Report Number: ICRR0022849

1. Project Data

Project ID	Project Name	
P124018	SN-Sustainable Agribusiness project	
Country	**Practice Area(Lead)**	
Senegal	Agriculture and Food	

L/C/TF Number(s)	Closing Date (Original)	Total Project Cost (USD)
IDA-53340	31-Dec-2019	67,633,891.59
Bank Approval Date	**Closing Date (Actual)**	
19-Dec-2013	30-Jun-2021	

	IBRD/IDA (USD)	Grants (USD)
Original Commitment	80,000,000.00	0.00
Revised Commitment	70,000,000.44	0.00
Actual	63,206,624.01	0.00

Prepared by	Reviewed by	ICR Review Coordinator	Group
Floris Dalemans	J. W. van Holst Pellekaan	Christopher David Nelson	IEGSD (Unit 4)

Project ID	Project Name	
P130271	SN Community-based SLM project (PSG) (P130271)	

L/C/TF Number(s)	Closing Date (Original)	Total Project Cost (USD)
		4427267.58
Bank Approval Date	**Closing Date (Actual)**	

19-Dec-2013

	IBRD/IDA (USD)	Grants (USD)
Original Commitment	0.00	6,000,000.00
Revised Commitment	0.00	4,427,267.58
Actual	0.00	4,427,267.58

2. Project Objectives and Components

a. Objectives

As per the PAD (par. 31) and the Financing Agreement (page 4), the Project Development Objective (PDO) was to develop inclusive commercial agriculture and sustainable land management in the project areas.

For the purpose of assessing the extent to which this objective was achieved in Section 4 below, it has been parsed into two sub-objectives referred to as Objectives 1 and 2 in Section 4 as follows:

Objective 1: Develop inclusive commercial agriculture in project areas

Objective 2: Develop sustainable land management (SLM) in project areas

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

Yes

Did the Board approve the revised objectives/key associated outcome targets?

Yes

Date of Board Approval

28-Jun-2018

c. Will a split evaluation be undertaken?

Yes

d. Components

Component 1: Support to sector actors

(Appraisal Estimate US$11.0 million; Actual at Project Closing US$15.0 million)

The goal of this component was to strengthen the capacity, knowledge and involvement of rural communities in sustainable land management and in securing inclusive, beneficial and socially and environmentally sound partnerships with commercial agribusiness investors. It included three subcomponents: (1.1) provide technical assistance to help rural communities allocate land user rights t o private operators – including land rights inventories, parcel identification, irrigation feasibility studies and master plans, private operator selection, contract negotiation and monitoring, and dispute resolution – and to support small-scale farmers in establishing producers' associations and business partnerships and in adopting sustainable land and water management (SLWM) practices; (1.2) provide support to the Private Investment Promotion Agency, to develop SLWM-inclusive vocational training and applied research, and to rehabilitate the Agropole agro-processing facility; and (1.3) support a review of the policy, legal and institutional frameworks governing rural land use and allocation as it relates to agribusiness investment.

Component 2: Development of irrigation infrastructure and natural resources management

(Appraisal Estimate US$68.5 million; Actual at Project Closing US$44.8 million)

The goal of this component was to develop public irrigation infrastructure in the Ngalam Valley and around Lac de Guiers, and to support small-scale farmers, SMEs and community-driven forest management. The three subcomponents were (2.1) financing the design, construction and equipment of water infrastructure – including a primary irrigation canal in the Ngalam Valley, as well as secondary irrigation canals and tertiary irrigation schemes for small-scale farmers in the Ngalam Valley and around Lac de Guiers – developing supporting infrastructure in the project areas, and providing support to an integrated water management plan and environmental audit; (2.2) providing matching grants to SMEs and farmers associations to improve their productive capacity and competitiveness and to develop business linkages; and (2.3) providing technical support for developing and implementing community-led natural reserves and classified forest management plans in selected areas.

Component 3: Coordination, Impact Monitoring and Evaluation

(Appraisal Estimate US$6.5 million; Actual at Project Closing US$13.1 million)

This component included (3.1) project coordination and management; (3.2) impact monitoring and evaluation; and (3.3) communication campaigns and stakeholder consultations.

Note: as noted in Annex 3 of the ICR, the sum of actual component costs differs from the total project cost in the data sheet due to the US$ and XOF exchange rate.

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

Project Cost

Total project cost at appraisal was US$86.0 million. Right before project closure, US$10.0 million of unused loan proceeds was cancelled from the project and reallocated to the country program, as secondary and tertiary irrigation works could not be entirely completed due to initial delays further compounded by the COVID-19 pandemic. Hence, the revised project cost amounted to US$76.0 million (88.4% of cost at appraisal). Actual disbursement at project closure stood only at US$67.6 million (78.6% of original project cost) due to several project implementation delays.

Financing and Borrower Contribution

The project was financed by an International Development Association (IDA) grant of US$80 million (revised to US$70 million after cancelling unused loan proceeds) and a Global Environment Facility (GEF) trust fund of US$6 million. Actual disbursement at closure stood at 90.3% and 73.8% of revised costs, respectively. No other financing contributions were foreseen at appraisal nor realized at project closure.

Project Restructurings and Dates

The project was approved on December 19, 2013 and became effective on June 26, 2014. The original closing date was December 31, 2019, while the project effectively closed on June 30, 2021, following two formal extensions of the closing date.

The project was restructured five times:

- **First Restructuring (June 28, 2018).** This major restructuring followed the mid-term review of November 2017. It included several changes to project components as well as cost reallocations, to strengthen the alignment of the project's land tenure transaction model with the Government's legal framework on land administration, and to accelerate project implementation by winding down non-essential activities (especially under subcomponent 1.2) and by simplifying remaining activities and mainstreaming their implementation into five core programs with clear performance targets and milestones. The Results Framework was revised to reflect the reduced or altered scope of project activities, by reducing targets for PDO and intermediary indicators (see below), and by adding or dropping indicators. Implementation modalities were streamlined by giving more responsibilities to the technical implementation agencies.
- **Second Restructuring (November 15, 2019) and Third Restructuring (September 29, 2020).** These restructurings extended the project closing date, first from December 31, 2019 to December 31, 2020 and subsequently to June 30, 2021. Both aimed to allow completion of project activities.
- **Fourth Restructuring (February 25, 2021).** This concerned a minor reallocation between disbursement categories to ensure continued funding of project implementation.
- **Fifth Restructuring (June 29, 2021).** This concerned the cancellation of US$10 million which was reallocated to Senegal's IDA allocation.

Rationale for split rating

The PDO remained unchanged throughout project implementation, but the PDO indicators (as well as intermediary indicators) were significantly revised during the first restructuring.

PDO indicators at project appraisal:

1. Annual value of commercial agriculture in project areas (in tons and in US$ million)
2. Number of jobs created in project areas, of which women / hired by large investors
3. Land area where sustainable land management practices have been adopted as a result of the project
4. Number of direct project beneficiaries, of which women / SMEs / smallholders / medium farmers / wage workers
5. Forest area brought under management plans

PDO indicators after the first restructuring:

1. Annual value of commercial agriculture in project areas (in tons), of which quantity exported / quantity produced by small and medium farmers
2. Number of jobs created in project areas, of which women / hired by large investors
3. Land area where sustainable land management practices have been adopted as a result of the project
4. Number of direct project beneficiaries, of which women / SMEs / smallholders / wage workers
5. Forest area brought under management plans
6. Number of secured land plots registered in the Land Information System (NICAD number)
7. Secured land area under a tripartite agreement between local authorities (Commune) / Investor / Community

At first restructuring, targets for PDO and intermediary indicators were generally revised downwards. Among the PDO indicator list above, targets for indicators 1 to 4 were reduced by on average 39% while the target for indicator 5 remained unchanged. Across the intermediary indicators, six indicators had their targets reduced while only one indicator target was increased. These target decreases reflected reduced project ambition (despite no change in the project cost at that time). Hence, a split rating before and after this first restructuring will be applied.

The split rating will be done in line with OPCS and IEG guidance, i.e., achievement is assessed **for the entire duration of the project** to assign separate ratings against outcome targets before restructuring and against outcome targets after restructuring. It should be noted that the ICR does not adhere to this guidance, as it splits ratings by assessing achievement at the time of restructuring and at project closure

Disbursement Percentages for applying split rating

The first restructuring will be considered as the partition point for the split rating. The disbursement percentages shown in Table 1 will be used in deriving the weights to be applied for the split Outcome rating in Section 4.

Table 1 – Disbursed amounts and percentages before and after the first project restructuring

Project phase	Disbursed amount (US$ million)	Disbursement percentage
Between approval and restructuring	16.22	23.98
Between restructuring and closure	51.41	76.02
Total	67.63	100.00

3. Relevance of Objectives

Rationale

The ICR argues adequately that the project remained highly relevant at closing (ICR par. 26-27). The PDO was well aligned with two of the three focus areas of the Country Partnership Framework (CPF) FY20-24 for Senegal, namely (i) boosting competitiveness and job creation through private sector-led growth, and (ii) increasing resilience and sustainability in the context of growing risks. It was also consistent with the critical pathways towards poverty reduction and shared prosperity in Senegal, as stipulated in the Systematic

Country Diagnostic (SCD) of 2018. Furthermore, the ICR points out the PDO has remained well aligned with the government's principal strategic framework and priority action plans, which call for infrastructure expansion, sustainable natural resource management, improved business environment, private sector development and public-private partnerships.

Beyond this alignment with stated World Bank and country strategies, however, the ICR could have provided more detail on whether and how the specific drivers for this project (such as declining economic growth, increasing variability in agricultural output, increasing land degradation – ICR par. 1-2) changed during project implementation, and in turn how this impacted upon relevance at project closing. Furthermore, the ICR could have also commented on alignment with broader World Bank strategies in the agricultural sector and with World Bank projects in Senegal that were on-going or in the pipeline at project closing. The World Bank project team clarified during an interview held with IEG for the ICRR that there are several later projects related to and capitalizing upon the Senegal Sustainable and Inclusive Agribusiness Development Project (SSIAP), including the Sahel Irrigation Initiative Support Project (P154482) and the Senegal Cadastre And Land Tenure Improvement Project (P172422).

Rating

High

4. Achievement of Objectives (Efficacy)

OBJECTIVE 1

Objective

Develop inclusive commercial agriculture in project areas

Rationale

Theory of Change

The ICR presents the results chain in the form of a reconstructed Theory of Change (ToC) (ICR page 2), which is relatively simple and appropriately structured (including activities, outputs, outcomes and long-term outcomes, as well as critical assumptions). Although the ToC generally improves upon the Results Chain of the PAD (PAD page 45), there are several shortcomings (**which generally apply to both objectives 1 and 2**):

1. The definition and composition of Components 1 and 2 are relatively complex, each of these components having composite goals through a set of diverse – and sometimes unrelated – interventions. Specific intervention elements are spread out across different (sub)components (an example specifically for objective 1 is the support to producer associations and business linkages). (Sub)component descriptions are also slightly inconsistent between the PAD and ICR. In turn, this component complexity spilled over to the ToC of the ICR:

- The ToC does not specify whether it represents the project setup before or after restructuring, while both are fundamentally different (especially with regard to objective 1). The Bank project team clarified during an interview that the ToC refers to the simplified setup after restructuring.
- The ToC is not entirely consistent with the in-text description of project components – although this may partially relate to the previous point that the ToC was constructed for the simplified setup after restructuring. Nevertheless, several component interventions are missing from the ToC (especially components 1.2 and 1.3). The Results Framework is more comprehensive (especially after restructuring when many indicators were added), although also not exhaustive in containing indicators for all component interventions. Correspondingly, the Results Framework contains a substantial number of indicators without counterpart outputs/outcomes in the ToC.
- The ToC does not depict the interrelationships between project interventions (at activity and output level), in particular conditionalities in implementation of certain interventions on prior successful implementation of others. Sequencing of project implementation is discussed in-text in the PAD (par. 96-99) but given little attention in the ICR. Conditionalities caused severe delays in project implementation (see Section 8).
- The ToC organizes outputs by Component while outcomes by PDO sub-objective, with the causal links between them unspecified. Hence, it is unclear whether interventions were meant to result in objective 1, objective 2, or both, and how this was supposed to happen (through which sequencing/combinations).

2. ToC outputs and outcomes are inconsistently specified, mixing between both intended results and indicators.

These shortcomings generally complicate understanding the logic of the project's results chain and interpreting the Results Framework, and in turn assessing project efficacy **for both objectives 1 and 2**.

This challenge of assessing project efficacy is to some extent mitigated by:

- The in-text ICR discourse which lays out the steps in the causal chain more clearly than the ToC. For objective 1, it states that the initial and most critical step is identifying and securing land rights by community members, that would then form the basis for voluntarily engaging with the private sector (par. 30 and 33). The next critical step is for community members to avail part of this land to prospective investors (par. 34). However, the interaction with the irrigation component is unclear (with the extent to which the irrigation component was achieved being completely omitted from the ICR Efficacy section).

- The Key Outputs Table on ICR pages 33-34 which does assign most indicators to either objective 1 or 2 and to a ToC level, although it is not exhaustive for objective 1. Correspondingly, this table will be used as the basis for assessing efficacy.

Achievements

PDO targets at outcome level were partially achieved:

- The volume of annual agricultural outputs amounted to 124,874 tons, surpassing the original target of 100,000 tons. The equivalent indicator in US$ cannot be assessed as it was dropped at mid-term review, since it depends on exogenous market forces (ICR par. 23).

- The number of jobs created was 5,337, falling short of the original target of 9,500. The number of jobs created for women and for employees of large investors also only amounted to 2,298 and 490, respectively, compared to an original target of 6,600 for both.

For the output-level "PDO indicator" on number of beneficiaries (although not being specifically attributed to objective 1), the original target of 10,680 was met, with a value at project closing of 20,846. However, although the specific original target for small- and medium-scale farmers was overwhelmingly met (2369%), this was not the case for women (48%), SMEs (45%) and wage workers (56%).

Other Results Framework indicators at output / intermediary outcome level further reinforce the view that original targets were achieved from a smallholder perspective but not from a private sector investment perspective:

- 14,249 target producers with use rights were recorded (against original target of 600), but only 4 are large investors (against original target of 10).
- Private investments have only increased by US$15 million (against original target of US$260 million). A value of US$39 million is also mentioned in-text in the ICR, which would include the additional private investment from land under the second call that had not completed the entire procedure by project closure (but did shortly thereafter, according to the World Bank project team during an interview held with IEG for the ICRR).

Results for irrigation infrastructure and productivity at output / intermediate outcome level are similarly mixed:

- Increase in the water flow of the Ngalam river course was 16.8 m3/s (surpassing the original target of 15.0).
- Area provided with irrigation and drainage services was 1,320 hectares (substantially short of the original target of 10,000), as only the primary irrigation infrastructure was fully completed, not the secondary and tertiary. The ICR does mention in another section (par. 73) that about 70% of irrigation works were executed and still on-going four months after project closure on government's own resources. The World Bank project team further clarified during an interview held with IEG for the ICRR that the government recently committed to complete the works entirely by allocating additional funding – at that time, completion stood at 80%.
- No farmers were participating in inclusive business models, as irrigation schemes were not completed.
- Average productivity (in tons per year per hectare) targets were met for sweet potato (35 against 30) but not for onions (23 against 30).

The ICR does not comment explicitly on the attribution of these results to the project as such. However, its in-text discourse explains the steps in the causal chain to some extent. Moreover, the project targeted communal land areas which were previously negligibly or little used for agricultural purposes, while no other irrigation initiatives were undertaken by development partners in the project areas, according to the World Bank project team. Correspondingly, it is deemed highly unlikely that similar results would have been achieved without the project.

Rating

The abovementioned shortcomings in the ToC and the lack of an explicit attribution discourse hamper in-depth understanding of the results chain and consequently adequate assessment of achievements. This is compounded by the fact that the ICR discourse reports selectively on the Results Framework in the Efficacy section: it only discusses PDO indicators without disaggregation, while results for key project elements such as irrigation (which represents 78% of the budget for components 1 and 2 – PAD page 70) private sector investment (see for instance emphasis in PAD par. 76 and ICR par. 4) and commercialization (through dropping the sales indicator at restructuring) are completely omitted. The ICR itself recognizes the disregard of irrigation indicators in par. 62, while it discusses private sector investment as an "other outcome" in par. 51. The World Bank project team, during an interview with IEG for the ICRR, further emphasized the interconnectedness of irrigation infrastructure and private sector investment.

In summary, the original targets related to production / productivity were largely met at project closing, while those related to jobs, beneficiaries and private sector investment were largely unmet. Primary irrigation infrastructure had been established, but secondary and tertiary distribution canals were not (although this has been continued after project closure) – it remains unclear how this will affect the envisaged outcome of "inclusive, commercial agriculture" next to the land use rights pathway, as the interaction between both is not specified by the ICR (see above). The extent to which Objective 1 was achieved is therefore rated modest.

Rating
Modest

OBJECTIVE 1 REVISION 1

Revised Objective
Develop inclusive commercial agriculture in project areas – with indicators as amended at restructuring.

Revised Rationale
Theory of change

The broad architecture for the achievement of Objective 1 remained unchanged at restructuring, while some non-essential activities were wound down and the remaining activities simplified, correspondingly reducing the scope of the project and generally downscaling indicator targets. The principal change in the results chain was a revision of the land lease model (further discussed in Section 8), which would result in minor modifications at the Activity and Output level in the ToC (see also ICR par. 25, stating that restructuring had no material impact on the original results chain). As indicated above, the ToC in the ICR, while largely applicable to the project before restructuring, is in fact reconstructed for the project after restructuring. The above-mentioned remarks on the TOC for Objective 1 thus apply.

Achievement

Targets for PDO indicators at outcome level were downsized at restructuring and largely achieved:

- The volume of annual agricultural outputs (124,874 tons) – like the original target – also surpassed the revised target of 70,000 tons. However, while the annual quantity produced by small- and medium-scale farmers was met (123,144 tons compared to 25,000 target), the annual exported quantity (1,730 tons) strongly fell short of its target (45,000 tons).
- The number of jobs created (5,337) – unlike the original target – did meet the revised target of 4,000. The same applied to the number of jobs created for women (with 2,298 surpassing the revised target

of 2,000), while the number of jobs created for employees of large investors still fell short (with 490 not surpassing the revised target of 3,000).

At restructuring, two "PDO indicators" were added at output level and largely met:

- The area of secured land plots registered in the Land Information System amounted to 77,530 hectares, substantially surpassing the target of 20,000 hectares.
- The area of secured land area under a tripartite agreement between local authorities (commune, investor, community) was 2,213 hectares, falling short of the target of 4,500 hectares (revised) / 10,000 hectares (original) – the ICR is inconsistent on this target. The World Bank project team confirmed in an interview that a second call for investors was completed shortly after project closure, which increased the achievement to 5,726 hectares.

For the output-level "PDO indicator" on number of beneficiaries (although not being specifically attributed to Objective 1) the reduced revised targets for total (299%), small- and medium-scale farmers (2606%) and SMEs (300%) were met, but the reduced revised targets for women (83%) and wage workers (89%) were unmet. Women only comprised 16% of project beneficiaries, as compared to 65% envisaged in the PAD.

Other trends in achievements, as described above for the situation before revision, still largely apply, even after downscaling targets:

- Limited achievement from a private sector investment viewpoint: large investors with recorded land use rights (4) and private investment (US$15 million, or US$39 million in-text) still falling short, even with reduced targets (8 and US$100 million, respectively).

- Mixed results for irrigation infrastructure: the water flow indicator was not revised and thus still met, while the area provided with irrigation and drainage services (1,320 hectares) still fell substantially short of the halved target (5,000 hectares) – but kept increasing after project closure. The indicator targets on recovery rate of fees in areas with water management services and on farmers participating in inclusive business models were unmet, as the completion of irrigation infrastructure remained pending.

- Targets for productivity were not reduced to 27 tons per hectare per year, and thus still met for sweet potato (35) but not for onions (23).

Several land-related indicators at output / intermediate outcome level were added at restructuring and targets were generally almost or over-achieved: number of people trained on the use of tools to secure land tenure rights (330%), number of land management entities set in place (80%), number of land bureau equipped and functioning (100%), number of land occupation and use mapping established (67%), land area secured and registered (388%), and percentage of land conflicts resolved (110%).

With regards to attribution issues, the same remarks apply as for the original objective. The ICR claims in par. 23 that the addition of output and outcome indicators to the Results Framework sharpened attribution, although this remains largely ineffective given the lack of an equally detailed ToC, limited further explanation of the causal chain in the ICR discourse, and lack of effective evidence on this attribution sharpening.

Rating

The same shortcomings to the ICR as described above (ToC and attribution problems, selective reporting) apply. In summary, despite generally downscaling project targets while maintaining funding (although US$10 million was eventually cancelled) and extending the project with 18 months, achievement improved only marginally as compared to original targets. Production / productivity targets were similarly met, while achievement for jobs and beneficiaries is more mixed after revision. The added targets on land are largely met, but private sector investment targets remain largely unmet. The revised target for irrigation may be achieved due to continued government engagement after project closure. The extent to which Objective 1 was achieved is therefore rated substantial, but marginally so.

Revised Rating

Substantial

OBJECTIVE 2

Objective

Develop sustainable land management (SLM) in project areas.

Rationale

Theory of Change

Shortcomings of the ToC discussed for Objective 1 also largely apply to Objective 2, as indicated in the Efficacy section for Objective 1. Key Outputs Table on ICR pages 33-34 will again be used as the basis for assessing efficacy.

The results chain of the segment on sustainable forest management is relatively straightforward although very concise (establish management plans and install management committees), and is well-contained within one sub-component (2.3). On the contrary, SLWM-interventions are spread out across project components 1 and 2 (the World Bank Project team indicated during an interview held with IEG for the ICRR that SLWM integration was required for both components, with differential content for each), but this is not appropriately reflected in the ToC, and hence the interdependency with results for other project elements (such as land leasing and irrigation) remains unclear.

Achievement

PDO targets at outcome level were achieved:

- The land area where sustainable land management practices have been adopted as a result of the project surpassed the original target of 10,000 hectares with an actual value of 11,329 hectares. It should be noted though that the latter consists of 1,129 where several SLWM activities were carried out (including promoting water and cost saving systems (Californian system), use of organic fertilizer, planting of fodder crops, cover crops, and wind breaks, etc.), while on the remaining 10,200 hectares boundary demarcation and signage were carried out as part of land management. Boundary demarcation and signage is a conditional first step to implementation of SLWM practices, rather than an SLWM practice itself. With such a stricter interpretation of this indicator and hence omission of the latter area, only 11% of the target is achieved. During an interview held with IEG for the ICRR, the World Bank project team did indicate a high probability of further SLWM implementation after project closure on those demarcated lands, due to *(i)* close collaboration with and capacity building of the Senegalese Agency for reforestation and for the Great Green Wall (ASERGMV) from the beginning of the project, who is expected to continue implementing SLWM activities after project closure; *(ii)* high perceived interest of farmers during SLWM trainings; and *(iii)* on-going support by other environmental projects and by relevant regional agencies.

- With regard to forest areas, 32,507 hectares had management plans in place, surpassing the original target of 25,000 hectares.

For the output-level "PDO indicator" on number of beneficiaries, which was not specifically attributed to Objective 2, the discussion under Objective 1 above applies.

With regard to sustainable forest management, the project achieved its target to demonstrate a capacity to monitor greenhouse gas emissions in project areas. However, the amount of carbon stored in forest ecosystems and emissions avoided from deforestation and forest degradation fell well short of its target of 600,000 tons, with an actual value of only 189,745 tons.

The ICR does not comment explicitly on the contribution of the project to these outcomes as such. The World Bank project team indicated during an interview held with IEG for the ICRR that results can be attributed to the project with large certainty, since SSIAP introduced the notion of forest management plans in the project areas, and no other development actors were developing forest management plans in the areas.

Rating

The abovementioned shortcomings to the ToC and the lack of an explicit attribution discourse equally apply for Objective 2, although it is less problematic than for Objective 1 as the Results Chain is presumably simpler.

As the PDO targets on SLWM and forest areas are either met or – with a stricter interpretation of the former – expected to be met with high probability, the efficacy with which Objective 2 was achieved is rated Substantial, but marginally so because there is no evidence in the ICR regarding such an expectation.

Rating
Substantial

OBJECTIVE 2 REVISION 1

Revised Objective
Develop sustainable land management (SLM) in project areas – with indicators as amended at restructuring.

Revised Rationale
Theory of Change

There were no changes to Objective 2 at restructuring, apart from a few adjustments to indicators and indicator targets and to implementation arrangements. The above discussion of the TOC for Objective 2 therefore also applies.

Achievement

PDO targets at outcome level were achieved:

- The land area where sustainable land management practices were adopted as a result of the project (11,329 hectares) – like the original target – also surpassed the revised target of 5,000 hectares. With a stricter interpretation of this indicator and omission of the area with only boundary demarcation and signage, only 23% of the target is achieved. However, as argued above it can be reasonably expected that SLWM will be completed on all 5,000 ha after the project closes.
- The target on forest area under management plans was not changed at restructuring and thus met.

For the output-level "PDO indicator" on number of beneficiaries, which was not specifically attributed to Objective 2, the discussion under Objective 1 above applies.

With regard to sustainable forest management, the project achieved its target to demonstrate capacity to monitor greenhouse gas emissions in project areas. The amount of carbon stored in forest ecosystems and emissions avoided from deforestation and forest degradation amounted to 95% of its reduced target of 200,000 tons.

At restructuring, several additional indicators at output / intermediate outcome level were added to the Results Framework:

- With respect to SLWM, the number of beneficiaries trained on SLWM amounted only to 3,843, not meeting its target of 5,000.
- With respect to sustainable forest management, targets were largely unmet: forest area protected by boundaries and signs (90%), number of management committees for protected areas created and operationalized (112%), number of local conventions implemented for the management of protected areas (0%), number of persons trained in forest inventory, mapping, GPS use and natural resources management (86%), and number of forest trees planted (73%).

On attribution, the same remarks apply as for the original objective. The ICR claims in par. 23 that the addition of output and outcome indicators to the Results Framework sharpened attribution, although this remains largely ineffective given the lack of an equally detailed ToC, limited further explanation of the causal chain in the ICR discourse, and lack of effective evidence on this attribution sharpening

Rating

The abovementioned shortcomings to the ToC and the lack of an explicit attribution discourse equally apply for Objective 2, although it is less problematic than for Objective 1 as the Results Chain is presumably simpler. Similar to Objective 1, the ICR discourse reports selectively on the Results Framework: it focuses on PDO indicators, and on intermediary indicators which are met.

In summary, while the PDO targets on SLWM and forest areas are either met or – with a stricter interpretation of the former – expected to be met with high probability, almost all output / intermediate outcome indicators leading to them are not met. Given the World Bank project team's remarks on plausible attribution, this observation may relate to poor target setting rather than to a defunct causal chain. Therefore, Efficacy is rated as Substantial, but barely so.

Revised Rating
Substantial

OVERALL EFFICACY

Rationale

Rationale

Objective 1 is rated modest. Objective 2 is rated substantial, but marginally so. Neither the PAD nor the ICR indicate an explicit difference in importance between the objectives. Hence, the overall efficacy of Objectives 1 and 2 is rated as Modest.

Overall Efficacy Rating	Primary Reason
Modest	Low achievement

OVERALL EFFICACY REVISION 1

Overall Efficacy Revision 1 Rationale

Overall Efficacy Revision 1 Rationale

Objective 1 is rated substantial, but marginally so. Objective 2 is rated substantial, but marginally so. Hence, the overall efficacy of Objectives 1 and 2 is rated as substantial.

Rating after restructuring

Substantial

Overall Efficacy Revision 1 Rating

Substantial

5. Efficiency

Economic and financial analyses

An economic and financial analysis was carried out in the PAD, Restructuring Paper and ICR. It is notable that figures are inconsistently reported throughout the main text and annexes, in both the PAD and ICR. During an interview with IEG for the ICRR, the World Bank team clarified that Annex 4 on efficiency in the ICR was revised, but that the ICR main text was not correspondingly updated. Hence, below data from the ICR Annex 4 are used, not from its main text.

- At project appraisal, the total investment was estimated to result in an economic rate of return (ERR) of 18% and a net present value (NPV) of US$20.2 million (although the PAD also reported a figure of US$46 million). Estimated net margins for beneficiary farmers and producers ranged from 13% to 33%.
- At project restructuring, the ERR was revised to 15% and the NPV to US$54 million.
- At project closure, the ICR reported an ERR of 15% and an NPV of US$40.0 million. Furthermore, it highlights that the calculations at project appraisal did not include carbon sequestration benefits; when valuing these in the economic analysis, the ERR increased to 19.6% and the NPV to US$62.8 million. It should be noted that discount rates in the ICR to estimate NPV (8% and 6% for the financial respectively economic analysis) differ from those in the PAD and Restructuring Paper (10%). Furthermore, the ICR reports significant margins for additional income and returns on investment, with a benefit/cost ratio between 1.4 and 2.3 and an Internal Rate of Return (IRR) between 16% and 31%.

Operational efficiency

The ICR assessed several disbursement aspects, such as:

- Significant overspending on project coordination (152%), while underspending on M&E (59%) and on component 2 (74%).
- Significant disbursement delays before restructuring (17% of planned disbursement achieved), while at project closure an eventual 85% disbursement rate was reached.

The ICR analyzed several aspects of project design and implementation that influenced project efficiency:

- It highlighted several sources of inefficiency in using project resources, including slow implementation prior to restructuring (due to the land framework issue, slow recruitment, and late start of capacity building), disruptions induced by the COVID-19 pandemic, and high staff turnover in the Project Coordination Unit (PCU) and in terms of Task Team Leaders.
- The ICR noted that the implementation team strived to keep implementation costs in line with similar irrigation projects through cost effective measures. The ICR also compared unit costs of irrigation investments with similar development projects.

Rating

ERR and NPV values are satisfactory, although noting that inconsistencies in reported figures create confusion. Furthermore, a number of project implementation issues led to operational inefficiencies. Correspondingly, the project efficiency is rated Modest.

Efficiency Rating

Modest

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	✓	18.00	0 ☐ Not Applicable
ICR Estimate	✓	19.60	0 ☐ Not Applicable

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

6. Outcome

	Original objectives	Revised objectives
Relevance of Objectives	High	
Efficacy	Modest	Substantial
Efficiency	Modest	
Outcome Rating	Moderately Unsatisfactory	Moderately Satisfactory
Outcome Rating Value	3	4
Weight Value (see Table 1)	23.98	76.02
Weighted Outcome Rating Value	3.76	
Weighted Outcome Rating	Moderately Satisfactory	

a. Outcome Rating

Moderately Satisfactory

7. Risk to Development Outcome

The ICR lists several mitigation pathways through which the risks to development outcome are reduced, including *(i)* handovers to other Bank-funded projects, to complete the land tenure agenda and scale it up, and to supervise the Diama Dam; and *(ii)* evidence of continued implementation and oversight by the government and relevant agencies, on irrigation works and foreign investment. The ICR does not include a broader discussion of internal and external risks. During an interview with IEG for the ICRR, the World Bank project team indicated that there was little residual risk to development outcome left at project closure, given all these mitigation measures put in place. The principal risk would be governmental/stakeholders' ownership and commitment, but as indicated above, there is evidence of continued engagement.

8. Assessment of Bank Performance

a. Quality-at-Entry

The project was designed in line with Senegal's Country Partnership Strategy FY13-17 and with the Government's Accelerated Growth Strategy and National Strategy for Social and Economic Development. The PDO was simple. Project components were relevant for achieving the PDO and designed based on lessons learned from several innovative commercial agriculture interventions and from several sustainable land and water management projects (PAD par. 73-74). Safeguards were appropriately identified and plans timely prepared.

Nevertheless, there were several project design shortcomings:

- The definition and composition of Components 1 and 2 were relatively complex, with spillovers to the ToC (see Section 4).
- Although preliminary studies were conducted to assess land availability and identification methods (ICR par. 54), the envisaged "Lease/Sublease" model proved to be misaligned with government laws and prospective investors risk assessment. This inappropriate design caused severe delays in project implementation, as irrigation infrastructure development was largely conditional on land leases. The World Bank project team indicated that the complex institutional context prohibited testing the feasibility of the land model during project preparation, while the ICR recognizes this more explicitly as a shortcoming (par. 54). In any case, it remains unclear why component 1.3 was not explicitly prioritized in the phased implementation to define the appropriate leasing model early on. In this respect, the World Bank project team indicated the project duration of 5 years was too limited to undertake a fully phased approach.
- More work could have been done on pre-feasibility studies for the irrigation infrastructure (par. 54).
- Improper calibration of indicator targets (see Section 9).

In addition, the ICR recognizes the failure at appraisal to foresee difficulties in attracting and retaining staff and in developing corresponding coping strategies, which led to high and disrupting staff turnover.

In combination, these design flaws caused severe project implementation delays in the first project years and therefore a need to scale down ambition at restructuring. After 3.4 years – with an initially foreseen total duration of 5.5 years – disbursement was still only at 16 percent.

Quality-at-Entry Rating
Moderately Unsatisfactory

b. Quality of supervision
Several operational inefficiencies were mentioned in Section 5, including slow recruitment and late start of capacity building.

Efforts were made to improve upon the project design at restructuring in June, 2018:

- Non-essential activities were wound down and remaining activities re-organized under five programs. The Results Framework was correspondingly adapted and adequate indicators added.

Implementation modalities were streamlined by giving more responsibilities to the technical implementation agencies.
- The land lease issue was diagnosed and resolved by changing to a “Secured Deliberation” model (ICR par. 22), which allowed for substantial subsequent progress in implementation.

Supervision was frequent: formal implementation support missions twice a year, monthly video conferences to resolve implementation issues, and intensified virtual interaction during the COVID-19 pandemic. M&E implementation was adequate (see Section 9). Frequent task team leadership changes were accompanied by extended overlaps to ensure continuity. The team proactively identified and resolved the threats to outcome achievements at restructuring after the mid-term review. Transition after project closure has been addressed adequately, by transferring activities through other World Bank-funded projects and continued engagement of implementing counterparts (ICR par. 73).

Quality of Supervision Rating
Satisfactory

Overall Bank Performance Rating
Moderately Satisfactory

9. M&E Design, Implementation, & Utilization

a. M&E Design
M&E was extensive in design, including subprojects, GEF tracking tools and impact evaluations, and has been well funded under the project. The Results Framework contained numerous and clear project indicators and targets. A baseline study was conducted.

However, there were several design shortcomings:

- The Results Framework was quite complex, given (i) the complex definitions and compositions of Components 1 and 2; and (ii) a lack of explicit mapping of indicators to the Results Chain / ToC. The envisaged causal chains and distinction between the two PDO subobjectives were not entirely clear. In combination, these factors hindered proper assessment of project progress and attribution (see Section 4).

The ICR candidly reports improper calibration of indicator targets at design but does not provide detail on the reasons behind this – especially since a baseline study was conducted.

b. M&E Implementation
M&E was generally carried out well by the Project Management Unit / PCU. They were staffed with qualified M&E specialists and data collection mechanisms were put in place. Activity reports were timely produced. Indicators were effectively measured as per the design.

M&E underspending did not jeopardize implementation quality. During an interview with IEG for the ICRR, the World Bank project team clarified that underspending was caused by among others favorable exchange rates, on-site presence of PMU M&E experts (thus not requiring funds for missions), and partial self-funding of the final evaluation report by the government.

c. M&E Utilization

M&E was used to inform the project restructuring process. Project funds were reprogrammed across the components to strengthen community-level activities and project coordination. Substantial revisions were made to the Results Framework at restructuring to reflect this strengthened focus on local community support activities, including adding and dropping indicators and adapting targets. However, the ICR remained vague on how targets were recalibrated beyond “the need to scale down the project’s level of ambition given the little time left before the project’s closing” (ICR par. 13 and 22). In this respect, the World Bank project team further clarified during an interview held with IEG for the ICRR that target recalibration was in line with an almost complete lack of results at that time, and the limited remaining project duration as there was no official project extension yet. The project was eventually extended with 18 months.

M&E Quality Rating

Substantial

10. Other Issues

a. Safeguards

The project was classified as category “A” and triggered the following safeguards:

- Environmental Assessment (OP/BP 4.01)
- Natural Habitats (OP/BP 4.04)
- Forests (OP/BP 4.36)
- Pest Management (OP 4.09)
- Physical Cultural Resources (OP/BP 4.11)
- International Waterways (OP/BP 7.50)
- Dam Safety (OP/BP 4.37)
- Involuntary Resettlement (OP/BP 4.12)

The Environmental and Social Management Framework (ESMF), and the Pest Management Plan (PMP), were disclosed before appraisal. During project implementation, site-specific Environmental and Social Impact Assessments (ESIAs) and Environmental and Social Management Plans (ESMPs) were publicly disclosed as required. The Government prepared a Resettlement Policy Framework (RPF) and all investment activities were preceded by the requisite Resettlement Action Plans. An environmental review mainly found local impacts of a temporal nature: noise, dust and nuisance.

However, the ICR provides little further information on whether and to which extent there was compliance with these safeguards. During an interview with IEG for the ICRR, the project team confirmed full compliance. The ICR also did not include findings from the Independent Panel of Experts.

b. Fiduciary Compliance

Financial management: Financial management was generally satisfactory, apart from several delays. Accounts were up to date, bank reconciliation statements regularly drawn up, expenses deemed ineligible reimbursed, project audits supplied within timeframes and their recommendations implemented, and payment requests processed.

Procurement: Although there were some procurement delays, there were no cases of misprocurement. In addition, the PCU maintained competent staff, despite challenges of high staff turnover more generally.

c. Unintended impacts (Positive or Negative)

The ICR (par. 53) reports that social cohesion and cooperation within communities was strengthened through the framework of intra-community dialogue established for identifying and recognizing land users' rights and through the creation of economic interest groups.

d. Other

---

11. Ratings

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

12. Lessons

The ICR contained four lessons. The following two lessons are emphasized from the ICR with adaptation of language:

- **Successful establishment of private sector partnerships is conditional on fulfillment of several institutional and process prerequisites.** The project implementation experience aptly illustrates the need for a land tenure regime that is legal and adequately secures the interests of all stakeholders, before investment can effectively take place (ICR par. 22). Other prerequisites include extensive advertisement, adequate guidance on selection and negotiation processes, and support to investors on safeguard compliance (ICR par. 75).
- **Effective promotion of water and soil management practices requires a judicious combination of instruments and approaches.** The project combined activities with short-term results (e.g. water-efficient irrigation practices such as the California system), activities with longer-term results (e.g. planting wind breaks), and visual demonstrations through farmer field schools, to generate and sustain interest and adoption in a broad set of SLWM practices.

The following two lessons are added by IEG:

- **An explicitly phased approach is critical for efficient project implementation in case of conditionalities between project interventions.** The project lacked feasibility studies on certain interventions during preparation or early implementation (including on primary irrigation infrastructure and the land lease/sublease model – ICR par. 54). The delays in implementing these interventions or the need to revise them, in turn stalled follow-up interventions (including secondary/tertiary irrigation and private investment – ICR par. 22). A better recognition of conditionalities and a more explicit phasing approach can increase the probability of completing all interventions by project closure.
- **Consistency between project components, ToC and Results Framework is required for an adequate understanding and measurement of the results chain, in turn allowing to assess project efficacy.** As expanded upon in Section 4, the project components, ToC and Results Framework – as described in the ICR – demonstrate different levels of comprehensiveness and mutual inconsistencies. This complicates understanding the logic of the project's results chain, interpreting indicator results, and ultimately assessing the level of achievement of the project.

13. Assessment Recommended?

Yes

Please Explain

The ICRR highlights severe shortcomings in the ToC, Results Framework and ICR discourse, complicating the assessment of project efficacy. Moreover, the ICR and ICRR indicate further achievement after project closure has been likely realized through handovers to other Bank-funded projects and through continued implementation and oversight by the government and relevant agencies. Further assessment may lead to a more precise judgement of efficacy as well as insights on sustainability.

14. Comments on Quality of ICR

The ICR is candid, to-the-point and largely comprehensive. It is results-oriented and evidence-based, extending the PAD with a ToC, providing ample details on component and Results Framework changes at restructuring, as well as on factors that influenced implementation and outcomes. It is largely consistent with ICR guidelines. Lessons are generally well-formulated, broadly applicable and connected to evidence.

However, substantial shortcomings are found in the Efficacy section: the split rating method is incorrectly applied, indicators are selectively reported upon (with a bias to favorable results and little to no triangulation), the results chain and attribution issues are insufficiently elaborated, and there are inconsistencies in reporting of figures (throughout the ICR discourse and between discourse and tables). The latter problem is more broadly applicable (see for instance also for Efficiency - Section 5). Furthermore, the ICR could have further elaborated on relevance (see Section 3), risk to development outcome (see Section 7) and safeguards (see Section 10).

a. Quality of ICR Rating
Modest