



Report Number : ICRR0021332

1. Project Data

Project ID

P122419

Project Name

BJ-Support to Protected Areas Manag. Pro

Country

Benin

Practice Area(Lead)

Environment & Natural Resources

L/C/TF Number(s)

IDA-H6480

Closing Date (Original)

15-Dec-2016

Total Project Cost (USD)

6,672,719.07

Bank Approval Date

29-Mar-2011

Closing Date (Actual)

31-Dec-2017

IBRD/IDA (USD)

Grants (USD)

Original Commitment

5,000,000.00

0.00

Revised Commitment

5,000,000.00

0.00

Actual

4,865,955.27

0.00

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Project ID

P115963

Project Name

BJ:Support to Protected Areas Management (P115963)

L/C/TF Number(s)

Closing Date (Original)

Total Project Cost (USD)

1,807,169.13



Bank Approval Date	Closing Date (Actual)	
29-Mar-2011		
	IBRD/IDA (USD)	Grants (USD)
Original Commitment	0.00	1,900,000.00
Revised Commitment	0.00	1,807,169.13
Actual	0.00	1,807,169.13

2. Project Objectives and Components

a. Objectives

a. Objectives

The Financing Agreement defined the project's development objective (PDO) as "To enhance protection of biodiversity in Northern Benin Savannah ecosystems" The Agreement went on to state that the objective would be achieved "through conservation measures and by reducing human pressure on parks." Financing Agreement for the "Support to Protected Areas Management Project", Schedule 1).

According to paragraph 1 in Annex 8 of the PAD the Global Environment Facility's Objectives were the same as the IDA objectives, but paragraph 17 of the PAD added that "The proposed project is fully aligned with the GEF Biodiversity Strategic Objective 1 (SO1): "Catalyzing Sustainability of Protected Areas", and Strategic Program 3 (SP3): "Strengthening Terrestrial Protected Area Networks".

This Review will assess this project's achievements against the objective stated in the Financing Agreement which was to be accomplished through "conservation measures; and reducing human pressures on the parks"(paragraph 21).

The Global Environment Facility's Objectives are the same as the IDA objectives, but add as a supplementary detail, "catalyzing sustainability of protected area systems and strengthening terrestrial protected area networks of the GEF Biodiversity program."

The project is reviewed based on the World Bank Objectives. Assessment is based on the overarching objective of enhancing protection of biodiversity, and its two supporting objectives: (i) taking conservation measures; and (ii) reducing human pressures on the parks.

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 three components. Component 1 was in three parts:

Component 1: Support to the National Center for Wildlife Management (CENAGREF) (appraisal estimate US\$5.30 million; actual cost US\$6.13 million)

This sub-component sought to: (i) enhance the capacity of CENAGREF and its units, i.e. the Directorate of the Pendjari National Park (Direction du Parc National de la Pendjari, DPNP) and the Directorate of W Park (Direction du Parc National W, DPNW) to manage the Northern Benin Savannah Ecosystems; (ii) conduct feasibility studies to determine what conservation measures and other actions might be taken by the Government to improve the current status of selected classified forest reserves in Central and Southern Benin; and (iii) ensure timely and effective implementation of project activities. The three parts of sub-component 1 were:

Sub-component 1a: Strengthening the Management Capacity of the Parks General

Directorate. Coordination and harmonization of park management in Northern Benin, conducting feasibility studies, and strengthening fiduciary capacity.

Sub-component 1b: Strengthening the Operational Management Capacity for Decentralized Management at Field Levels.

Strengthening the management capacity, infrastructure and conservation activities of two decentralized units (the Direction du Parc National de la Pendjari (DPNP), and the Direction du Parc National W (DPNPW), each managing a park in Northern Benin. Activities supported included small-scale rehabilitation of infrastructure (park roads, viewing platforms, entrances, contracting additional staff for poaching control, and ecological monitoring.

Sub-component 1c: Ensuring Timely and Effective Implementation of Project Activities. Provision of extra staff and specialists to provide the capability to implement the project, including strengthening procurement, financial management and M&E.

Component 2: Development and Implementation of Income Generating Activities (IGAs) for

Communities Adjacent to the Parks (appraisal estimate US\$1.5 million; actual cost US\$0.91 million). Reducing human pressure by providing remunerative alternatives to exploitation activities in the parks.

Component 3. Creation of an Enabling Environment for a Long-Term Financing Mechanism for Biodiversity Conservation

(appraisal estimate US\$0.50 million, actual costs US\$0.07 million). The Government, with the support of this project, undertook to create a Foundation (Fondation des Savanes Ouest-Africaines – FSOA) that would manage a conservation trust fund (CTF) as the long-term financing instrument for the core recurrent costs of the Pendjari and W National Parks' management plans. The FSOA Board of Directors would supervise a fiduciary and administrative team in charge of the day-to-day FSOA operations. This component would provide technical assistance to the Government with a view to



facilitating the process of finalizing the creation of the FSOA in collaboration with KfW which made a commitment to provide parallel financing.

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

Project Costs: Total project costs estimated at appraisal were US\$6.90 million. At completion, actual costs were US\$7.11 million, 3 percent above the appraisal cost estimate.

Financing: The project was financed with an IDA Credit of US\$5.0 million, and a GEF grant of US\$1.9 million. At project completion, disbursements of the IDA Credit were US\$5.23 million (4.6 percent above the original credit), and for the GEF grant US\$1.88 million (99 percent of the original grant). KfW committed US\$0.10 million for Component 3, of which US\$0.07 million was used.

Borrower Contribution: The Government made no financial contributions to the project.

Dates: The project (the IDA Credit and GEF Grant combined) was approved on March 29, 2011. Since the original closing date was December 15, 2016 the planned project implementation period of 5.75 years. In a project restructuring (refer below) the project's closing date was extended by a year to an actual closing date of December 31, 2017, making for a total project implementation period of 6.75 years.

Restructuring. A Level 2 restructuring was approved on November 11, 2015 (ICR page 2), and completed on June 6, 2016 (ICR page 11). There were no changes to the Project Objectives. The changes made were to sharpen performance measurements and adjust disbursement categories, as summarized below:

1. Numerical targets for the Protected Area Management Effectiveness Tracking Tool (METT) described in Section 4 of this Review were removed, although the goal of enhancing management effectiveness remained the same.
2. Four intermediate indicators for better assessing the project's output achievements were introduced: (a) area brought under enhanced biodiversity protection; (b) increased monetary or non-monetary benefits for communities living adjacent to the forests; (c and d) reduced poachers' camps in Pendjari National Park and PNW National Park; and (e) number of direct project beneficiaries including the number of female beneficiaries
3. Two additional wildlife species were added to the park monitoring indicators, creating three separate species tracked for each park.
4. Minor adjustments to project components were made including, dropping of a feasibility study to determine further improvements of forest reserves because the African Development Bank had already undertaken such an exercise, and the addition of a study of the impact of Income Generating Activities (IGAs) on community welfare and human pressure on the parks
5. Reallocation of funds between categories to increase amounts for goods, consultants and training, and a reduction in funds for income generating schemes.



3. Relevance of Objectives

Rationale

The project's objective to enhance protection of biodiversity, in the context of the project's design, met a strategic need in Benin. Several strategic aspects of the project's objective were noteworthy: (a) relevance to the Government and World Bank development strategies for Benin; (b) choice of parks with high demonstration and replication possibilities; (c) the two-pronged development approach combining conservation with investment opportunities for villagers; and (d) one stand-out issue - the limited articulation and actions for enhancing biodiversity, the project's primary purpose.

Relevance to Government and World Bank Development Strategies.

The project objectives were consistent with Government and Bank development strategies - in particular, the link between management of natural resources, and economic growth. The project also contributed to Benin's resource management strategy, notably in the Benin National Environmental Action Plan (2001); and the National Biodiversity Strategy and Action Plan (2002). The Bank's Country Partnership Strategy of 2013-2017, the relevant strategy document at project closure, refers to improving natural resources management, and increasing sustainable growth, competitiveness, and employment. The project's objectives were also consistent with the Bank's most recent strategy document - the Country Partnership Framework of 2018-2022 - issued shortly before the ICR was prepared - which emphasizes sustainable and inclusive employment of Benin's human and natural resources. The project objectives also fitted within GEF's global agenda to "conserve and maintain genes, species and ecosystems".

Relevance to Location of Project

The two parks involved in this project - Pendjari National Park, and the "PNW" National Park - are in Benin's Northern Savannah ecosystem, and near-contiguously cover much of the ecosystem in this region, thus enhancing the ecological relevance of the project. The parks harbor a diverse spectrum of bird, plant, invertebrate and small vertebrate species, and significant numbers of large animals such as leopards, antelope, and elephants, and the ICR comments that the project is located in one of the most important wildlife areas, and one of the largest intact and functioning ecosystems, in West Africa. The parks are also part of a trans boundary protected area that includes Burkina Faso and Niger, of which Benin contributes 40 percent. This location is also one of the most significant elephant sanctuaries in West Africa.

Relevance to Protecting Biodiversity.



The ICR noted that "Biodiversity conservation in both the parks has been threatened by numerous factors, including: (i) a limited technical capacity and weak and poorly organized institutions for park and wildlife management; (ii) widespread antagonism between local communities and forest guards in and around the protected areas; and (iii) poor control of poaching and grazing" (paragraph 4). Neither the PAD nor the ICR, however, provided an articulation of the meaning of biodiversity in Benin. Based on various dictionaries biodiversity can be defined as the variability of organisms and species in terrestrial and marine ecological complexes which results in diversity within species and between species in different ecosystems. As will be established later in this Review, in the absence of an articulation of biodiversity, the objective of protecting biodiversity was not adequately framed and consequently the measurements of changes in biodiversity were skewed. Nevertheless, monitoring the three animals has some proxy value. Because of their integral part within the food web, increases in their populations would likely influence increased success for species both above and below the herbivores.

Overall Relevance of the Project's Objective

Although the meaning of biodiversity could have been more clearly stated in the PAD and in the ICR, *enhancing protection of biodiversity* in the two parks is substantially relevant to Government and Bank development strategies and at an appropriately ambitious level. The relevance of the project's objective is therefore rated *Substantial*.

Rating

Substantial

4. Achievement of Objectives (Efficacy)

Objective 1

Objective

Conservation Measures to Enhance Protection of Biodiversity.

Theory of Change.

This project's theory of change was that the project's objective of protecting biodiversity in the Pendjari National Park and the W National Park will be achieved through investments in the conservation of natural resources by improving management coordination between the two parks in conjunction with sustained private sector investment in alternative income generating activities in communities adjacent to the parks, and creating an enabling environment for the creation of a long-term financing mechanism for biodiversity conservation (ICR, paragraph 7)



The project's design called for the PDO to be achieved through two sub-objectives namely; "Conservation Measures to Enhance Protection of Biodiversity" and "Reducing Human Pressure on Parks to Enhance Protection of Biodiversity" referred to below as objectives 1 and 2 because of the structure of the Review template. The extent to which these two objectives were achieved will determine the extent to which the overall PDO was achieved.

Rationale

Objective 1: Conservation Measures to Enhance Protection of Biodiversity

A comprehensive set of activities to enhance protection of the environment was implemented meeting output targets, as summarized below. The outcome from actions such as the significant increase in surveillance, and other actions, would contribute to enhanced protection of the environment. Two indicators were particularly relevant to assessing the outcome for this objective, namely increased population density of three selected herbivores and improvements in park management.

Outputs

1. Outreach to local communities was carried out to create awareness of conservation and human pressures issues.
2. Additional Park rangers were recruited and trained, and surveillance activities were intensified. Surveillance activities increased by 133 percent for Pendjari and 270 percent for PNW.
3. Poachers camps were reduced: in Pendjari Park from a baseline of 47 camps to 12. The target was a reduction to 15 camps. In PNW Park the camps were reduced from a baseline of 47 to 20 compared with a target of 15.
4. Tracks and other park infrastructure were improved and increased
5. The capacity and operational effectiveness of park conservation and the control of human encroachment was upgraded, and progress was monitored through the Management Effectiveness Tracking Tool (METT) The METT scoring system, used by the World Bank and GEF, measures progress in park management on 30 technical and administrative categories, including legal and regulatory features, staff training, work with local communities, financial situation, accounting, development of tourist facilities, and surveillance. Most of the management improvement actions measured through the METT scores apply to both objectives.1 and 2. Several other actions were also shared between the two sub-objectives.). Recurrent funding for tracking and other expenses could, however, be a constraint (see Section 7).



Outcomes

Three measurable outcomes provided evidence of the project's achievements towards enhancing protection of biodiversity:

1. The density of three large herbivores which were monitored increased in Pendari Park by 20 percent for buffon cobs, 14 percent for antelopes and 46 percent for buffaloes; and on PNW Park by 40 percent for buffon cobs, 7 percent for antelope and 13 percent for buffaloes. These increases reached project targets established at appraisal. Nevertheless, trends in the observed number of three herbivores was a skewed indicator of trends in biodiversity considering the large range of animal and plant species in the park ecosystems.
2. The combined protected area brought under enhanced protection of bio-diversity increased as targeted by 1,000 ha.
3. The effectiveness of park management (the METT) improved from a score of 85 to 93 for Pendjari, and for PNW, from 68 to 77, slightly exceeding the targeted increases for both parks.

Based on these achievements and their measured impacts, the Efficacy of this sub-objective to enhance protection of biodiversity through conservation measures is rated Substantial.

Rating

Substantial

Objective 2

Objective

Reducing Human Pressure on the Parks to Enhance Biodiversity

The project was designed to implement a program leading to reducing the impact of human farming and related activities on biodiversity in the two parks

Rationale

Outputs

1. Outreach to local communities was carried out to create awareness of human pressure and related environment conservation issues.
2. A Conservation Trust Fund was established for financing Income Generating Activities (IGAs) among farmers and livestock herders adjacent to the two parks. Associated actions included: preparation of articles of association, by-laws, Operations Manual, a fund raising strategy, training and equipment.



3. Income Generating Activities were introduced: 2,900 direct beneficiaries, and 66 community microenterprises were established (both exceeding appraisal targets).

As was the case for Objective 1, the METT was used to monitor improvements in program capacity and management

Outcome

The actions taken to achieve Objective 2 were likely to have had a direct impact on reducing human pressures on the parks' environment and biodiversity. Notable impacts were: (a) improved community understanding of park management and their possible role in conservation; (b) reported benefits from alternative income generating activities; and (c) the progressive improvement in park management measured through the METT. The Efficacy of this sub-objective to Reduce Human Pressures on the Parks was Substantial.

The ICR observed that there is less direct evidence of the impact of income generating activities on the protection of biodiversity than from conservation measures. Nevertheless, the IGAs have progressed well, responding to higher than expected community demand (paragraph 30). Interviews with families (though not sample based) indicated that farms switched activities from park-based livelihoods to diversified agriculture or non-agriculture enterprises (paragraph 29). The ICR also stated that "Diversification of livelihoods away from agriculture and larger scale livestock raising/grazing was achieved through support to a range of alternative microenterprises from food processing (e.g. garri production) to bee keeping and raising of small livestock such as rabbits and chickens" (ICR, paragraph 30).

An issue that was not addressed in the ICR was whether the income generating activities adopted fully substituted for their prior activities reliant on exploiting the parks. It is possible that some villagers treated the income generating schemes as supplemental rather than as substitutions for their traditional park-based activities, but the ICR provides no evidence on whether some traditional activities were retained and if so, whether they were significant. Nevertheless, the ICR states that the income generating activities "did indeed lessen pressure on the parks along with enhancing livelihoods" (ICR, para 29). The increased surveillance introduced by the project would also have mitigated such pressures.

Rating
Substantial

Rationale
Efficacy of the Project's Overall Objective - To Enhance Protection of Biodiversity



The efficacy of the project's overall objective ("to enhance protection of biodiversity") is the combined result of the outcomes of Objectives 1 and 2 discussed in this section. With respect to Objective 1, the combined evidence from the increases in animal density and expansion of the parks' area indicates improving park conservation and hence improved protection of biodiversity. With respect to Objective 2, there is less direct evidence of impact, but the income generating activities have progressed well, responding to higher than expected community demand, and interviews with the families interviewed provided evidence on the diversification of activities from park-based livelihoods to agriculture enterprises not dependent on the parks' natural resources. Also, the trust fund established for providing credit to income generating investments is a well structured institution. Without alternative incomes, conservation of the parks would be more difficult, encountering community welfare and equity concerns. Thus the two prongs of the project's approach - conservation and reduction of human pressures - were mutually supportive thrusts.

Other indicators of the efficacy of the project's overall development objective are the broader complementary activities associated with Objectives 1 and 2. Activities such as increased numbers of park rangers, increased surveillance, provision of alternative employment for villagers near the parks, and improved park management, could be expected as a group, to also enhance the protection of biodiversity. The siting of the project in the Northern Savannah adds to the utility of the project because the parks form a near-contiguous protected area, linked to parks in Burkina Fasso and Niger (section 3). This Review concludes that this project has achieved an enhanced protection of biodiversity in the two parks. The project's Efficacy is therefore rated Substantial.

Overall Efficacy Rating

Substantial

5. Efficiency

Ex-Ante

The PAD conducted a cost-benefit analysis which estimated the project's net present value (NPV) to be US\$28.14 million at discount rate of 12 percent, and an ERR above 50 percent over a period of 20 years. The results of this analysis indicated that, based on the estimated socioeconomic benefits, the project was economically viable. These results were also tested in terms of their sensitivity to a reduction in tourism revenue and an increase in operating costs. The NPV remained positive in case of a 10% increase in operating costs at US\$18.14 million and a 46 percent ERR. It was expected that the project would increase the awareness of tourism and biodiversity conservation activities and initiatives, thus an overall increase in the sector revenue as well as for people involved in conservation management activities (i.e. stakeholders) was expected..

Ex -Post

The ex-post economic efficiency analysis conducted for the ICR confirmed the assumption made at the design stage of a positive economic impact. At the medium income level, the ERR was estimated at 7.7



percent, with a benefit/cost ratio of 2.2 and an NPV of US\$25.7 million for environmentally beneficial agricultural income generating activities (IGAs), the Conservation Trust Fund (CTF) and tourism. On the other hand, for only the medium level IGAs and the CTF without tourism, the rate of return was estimated to be 19.9 percent and the B/C ratio was 4.2. The analysis in the ICR emphasized that assumptions regarding benefits at appraisal remained and were confirmed at project closure. It was decided to use lower-bound (i.e. "medium income level") values of associated benefits and costs attributed to the project. This was justified by the absence of specific data on income and operational costs for some individual income generating activities, and tourism revenues affected by the poor security situation in the neighboring countries (ICR, paragraphs 39 and 40 and Annex 4). IEG notes that real interest rates in Benin in 2017 (when the project closed) were on average 5.6 percent (WDI data base). Results from the ERR analysis were presented under alternative assumptions regarding the benefits included and the income levels of participants in the income generating activities. No overall ERR was estimated for the whole project. For the purposes of this Review, the economic rate of return for the income generating activities and the conservation trust fund taken together with medium income beneficiaries is 20 percent (ICR Table 2, page 21).

Environmental Benefits.

While the rate of return of environmental/biodiversity impacts are difficult to assess, there could have been scope for a quantitative analysis of the project's environmental net benefits. For instance, environmental and biodiversity impacts could have been discussed in qualitative terms supported by references, where possible, to typical environmental benefits from other comparable projects or research findings.

Cost Effectiveness

According to the ICR, average park establishment costs per ha for this project were US\$4.2. The ICR compared this with average costs of three other projects in the Sahel region, with similar components. One project had costs similar to the project, while the other two had costs per ha three times higher than in Benin (ICR, paragraph 42).

Implementation Efficiency:

The project implementation period was extended by one year, primarily due to delays in implementing the income generating activities. The project was, nevertheless, implemented 3 percent above the appraised budget. The costs of project management are not separately available in the ICR

Overall Assessment of Efficiency

Based on the estimated rate of return for environmentally beneficial agricultural activities at levels above the real rate of interest in Benin, the project was an economic success with an ex post rate of return very close to 20 percent. The project was also judged to be cost-effective relative to other projects in the Sahel Region, and although an extra year of implementation was required, the project was nearly within budget and implementation targets were achieved. This review therefore concludes that the project's Efficiency was Substantial.



Efficiency Rating

Substantial

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	✓	50.00	20.00 <input type="checkbox"/> Not Applicable
ICR Estimate	✓	20.00	20.00 <input type="checkbox"/> Not Applicable

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

6. Outcome

The relevance of the project's objective was Substantial. It responded to both the Bank and the Government development priorities for Benin. The project also directly addressed Benin's need to protect biodiversity in environmentally threatened important parks. The two-pronged project design combining conservation with incentives for communities living in areas adjacent to the parks to take up alternative income generating activities in lieu of the exploitation of the parks' natural resources was sound. Efficacy was assessed as Substantial based on nearly full achievement of output targets, and measured increases in animal density of three large herbivores as proxies for biodiversity. Such proxy indicators are consistent with an improved vegetative cover and environment, although biodiversity for the broad range of species in the parks is more difficult to assess. Efficiency was also rated Substantial in that the project activities achieved a high estimated economic rate of return and the project investment was cost-effective. The Conservation Trust Fund, and tourism activities combined together were economically viable. Overall, the project had minor shortcomings and its Outcome is, therefore, rated Satisfactory.

a. Outcome Rating

Satisfactory

7. Risk to Development Outcome

The main risk is whether park management and maintenance as well as the community sub-projects will be adequately funded in future. The Conservation Trust Fund has started well with KfW and GEF providing grants



for its initial capital. However, it is not yet clear whether, in the long-run, the fund will be able to replenish itself for financing community sub-projects without running down its reserves. Moreover, financing risks could manifest themselves even in the short term. As commented on in the ICR (paragraph 74), "The Government co-financing for support to increased ... park surveillance... was late or unpaid twice during the project implementation period endangering project outcomes;" And the ICR also comments (paragraph 54) that: "The Government budget for recurring costs in both parks was not extended after project restructuring and the extension of the closing date, leading to challenges in meeting the payments for surveillance by park rangers." Such occurrences - striking at tracking and maintenance, the very heart of park management - are significant risks. A dedicated budget for financing the tracking of biodiversity should help in this regard. On general park administration, the African Parks Network, which is cited in the ICR as having a good management record, is taking over the management of the two parks. However, the success of the new management is not yet proven,

8. Assessment of Bank Performance

a. Quality-at-Entry

The project was designed using experience from previous similar projects, and it was consistent with the Bank's strategy for Benin. There was a difference in quality, however, between the results framework and the practical features of the project's detailed design. The results chain in the results framework had several weaknesses, amongst them: the lack of clear causality between actions and expected impacts (such as improved biodiversity), and the absence of information on the institutions that would implement the project's activities.

The quality of the project's detailed design was considerably better. The specific actions to be undertaken under the project were practical, and, as exemplified by the project's attainment of its implementation targets, were sufficiently detailed to provide adequate technical guidance. More specialized techniques such as use of the METT and animal density monitoring to assess trends in biodiversity were practically adapted to the project's monitoring needs. The ICR comments that, "to reduce human pressure on the parks, the project focused on both improving surveillance and improving livelihoods in communities through the creation and implementation of income generating activities" (paragraph 29). On a broader scale, the inclusion of the National Center for Wildlife Management (CENAGREF) improved park management capacity for the country as a whole (ICR, paragraph 48).

The two-pronged strategy for achieving the project's development objective to "enhance protection of biodiversity in the Northern Benin Savannah Ecosystems" is reflected in the project's two sub-objectives, namely - (a) to enhance *conservation* measures; and (b) to *reduce human pressure on parks* - which capture the concept of an interlinked conservation/human pressure reduction strategy for tackling park management. The relevance of the two sub-objectives is based on the hypothesis that conservation (protection, surveillance and other activities) can be more effective if combined with promotion of



alternative incomes for villagers adjacent to the parks. Without the latter, the basic cause of land and species degradation (deterioration of biodiversity) would continue.

Provisions for assessing biodiversity improvement - the core purpose of the project - could have been better. The species monitored could have been expanded beyond the three large herbivores chosen (section 4). And, more fundamentally, although biodiversity is mentioned a number of times in the PAD and ICR, there is no significant discussion of the impact of environmental changes (such as tree cover, variety of plant species, smaller animals) on biodiversity. .

Summary Assessment of Quality at Entry

While the results framework had shortfalls (biodiversity was not specifically targeted), the project's detailed design was satisfactory and helped enable project targets to be reached. Quality at Entry is rated Satisfactory.

Quality-at-Entry Rating

Satisfactory

b. Quality of supervision

Supervision was under the same Task Team Leader (TTL) throughout the project period, and the ICR comments that this continuity was an advantage for the project's implementation. Also, the TTL visited the project during missions for other tasks, effectively increasing contact with the borrower beyond the more typical two supervision missions each year. Visits of technical experts and financial specialists were also arranged. Supervision costs averaged US\$82,000 per annum which is not excessive. Technically demanding activities such as using the Kilometer Abundance Index transect collection method, and the METT, were supervised knowledgeably. Financial management and (especially) procurement were generally well handled by government, attesting to thorough guidance and monitoring by Bank staff. The ICR noted that a confusion in disbursement categories and funding sources by the borrower had occurred (paragraph 65). As a result of more expenditures charged to one of the disbursement categories than the resources available, "additional focus on this was needed" for the remainder of the project. On balance, though, this Review rates the overall quality of supervision as Satisfactory.

Considering both Quality at Entry and Supervision together, overall Bank performance is rated Satisfactory.

Quality of Supervision Rating

Satisfactory

Overall Bank Performance Rating

Satisfactory



9. M&E Design, Implementation, & Utilization

a. M&E Design

The M&E system's design was mostly well linked with the project's objectives, outputs and intermediate indicators, and was able to track progress on a regular basis. Monitoring protocols were established, namely yearly reporting regarding progress on development objectives, twice yearly reporting for intermediate outcome indicators, and more frequent reporting for management information. The M&E design was also integrated with the project's transect monitoring system for progress in animal density, and with monitoring of overall park management. The transect-monitoring system was designed to track progress in the populations of three herbivore animal *species*, and the Protected Area Management Effectiveness Tracking Tool (METT) was established to monitor the effectiveness of park management (ICR page 28).

b. M&E Implementation

The M&E system was established and fully functional from 2012, fairly early in project implementation (project approval was in March 2011). The PIU managed the program including the METT and the transect monitoring of animal numbers. Training was an integral part of the M&E program. Overall, the M&E team functioned well and was able to deliver the monitoring data to inform project management about changes in the number of the three animal species as well as progress in park management. The gap in measuring biodiversity reflected the similar shortfall in the project's implementation.

c. M&E Utilization

The ICR (paragraph 61) noted that the M&E system was able to provide the monitoring information required to project stakeholders regarding the project's progress and achievements. This included near-term monitoring to provide information for managers, and the ecological monitoring used for ongoing management of surveillance. Adjustments were made as needed in the density of patrols.

This Review rates the overall quality of M&E as Substantial

M&E Quality Rating

Substantial

10. Other Issues

a. Safeguards

The project was classified as category B, and triggered the following safeguards: Environmental Assessment (OP 4.01), Natural Habitats (OP 4.04), Forests (OP 4.36), and Involuntary Resettlement (OP 4.12). According to the ICR (paragraph 63) an Environmental and Social Management Framework and a



Procedures Framework were issued. Early in implementation (2012), the environmental and social management programs were enhanced by recruitment of two specialists for environmental and social issues, who raised the quality of work. There was no resettlement under the project. A three-tier grievance committee was established involving village leaders, and national park level management staff. The ICR comments that the two safeguards specialists improved the quality of implementation of safeguards, and ensured that project actions were in compliance with safeguard policies and the project's Environmental and Social Management Framework. The ICR also advises that compliance with safeguards was assessed regularly and small issues addressed promptly between specialists of the Bank and project team (ICR, para 54).

b. Fiduciary Compliance

Financial Management.

Financial Management was, according to the ICR, "satisfactory to moderately satisfactory," although the ICR commented that a problem (resolved by project completion) was confusion regarding disbursement categories and distinguishing incorrectly between funding sources. Nevertheless, financial management was rated satisfactory throughout project implementation except for one year when it was rated moderately satisfactory. These ratings in the ISRs were possibly overoptimistic relative to the financing difficulties noted above. The ICR advised that overall project accounts were adequately managed and interim financial reports were produced regularly. Auditing was timely and the ICR notes that as of November 2017 - the last Bank mission and the last year of project implementation - production of the 2017 audit was "on track." (ICR, paras 65 to 67).

Procurement.

The ICR stated that procurement was satisfactory throughout the project and that contracts were awarded in accordance with Bank guidelines. The final Procurement Plan (2017) showed a 100 percent implementation rate for all contracts in all categories (ICR, para 68).

c. Unintended impacts (Positive or Negative)

d. Other

Gender Issues



The ICR noted that "gender inclusion was a key concern for the project". By the project's close the project had provided direct benefits to 2,926 individuals in the project zone with close to a quarter being women which exceeded 18 percent expected at project appraisal. Among the IGA beneficiaries 1,238 (57 percent) were women. The ICR also mentioned that abused women had become empowered in various ways including their ability to inform spouses that if their abusive behavior did not change women had the ability to part from abusive spouses and support themselves and their children. According to the ICR local men said that male behavior was also changing as a result (paragraph 47).

Institutional Strengthening

The ICR mentioned that the National Center for Wildlife Management (CENAGREF) which had weaknesses in the area of financial management, was strengthened during the course of project implementation through provision of financial management software, as well as on-the-job and external training in financial management, ecological monitoring, monitoring and evaluation of projects, and procurement (paragraph 48). In addition the ICR also noted that support to Government and The West Africa Savannah Foundation (FSOA) resulted in significant Institutional strengthening that ultimately assisted the Conservation Trust Fund (CTF) to become fully operational, with a total capital at the time the ICR was prepared of more than €24.2 Million (US\$31.8 million). Most of the financial support was provided by the German Financial Cooperation (KfW) with additional support from the Global Environment Facility and the Government.(paragraph 49).

Mobilizing Private Sector Financing

The ICR advised that the private non profit African Parks Network (PNP) which recently took over the management of the Pendjari National Park in partnership with the Government and local communities, while utilizing funds provided through the Conservation Trust Fund for recurring costs of park management, had received US\$20 million in additional grants from the National Geographic Society for enhancing PNP's park management capacity (paragraph 50)

Poverty Reduction and Shared Prosperity

The project contributed to poverty reduction for the beneficiaries of the income generating activities. The ICR stated that in addition, the project improved prospects for increased market access for IGA participants through an IGA fair organized by the project in Cotonou in November 2017. This gave IGA participants direct access to buyers in Cotonou providing producers of *garri* (cassava) and honey as well as two rabbit-raising enterprises with "future contracts and sales with Cotonou-based traders and supermarkets". The ICR added that "sharing of benefits from park revenues with adjacent communities through the Village Associations for the Management of Wildlife Reserves (AVIGREF) contributed to increasing shared prosperity in the region" (paragraph 51).

11. Ratings



Ratings	ICR	IEG	Reason for Disagreements/Comment
Outcome	Satisfactory	Satisfactory	---
Bank Performance	Satisfactory	Satisfactory	---
Quality of M&E	Substantial	Substantial	---
Quality of ICR		Substantial	---

12. Lessons

The ICR provided lessons on Government commitment, the income generating scheme, and government payments. They were focused on the circumstances of this project without broader application. Lessons 2 and 3 below are based on IEG's assessment of lessons around the protection of biodiversity; lessons 1, 4 and 5 are (with some editing) based on the ICR.:

1. Combining conservation and livelihood support can be an effective two-pronged approach to protecting biodiversity in national parks.

The project provides an example, consistent with experience elsewhere, of largely effective implementation in national parks of a two-pronged approach to biodiversity conservation. In particular, the inclusion of income generating activities took pressure off the conservation program, enabling a greater impact on the protection of biodiversity than conservation alone.

2. Environmental and Biodiversity impacts are generally inter-linked but differences in the objectives for changes in environment and biodiversity call for additional indicators of change.

This project's objectives were stated as enhancing protection of biodiversity, but measured impacts (changes in the observed density of three herbivores) were related more to the environment than to diversity of numerous animal and plant species. Environmental changes could be measured as additional vegetative growth, adding biomass as fodder for animals such as large herbivores and reducing soil erosion as well as other environmental impacts; yet the recovering vegetation may be limited in the variety of species which may not provide the diversity of food sources for a broader range of fauna than three large herbivores. Measurement of the changes in vegetation to assess improvements in the conservation of natural resources will not provide adequate data to assess the extent to which biodiversity has been protected.

3. Assessment of changes in biodiversity is not adequate unless a representative cross section of species is monitored.

Tracking of changes in biodiversity was based on three large herbivores as proxies for biodiversity impacts. A broader range of animal and vegetative species would have provided a greater understanding of changes in biodiversity.



4. *The Protected Area Management Effectiveness Tracking Tool (METT) is an effective tool for measuring the quality of park management.*

Rigorous use of the METT (combining 30 variables, including legal status, demarcation of the park, staff training, work with local communities, financial status, accounting, surveillance, development of tourist facilities, regulations, law enforcement, research, and visitor facilities) provided a reliable yardstick for regular monitoring of progress in the quality of park management.

5. *Monitoring biodiversity requires adequate and timely funding.*

Experience during the project was that funds for expenditures on conservation (implementation of the METT, equipment and extra staff) were constrained, limiting the extent of tracking activities - at the core of management of parks. Financial planning and expenditure through a dedicated, earmarked budgets improve the availability and regularity of funding for critical activities.

13. Assessment Recommended?

Yes

Please explain

As part of an evaluation of several park conservation and biodiversity projects to compare the efficacy of different approaches and outcomes.

14. Comments on Quality of ICR

A strength of the ICR is the quality of the well written overview of environmental policies and issues in the section on Context at Appraisal (pages 5 to 7). The sections on relevance (pages 14 and 15), and efficacy (pages 15-19) also contain thoughtful discussion and review. In addition the ICR provides an interesting and useful assessments of project implementation and of the unintended impacts of the project.

There are several areas, however, where the report could have been improved. First, the ICR does not provide a clear definition of biodiversity, restricting itself to monitoring changes in the population of three large mammals. The project's impact on protecting biodiversity could have been reviewed in broader terms than the trend in the number of three large herbivores. Some qualitative discussion of biodiversity, including on vegetative cover, would have been helpful. Second, the ERR analysis, was restricted to benefits from the income generating activities such as tourism. Some comparison with environmental projects where benefits from activities such as reforestation have been broadly assessed, would have been illuminating. Third, other



than some references to supervision in discussions of the project's implementation, information on Bank Performance is missing and as a result there is no critical assessment of the project's quality at entry - importantly the project design issues. Fourth, the lessons, were too focused on this project and hence without broader implications for similar Bank-assisted projects in the future.

As indicated above, there were significant shortfalls in the quality of the ICR. Nevertheless, overall the ICR was of satisfactory quality.

a. Quality of ICR Rating
Substantial