PCR EVALUATION NOTE

IBADAN WATER SUPPLY II PROJECT

NIGERIA

1. The Project

Appraisal	**January 1991**	**Appraisal Cost Estimate**	**UA 92.90 Million**
Approval Date	**May 1991**	**ADB Loan Amount**	**UA 74.14 Million**
Loan Agreement Signature	**December 1991**	**ADF/TAF Grant**	**UA 3.21 Million**
Date of Entry into Force	**July 1992**	**Actual Cost at PCR**	**UA 92.03 Million**
Date of Project Completion	**October 2003**	**Date of PCR**	**January 2004**

1.1 The Ibadan Water Supply Project was appraised in January 1991 and in May 1991, an ADB loan in amount of UA 74.14 million and a TAF Grant in amount of UA 3.21 million were accorded to the Federal Government of Nigeria. The loan and grant agreements were signed in December 1991 and became effective in July 1992. The project was jointly financed with the Government of Nigeria.

1.2 The objective of the project was to ameliorate the health aspects of the population in the project area resulting in improved social and economic conditions in the City of Ibadan through the provision of increased and reliable potable water supply to more inhabitants by extending the coverage to 54% of the urban area. The sector goal was to improve the quality of life of the population of Oyo State through provision of adequate water supply and sanitation in an affordable and sustainable manner.

1.3 The project components were the following:

i) **Pipes and Pipe Laying**: The supply and laying of new transmission from the dam to Asejire, Agodi and Bashroun, refurbishment of the existing transmission pipelines from the dam up to Agodi.

ii) **General Engineering Works**: Dam repair and maintenance, refurbishment of low lift pumping station, construction of 82 000 m^3/d new treatment plant at Asejire, refurbishment of high lift pumping station, rehabilitation of Agodi reservoir and booster station, leak repairs and improvement of the existing main carrier system, extension of reticulation system and rehabilitation of booster stations at Bere, Mokola and Ososami.

iii) **Operational Equipment:** Procurement of utility vehicles, mopeds, lorries, computer hard wares and soft wares, office and drawing equipment, telex, telephone and radio communications equipment as well as procurement of consumer meters.

iv) **Technical Assistance**: Strengthening of the Water Corporation through designing and installing engineering operations, management and accounting systems by the management consultant. A management study on ways of improving revenue collection by the Water Corporation.

v) **Engineering Services:** Provision of consultancy services for design and supervision of the project execution.

1.4 The project was completed in October 2003 - some 9 years beyond the date envisaged at appraisal. The deadline for final disbursements was extended four times; the final date for disbursements being 31 December 2003.
The Appraisal and Actual costs were respectively UA 92.90 million, and UA 90.03 million.
The PCR was prepared in January 2004.

2. PCR Conclusions and Success Ratings

2.1 Principal Conclusions

2.1.1 The Ibadan Water Supply Project II was completed 9 years behind schedule, although the treatment plant was substantially completed and commissioned in 1996, two years behind the appraisal completion date. All intended outputs were executed in accordance with design specifications. The project resulted in increased production capacity but modest improvements in the distribution network.

2.1.2 The expected target of meeting about 30% of demand on project completion could not be achieved due to the long delay and therefore untimely completion of the project resulting in increased population. Currently, the WCOS is only able to meet about 8% of total daily demand. The issue of operational deficiencies due to inadequate power supply, inadequate maintenance of infrastructure, including limited supply of spare parts, inadequate billing and revenue collection, have an adverse impact on the long term sustainability
of the investments made under the project.
The FRR and ERR for the project are very low signifying that the project is not viable.

2.2 Performance Rating

All necessary infrastructure provided under the project are in serviceable condition and operational. Some equipment, however do not operate well and often require the urgent attention of the OYSG. The implementation performance is unsatisfactory with a rating of 1.6 out of 4. This is a result of inadequacies with regard to adherence to planned implementation schedule, non-compliance with agreed covenants and lack of maintenance of infrastructure. The Bank's overall performance is considered unsatisfactory with a rating of 1.8 out of 4. The overall project outcome rating is also unsatisfactory.

2.3 Overall Conclusion on PCR Conclusions and Success Ratings

According to the PCR, the project achieved its objectives. The project was implemented successfully; operations however suffer deficiencies and sustainability is not assured. All component indicators were correctly scored as Unsatisfactory.

3. Borrower's PCR

The Executing Agency submitted all requisite project reports, notably, progress, account and audit reports to the Bank. The format, the information and the recommendations of the quarterly reports were well prepared. The Executing Agency's reporting prior to 1997 was irregular.
A Borrower's completion report was sent to the Bank in August in January 2002 upon completion of the main project activities.

4. PCR Quality Rating

4.1 Consistency with Directive OM 900 of the Operations Manual

The PCR has been prepared in accordance with the format as provided in the Operations Manual. It was prepared in January 2004, some six years after project completion. The PCR has covered well all topics, however, no matrix on recommendations and follow-up actions.

4.2 Evaluation of the Quality of the PCR Content

a) Objectives, Formulation and Quality of Entry

4.2.1 Objectives and Performance Indicators

The sector goal was to improve the quality of life of the population of Oyo State through provision of adequate water supply and sanitation in an affordable and sustainable manner. The objectives of the project were to ameliorate the health aspects of the people in the project area resulting in improved social and economic conditions in the City of Ibadan through the provision of increased and reliable potable water supply to more inhabitants by extending the coverage to 54% of the urban area.

Sector Goal: To improve the health and quality of life of the population of Ibadan City.
Project Objective: To ameliorate the health aspects of the people in the project area resulting in improved social and economic conditions in the City of Ibadan through the provision of increased and reliable potable water supply to more inhabitants by extending the coverage to 54% of the urban area

4.2.2 Project Formulation

4.2.2.1 The PCR indicates that the project followed an earlier emergency water rehabilitation project, approved by the Bank in 1988. The emergency project sought to rehabilitate the existing water supply infrastructure, which was in a state of disrepair. It was recognized at the time that even with the rehabilitation, the urban water demand exceeded installed capacity and therefore the need for a follow up project. The Ibadan II project based on the output of an engineering design work relating to the extension of the existing treatment plant at Asejire, including some improvements in the distribution network.
The section is satisfactory.

b) Project Implementation:

4.2.2.2 To facilitate implementation, the project was packaged into 18 contracts consisting of 6 civil works, 6 supply, 2 management and training services and 4 engineering services contracts. The procurement process suffered delays due to initial delays in opening Letters of Credit, difficulties with customs clearance and import duty, late award of some contracts and elapsed mobilization period. The master plan study and final designs sub-component was also excessively delayed as a result of uncertainty of the availability of funds.

4.2.2.3 The main reasons for the delays were due to long duration of the start-up process of the project, slippage in the award and mobilization of contracts, termination in 1996 and re-tendering of Lot 2 contract, and several changes in the distribution network layout and design

to be compatible with the new developments in the project sites and conditions. Non-availability of counterpart funds also affected the progress of implementation. However, the project made steady progress when the shortage of counterpart funding was resolved.
The section is satisfactory.

c) Project Performance and Results

4.2.2.4 The infrastructure envisaged at appraisal have been mostly provided and are operational. The commissioning in 1996 of the new plant with capacity of 104 000 m3/d resulted in an increase of the combined installed production capacity to 186 000 m3/d at Asejire instead of 164 000 m3/d envisaged at appraisal. Additionally, it was envisaged that the combined production capacity of the three existing plants at Asejire, Eleyile and Osegere which had been rehabilitated previously with a loan facility from the Bank would be increased from 122 500 m3/d to 204 500 m3/d with the implementation of the project. However, this could not be sustained for long due to operational difficulties facing the existing plants, thereby necessitating a) the complete shut down of the Asejire and Osegere plants, and b) reduced production capacity of the Eleyile plant.

4.2.2.5 The new infrastructure together with the plant at Eleyile enable the WCOS to barely meet 7.5% of the present total daily water demand estimated at about 700,000 m3/d. Operational deficiencies resulting from inadequate maintenance including supply of spare parts, inadequate and irregular supply of electric power, among others, impact adversely on operational performance.

4.2.2.6 The project focused on production infrastructure without much attention paid to the distribution network is still in a deplorable. There is a management structure, which has not changed much from the structure which was prevailing at appraisal. The present structure provides for the Executive Chairman and the General Manager as the Chief Executives and assisted by six Directors, each heading a department. Unfortunately, given that the corporation relies heavily on State Government subvention, it may be expensive to continue to maintain six Director Positions. It would have been desirable to strengthen the middle management, such as Operations, has clearly defined departments with aligned responsibilities, compared to the old one. The new structure reduces friction within departments, decentralises tasks and responsibilities, reduces fraud and includes an autonomous commercial department which is responsible for revenue collection. This has improved the operational performance of WCOS. Although WCOS has made concerted effort to increase tariffs levels are still low.

4.2.2.7 The project has had significant impact on the women in the area. First, since it is traditionally women's responsibility to ensure adequate supply of water in the household, they are currently forced to travel great distances. With the availability of water in greater number of homes, they have devoted the saved time for other economic activities. Furthermore the impact of potable water on the health of women and children is well known. Finally the project has accorded increased equal opportunity for employment of women in the two Boards.
The section is satisfactory.

d) Social and Environmental Impacts

4.2.2.8 There has been a significant improvement in the reliability of supply of water to the city, and to some areas without water. The availability of water has had a positive impact on

industrial, commercial and domestic users in these areas. The project is having some positive impacts on the education and health sectors in the area. Before the project, there were outbreaks of water-borne diseases such as typhoid and dysentery in Ibadan; no incidences of these diseases have been reported in the project area since the completion of the project. The project has also made potable water available to all the heath facilities in the area, thus improving the health delivery system in the state. Furthermore, nearly all categories of the educational institutions in the area have been connected to the water supply from the project. The availability of water was also a major factor in building important education facilities in the area.

4.2.2.9 The implementation of the project has impacted the lives of women and children area in a positive manner. As it is normally the responsibility of women to make water available to their household, they spend considerable time to bring water from sources which are usually long distances away. With running water available to greater number of homes, the time spent by women in the search for water is reduced, thus allowing them to devote the time available to more economic activities that generate additional income.

4.2.2.10 Environmental Impact: There were no significant environmental concerns foreseen at appraisal. The construction processes and additional measures taken including traffic diversion, compensation of affected persons, ensured that risks were mitigated.

4.2.2.11 However, increased waste water resulting from increased water supply may require improvement in the existing wastewater collection and disposal system, a situation which has not been addressed. However, the environmental impact of increased water production and use is considered to be insignificant due to the following:

a) The abstraction of water from the existing impoundments in an attempt to meet the present water demand of Ibadan city of about 700 000 m^3/d do not seem to have any significant environmental impact on the resource potential of the surface water sources. The total capacity of the existing impoundments is estimated to be about 737 million m^3, compared to the insignificant current plant production level of about 53 000 m^3/d. The OYSG has acquired the right to use the major surface water-sources for drinking water supply.

b) The provision of laboratories supplied with testing equipment and materials contributed to optimize the water treatment and quality control processes. The likely contamination of surface and ground water sources due to spillage of stored chemicals for treatment, increased generation of domestic and industrial waste water, seem to pose limited environmental risk to both water sources given the geology of the area, standard of living of the population, level of industrial development, and resource potential of the sources.

e) Project Sustainability

4.2.2.12 The sustainability of the project would depend on the long term technical, managerialand financial performance of WCOS. In this regard sustainability has been measured through the following: maintenance capacity and availability of technical personnel, metering of consumers, adequate tariff levels to generate enough income to meet recurrent expenditure (i.e. full cost recovery system) and commitment on the part of the Government for private sector participation (PSP).

4.2.2.13 With ADB financing, WCOS staff who are involved in the operation of various components of the system underwent sufficient training to enable them operate and maintain the system efficiently. Production and maintenance staff were trained in the operation and maintenance of the various plants at the Head works and Booster stations. The training that was given notwithstanding, recruitment of professional staff in key areas such as production and maintenance has not been effected. However, 13 engineers were deployed from other institutions to the WCOS in 2002. Although the water works are presently being operated and managed by competent technical expertise, lack of spare parts is a major bottleneck to sustainability of the project.

4.2.2.14 Metering of consumers is not yet extensive and needs expansion to attain a wider coverage to facilitate the reduction of administrative losses.

4.2.2.15 Tariff levels are not adequate to achieve a cost recovery system. The present tariff levels cannot ensure the financial sustainability of the project; sustainability of the project under current operating conditions is unlikely.
The section is satisfactory.

f) Performance of the Bank and Borrower

4.2.2.16 The Bank's assessment of WCOS ability to achieve financial viability within the appraisal time frame was unrealistic, underestimating the difficulties involved in implementing major change within a very fragile institutional context. The Bank's assumption that huge annual tariff increases to meet financial objectives could be effectively met was thwarted by the poor quality of the service provided and the weak billing and collection systems.

4.2.2.17 The Bank's performance regarding approval for extension of the existing contract of Pont A. Mousson was not satisfactory, given that the Bank's indecision and therefore untimely approval caused delays of up to 2 years 5 months before the contract agreement was finally signed.

4.2.2.18 In terms of expediting loan effectiveness, the Bank performed well, although it is pertinent to mention that the response time from the ADB for the fulfilment of each condition could have been made shorter. The ADB played an important role in assisting the Government to process the loan until the loan was declared effective.

4.2.2.19 The disbursement was not satisfactorily done throughout the project. The two accounts, the Emergency project and Ibadan water supply II project were mixed up and reconciliation of same caused problems.

4.2.2.20 The executing Agency hardly received any comments or response from the Bank on quarterly progress and audited reports submitted

4.2.2.21 The Bank's performance was satisfactory from 1996 to completion, with regard to supervision of the project.
The overall performance of the Bank was Unsatisfactory.

4.2.2.22 Borrower Performance: Performance of the State Government is rated unsatisfactory for the following reasons: (i) high attrition of staff and unplanned changes in WCOS senior management made it difficult to foster consistent policy dialogue; (ii) lack of commitment to

the project's objectives; (iii) failure to maintain WCOS autonomy in accordance with the WCOS edict and as covenanted, (iv) non fulfilment of institutional and financial covenants. OYSG could have assisted the project if it had held WCOS management responsible for some agreed annual operational performance targets and set up a mechanism for monitoring performance and taking action on the basis of its findings.

4.2.2.23 State Government performance was not satisfactory due to: inadequate provision of counterpart funds, poor co-ordination of the project at different levels vis-à-vis Federal, Oyo State Government and WCOS and implementation unit, ineffective implementation unit and the recurring problem of arrears on loan repayments which caused imposition of sanctions on the country.
The section is satisfactory.

g) Overall Performance Rating

4.2.2.24 The implementation performance is unsatisfactory with a rating of 1.6 out of 4. This is a result of inadequacies with regard to adherence to planned implementation schedule, non-compliance with agreed covenants and lack of maintenance of infrastructure. The Bank's overall performance is considered unsatisfactory with a rating of 1.8 out of 4. The overall project outcome rating is also unsatisfactory.
The section is inadequate.

h) Conclusions, Lessons and Recommendations

4.2.2.25 The Ibadan Water Supply Project II was completed 9 years behind schedule, although the treatment plant was substantially completed and commissioned in 1996, two years behind the appraisal completion date. All intended outputs were executed in accordance with design specifications. The project resulted in increased production capacity but modest improvements in the distribution network.

4.2.2.26 The expected target of meeting about 30% of demand on project completion could not be achieved due to the long delay and therefore untimely completion of the project resulting in increased population. Currently, the WCOS is only able to meet about 8% of total daily demand. The issue of operational deficiencies due to inadequate power supply, inadequate maintenance of infrastructure, including limited supply of spare parts, inadequate billing and revenue collection, have an adverse impact on the long term sustainability of the investments made under the project. The FRR and ERR for the project are very low signifying that the project is not viable.

While lessons and recommendations are provided, there is no matrix of recommendations and follow-up actions – and this reduces the quality of the sedction.

i) Priority of Project for Performance Evaluation Report, Impact Evaluation, Country/Sector reviews or Thematic Evaluation Studies

4.2.2.27 The PCR is written to a satisfactory standard; almost all chapters are well documented. A comprehensive project matrix has been included. Pertinent lessons and recommendations have been formulated.

The project is part of a series of Bank funded water sector projects in Nigeria; it is suitable for inclusion in an evaluation study on Bank assistance to the water sector in Nigeria.

PCR EVALUATION NOTE

IBADAN WATER SUPPLY II PROJECT

NIGERIA

PCR Rating Format

Project Loan No.: B/NGR/OYS/WAS/91/21 F/NGR/OYS/WAS/91/20 **Title:** Ibadan Water Supply II Project

Country: Nigeria **Sector:** Public Utilities

PCR EVALUATION CRITERIA	RATING (4-point scale)	REMARKS
1. Adequacy of analysis of Project goals, objective and Formulation (including the verifiable indicators, consistency with appraisal and subsequent revisions)	3	This section of the report is satisfactory
2. Adequacy of analysis of Project execution (including procurement issues, disbursements, Borrower's reporting, and assessment of monitoring and evaluation achievements)	3	This section is satisfactory.
3. Soundness of judgments on Project Performance and Results (including operating results, economic and financial and related conditions/covenants and their fulfillment, institutional, performance of consultants, contractors, suppliers and other parties)	3	This section is satisfactory.
4. Adequacy of analysis of social and environmental impacts	3	The section is satisfactory.
5. Soundness of judgments on project sustainability, plan for future project operation's phase and maintenance	3	The section is satisfactory.
6. Soundness of judgment on Performance of the Bank, Borrower and Co-financiers	3	The section is satisfactory
7. Consistency of Overall rating with individual rating components	2	The section is not satisfactory
8. Adequacy of analysis and clarity of conclusions, lessons learned and recommendations	2	The lessons, recommendations and matrix of follow-up actions are pertinent. Lessons and recommendations are however not itemized.
9. Other (Specify)	-	
Overall Rating	**2.75**	**PCR quality is Satisfactory.**

OPEV and Country Department agree/disagree on Project Performance Rating Y/N OPEV is in general agreement with the performance ratings of the PCR; implementation performance, Bank performance and Project Outcome are rated Unsatisfactory.		

Borrower's PCR and inputs to Bank Staff PCR (quality of Borrower's PCR, reviews of project implementation issues, future operation plan, Borrower's comments on PCR):

The PCR indicates that the Borrower prepared a project completion report, which was consulted by the PCR team and found to be well prepared. The PCR indicates the Bank's PCR was sent to the Borrower for comments – response was that the Borrower had no comments to make.

Conclusion:

The quality of the PCR is satisfactory; most chapters are fairly well documented. A long list of conclusions, lessons and recommendations is provided. However no matrix of recommendations and follow-up actions is provided. The PCR ratings given in the rating tables appear correctly awarded – implementation performance, Bank performance and Project Outcome are all rated unsatisfactory.

Priority of Project for Performance Evaluation Report, Impact Evaluation, Country/Sector reviews or Thematic Evaluation Studies: (x)

The project is part of a series of Bank funded water sector projects in Nigeria; suitable for inclusion in an evaluation study on Bank assistance to the water sector in Nigeria.

Major Issues of focus in the performance evaluation report:

Institutional and sustainability issues.

Follow Up Action/Decision:

PCR EVALUATION NOTE

IBADAN WATER SUPPLY II PROJECT

NIGERIA

Correction of PCR Ratings

Implementation Performance

	Indicators	Rating (1-4)	Remarks
1	Adherence to time schedule	1	N/A
2	Adherence to cost schedule	3	N/A
3	Compliance with Covenants	1	N/A
4	Adequacy of Monitoring and Reporting	3	N/A
5	Satisfactory Operations	1	N/A
	Total	9	
	Overall assessment of implementation Performance	**1.8**	**Implementation performance is Unsatisfactory**

Bank Performance

	Indicators	Rating (1-4)	Remarks
1	At Identification	3	N/A
2	At Preparation of project	1	N/A
3	At Appraisal	2	N/A
4	At supervision	1	N/A
	Total	7	
	Overall Assessment of Bank Performance	**1.75**	**Bank performance is Unsatisfactory**

Project Outcome Ratings

No	Component indicators	Rating (1 – 4)	Remarks
1	**Relevance and Achievement of Objectives**	**1.5**	**The relevance and achievement of objectives unsatisfactory**
i)	Macro-economic policy	N/A	N/A
ii)	Sector policy	2	N/A
iii)	Physical (incl. Production)	2	N/A
iv)	Financial	1	N/A
v)	Poverty alleviation & Social & Gender	1	N/A
vi)	Environmental	2	N/A
vii)	Private sector Development	1	N/A
viii)	Other (Specify)	N/A	N/A
2	**Institutional Development**	**1**	**Institutional development impact is Highly Unsatisfactory**
i)	Institutional Framework including restructuring	---	Not rated by PCR
ii)	Financial and Management Information Systems including Audit Systems	1	N/A
iii)	Transfer of Technology	2	N/A
iv)	Staffing by qualified persons (including Turnover), training & counterpart staff	1	N/A

3	**Sustainability**	**1.75**	**Sustainability of project impacts is unsatisfactory**
i)	Continued Borrower Commitment	2	N/A
ii)	Environmental Policy	2	N/A
iii)	Institutional Framework	1	N/A
iv)	Technical Viability and Staffing	2	N/A
v)	Financial viability including cost recovery systems	1	N/A
vi)	Economic Viability	1	N/A
vii)	Environmental Viability	3	N/A
viii)	O & M facilitation (availability of recurrent funding, foreign exchange, spare parts, workshop facilities etc.)	2	N/A
4	Economic Internal Rate of Return (EIRR)		
	Overall Assessment of Outcome	**1.41**	**Overall Project outcome is Highly Satisfactory**