



1. Project Data

Project ID P120910	Project Name GW- Emergency Electricity & Water Rehab.	
Country Guinea-Bissau	Practice Area(Lead) Energy & Extractives	Additional Financing P125374,P125374
L/C/TF Number(s) IDA-H6060,IDA-H6890	Closing Date (Original) 30-Sep-2013	Total Project Cost (USD) 15,372,329.38
Bank Approval Date 23-Jul-2010	Closing Date (Actual) 30-Jun-2015	
	IBRD/IDA (USD)	Grants (USD)
Original Commitment	12,700,000.00	0.00
Revised Commitment	14,690,489.76	0.00
Actual	15,372,329.38	0.00

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2. Project Objectives and Components

a. Objectives

According to the Financing Agreement (FA, p.4) and the Emergency Project Paper (EPP, p.4) the project objective was:

"to assist the Government of Guinea Bissau in the rapid restoration and improvement of electricity and water supply services in its capital city".



b. Were the project objectives/key associated outcome targets revised during implementation?

No

c. Will a split evaluation be undertaken?

No

d. Components

The project had four components, some with multiple sub-components.

1: Institutional Development and Sector Performance Improvement. (*Appraisal cost: US\$1.50 million; Actual cost: US\$1.50 million*)

1.1: Technical Assistance to prepare the Electricity and Water Utility of Guinea-Bissau (*Electricidade e Aguas de Guinea-Bissau – EAGB*) for restructuring and private sector participation. (*Appraisal cost: US\$0.35 million; Actual cost: US\$0.35 million*) The activities to be financed under this sub-component were: (i) human resource assessment and operational assets evaluation; (ii) assessment of public-private partnership options, including risks and mitigation measures; and (iii) stakeholder consultation and strategic communication campaign.

1.2: Technical Assistance for enhanced operational management of EAGB during the transition period. (*Appraisal cost: US\$1.15 million; Actual cost: US\$1.15 million*) The funds allocated to this subcomponent were to cover technical assistance to improve the management of EAGB, both technically and commercially. It was envisaged that an expatriate general manager would be hired for a period of up to two years, with short-term expert support on key operational matters (e.g., commercial, financial, accounting, human resources).

2: Restoration and Rehabilitation of the Power System. (*Appraisal cost: US\$8.50 million; Actual cost: US\$11.70 million*)

2.1: Power generation scale-up. (*Appraisal cost: US\$6.0 million; Actual cost: US\$9.2 million*) This component consisted of the supply and installation of a new 5 megawatt (MW) mobile heavy fuel oil (HFO) unit, and one 10 mega volt amp (MVA) transformer. This project activity was deemed essential to restore rapidly power generation capacity to a level where sufficient supply could be provided to essential service providers, such as hospitals and for water pumping. It would also reduce the extent of power cuts to households, firms, and other institutions. About one year's consumption of fuel, to run the EAGB generators, would be purchased through a parallel US\$10 million Economic Community of West African States/West African Economic and Monetary Union (ECOWAS/WAEMU) grant.

2.2: Commercial operations improvement. (*Appraisal cost: US\$2.5 million; Actual cost: US\$2.5 million*)

This component consisted of the supply and installation of prepayment meters and installation of a new



customer management system (based on prepayment meters) that would ensure all commercial functionalities. Prepayment metering for electricity customers would improve revenue collection, thus enabling EAGB to increase its ability to purchase fuel and maintain its infrastructure.

3: Rehabilitation of water production and storage. (*Appraisal cost: US\$1.23 million; Actual cost: US\$1.23 million*)

Under this component, a 700 m³ water storage was to be constructed, in order to improve the quality and reliability of water supply to end-users.

4: Project management, monitoring and evaluation. (*Appraisal cost: US\$0.47 million; Actual cost: US\$0.47 million*)

The project would be implemented by a project implementation unit (PIU) at the Ministry of Economy, Plan and Regional Integration, which had been implementing the prior Multisector Infrastructure Rehabilitation Project (MIRP, P097975). Under this component, the project would finance project coordination, evaluation, supervision, and implementation, including: (i) the strengthening of the capacity of the PIU to comply with its responsibilities; (ii) the carrying out of project audits; and (iii) the implementation of a program to monitor and evaluate the carrying out of the project.

Revision to Components

Due to the political situation in the country and the insufficient attractiveness of the job opportunity because of the poor financial and commercial state of the utility, an expatriate general manager could not be recruited. As a result, the parties agreed to hire a full-time consultant financed by the project to support the managing director of EAGB and other part-time specialists in the commercial, financial, technical, and other divisions of the utility. Furthermore, in addition to the 700 m³ reservoir under the third component, a 100 m³ reservoir was added to provide water for firefighters. Project documents do not include any information on how these revisions were made.

e. Comments on Project Cost, Financing, Borrower Contribution, and Dates

Project Cost: The total project cost was originally estimated at US\$22.70 million including US\$1.0 million for contingencies and a US\$10.0 million grant from ECOWAS/WAEMU for the purchase of HFO for the operation of generators. The actual project cost at project completion was US\$24.90 million, which was 110 percent of the appraisal amount. This was a result of a cost overrun for the generators, which was financed by a contingency fund of US\$1.0 million and Additional Financing (AF) of US\$2.20 million, approved in May 2011.

Financing: The originally approved IDA grant was US\$12.70 million equivalent. With the additional financing amount of US\$2.2 million to cover the increase in generator costs, IDA financing stood at



US\$14.90 million at closure, and all the funds were accounted for. As noted, ECOWAS and WAEMU provided US\$10.0 million for the purchase of fuel.

Borrower contribution: There was no borrower contribution planned and none materialized.

Restructurings and Dates:

The project was restructured once: On April 17, 2013, the closing date was extended for 21 months from September 30, 2013 to June 30, 2015, to complete activities which had been delayed because of the military coup in April 2012.

3. Relevance of Objectives & Design

a. Relevance of Objectives

The project objective was relevant to the country conditions at the time of appraisal in 2010. Electricity and water supply was erratic in the capital, due to the failure of seven out of nine EAGB generators, the repair of which was not the least-cost option. The project was processed under the IDA Crisis Window Response, because it was deemed that without rapid intervention, electricity and water sectors would collapse entirely creating risks to civil peace and political stability.

The project objective was also consistent with Guinea Bissau's development priorities at appraisal and at closure. Guinea Bissau, which is one of the poorest and most fragile countries in the world, needs to increase the availability and reliability of electricity and water supply in its capital city, Bissau, and the country, in order to achieve the ultimate goal of poverty reduction. The aim of the government's Second National Poverty Reduction Strategy Paper, 2011-2015, was to "significantly reduce poverty in all its dimensions creating greater opportunities for income generation, employment, and improved access to improved basic public services in a state where the rule of law is entrenched." In this regard, the Emergency Electricity and Water Rehabilitation Project is fully aligned with the PRSP II Core Area 3: "Promote Sustainable Economic Development," which aims to accelerate the development of basic economic infrastructure, particularly in energy (expansion of the production and distribution infrastructure) within the framework of the new sectoral policies and institutional reforms, and in keeping with environmental requirements, in particular those related to climate change (ICR, p.20).

Although there was no available World Bank Group strategy document for the project period, the development objectives were highly relevant to the Bank's priorities for Guinea Bissau. According to the Country Economic Memorandum, dated January 12, 2015, the key priorities for Guinea Bissau are strengthening of the public sector, improvement of the provision of basic public services including electricity and water, and fostering of private investment. Chapter 2 of the Country Economic Memorandum (p.30) identifies the actions to be taken in the power and water sectors, which are consistent with the project's development objectives. The project also supports the Bank's twin goals of reducing extreme poverty and



boosting shared prosperity by aiming to provide access to safe water to the poor in unserved urban and peri-urban areas of Bissau and to restore water and electricity services under affordable conditions throughout the city (ICR, p.20).

Rating

High

b. Relevance of Design

Project design was consistent with the stated objectives to assist the Government of Guinea Bissau in the rapid restoration and improvement of electricity and water supply services in its capital city. A solid causal chain could be established between funding and outcomes. The problem to be addressed was clearly defined as the unreliable and limited electricity and water supply in the capital city of Bissau. The main project activity of augmenting the power generation capacity through the installation of HFO-fired generators was to address this problem by increasing the amount of electricity supplied to consumers in Bissau, while providing electricity to water pumps for water supply. Likewise, construction of a 700 m³ water reservoir was expected to improve the quantity and quality of the water supplied to the consumers in Bissau. In addition, installation of prepayment meters and technical assistance was intended to improve EAGB's financial viability and management so that electricity and water supply services would, over time, become more sustainable and the utility more manageable. The theory of change was adequately defined with actions to be taken to address the problems.

However, there were significant shortcomings in project design. First, it was assumed that with the improvement in its financial viability and strengthening of its institutional capacity, EAGB would be capable of operating and maintaining the HFO-fired generators. Therefore, the project did not include any funds for the maintenance and repair of the generators, which became a significant problem even before closure, since both generators broke down and needed major repair. Second, although the funds were secured from ECOWAS/WEMU for the purchase of HFO to operate the generators for one year, design did not address procurement and storage. EAGB is the only consumer of HFO in Guinea-Bissau, for which there was no local supplier and no storage facility. EAGB had insufficient funds to sign a medium-term HFO purchase agreement. Consequently, the utility switched to diesel to operate the generators, which was not only more costly, but also more subject to theft, since, unlike HFO, it can be used in motor transport (diesel theft is a common problem in the country). Third, design did not include any activities to improve the distribution networks for electricity and water, which continued to be a serious bottleneck throughout implementation. Although other projects, which were ongoing at appraisal (such as the MIRP), included activities aimed at rehabilitating the electricity and water distribution networks, these latter remained in a poor state. In May 2014, unaccounted-water was estimated at 50 percent of production, due to leaks in the distribution system and low bill collection. Frequent electricity outages adversely affected the water supply. Flaws in electricity distribution are thought to have adversely affected the operation of the new generators, resulting in their eventual breakdown (ICR, p.17). Fourth, design took insufficient account of the fragile status of Guinea Bissau. In particular, the objective of improving EAGB's financial viability and institutional capacity was over-ambitious for an emergency intervention.



Rating
Modest

4. Achievement of Objectives (Efficacy)

Objective 1 **Objective**

To assist the Government of Guinea Bissau in the rapid restoration and improvement of electricity supply services in its capital city.

Rationale

Outputs

- Two 2.5 MW generators and 700 m³ fuel tank were installed. The target of increasing the electricity generation capacity from 3 MW to 8 MW was achieved during project implementation. However, in early 2015, both generators broke down and they have been out-of-service since then. The 3 MW generation capacity owned by EAGB at the beginning of the project also broke down. At closure, EAGB did not own any operational generation capacity.
- 21,500 pre-payment meters and software to operate them were installed as targeted. Due to voltage variations and weather-related problems, 1,500 pre-payment meters were out-of-service at project closure.
- With the support of technical assistance, a study of the electricity legislation was prepared and presented to the government (no details are available on the terms of reference). An assessment of human resources and evaluation of operational assets of the EAGB, an assessment of public-private-partnership options, and a stakeholder consultation and strategic communication campaign to be implemented under this project were financed and implemented under the MIRP and by IFC and EAGB.
- Technical assistant consultants were hired to support EAGB in commercial and financial management and technical aspects through formal and informal training sessions, preparation and review of studies, and study tours. Instead of the expatriate general manager, a consultant was hired to support the EAGB management.

Outcomes

- Two 5 MW capacity generators started operation in October 2012 and continued supplying electricity to Bissau until January 2015. As a result, the electricity generated by EAGB increased from 7.4 GWh per year to 45.8 GWh per year. The target was 35 GWh per year. However, in January 2015, after the breakdown of both generators, EAGB leased 10 MW capacity to provide electricity to Bissau using its own funds. The two



generators have been out of service since January 2015 due to lack of technical capacity and insufficient funds, and there is currently no prospect of their once again becoming operational.

- The number of consumers of public electricity supply services increased from 115,000 to 218,700 exceeding the target of 140,000. This was mostly achieved through the technical assistance given to EAGB to regularize customer records and the installation of pre-payment meters.
- The electricity bills collection rate increased from a baseline of 81 percent to 93 percent (target 95 percent), mostly because of the installation of pre-payment meters.
- However, the increase in the collection rate did not result in an improvement in the financial viability of the utility. Operating costs of EAGB covered by its own cash flow was at 75 percent at project start. The target was to increase this ratio to 100 percent and by the third year of the operation to start recording profits. However, high generation costs caused by continued use of more expensive diesel rather than HFO, significant diesel theft, weak commercial management, and poor condition of the distribution network resulted in a worsening of EAGB's financial situation despite the installation of pre-payment meters and technical assistance support. At closure, 70 percent of the operating costs were covered by the utility's own cash flow.

Since EAGB does not regularly keep records of load shedding and electricity outages, the utility was unable to determine how reliable the electricity supply was. According to the May 2014 PAD (p. 3) for the follow-up Emergency Electricity and Water Services Upgrading Project (EEWSUP), reliability was still a major problem: "service interruptions were general and ... services were, for instance, available only three to four hours per day in September-October 2013". At that time, both generators financed by the project under review were operational. Furthermore, "[t]he average monthly electricity consumption of customers with pre-payment meters fell from 50kWh in June 2013 to 10 kWh in September-October 2013"(also p.3).

With both project-financed generators out of service, and with no plans to repair them, the project's short term positive impact has not been sustained, and the objective of rapidly restoring and improving electricity supply services in Bissau has not been achieved.

Rating
Negligible

Objective 2

Objective

To assist the Government of Guinea Bissau in the rapid restoration and improvement of water supply services in its capital city.

Rationale

Outputs



- Water storage capacity increased by 700 m³ as targeted at appraisal.
- Additionally, 100 m³ water storage capacity was created for the use of firefighters.
- With the support of technical assistance, a study of the water legislation was prepared and presented to the government (the ICR presents no details on the study's terms of reference).
- Other assistance support described under Objective 1 above also applies to Objective 2.

Outcomes

- Following the construction of 700m³ and 100 m³ reservoirs (originally included in the Multisector Infrastructure Rehabilitation Project but transferred to the one under review due to procurement delays and lack of funding), corresponding to one-hour of average daily production, the number of consumers with direct access to water supply increased from 101,300 to 158,000, surpassing the target of 118,500.

This achievement is, however, relativized by three factors. First, according to the PAD for the EEWSUP, water service interruptions were common because of interruptions in electricity supply. Services were available only for three or four hours per day in September-October 2013, although the project-financed reservoirs were operational from January 2013. Second, average daily consumption per capita via domestic connections was 25 liters in 2013 compared to 60 to 100 in other countries in the Region (EEWSUP-PAD, p.3). Third, the project included no activities to improve the quality of the water supply, nor is any information included on it in the ICR. Although the quality of Guinea Bissau's unprocessed water is reputedly high, requiring minimal treatment, the distribution network, mostly consisting of aged asbestos cement pipes, is prone to contamination (EEWSUP-PAD, p.28). As noted above, leakage is estimated at about half of production, and this would likely increase if water pressure were to be adjusted to industry standards. Hence, while higher water storage capacity in Bissau is a necessary condition for the improvement of water services, it is not a sufficient one.

Rating
Modest

5. Efficiency

Economic and Financial Analysis

At appraisal, the existing generation capacity was 5.5MW, diesel fired. Compared to this and other feasible alternatives, the ex-ante economic analysis showed that purchase of a 5 MW HFO-fired capacity was the least cost option for supplying electricity to Bissau, rather than leasing additional capacity (PAD, pp.51-53). Similarly,



the economic analysis resulted in a net economic benefit for the installation of pre-payment meters. In return for a monthly charge of US\$5 for a pre-payment meter, the energy savings benefit was estimated at US\$15. Furthermore, due to its pre-payment model, these meters were expected to increase EAGB's collection rate, hence improving its finances. The water storage investment was shown to be economically feasible.

The internal rate of return (IRR) and net present value (NPV) were calculated separately for the generator investment and the water storage investment. These two investments together constituted 57 percent of the total actual project cost, excluding the financing from ECOWAS/EUWA for HFO purchase. The IRR and NPV for the generator investment was estimated to be 46 percent and US\$10.69 million respectively, and for the water storage investment as 14.35 percent and US\$0.33 million respectively.

The same methodology was used for the ex post economic analysis, apart from the discount rate, which was reduced from 12 percent at appraisal to 10 percent. With both generators out-of-service, the economic analysis resulted in an IRR of 4.4 percent and a negative NPV of US\$2.48 million, with the assumption that the generators would be repaired and become operational in the second half of 2016. The sensitivity analysis showed that in case of no repairs, the IRR would be minus 44.4 percent and the NPV would be minus US\$6.28 million. The repairs have not yet been, and are unlikely to be, scheduled.

The economic analysis conducted for the water storage investment at closure resulted in an IRR of 12.4 percent and NPV of US\$0.03 million, which are lower than the values calculated at appraisal. The ICR does not discuss the reasons for this. Comparison of the economic analyses at appraisal and project closing indicates a possible error in the appraisal calculations due to discounting by one more year. These two investments constituted 75 percent of the project actual cost, an 18 percentage point increase from the appraisal amount due to the cost overrun of the generators.

Operational and Administrative Efficiency

The project implementation period was estimated to be three years at appraisal. This was realistic given the scope of work and the political situation in the country, which was classified as fragile. Until the military coup in April 2012, the project was implemented faster than planned and the nearly 80 percent of the grant funds had been disbursed. Disbursements were suspended for a nine-month period and implementation resumed in January 2013 in a difficult political context, which eventually necessitated the extension of the closing date from September 2013 to June 2015.

Efficiency was also negatively affected because of design weaknesses. EAGB faced difficulties with the procurement of HFO which is not easily available in Guinea Bissau, an important point which was overlooked during appraisal. This resulted in continued lack of electricity and water supply due to the unavailability of fuel to operate the generators (ICR, p.17). EAGB eventually shifted to leased, diesel-fired, which is considerably more costly.

Overall, given the breakdown of the generators (with little apparent prospect of their repair in the foreseeable future) which constituted 66 percent of the actual project cost, and the problems faced in the procurement of fuel to operate the generators, efficiency is rated negligible.



Efficiency Rating

Negligible

a. If available, enter the Economic Rate of Return (ERR) and/or Financial Rate of Return (FRR) at appraisal and the re-estimated value at evaluation:

	Rate Available?	Point value (%)	*Coverage/Scope (%)
Appraisal		0	0 <input type="checkbox"/> Not Applicable
ICR Estimate		0	0 <input type="checkbox"/> Not Applicable

* Refers to percent of total project cost for which ERR/FRR was calculated.

6. Outcome

Due to erratic electricity and water supply services in Bissau, and the high risk that both sectors could collapse entirely further worsening civil peace and political stability in the country, the project objectives were highly relevant to the country conditions at appraisal. They were also consistent with Guinea Bissau’s development priorities and the Bank’s priorities for the country. Relevance of design is rated modest since design did not make adequate provision for, inter alia, securing fuel supply and maintenance of the generators. The efficacy of the objective related to the rapid restoration and improvement of electricity supply services in Bissau is rated negligible, since both generators have been out-of-service after operating for two years, and there seems little or no prospect of their being repaired in the foreseeable future. The achievement of the second objective of rapid restoration and improvement of water services in Bissau is rated modest, due to ongoing problems related to the water distribution network and unreliable electricity supply to operate the water pumps, which constitute two major bottlenecks for the improvement of both the quality and the quantity of services. Efficiency is rated negligible, reflecting the high negative IRR of the generator investment, which constituted 66 percent of the actual project cost, and the operational inefficiencies during project implementation caused by problems faced in the procurement of HFO to run the generators. Overall, these constitute major shortcomings, and outcome is rated unsatisfactory.

a. Outcome Rating

Unsatisfactory

7. Rationale for Risk to Development Outcome Rating



The major risks to the project's development outcome, which is largely limited to the modest results in the water sector, are political. Despite a lower level of political instability in Guinea Bissau since the military coup in April 2012, the country is still prone to economic and political turbulence.

EAGB's weak financial and commercial viability represents an additional risk. The utility does not have the capacity to implement major reforms or investment programs, or attract private sector participation in the sector with a long term perspective. Lack of funds also prevents the utility from properly maintaining the existing infrastructure and from scheduling repair of the out-of-service generators financed by the project.

Overall, the risk to development outcome is rated high.

a. Risk to Development Outcome Rating

High

8. Assessment of Bank Performance

a. Quality-at-Entry

Preparation benefited from the Bank's experience from the MIRP in identifying problems in electricity and water supply services. During appraisal, consultations with key stakeholders consisting of private sector, public sector, civil society and vulnerable groups, such as female-headed households, the elderly, disabled and youth, were conducted, and the scope of activities defined accordingly (PAD, p.11). Safeguards policies were adequately addressed (see Section 11 below). Likewise, financial management and disbursement and procurement arrangements were clearly defined, and fiduciary management benefited from the arrangements made under the MIRP. Close Bank supervision was imbedded in these arrangements.

However, there were a number of significant shortcomings. First, as noted in Section 3b above, design took insufficient account of the need to ensure fuel supply, maintain and repair generators, and focus on the poor condition of the distribution networks for both electricity and water. Second, the attempt to improve the financial and commercial viability of the utility through technical assistance was over-ambitious for an emergency project of this scale. Third, while the assumptions used in the economic and financial analysis were generally adequate, the possibility that the generators might require major repair was not addressed. Fourth, although the technology chosen for a rapid improvement in electricity services, which would also improve water supply services, was the least cost option, HFO supply constraints were not taken into consideration. Fifth, the exclusion of EAGB staff from the project implementation unit (PIU), weakened the utility's ownership of the project. Sixth, fuel supply difficulties and cost overruns, both of which materialized, were not included in the extensive list of risks identified during appraisal.



Overall, shortcomings are considered significant, and Quality at Entry is assessed as moderately unsatisfactory.

Quality-at-Entry Rating

Moderately Unsatisfactory

b. Quality of supervision

At least three supervision missions were conducted each year. These missions were continued during the period of political uncertainty following the military coup in April 2012, which made the resumption of implementation easier when disbursements were allowed to resume nine months later. Frequent missions allowed the Bank team to monitor closely the progress of project implementation, and support the project implementation unit and the EAGB. Supervision of fiduciary and safeguards aspects was adequate given the difficult political context during implementation. There was compliance with both safeguards and fiduciary polices (see Section 11 below).

The Bank team was proactive in providing financing under the project to extend the maintenance contract of the HFO-fired generators beyond the guarantee period. However, when the generators broke down in January 2015, not all necessary action to remedy the situation was taken, and the project closed with uncertainty about the future of the generators. This is considered a moderate shortcoming, and the Quality of Supervision is therefore rated moderately satisfactory.

Quality of Supervision Rating

Moderately Satisfactory

Overall Bank Performance Rating

Moderately Unsatisfactory

9. Assessment of Borrower Performance

a. Government Performance

Prior to the military coup in April 2012, the government's commitment to the project was high, as reflected in their efforts to address difficulties in procuring HFO. However, the government's focus was restricted to short-term achievements. Measures to improve EAGB's financial viability, such as adjusting electricity and water tariffs, could not be implemented due to the political situation in the country. The instability caused by the military coup in April 2012 weakened the government's commitment to the project and its ability to take any measures to address the utility's lack of financial viability. Although the ICR (p.27) gives credit to the government for expediting the negotiation of the 10 MW rental generation capacity to maintain electricity supply in Bissau, this was a more costly option. Moreover, the government



did not prepare a plan or provide funding for the repair of the generators, which remain out-of-service as of December, 2018.

These shortcomings are considered major, and Government Performance is rated unsatisfactory.

Government Performance Rating

Unsatisfactory

b. Implementing Agency Performance

Due to the weak institutional capacity of EAGB to implement investment projects, the Plan and Regional Integration Department of the Ministry of Economy was chosen as the implementing agency. The Project Implementation Unit (PIU) housed there already existed and was implementing the then ongoing MIRP. The PIU staff were experienced in Bank project implementation. The PIU's commitment to project implementation was high. Project implementation proceeded faster than planned until the military coup in April 2012. The PIU's handling of procurement and fiduciary aspects of the project, and implementation of environmental safeguards policies were adequate. Accounts and supporting documents were properly kept and all expenditures were recorded. The external auditors' opinions on annual financial statements were unqualified. The PIU had a staff member responsible for procurement who was specialized in the Bank's procurement guidelines. However, the ICR (p.27) states that the PIU did not efficiently manage the gains from exchange rate changes. Furthermore, reportedly neither the PIU nor the Ministry of Economy urged the repair of the HFO-fired generators (which were operated and maintained by the EAGB). Although beneficiary and stakeholder consultations were included in the project design, they were not carried out during implementation. Overall, the performance of the implementing agency is rated moderately satisfactory.

Implementing Agency Performance Rating

Moderately Satisfactory

Overall Borrower Performance Rating

Moderately Unsatisfactory

10. M&E Design, Implementation, & Utilization

a. M&E Design

Outcome indicators were restricted to the increases in the supply of electricity and water services, rather than the quality and reliability of these services and their impact on end-users. This mostly reflected the absence of data, since EAGB does not keep systemic records (EWESUP-PAD, p.3). Even for the restoration of, and increase in, service provision, EAGB's data are not wholly reliable. For example, it is not clear how the number of water users increased by more than three times of the



target, as a result of the construction of a 700 m³ water storage. Institutional responsibility for M&E was assumed by the PIU.

b. M&E Implementation

M&E was challenging, especially during the first three years of project implementation, due to the insufficient institutional capacity of EAGB, which could not produce reliable technical, commercial and financial data. There were some improvements after technical assistance started in December 2013, but M&E implementation still suffered from inaccurate energy meters at the power plants, non-existence of energy meters at substations, and an obsolete billing system (ICR, p.18). Measures to remedy M&E design weaknesses were not taken. Although "the implementation of a program to monitor and evaluate the carrying out of the project" was included in the fourth component, this appears to have been limited to the hiring of a technical assistant to help the EAGB in various areas, including M&E. Adequate

c. M&E Utilization

M&E was largely used to monitor project outputs and there were no strategic or policy-related applications. Information gathered during implementation was used for the preparation of the EWESUP.

M&E Quality Rating

Modest

11. Other Issues

a. Safeguards

The project was classified as Category B under OP/BP 4.01 (Environmental Assessment), and no other safeguards policy was triggered. The classification was based on the An Environmental and Social Impact Assessment of the then ongoing MIRP (ICR, p. 19).

An Integrated Safeguards Data Sheet specific to the project was disclosed with the ESIA of the MIRP (ICR, p. 19). The ICR (p. 19) reports that an Environmental and Social Management Plan for the construction of the 700 m³ water storage was prepared and implemented, and a social and environmental specialist was hired. According to the ICR, the project was compliant with OP/BP 4.01 throughout implementation.



b. Fiduciary Compliance

Financial Management

Financial management arrangements of the project were reported by the ICR to be adequate. The project implementation unit (PIU) was responsible for the financial management of the project under close Bank team supervision. The PIU was adequately staffed and benefited from the experience gained from the implementation of the MIRP. Financial audits were conducted on time and the external auditors’ opinions were unqualified. Interim un-audited reports were also submitted on time. IDA funds were fully accounted for at project closing. According to the ICR, there were no issues of corruption or misuse of funds associated with the project.

Procurement

All procurement of goods, works and services financed by the project followed Bank procurement guidelines (ICR, p. 18). There was a dedicated procurement specialist in the PIU, who was proficient in the Bank’s procurement procedures. There were few implementation delays related to procurement, other than those following the military coup in April 2013. When the tender for the procurement of HFO-fired generators resulted in a price higher than planned at appraisal, additional financing was provided to address the cost overrun. However, there were difficulties in procuring HFO, which led the utility to switch to more costly diesel. There were no reported cases of misprocurement.

c. Unintended impacts (Positive or Negative)

None.

d. Other

None.

12. Ratings

Ratings	ICR	IEG	Reason for Disagreements/Comment
Outcome	Moderately Satisfactory	Unsatisfactory	The project could not achieve the restoration and rehabilitation of electricity services beyond an initial two years due to the breakdown of the generators. Hence, the attainment of the electricity-



			related development objective is rated negligible. Efficiency is also rated negligible.
Risk to Development Outcome	High	High	---
Bank Performance	Moderately Satisfactory	Moderately Unsatisfactory	Quality at Entry had significant shortcomings, which contributed to the non-achievement of the PDOs.
Borrower Performance	Moderately Satisfactory	Moderately Unsatisfactory	There were major shortcomings in government performance, including insufficient action to improve the utility's financial viability of the utility and to fund the repair of the generators.
Quality of ICR		Modest	---

Note

When insufficient information is provided by the Bank for IEG to arrive at a clear rating, IEG will downgrade the relevant ratings as warranted beginning July 1, 2006. The "Reason for Disagreement/Comments" column could cross-reference other sections of the ICR Review, as appropriate.

13. Lessons

Four lessons are drawn by IEG based on the information in the ICR and that provided by the project team.

A full analysis of the obstacles to the securing of fuel to operate generators and the funding of maintenance and repair of equipment is necessary to avoid jeopardizing the achievement and sustainability of development outcomes. Although the proposed use of HFO to operate the generators was the least cost solution and also less vulnerable to theft and embezzlement, Guinea Bissau was unable to secure a reliable source of supply, and storage facilities were also lacking. Due to the weak financial viability of the EAGB, a long-term HFO purchase agreement could not be concluded with the suppliers. Similarly, EAGB could not draw up a plan or obtain funding to repair the project-financed generators.

Because of the poor state of the electricity and water distribution networks in fragile countries, restoration of power supply alone is likely to be insufficient to attain the desired development outcomes. Both the electricity and the water distribution networks in Bissau were in poor condition. Even though power supply was temporarily improved after the installation of the generators financed under the project, provision of service to consumers remained intermittent, with voltage variations and a high risk of water contamination from worn-out and leaking pipes.



Close supervision of the project by the Bank team and the presence of an adequately staffed project implementation unit can facilitate the completion of project activities and the achievement of project outputs and outcomes in fragile countries even during political instability. The project was intensively supervised with at least three missions per year to the country to supervise project implementation and provide assistance to the borrower. As a result, the project was able to resume its activities nine months after the military coup and achieved intended outputs before the extended closing date.

Although the presence of an experienced and adequately staffed project implementation unit was instrumental in the smooth implementation of the project, the exclusion of the main project beneficiary's staff from project implementation can weaken the ownership of the project by that beneficiary and pose a threat to the sustainability of development outcomes. As the electricity and water utility, EAGB was the main recipient and beneficiary of the project outputs. However, the project implementing unit existed under the Ministry of Economy had an exclusive authority in the implementation of Bank projects, and did not include any staff members from EAGB. For example, the project implementing unit did not consult the utility during the procurement of generators. This created resentment on the EAGB side and weakened the utility's ownership of the project.

14. Assessment Recommended?

Yes

Please explain

A joint assessment of the Multisector Infrastructure Rehabilitation Project (P097975) and this project is recommended. Both projects are rated in the unsatisfactory range for outcome. An assessment of both projects would provide invaluable insights on how to improve emergency interventions in fragile countries for the provision of fundamental utility services of electricity and water supply.

15. Comments on Quality of ICR

The overall narrative of the ICR is concise and candid. It is consistent in its argument. Analyses are sufficiently supported by evidence. However, the ICR did not assess the achievement of the development of objectives at project closure, but rather at an earlier point, when the generators were operational. The impact of the breakdown of the generators is not, therefore, fully reflected. The ICR did not provide sufficient information on the effect of the technical assistance activities implemented on the achievement of the development outcomes. The lessons learned were mostly in the form of recommendations. The M&E discussion could have been more detailed, especially utilization. There are calculation mistakes in "Annex 1 Project Costs and Financing." Moreover, the ICR was submitted more than three years after project closing.



a. Quality of ICR Rating

Modest