions. The level of resources mobilization and aid coordination has improved for the on-going projects. Bank assisted to have fundable projects but not all have been taken up for implementation due to lack of finance.
	Proactive Involvement in Policy and Sector Reforms	2.00	
	Resource Mobilization for the sector	1.50	
	Aid Coordination for the sector	2.00	
	Studies	2.66	
	Project Level Assistance and Performance	2.67	Satisfactory
1.	At Identification	3.00	Satisfactory
	-Project Consistency with government development strategy	3.00	Banks interventions are usually based on pipelines of projects identified ahead of appraisal for most of the projects. Recent year projects are based on CSPs. However, Bank did not pick those viable projects, for which the feasibility studies were financed by the Bank after the studies were completed due to funding constraints.
	- Project consistency with Bank strategy for country	3.00	Interventions were found consistent with Bank's strategy for the country
	- Involvement beneficiary	3.00	This was not considered in the past but in the recent projects such as Harar Water Supply Project and the Rural Water Supply and Sanitation Initiative, there is beneficiary involvement through contribution and awareness campaign particularly with respect to cost recovery and hygiene education.
2.	At Preparation of Project	3.0	Satisfactory
	- Relevance of Bank support	3.00	Bank involvement was relevant in view of the huge resources requirement of the Country for development. Bank has helped the country to have fundable projects
	- Timely Bank support	3.00	Bank is usually responds quickly in financing new projects subject to availability of resources that responds to Government requests.
3.	At Appraisal	2.85	Satisfactory
	- Quality of technical, economic, financial, institutional, social, environmental analyses	2.50	Feasibility studies were used to appraise earlier projects. But detailed designs were used in latter projects, which enhanced technical efficiency.

	<ul style="list-style-type: none"> - Relevance of conditions and covenants - Adequacy of lending instrument - Financial package adequacy - Existence and Quality of coordination - Implementation & Supervision plans (including performance indicators, M&E requirements) 	<p>3.00</p> <p>3.00</p> <p>3.00</p> <p>2.50</p> <p>2.50</p>	<p>Generally analyses of issues were professionally handled in as much as baseline data were available</p> <p>Most conditions were relevant for the successful implementation and operations of the projects</p> <p>The projects' financial requirements were met within the available resources (though limited) under concessionary terms.</p> <p>The funds allocated were in most cases sufficient to implement the financed projects. Most projects have registered savings after completion.</p> <p>The projects financed were self-contained sometimes leading to scale down the scope of projects instead of looking for co-financing.</p> <p>Implementation and supervision plans were not well prepared at the time of appraisal of older project but due consideration has been given in recent projects</p>
4.	<p>At Supervision</p> <ul style="list-style-type: none"> - Adequacy of Bank staff (skills, time & continuity) - Problem solving, Responsiveness to changing conditions. Adequacy of Follow up on recommendations - Attention to likely social development impact - Attention to sustainability issues 	<p>2.25</p> <p>2.50</p> <p>2.50</p> <p>2.00</p> <p>2.00</p>	<p>Unsatisfactory</p> <p>Generally not adequate in skill mix and frequency for older projects but improved for most recent projects.</p> <p>Reported to be inadequate and slow for the completed projects. Bank's monitoring function has improved in recent time due to increased field missions and country representation. However, there is still concern that Task Managers and Country Office do not have the requisite authority to make quick decisions on the ground.</p> <p>Not supported by base line data and indicators</p> <p>Supervision was limited to input and output components. Supervision Summary Reports are usually incomplete and not dated. Result based monitoring is just starting.</p>
5.	<p>Self-Evaluation (mid term review, Country Portfolio Performance Review, PCR)</p>	<p>2.25</p>	<p>Unsatisfactory (backlog of PCR and other reviews not carried out regularly)</p>
	<p>Overall Assessment of Bank Performance for the sector</p>	<p>2.30</p>	<p>Unsatisfactory. The Bank's monitoring and self-evaluation was inadequate. The Bank was not proactive in the sector and its assistance was thinly spread and was absent in the whole of 1990s.</p>

POWER SECTOR

No.	Component Indicator	Score	REMARKS
	Sector Level Assistance and Performance	1.96	Unsatisfactory
	Economic and Sector Work	1.50	These non-lending activities were not carried out for the sector during past interventions. The level of aid coordination has improved for the on-going projects. Proactive sectoral involvement is still required to encourage private sector participation in the sector
	Proactive Involvement in Policy and Sector Reforms	2.00	
	Resource Mobilization for the sector	1.50	
	Aid Coordination for the sector	2.00	
	Studies	2.79	
	Project Level Assistance and Performance	2.84	Satisfactory
1.	At Identification	3.00	Satisfactory
	- Project Consistency with government development strategy	3.00	Banks interventions are usually based on pipelines of projects identified ahead of appraisal for most of the projects. Recent year projects are based on CSPs. However, Bank did not pick those viable projects, for which the feasibility studies were financed by the Bank after the studies were completed due to funding constraints.
	- Project consistency with Bank strategy for country	3.00	Interventions were found consistent with Bank's strategy for the country
	- Involvement beneficiary	n.a	
2.	At Preparation of Project	3.00	Satisfactory
	- Relevance of Bank support	3.00	Bank involvement was relevant in view of the huge resources requirement of the Country for development. Bank has helped the country to have fundable projects
	- Timely Bank support	3.00	Bank is usually responds quickly in financing new projects subject to availability of resources that responds to Government requests.
3.	At Appraisal	2.93	Satisfactory
	- Quality of technical, economic, financial, institutional, social, environmental analyses	3.00	Power projects were well appraised. Generally analyses of issues were professionally handled in as much as baseline data were available
	- Relevance of conditions and covenants	3.00	Most conditions were relevant for the successful implementation and operations of the projects
	- Adequacy of lending instrument	3.00	The projects' financial requirements were met within the available resources at the time.

	- Financial package adequacy	3.00	The funds allocated were sufficient to implement the financed projects. Most projects have registered savings after completion.
	- Existence and Quality of coordination	2.80	The projects financed were self-contained resulting in scaling down scope to fit available funds and avoiding the need for donor coordination
	- Implementation & Supervision plans (including performance indicators, M&E requirements)	2.80	Projects were generally well supervised. But improvement is needed on indicators
4.	At Supervision	2.78	Satisfactory
	- Adequacy of Bank staff (skills, time & continuity)	3.0	Power projects are generally regularly supervised
	- Problem solving, Responsiveness to changing conditions. Adequacy of Follow up on recommendations	2.8	These aspects were handled satisfactorily. However, there is still concern that Task Managers and Country Office do not have the requisite authority to make real time decisions on the ground.
	- Attention to likely social development impact	2.5	Not supported by base line data and indicators
	- Attention to sustainability issues	2.8	Monitoring on this aspect is weak. Supervision was limited to input and output components. Supervision Summary Reports are usually incomplete and not dated.
5.	Self-Evaluation (mid term review, Country Portfolio Performance Review, PCR)	2.5	Unsatisfactory (backlog of PCR and reviews not carried out regularly)
	Overall Assessment of Bank Performance for the sector	2.40	Unsatisfactory. Although Bank's project level performance was satisfactory, its sectoral level performance was unsatisfactory. The Bank was not proactive in the sector and its assistance was thinly spread and was absent in the between 1994 and 2001.

TELECOMMUNICATION SECTOR

No.	Component Indicator	Score	REMARKS
	Sector Level Assistance and Performance	1.62	Unsatisfactory
	Economic and Sector Work	1.50	These non-lending activities were not carried out for the sector during past interventions. The sectors' intervention is limited to two projects. The Bank has ceased its project financing in the sector let alone get involved in sector reforms
	Proactive Involvement in Policy and Sector Reforms	2.00	
	Resource Mobilization for the sector	1.50	
	Aid Coordination for the sector	1.50	
	Project Level Assistance and Performance	2.66	Satisfactory
1.	At Identification	3.00	Satisfactory
	- Project Consistency with government development strategy	3.00	Banks past interventions are usually based on pipelines of projects identified ahead of appraisal for most of the projects. Recent year projects are based on CSPs. No interventions in the sector during the CSP periods.
	- Project consistency with Bank strategy for country	3.00	Interventions were found consistent with Bank's lending program of the past.
	- Involvement beneficiary	n.a	
2.	At Preparation of Project	3.00	Satisfactory
	- Relevance of Bank support	3.00	Bank involvement at the time was relevant in view of the huge resources requirement of the Country for infrastructure development.
	- Timely Bank support	3.00	Bank responded quickly in financing the two projects subject to availability of resources that responds to Government requests.
3.	At Appraisal	2.80	Satisfactory
	- Quality of technical, economic, financial, institutional, social, environmental analyses	3.00	The two projects were well appraised. Generally analyses of issues were professionally handled in as much as baseline data were available
	- Relevance of conditions and covenants	3.00	Most conditions were relevant for the successful implementation and operations of the projects
	- Adequacy of lending instrument	3.00	The projects' financial requirements were met within the available resources at the time.
	- Financial package adequacy	3.00	The funds allocated were sufficient to implement the financed projects. The projects had registered savings after completion.

	- Existence and Quality of coordination	n.a	The projects financed were self-contained.
	- Implementation & Supervision plans (including performance indicators, M&E requirements)	2.00	Not well prepared in the past.
4.	At Supervision	2.00	Unsatisfactory
	- Adequacy of Bank staff (skills, time & continuity)	2.00	Supervision not sustained. Outstanding issue still linger.
	- Problem solving, Responsiveness to changing conditions. Adequacy of Follow up on recommendations	2.00	Responsiveness was slow in the past. No more financing in the sector
	- Attention to likely social development impact	2.00	Not supported by base line data and indicators
	- Attention to sustainability issues	2.00	Monitoring on this aspect is weak. Supervision was limited to input and output components. Supervision Summary Reports are usually incomplete and not dated.
5.	Self-Evaluation (mid term review, Country Portfolio Performance Review, PCR)	2.50	Unsatisfactory (backlog of PCR and reviews not carried out regularly)
	Overall Assessment of Bank Performance for the sector	2.14	Unsatisfactory. The Bank's monitoring and self-evaluation was inadequate. Although the sector has moved on to raise its funds from the domestic financial market, the Bank was absent in the sector to enhance the private sector development.

Note: ratings rounded to 2.6 and above are considered satisfactory.

REFERENCE DOCUMENTS

1. Appraisal Report – Addis Ababa Sewerage I project, 1975.
2. Appraisal Report - Addis Ababa Sewerage II project, 1979
3. Loan Proposal for the financing of Six Centers Water Supply Project, 1982
4. Memorandum on loan proposal for the financing of the pre-feasibility studies for Chemoga-Yeda hydroelectric project, 1985
5. A framework for the public utility tariff policy, 1985
6. Water supply and sanitation sector policy, 1989.
7. Terms of Reference – Five Towns Water Supply and Sanitation Study, 1989
8. Proposal for a grant for UA 1.77 million from ADF technical assistance fund for part financing of the five towns water supply and sanitation study, 1989
9. Terms of reference – Master Plan study for the development of wastewater facilities for the city of Addis Ababa, 1989
10. Proposal for a grant of UA 1.18 million from ADF technical assistance fund for part financing of master plan study for the development of wastewater facilities for the city of Addis Ababa, 1989
11. Bank Environment Policy, 1990
12. Terms of reference – Twelve Towns water supply and sanitation study, 1991
13. Memorandum on Twelve Towns Water Supply and Sanitation Study, 1991
14. Memorandum on loan proposal for the financing of the Northern Ethiopia Power Transmission Project, 1992
15. Urban development policy, 1992
16. Terms of Reference - Addis Ababa Water Supply Stage III A Study, 1992
17. Ethiopian Telecommunications I Project – Project Completion Report, 1992
18. Bank Energy Policy Paper, 1992
19. Ethiopian Telecommunications II Supervision Mission Report, 1995.
20. Addis Ababa Sewerage Project phase I stage II- Project Completion Report, 1996
21. Country Portfolio Review Reports, 1996 and 1998
22. Energy Sector Impact Study, 1998

23. Review of Bank's experience in the financing of Dam projects, 1998
24. Policy for integrated water resources management, 2000
25. Northern Ethiopia Power Transmission Project - Project Completion Report, 2000
26. Review of the Bank Experience in financing urban water supply and sanitation projects, 2000
27. Sectoral and project performance indicators in the water supply and sanitation sub sector, 2000
28. Review of Bank experience in the telecommunications sector, 2001
29. Synthesis report on Bank experience in the urban and rural water supply and sanitation projects 2001
30. Ethiopia: Proposal for an ADF loan of UA 37.67 million to finance the rural electrification project, 2001
31. Ethiopia Country Strategy Paper – 1999-2001.
32. Ethiopia Country Strategy Paper – 1999-2001 Corrigendum.
33. Ethiopia Country Strategy Paper – 2002 Update – Addendum.
34. Ethiopia Country Strategy Paper – 2002 Update – Corrigendum
35. Proposal for an ADF loan of UA 19.89 million and a TAF grant of UA 1.12 million to finance the Harar Water Supply and Sanitation Project, 2002
36. Northern Ethiopia Power Transmission Project- Project Performance Evaluation Report, 2003
37. Study on Evaluating Capacity Strengthening of Urban Water Supply and Sanitation Entities, 2003.
38. Ethiopia Country Strategy Paper – 2002-2004
39. Ethiopia Country Strategy Paper – 2002-2004 – Addendum
40. Evaluating Bank's Assistance for capacity strengthening of urban water supply and sanitation entities in RMCs, ADB/BD/IF/2004/156 (ADF/BD/IF/2004/124, August 2004
41. Policy on the Environment, 2004
42. Compendium of statistics 2004.
43. Gender, Poverty and Environmental Indicators of African Countries, 2004
44. Multinational (Ethiopia/Djibouti): Proposal for an ADF loan of UA 20.88 million (Ethiopia) and an ADF loan of UA 17.60 million (Djibouti) to finance the power interconnection project, 2004
45. Rural water supply and sanitation program for Ethiopia – Appraisal report June 2005.