



1. Project Data

Project ID P120629	Project Name SN-Second Sust. & Part. En. Mngt (SIL)	
Country Senegal	Practice Area(Lead) Energy & Extractives	
L/C/TF Number(s) IDA-47590	Closing Date (Original) 30-Nov-2016	Total Project Cost (USD) 14,418,891.26
Bank Approval Date 24-Jun-2010	Closing Date (Actual) 30-Jun-2018	
	IBRD/IDA (USD)	Grants (USD)
Original Commitment	15,000,000.00	0.00
Revised Commitment	14,749,179.72	0.00
Actual	14,418,891.26	0.00

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2. Project Objectives and Components

a. Objectives

The project development objective (PDO) stated in the Financial Agreement (page 5) was to contribute to increase the availability of diversified household fuels in a sustainable and gender equitable way, and to contribute to increase the income of participating communities while preserving the forest ecosystems. The PDO in the Project Appraisal Document [PAD] (page 5) was identical.



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

No

c. Will a split evaluation be undertaken?

No

d. Components

Component 1: Institutional Reform of the Charcoal Value Chain (*IDA: appraisal amount US\$1.46 million; at completion US\$1.76 million*)

- Support for the setting up of a system of allocation of charcoal production concessions.
- Facilitation of access to urban markets for local charcoal producers.
- Diversification of income of charcoal traders.

Component 2: Sustainable Wood Fuels Supply Management (*IDA: appraisal US\$8.74 million; Nordic Development Fund [NDF]: US\$2.03 million; actual US\$8.24 million, NDF zero*).

- Sustainable community forest management (IDA: appraisal US\$7.3 million, of which NDF was to contribute US\$2.03 million).
- Consolidation and establishment of biodiversity community reserves.
- Promotion of eco-friendly agro-forestry income-generation activities.

Component 3: The Promotion and Diversification of Modern Household Energy (*IDA: appraisal US\$1.26 million; NDF: US\$1.92 million; at completion IDA US\$1.20 million; NDF zero*)

- Sensitization and promotion of efficient cooking equipment and sustainable biomass energy (IDA: appraisal US\$0.03 million, NDF: US\$1.92 million).
- Planning of the demand management for cooking fuels.
- Institutional strengthening of the Directorate of Petroleum and Household Energy (DPHE).

Component 4: The Institutional Arrangements for Project Management (*IDA: appraisal US\$2.04 million; at completion US\$3.5 million*)

- This component financed: (a) salaries of the consultants/experts; (b) logistical support, materials and equipment to implement the project; (c) training related to financial management (FM), monitoring and evaluation (M&E), and procurement; (d) annual audits; (e) workshops/seminars for the discussion of relevant issues and the sharing of project results among regions; (f) administrative staff salaries; and (g) the provision of materials, equipment, means of transport, mission costs, and office supplies.

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

Project Cost: The total project cost estimated at appraisal was US\$ 19.373 million. At project closure the revised amount was US\$ 14.749 million of which US\$ 14.419 million was disbursed.



Financing: An IDA Credit (4759-SN) of SDR 9.9 million (US\$ 15.000 million equivalent) and a co-financing grant of Euros 3.0 million (US\$ 4.373 million equivalent) from the Nordic Development Fund (NDF) was anticipated at appraisal. However, approval of the latter amount was delayed until after this project had closed. The NDF activities were, however, finally implemented and the NDF grant was closed at the end of December 2018. The final amount recorded at project closing was US\$ 14.749 million of which US\$ 14.149 million was disbursed.

Borrower Contribution: There was no contribution from the Borrower.

Dates: The project was approved on June 24, 2010, became effective on December 28, 2010, and was planned to close on November 30, 2016. The loan closing date was extended three times (for a total of 18 months), finally closing on June 30, 2018. The reasons for the time extension were because of some difficulties in the installation of biogas systems and delays in the effectiveness of the NDF agreement.

Restructuring: The project had four level two restructurings: on July 27, 2016 to reallocate between disbursement categories, and on August 19, 2016, November 30, 2016 and October 30, 2017 to amend the loan closing date.

3. Relevance of Objectives

Rationale

In 2009, when the project was in preparation, agriculture contributed only about 12.5 percent to the Senegal national GDP (2005–2009) but 72 percent of the population was employed in this sector, which made it of high importance to the Government of Senegal (GoS). Consequently, GoS requested support from the World Bank to help build on the earlier progress of the first Sustainable and Participatory Energy Management Project (P046768) (*Projet de Gestion Durable et Participative des Energies Traditionnelles et de Substitution*, PROGEDE I). The follow-on project, PROGEDE II, was expanded and complemented IDA assistance to other energy sub-sectors, such as the Senegal Poverty Reduction Support Credit; the Senegal Electricity Service for Rural Areas, and the Senegal Electricity Efficiency Enhancement Project. PROGEDE II was also designed to consolidate and scale up the participatory community-based sustainable forest management module in both of the regions covered by PROGEDE I (Tambacounda and Kolda) as well as in five additional regions (Sédhiou, Kedougou, Kaffrine, Kaolack, and Matam).

The PDO was aligned with the 2007–2010 Country Assistance Strategy (CAS) and later the Country Partnership Framework, 2013–2017. It was structured to support the priorities envisaged in the Government Poverty Reduction Strategy Paper (PRSP) as well as the World Bank's Africa Action Plan. The PDOs addressed household energy, poverty, gender inequality, and climate change and were consistent with the CAS foundation pillar of building resilience and Pillars 1 and 2 (inclusive growth and creation of employment, as well as the promotion of education and health). PROGEDE II continued to be relevant during implementation and was supportive of the 2018 Systematic Country Diagnosis by contributing to managing sustainable forestry at the community level; poverty reduction through creating wealth in rural areas and by creating additional jobs through forest management. The project was intended to reduce poverty by *inter alia* redistributing revenues from the charcoal value chain to local communities; encouraging price enhancement of agricultural residues for household fuels production, and more income for artisans producing improved stoves. Moreover, the degradation of the environment currently



experiencing deforestation, overgrazing, and soil erosion was expected to decrease in the selected project areas through better management practices.

Rating

High

4. Achievement of Objectives (Efficacy)

OBJECTIVE 1

Objective

To increase the availability of diversified household fuels in a sustainable and gender equitable way.

Rationale

According to the Theory of Change (ToC) increasing the availability and diversity of household fuels, with due regard for sustainability and a gender equitable approach, would increase alternative household fuels for cooking purposes and increase sustainable wood fuels production.

Outputs:

- Increased charcoal production in the forest areas under sustainable management. Baseline 180,000 cubic m; end target 1,875,000; actual 2,514,401; target exceeded.
- The project extended biodiversity management in the Matam area. Baseline 52,000 ha; end target 92,000; actual 235,502; target exceeded.
- Increased direct/indirect beneficiaries from sustainable forest management of which 50 per cent of the beneficiaries were women. Baseline 108,000; target 260,000; actual 328,126 of which 61 per cent women; target exceeded.
- Biodigesters installed in target areas. Baseline 0; target 250; actual 259; target achieved.
- Improved stoves distributed Baseline 500,000 units; target 920,000; actual 836,253; target partly achieved. Some rural household beneficiaries could not afford to pay their cash contribution share (70 percent) toward the cost of a biodigester. Mitigation measures were taken as a follow-up of the midterm review, and the subsidy mechanisms for biogas systems were increased while the number of biogas systems to be installed was reduced. Planned jatropha cultivation was also abandoned because of a change in government priorities and an unsuitable working environment.
- Increased charcoal briquette production from agricultural residue. Baseline 500 tons; target 1,500; actual 612; target not achieved. Financing for the development of the alternative household fuels was limited during the initial implementation period and was impacted by the delays in the implementation of the NDF grant.
- Increased direct/indirect beneficiary numbers from household energy, of which 80 per cent women. Baseline 250,000; target 575,000; actual 1,126,034 of which 89 per cent were women; target exceeded.



Outcomes:

- Increased sustainable wood fuels production. Baseline 180,000 metric tons; target 1,875,000; actual 2,514,400; target exceeded. The target was exceeded as a result of the improved organization of communities; tailored technical training in the charcoal value chain and charcoal production techniques; construction of rural roads to facilitate access to charcoal production sites; installation of a system of administrative and financial management for forest resources; and facilitation of urban market access to local charcoal producers to sell charcoal.
- Increased alternative household fuels for cooking purposes. Baseline 0; target five per cent; actual 1.95 per cent. Target not achieved. The underachievement of the indicator was partially due the delay with effectiveness of the NDF grant. Less emphasis was given during the initial implementation period to alternative household fuels while the team was awaiting confirmation of the effectiveness of the this grant.

Absorption capacity remains a challenge for financial interventions at the local level. Even though funding for local households to receive biogas systems was available, a considerable share of the target group could not provide its own financial contribution to back up the financing provided by the World Bank and was therefore deprived of such an opportunity. The project at the same time could not achieve the initially envisaged levels of cookstove distribution. In the next operation, it may be worth considering either lowering production/distribution targets and introducing financial solutions enabling wider engagement from the local households/producers/artisans, including possibility of "in-kind" contributions from beneficiaries as counterpart sub-project funding.

Rating

Substantial

OBJECTIVE 2

Objective

To contribute to increase the income of the participating communities.

Rationale

The ToC anticipates that the strategy of improving the availability and sustainability of household fuels will increase the income for the people living in the affected villages and communities.

Outputs:

- Increase the annual share of charcoal sold at market prices by local communities. Baseline six per cent; target 40 per cent; actual 83.6 per cent; target exceeded. There was a substantial increase in transparency in the way in which the charcoal production system was managed including the preparation of supporting documentation for bidding auctions. This facilitated trust among the stakeholders.

Outcomes:



- Contribute to an increase in income for participating villages with special attention to women. Baseline US\$18.0 million; target 34 million; actual 70.62 million; target exceeded.

The project demonstrated that participatory sustainable forest management was a viable wealth creation tool in rural areas. Women's income reached 18.45 percent of the total communities' income against a zero percent baseline in 2009, as no women were involved in charcoal production previously. This increase, according to the ICR (paragraph 50) enabled communities to improve their living conditions and invest in food, education, modern housing, and agricultural equipment. By the project's closing 3,900 women were producing and selling their charcoal bags in urban markets. The project also contributed to capacity building: 3,368 women were trained in forest cutting and charring techniques, 111 were trained in horticultural techniques, 29 were trained in avian prophylaxis techniques, 40 were trained in organization and financial management to fulfill roles and responsibilities on forest management committees, and 3,384 were trained on improved firewood cookstove manufacturing techniques to run small businesses.

Rating
High

OBJECTIVE 3

Objective

To preserve the forest ecosystems.

Rationale

The ToC anticipated that the strategy of improving the availability and sustainability of alternative household fuels would lead to reduced deforestation, reduced carbon dioxide emissions and increased protection of the forests.

Outputs:

- Extension of community based sustainable forest management in the regions of Kedougou, Kolda, Sedhiou and Tambacounda. Baseline 400,000 ha; target 725,000; actual 997,263; target exceeded.
- Restoration of degraded land in the regions of Kaolack, and Tambacounda. Baseline 0 ha; target 60,000; actual 87,185; target exceeded.
- Increase in the quantity of carbon dioxide sequestration. Baseline 0 tons carbon dioxide equivalent; target 1,800,000; actual 2,070,000; target exceeded.

Outcomes:

- Reduced deforestation in target zones. Baseline 0; target 71,000 ha; actual 74,127; target achieved.
- Reduced net carbon dioxide emissions through the regeneration and protection of forest put under sustainable management. Baseline 0; target 2,850,000 tons carbon dioxide equivalent; actual 3,220,826 target exceeded.

The project supported the restoration of severely degraded land by supporting tree planting, assisting natural forest regeneration, and encouraging the use of other improved soil management techniques to limit soil



erosion. Dissemination of improved stoves, installation of biogas plants, strict use of more efficient charcoal production kilns, and extension of the sustainable and community-based forest management model took place in seven regions, cumulatively resulting in a reduction of carbon dioxide emissions in the target zones. This said, the production and dissemination of improved stoves was 836,300 against a target of 920,000. The project financed the design of an information system for the sustainable management of forest resources and domestic fuels - which was not fully implemented by the project's closing date, although some modules had been launched, including the mapping software and forestry production flow management module. There were thus some minor shortcomings.

Rating

Substantial

OVERALL EFFICACY

Rationale

Although one of the PDO indicators, namely, increased alternative household fuels, was only partly achieved (affected by the delay in finalizing the NDF grant), the project performed strongly on the remaining indicators (increase sustainable wood fuels production, reduce deforestation in target zones, reduce net carbon dioxide emissions and contribute to the increase of income of participating villages, with special attention to women). The indicator of "increased income" was 208 percent ahead of target. Based on the progress made with two objectives rated substantial and one rated high, the project's overall efficacy was substantial.

Overall Efficacy Rating

Substantial

5. Efficiency

The methodology at appraisal and completion used 'with-project' and 'without-project' scenarios to determine the economic return. The ICR analysis consisted of evaluating the cost and benefit parameters in the 'with' and 'without' project scenarios from 2010 to 2018 and the probable trends up to the 2029 horizon. Given that returns in agroforestry investments had a long-term span, likely profitability for 20 years was also estimated. The analysis evaluated the supply side, the contribution of the project to the improvement of the sustainable production of wood fuels, the productivity of charcoal production using the Casamance kiln, (which is more efficient compared to the traditional practices), and the reduction of CO2 emissions compared to the 'without project' scenario. The concept was firstly to evaluate the expected gain in charcoal and wood saved by the promotion of alternative energy sources and the use of 836,000 improved stoves, 613 briquettes, and 259 biodigesters disseminated by the project. Secondly, the goal was to evaluate other income-generating activities supported by the project for local community stakeholders, including women and youth, to reduce the pressure on forest resources. In parallel with the direct effects, it was expected that the incomes from biofuel and other



alternative energy operations would be improved, and jobs would be created. IEG is in agreement with the assumptions used in the analysis.

At appraisal the economic rate of return (ERR) was 47 per cent and the net present value (NPV) US\$78 million. The estimated financial rate of return (FRR) was 50 percent. At project closure the ERR was 42 per cent, the NPV US\$179.7 million, and the FRR was 44 per cent. The ERR easily exceeded the opportunity cost of capital estimated at 20 per cent and the financial results showed high profitability.

Operational and administrative efficiency:

Under the institutional arrangements for project management, the budgeted amount at appraisal was US\$ 2.04 million. The concept was that the project life cycle would be divided into two phases: an anchoring phase of three years, during which time consultants would be hired for implementation support, and an ownership phase of two years during which time the Government's own technical experts would take over this task. At the Mid-Term Review, however, it was decided that the ownership phase was not working because there was inadequate capacity and the Government officials did not have some of the skills required. The arrangement thus reverted back to using the consultants and this incurred an additional cost of US\$ 1.46 million, which was taken from unallocated project funds.

All activities were completed before the final project closing date except for two: the information system and the construction of the charcoal processing unit. The PIU had requested the consultant to re-work some modules of the information system to improve their quality and this was still in process when the project closed. The charcoal processing unit was also delayed because of a temporary shortage of concrete. The Government set up a commission to monitor completion of these two tasks.

Protocol agreements were signed between the project and government technical institutions located in the project areas, for the purpose of providing technical assistance for the implementation of the income-generating activities. This approach was considered cheaper than hiring firms for such activities. The approach also induced communities and stakeholders to continue their working relationships with these decentralized government institutions after the project had ended.

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	✓	47.00	0 <input checked="" type="checkbox"/> Not Applicable
ICR Estimate	✓	42.00	0 <input checked="" type="checkbox"/> Not Applicable

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



6. Outcome

The overall project outcome is rated Satisfactory. This is based on high relevance of objectives, substantial efficacy (one objective rated high and two substantial with minor shortcomings), and substantial efficiency. The project enabled sustainable wood fuel production. The forest area under sustainable management by the project represented 85 percent of forests managed at the national level and this led to an increase in revenues for participating communities, including women.

The strong performance of several indicators exceeding target is explained by the success of the community-driven actions and the high level of engagement of local communities in the proposed activities (ICR page 25). The gender focus in PROGEDE II led to positive economic and social impacts and was considered by the GoS to be its flagship project for the sustainable supply of household energy. The project contributed to poverty reduction and to women, youth, and vulnerable group's empowerment. Women were marginalized in the charcoal value chains before the project, but to date, there are about 3,900 women charcoal producers, selling their charcoal bags in urban markets and relying on the transport provided by the project. They also participate in reforestation activities, delimitation of cutting plots, and other forest management activities. On March 8, 2018 during the celebration of the International women's day, the World Bank Project team received an award from the Government of Senegal for gender consideration and women empowerment.

a. Outcome Rating

Satisfactory

7. Risk to Development Outcome

The key risks to the PDO are as follows:

The National Network of Charcoal Producers needs continuing institutional support to be able to resist the lobbying power of charcoal traders to maintain the project's achievements. Illegal charcoal producers do not pay tax to the government. Although the project has empowered local governments and communities through technical and financial support, knowledge sharing, and training related to sustainable forest management, charcoal traders still have a lobbying power that can threaten the progress achieved by the project. To be able to resist this lobby and defend their interests, local charcoal producers have formed a national network. However, this network is still in its infancy and needs support.

Towards the end of project implementation the team observed weak institutional capacity of some inter village committees involved in managing the forest plots, especially those located in trans-boundary areas, which are vulnerable to the fraudulent logging of timber. Low capacity was also reflected in the lack of attention to the periodic evaluation and monitoring of the plots they were managing which constrained the issuance of logging permits.

While local forest management structures were established due to the project's interventions, they still lack the capacity to process the issuance of permits as well as to evaluate and monitor their execution. The project had set up several arrangements to sustain forest resource management (including a financial and administrative procedural manual for participatory forest management, a charcoal transportation manual, a



honey production and vegetable/fruit tree production manual, and so on), but these forest management tools are not yet sufficiently mastered by local communities and local governments.

Despite the continuous efforts to enhance awareness of new forestry legislation, most beneficiaries of the forestry reform lack knowledge of their rights, obligations and related procedures. Although the revised Forestry Code was approved by the General Assembly and promulgated by the President of the Republic of Senegal, this occurred after the project's closing date. Hence, there is a significant probability that because the project's funding has ended, this may negatively affect the information campaign. However, a follow-up project is planned, which will likely expand to include the whole of Senegal, as well as neighboring Gambia and Guinea Bissau. The harmonization of policy and strategy across all three countries to fight illegal logging and the illegal wood fuel trade would not only improve the impact of the project but would also ensure greater sustainability.

8. Assessment of Bank Performance

a. Quality-at-Entry

The overall project design was solid and supported by appropriate analyses. Lessons learned in the previous project, PROGEDE I, were absorbed and the extensive participatory and inclusive approach involving central and decentralized government offices, local governments, and communities was continued and strengthened. Bank staff involved in the preparation of PROGEDE II had also been involved in the preparation and implementation of PROGEDE I and brought rich experience to PROGEDE II. This included the fiduciary team (procurement, FM, environmental and social).

The results framework was thorough and enabled close monitoring of progress. The project's institutional setup enabled data collection in the field as village leaders, project experts, and decentralized government officers were all located in the project areas and the project team worked closely with them to generate reliable data. The ICR remarked (page 36) that based on experiences from PROGEDE I, it was important to include household fuels supply-side and demand-side management activities to develop a sector approach to overarching problems. Also, based on earlier experience, attention was especially focused on the evaluation and mainstreaming of gender issues, as well as gender planning and benefits for young people and vulnerable groups.

Quality-at-Entry Rating

Satisfactory

b. Quality of supervision

The Bank task team leader remained unchanged throughout the project implementation period and was located in the country office, which enabled close day-to-day project supervision. He had worked earlier as a field coordinator of PROGEDE I. During the preparation of the ICR it was identified that there was a process oversight in that the reduction of the PDO indicator "Increased alternative household fuels for cooking purposes" had been agreed with the client, but was never approved through the formal Level 2



restructuring process. Therefore, as noted by the ICR, the project evaluation was based on the initial version of the indicator.

On the other hand, despite this minor shortcoming, the Bank team gave strong support to project beneficiaries and especially the National Network of Local Charcoal Producers, who, they requested to be fully represented during supervision missions and able to share their concerns. The Country Management Unit supported the team through close monitoring of procurement-related activities and helping to establish a monitoring system with the sector ministry and the Ministry of Finance. Counterpart funding was also regularly monitored and discussed with the Ministry of Finance. These arrangements contributed to speeding up project implementation and improved the disbursement rate.

Quality of Supervision Rating

Satisfactory

Overall Bank Performance Rating

Satisfactory

9. M&E Design, Implementation, & Utilization

a. M&E Design

The M&E framework included five well constructed and reliable PDO-level indicators. The framework however did not include indicators allowing to track the progress of Component 4 (project management). It also did not include indicators on citizen engagement. Nevertheless, the project's ToC was clear, and appropriate indicators were devised to monitor the progress toward the achievement of the PDO.

However, as the ICR points out (page 32) several indicator targets were too modest and were overachieved by a considerable margin. A similar situation prevailed in PROGEDE I. The problem is that there was often considerable community resistance to some indicators, where the project's results were highly dependent on the community-driven actions. This said, the project could have benefited from a more ambitious M&E design.

b. M&E Implementation

The reporting system used by the project included monthly reports was prepared by the local leaders and transmitted to the regional lead persons, who in turn prepared and submitted quarterly reports to the Project Coordination Unit. The M&E expert prepared a quarterly global report validated by the project's Head of Operations and shared with all stakeholders. An annual report and budget were prepared at the end of each year and discussed at a workshop bringing together all stakeholders. The report was sent to the Steering Committee, which held meetings with the relevant stakeholders, including the World Bank.

The M&E arrangements were found to be mostly adequate and effective for successful monitoring of project implementation although the level of precision of measurement of the achievement of gender-



related intermediate indicators was difficult because no impartial measurement framework had been established.

c. M&E Utilization

The Project Coordination Unit held monthly coordination meetings to discuss findings from quarterly reports to inform project management and decision making. Real-time information sharing between the field-based team, the Project Coordination Unit, and the World Bank task team located in the country office helped the World Bank execute timely follow-up actions as necessary. During the preparation of the ICR it was identified that there was a process oversight in that the reduction of the PDO indicator “Increased alternative household fuels for cooking purposes” had been agreed with the client, but was never approved through the formal Level 2 restructuring process. As a result, the project evaluation was based on the initial version of the indicator.

M&E Quality Rating

Substantial

10. Other Issues

a. Safeguards

The Environmental Category at appraisal was 'B', partial assessment. This did not change throughout the life of the project. Two safeguards were triggered, namely, OP/BP 4.01 Environmental Assessment and OP/BP 4.36 Forests.

Environmental compliance. Specific attention was given to environmental safeguard aspects during preparation and implementation. The PIU appointed a safeguards specialist in the core team to handle the implementation of environmental and social measures because of activities that had the potential for some localized environmental and social adverse risks and impacts.

OP/BP 4.01 (Environmental Assessment). To ensure safeguard compliance, the client prepared an Environmental and Social Management Framework (ESMF), which outlined an environmental and social screening process for future sub-projects to ensure that they were environmentally and socially sound. The ESMF was disclosed in-country and in the World Bank’s InfoShop in February 2010. The sub-projects were screened, and environmental and social clauses were embedded in all bidding documents to enable contractors to follow up on environmental and social due diligence.

OP/BP 4.36 (Forests). The project financed activities for the development of participatory forest management plans to consider the wood fuel needs of urban and rural households in the forestry management plans, reduce deforestation, and combat poverty by increasing the income of participating communities. In total, management plans for 23 forest areas covering an area of about one million ha were prepared, validated, and implemented. In accordance with OP/BP 4.01, the screening was performed, and environmental and social mitigation measures were included in the forest management plans.



Safeguard performance was rated Satisfactory throughout most of the project’s lifetime. The project increased the environmental and social management capacity of the participating communities through the development of the project for specific livelihood diversification options and their implementation. As noted in the ICR (page 34), considering the basic knowledge and capacity of the communities before the project, they rapidly embraced the concept of sustainable natural resources management to reduce threats to forest resources, while enhancing the socioeconomic value of participatory natural resource management.

b. Fiduciary Compliance

Financial Management: The project’s FM was rated Satisfactory or Moderately Satisfactory throughout the implementation period. The FM systems that were established were adequate - the accounting was up to date; the quality of the financial monitoring reports were considered satisfactory overall; the financial statements were subject to unqualified certification; and the audit reports were prepared and submitted on time with no major issues identified in the audited reports. Two contracts had not been completed by the closing date, however, measures were taken to make sure that the works were fully completed. The ICR notes that the Director of Forestry confirmed that the Government would pay for the remaining work using its Investment Consolidated Budget. At project closing, the disbursement rate of IDA funds was 98.28 percent.

Procurement: The project’s quality of procurement was consistently rated Moderately Satisfactory. The staffing on the procurement side faced some issues because of the turnover of procurement specialists. To address this challenge, a part-time procurement consultant was brought in and hired under the project. Some slight delays materialized: related to the approval of contracts where the amounts exceeded the thresholds specified for the Head of Operations and for payments made by the Directorate of Cooperation and External Financing. This was resolved after the World Bank increased its procurement thresholds and this aspect was fully monitored in subsequent field missions.

c. Unintended impacts (Positive or Negative)

The project is believed to have contributed to reducing the rate of the rural exodus toward Dakar, the capital, because of an increase in local job creation and to the income generated in the charcoal value chains and agro-forestry activities.

d. Other

11. Ratings

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

12. Lessons

The following lessons are adapted from the ICR:

- **An institutional arrangement that involves both the environment and the energy sectors needs to enable the development of a consistent overarching approach.** For example, introduction of biogas systems using bio-slurry can help to increase agricultural production and reduce deforestation. Such an arrangement can also facilitate the working relationship between forestry and energy staff and have a positive impact on interactions to enhance forestry taxation, while the adoption of improved stoves can help to reduce the costs of energy for households.
- **When projects consistently and significantly overperform on a similar set of targets, it may be necessary to reconsider the approach to designing the results framework.** If there is to be a follow-up operation the stakeholders should be persuaded to accept more ambitious targets.
- **In designing forest management systems, consideration may be given to an increase in the geographical scope to help ensure the sustainability of results.** Unregulated producers of charcoal are able to supply cheaper products to the markets and can undercut the more expensive "sustainable wood fuels". If such production is allowed to continue, it can compromise the sustainable management systems that have been set up. As illegal loggers are pushed out to the edges of the project areas, the need to increase the size of the project area and even make the project "regional" becomes more urgent.
- **It is important to consider that absorption capacity may remain a challenge for financial interventions at the local level.** Even though funding for local households to receive biogas systems was available, a considerable share of the target group could not provide its own financial contribution to back up the financing provided by the World Bank and was therefore deprived of such an opportunity. The project at the same time could not achieve the initially envisaged levels of cookstove distribution. In the next operation, it may be worth considering either lowering production/distribution targets and introducing financial solutions enabling wider engagement from the local households/producers/artisans, including possibility of "in-kind" contributions from beneficiaries as counterpart sub-project funding.

13. Assessment Recommended?



No

14. Comments on Quality of ICR

The ICR was well-prepared and internally consistent linking the various sections of the report. It presented a good overview of the strengths and weaknesses of the PROGEDE approach and the evidence provided was convincing. The lessons and recommendations were sound and should form the basis of any follow-on project.

While there was a plethora of information in the report, parts were overly wordy and could have been more concise and less repetitive. There could have also been more information on why the NDF grant was delayed and how this impacted the project.

The economic and financial analysis was very useful and clarified the complex nature of the project. It would have been interesting to learn more about the extent to which the traders dealing in non sustainable charcoal production could undercut the cost of sustainable charcoal production. More information could also have been provided about the reasons for the higher than expected cost of the institutional arrangements for project management.

The financing figures could not initially be accessed in Section 1 of the ICRR form and the TTL indicated in the ICR had left the Bank's employment. However, this was rectified after discussions with the appropriate operational staff.

The ICR (Table 3, page 25) does not derive correctly the overall outcome rating based on its high ratings for relevance and efficacy, and substantial efficiency.

a. Quality of ICR Rating Substantial