



1. Project Data

Project ID P088600	Project Name KE-GEF Ag prd & Sust. Land Mgmt(KAPSLMP)	
Country Kenya	Practice Area(Lead) Agriculture	
L/C/TF Number(s) TF-91616	Closing Date (Original) 31-Dec-2015	Total Project Cost (USD) 12,672,000.00
Bank Approval Date 30-Sep-2010	Closing Date (Actual) 31-Dec-2016	
	IBRD/IDA (USD)	Grants (USD)
Original Commitment	10,000,000.00	10,000,000.00
Revised Commitment	10,000,000.00	9,470,219.13
Actual	10,000,000.00	9,470,219.13

Prepared by Hassan Wally	Reviewed by Ridley Nelson	ICR Review Coordinator Christopher David Nelson	Group IEGSD (Unit 4)
------------------------------------	-------------------------------------	---	--------------------------------

2. Project Objectives and Components

a. Objectives

The project development objective (PDO) as articulated in the Project Appraisal Document (PAD, p. viii) was to:

“facilitate agricultural producers in the targeted operational areas to adopt environmentally sound land management practices without reducing their incomes.”

The project development objective (PDO) as articulated in the Global Environment Facility Grant Agreement (p. 4) was to:



“facilitate agricultural producers in the Project Area to adopt environmentally sound land management practices without reducing their incomes.”

The Global Environmental Objective (GEO) as articulated in the (PAD, p. 7) was to:

“reduce and mitigate land degradation in the targeted operational areas and to contribute to maintenance of critical ecosystem functions and structures.”

The Global Environment Facility Grant Agreement did not include a GEO statement.

The PDO in the PAD and the Grant Agreement were almost identical. This Review will assess the outcomes against the PDO as stated in the Grant Agreement.

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 included four Components.

1. Building Capacity for SLM (appraisal cost US\$2.42 million, actual cost US\$3.75 million). This component sought to address capacity building at multiple levels for realizing the objectives of the project. It would target communities and service providers for training and capacity enhancement, and would help to build a broader awareness of the potential of SLM. The project’s community capacity building activities would be incremental to capacity building under Kenya Agricultural Productivity Agribusiness Project (KAPAP). The following activities would be supported: Community capacity building in thematic areas and institutional processes, information and training for communities through on-farm demonstrations, exchange visits between farmer groups, workshops, and outreach through publications and radio aimed at the farmer/resource user.

2. Investments in community SLM micro-projects (appraisal cost US\$3.62 million, actual cost US\$1.37 million). This component would support community micro-projects. The micro-projects to be supported would be identified within the micro-catchments’ plans developed by communities to address land degradation and would be implemented using a community-driven development (CDD) approach. The micro-project investments in SLM would support and complement activities supported by other World Bank projects in the sector.

3. Strengthening the policy and institutional enabling environment for SLM (appraisal cost US\$2.52 million, actual cost US\$0.73 million). This component would strengthen the policy and institutional enabling environment necessary for mainstreaming SLM approaches, and pilot the Payments for Environmental Services mechanism in Sasumua dam watershed.



4. Project Coordination, Monitoring and Evaluation (appraisal cost US\$1.42 million, actual cost US\$1.26 million). This component would support project coordination and implementation at the national, district, and grassroots levels.

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

Project Cost. The total project cost was estimated at US\$12.67 million (PAD, Annex 5). The actual project cost as reported in the ICR (Annex 1) was US\$10.39 million. The difference was mainly due to significantly lower cost for components 2 and 3 where the amounts disbursed were 48% and 30% of the appraisal estimate, respectively.

Financing. The project was to be financed through a GEF Grant worth US\$10.00 million and US\$0.10 million from the Bank Netherlands Water Partnership Program (BNWPP) Trust Fund. The actual amount disbursed according to the ICR (Annex 1) was US\$8.22 million for the GEF Grant, however, no information was provided on the BNWPP Trust fund.

Borrower Contribution. The borrower was expected to contribute US\$2.17 million of counterpart funds and the beneficiary communities were expected to contribute US\$0.40 million. The actual amount as reported in the ICR (Annex 1) was US\$2.17 million of counterpart funds, however, the ICR provided no information on the contribution from beneficiary communities.

Dates. The project was expected to close on December 31st 2015, however, it closed one year later on December 31st 2016. Delays in project implementation led to a one-year extension. The project was restructured once on December 29th 2015. This was a Level 2 restructuring, the amount disbursed at that point was US\$6.74 million, in order to extend the project closing date by 12 months to accommodate delays in project implementation. The Mid-term Review was carried out on September 22nd 2014 compared to a planned date on January 31st 2013 (PAD, Annex 12). The ICR incorrectly recorded the planned date as September 22, 2014.

3. Relevance of Objectives & Design

a. Relevance of Objectives

High.

In Kenya, widespread land degradation is a major constraint towards increasing agricultural productivity that needs long term intervention. There are wide variations in land size and its distribution and in population density, with the latter ranging from a low of two persons per sq. km in the Arid and Semi-Arid Lands to a high of more than 2,000 in high potential areas. The growing population and increasing demand for land, energy, and water have placed tremendous pressures on natural resources and are exacerbating land degradation. Land degradation manifests itself in multiple ways such as overexploitation of natural resources, excessive soil erosion, continued loss and degradation of forest and vegetative cover, and gradual reduction of rural family incomes. Degradation also increases food insecurity levels and vulnerability to future shocks, whether climatic or economic. The end of this process could be human destitution, abandoned unproductive



lands, conflicts, and migration (PAD, p. 2).

At project appraisal, objectives were highly relevant to the government's priorities for environmental management. The government highlighted environmental management as key to the poverty reduction strategy and is engaging in several initiatives such as the ongoing policy dialogue on land and Natural Resource Management (NRM). Objectives were also in line with the Kenya's Country Partnership Strategy (CPS) for the period FY10 to FY13. One of the CPS pillars focused on addressing resource constraints and environmental challenges such as the ones being supported by the Project. Objectives were also in line with the Project the Thematic Area One of the New Partnership for Africa's Development (NEPAD) Action Plan for combating land degradation and desertification. Objectives were also in line with the strategic considerations of GEF's OP15, including: mainstreaming into national development frameworks, promoting cross-sectoral approaches to land management (building on synergies with the programs of partners and other development agencies) using an integrated ecosystem based approach; enhancing participation of stakeholders (especially producers and local decision makers, with a particular emphasis on participation of women); and strengthening the policy environment, information base and capacity, and investments.

At project completion, objectives continued to be highly relevant to the Government's priorities. Objectives were in line with the Kenya Country Partnership Strategy (CPS) for the period FY14 to FY18. The CPS aimed to achieved ten outcomes and outcome 4 called for greater agricultural productivity (CPS, p. 24). This CPS (p. 30) also emphasized the importance of expansion of agricultural private projects in an environmentally sustainable way. Sustainable land and soil management remain the cornerstones for ensuring increased productivity in the agriculture sector. The Kenyan Government continues to be committed to ensuring the resilience and improvement of the agricultural productivity. Therefore, the project's PDO/GEO remains highly relevant.

Rating

High

b. Relevance of Design

Substantial.

Design reflected the broad and ambitious statement for both the project development objective (PDO) and the Global Environmental Objective (GEO). However, the Results Framework was complex and did not reflect clear links between the project inputs, outputs and expected outcomes. Design aimed to support and complement the Bank-funded Kenya Agricultural Productivity Agribusiness Project (KAPAP- closed) by focusing on issues of sustainable land use. The implementation mechanisms and institutional arrangements for the project were designed to be shared with those of KAPAP and were expected to be mainstreamed in the Ministry of Agriculture and Ministry of Environment and Mineral Resources. Design sought to provide greater support to local communities toward sustainable farming practices that conserve agricultural biodiversity and maintain ecosystem services. Design also aimed to play a catalytic role in formulating and implementing a programmatic Kenya SLM Investment Framework (KSIF).

While the supported activities were relevant and directly related to the PDO/GEO, design was overly



ambitious with multiple activities that were difficult to achieve in the given scope and time frame of the project. Design also did not highlight the need for either an analytical framework to assess key gaps in value chains and market systems or risk management strategies that would reduce farmer's exposure to shocks. Finally, design lacked a clear coordination mechanism with the Bank-funded Kenya Agricultural Productivity Agribusiness Project (KAPAP).

Rating

Substantial

4. Achievement of Objectives (Efficacy)

Objective 1

Objective

PDO: facilitate agricultural producers in the Project Area to adopt environmentally sound land management practices without reducing their incomes.

Rationale

Outputs

• Building Capacity for SLM

- A total of 327 grass root partners were recruited to conduct training and demonstrations at the community level. These included CBOs and NGOs at Division and District level.
- A total of 15 consortia were formed in the three catchment areas, Cherangani had nine, and Taita and Kikuyu-Kinale had three consortiums each. Formation of consortia was along three value chains (fruits, nuts and vegetables; dairy and meats, and Natural Resource Management) selected by the beneficiaries.
- The project supported a variety of training activities including: training 108 service providers on Conservation Agriculture. Four capacity building workshops for indigenous peoples' development. Four trainings on Environmental and Social Safeguards focusing on certification and standardization of processes and products towards food safety and sustainable livelihoods with a total of 241 (women 59, men 141 and youth 41) persons were trained. A total of 109 service providers and County Technical Teams were trained as trainers for the Grass Root Partners and communities on SLM and AL. 120 Grass Root Partners were trained on mainstreaming gender. A total of 17 participants were trained on GIS and mapping training for monitoring and evaluation. A total of 196 were trained on agribusiness. 40 participants were trained on business plan preparation training for Cherangani Catchment. 325 participants were trained on grant management. A total of 169 service providers/ Grass Root Partners / Country Technical Teams participated in a training on social accountability, disclosures, group dynamics, conservation plans and proposals preparation.



• **Investments in Community SLM Micro-projects.**

- The project financed 313 micro-projects in the three targeted catchment areas, 233 in Cherangani, 53 in Kikuyu Kinale and 27 in Taita. Micro-projects included: 192 Water Spring Protection and conservation, 5 land rehabilitation, 18 degraded land rehabilitation, 15 tree seedling production, 1 wetland conservation, 6 dam catchment conservation, 2 drainage works, 1 conservation agriculture demonstration, and 16 hill top afforestation.

- As a result of the above mentioned intervention the following outputs were achieved: 31,401 acres were under SLM practices and technologies, 14,275 km of terrace laying, 10,725 km of terrace construction, 176,764 meters of retention/infiltration ditches, 2.6 million meters of trashlines/Grass Strips, 2.8 million forest trees and 0.81 million fruit trees were planted, 8,142 km of river banks were protected, 3,216 acre were under pasture cultivation, and 3,902 acres were under soil cover/crop rotation/Minimum tillage. The PAD did not include exact targets for these outputs.

- The Final Evaluation Report highlighted that adoption rates for many SLM interventions were at approximately 50%, this is much lower than the anticipated rate of 100%. The reasons for lower adoption range lack of access to land, appropriate tools and labor. This raises questions as to whether the technologies being promoted were sufficiently relevant to the constraints profile of the beneficiaries in terms of land access, existing farm system, investment capacity, labor capacity, and location. It was not clear from the ICR what crops like cabbages, potatoes, tomatoes, and intensive dairying (other than through increased manure) would do for the sustainability of land management. Other than perhaps ridged potatoes if well aligned on the contour, these are not enterprises generally known for holding soil.

- **Creating opportunities for linking investments in SLM technologies with commercial ventures and marketing.** The project financed different types of micro-catchment projects including: dairy and meat (poultry, dairy cows, dairy goat and fodder) and fruits, nuts and vegetables (onions, ground nuts, strawberries, passion fruit, irish potatoes, French beans) apiculture, aquaculture.

Outcome

- Outcome is rated modest. The project direct beneficiaries reached 28,664 (17,617 Men, 11,047 Women, compared to a target of 60,000 beneficiary) in 112 micro-catchments (target: 127 micro-catchments). Also, the impact of project activities on household incomes was not assessed at completion; and the project's efforts to address the gaps in the policy framework and to support institutional capacity for cross-sectoral integrated planning and monitoring of SLM interventions did not materialize. The compressed implementation period-where most achievements happened in the final eighteen months of the project, makes it difficult to predict how much of these achievements will be sustained. Finally, the project suffered from the lack of baseline data for several outcome/intermediate outcome indicators which hindered the assessment of project activities. The following are the project achievements:

- The project promoted nine SLM technologies and practices in the three catchments areas implementing the project (Cherangani, Taita and Kikuyu-Kinale). While the project was successful in dissemination of new technologies, adoption rates of these reached only 50% compared to an end target of 100%. (It is not



clear what 100% adoption meant in this context. 100% adoption of a new technology in just two years would be unprecedented in a typical profitable new technology in Africa promulgated by extension staff, typically at best it takes at least 10 to 15 years to reach even 70% adoption, so presumably the 100% target was limited to those beneficiaries being given grants. But if so then below 100% would mean grants were diverted to other purposes.) The ICR reported that lower than expected adoption rates stemmed mainly from lack of access to land, appropriate tools; and labor, among others. Also, the compressed implementation period, where most achievements happened in the final eighteen months of the project, makes it difficult to predict whether or how much of this adoption will be sustained. This raises questions as to whether the project –promoted technologies were relevant to the beneficiaries in the target areas (ICR, para 64). The ICR reported that the baseline value for areas not implementing SLM to be 4,484 acres. Areas implementing SLM activities reached 31,401 acres by project completion. However, the PAD (p. 39) reported that the baselines of most of the PDO outcome indicators could not be established due to lack of SLM related data. This raises concern on the accuracy of the reported achievements and makes it difficult to assess the impact of the project. Spatial land cover monitoring showed that project activities between 2014-2016 increased vegetative cover by 19.4%, 29.2% and 38.7% in Cherangani, Kikuyu Kinale and Taita catchments, respectively. Overall coverage reached an average of 29% compared to a target of 30%. Also, the logical chain from some of the farming enterprises recommended (e.g. cabbages, tomatoes) to a reduction in soil loss or an increase in protective vegetation cover compared to the crop or livestock enterprise that was on that land before the adoption is not clear, nor is the incentive for farmers to sustain the land management improvement once the grant provision is no longer available. The latter point links to the lack of an exit strategy highlighted by the ICR (para 30).

- To improve income, the project promoted a CDD-type approach where communities selected from a menu of technologies and practices to address land degradation and generate income. The (ICR, para 68) reported that crop yields, improved between 2% to 4% due to better pest and disease control and soil productivity management. However, it is doubtful that this small yield increase is statistically valid with or without any seasonal rainfall adjustment which would typically affect yields far more than 2% to 4%. From the increased crop yields and market orientation, average gross sales by beneficiaries using the SLM interventions increased by 481%, with the sales from 28,000 farmers involved in the three value chains (fruit, nuts and vegetables value chain; dairy and meats value chain; and natural resource management value chain) supported by the project standing at KSh.2.9 billion, up from KSh.619 million. These large gains presumably were almost entirely from pricing gains (since yield gains were so low) but it is not clear what the baseline farm enterprise was prior to the adoption. It remains unclear whether the project succeeded in increasing average income of households from the SLM-related interventions in the project operational areas by 25% as envisaged. Increased gross sales do not give a clear indication of incomes of households as they did not account for costs of production. Moreover, these results were achieved over a limited number of cropping cycles and their sustainability was yet to be confirmed. Finally, the compressed implementation period impacted the project's ability to fully assess the sustainability of the changes in income level.
- The project sought to address the gaps in the policy framework and to support institutional capacity for cross-sectoral integrated planning and monitoring of SLM interventions. The project completed five key diagnostic studies in Kenya: background paper on SLM; land degradation assessment/GIS diagnostic



study; diagnostic study on the resources mobilization strategy and public expenditure review for SLM; cost-benefit analysis of SLM interventions, and; assessment of policy, legislative and institutional frameworks for SLM (ICR, para 71). In addition, the KSIF was designed to guide coordination of ongoing and future SLM interventions in Kenya, with a long-term view of moving towards an integrated, government-led national program on SLM that avoids duplication of efforts among sectors and stakeholders. However, KSIF was delivered only just before project completion which means it could not have had significant impact on the project outcomes on the ground. The project also piloted the Payment of Environmental Services (PES) in eight micro-catchments with a target of 1,020 participating farmers. This initiative involves farmers entering a contract with a company that benefits from a given catchment. According to the ICR (para 74) 41% of the farmers were paid and another 40% were undergoing evaluation in readiness for payment by November 30, 2016. However, the significant delays in project implementation negatively impacted the project's ability to address any significant policy gaps in Kenya (ICR, para 75).

Rating
Modest

Objective 2

Objective

GEO: to reduce and mitigate land degradation in the targeted operational areas and to contribute to maintenance of critical ecosystem functions and structures.

Rationale

Outcome

It should be noted that most of the evidence for the achievement of Objective 1 above relates also to Objective 2, the GEO objective, so the discussion here is brief to avoid overlap.

The project supported several activities (mentioned under the PDO) that could potentially have a positive impact on land degradation. However, as noted above under Objective 1, assessing the exact impact of the project activities on the reduction and mitigation of land degradation was not possible due to the absence of relevant outcome indicators that would assess the achievement of the GEO. The ICR (para 46) reported that no data had been collected on either SLM-enabling environment index or SLM-coalition-building index; and no data was recorded on the reduction in sedimentation in the Sasumua water reservoir (ICR, para 46). While two years of sedimentation inflow or deposition data would have been of limited immediate value, it is surprising that it was not at least initiated given that overall M&E was conducted by an institution with a soils specialization.

Finally, as noted earlier, there was lack of clarity in the ICR about the incentives for farmers to continue to sustain or adopt the new technologies that were initially introduced under substantial grants and what the incentives are likely to be in the future for them to continue sustaining them.



Rating

Not Rated/Not Applicable

5. Efficiency

Economic and Financial Efficiency *ex ante*

- SLM practices were not only expected to generate positive on-site effects, such as increased yields through reduced soil erosion, but could also be expected to reduce sediment loads of reservoirs and other facilities downstream. These externalities were expected to contribute to reduced frequency and severity of flooding and reduce the costs for hydropower and water supply companies for silt removal.
- Quantification of economic benefits of certain project components, such as capacity building and strengthening the enabling environment, was difficult.
- As part of the private cost-benefit analysis (CBA), financial returns of SLM practices from farmers' perspective were assessed over a time horizon of 50 years at a discount rate of 10%, NPV and IRR were computed with and without SLM practices recommended by the Kenyan Agricultural Research Institute (KARI). On-site benefits of adopting SLM practices were expected to occur through reduced soil erosion and reduced soil fertility mining, which ultimately would result in improved crop yields. The social CBA took into account off-site costs and benefits expected to result from adoption or non-adoption of SLM practices. The social CBA included the contribution of SLM to the reduction of greenhouse gases through carbon sequestration. Results of the analysis suggested that by the adoption of recommended SLM practices farmers would realize an IRR of 39% and a NPV of US\$2,784 per ha on average across the operational areas. Sensitivity analyses indicated that adoption of SLM practices would be profitable over a wide range of output and input prices.

ex post

- The ex post analysis took into account activities under Component 2, Investment in community SLM micro-projects and resulting social and private benefits. The analysis accounted for 15,735 ha under SLM practices. It showed that including only private benefits resulted in an NPV of US\$528,045 and IRR of 11%. If private and public benefits jointly were considered, the resulting NPV was either US\$810,874 and IRR of 11% or US\$6.9 million and IRR of 17%.
- At project completion there was insufficient information available through the MIS system to conduct a comprehensive assessment of beneficiaries' incremental financial benefits or household income. Also, the effective project implementation period was short so that financial or economic benefits had not yet been realized and could not be collected (ICR, para 84).



- The ex post analysis relied on data received from the Project Coordination Unit and service providers. It reflected experience in selected communities in the project areas Taita-Taveta and Cherangani Hills; however, it was not possible to verify whether these estimates were a reflection of the average situation in all project areas. There are concerns about the methodology and the data including the question of whether there was any emerging evidence either from prior local experiments or actual farmers plots on the quantities per hectare of carbon sequestered.
- Environmental benefits of using SLM were approximated by using the same assumptions at the appraisal stage. Carbon sequestration potential was estimated at 0.5 tons of carbon/ha/year, which resulted in a carbon sink of - 7,867 tCO₂e/year; and by assessing the carbon sequestration potential over 20 years. This resulted in a net carbon sink of -474,674 tons of CO₂-equivalent emissions (tCO₂e) over a period of 20 years; or -23,734 tCO₂e/year. The analysis took into account three alternative valuations for carbon: (i) market price of US\$4/ ton of CO₂-equivalent emissions (tCO₂e), which was used at appraisal stage; (ii) social value of carbon of US\$30 per tCO₂e emission, which represents the present value of the stream of future economic damages of increasing GHG emissions by one ton (recommended by recent World Bank guidelines) and; (iii) approximation of the current market prices of US\$10/tCO₂ (ICR, para 82).
- There are concerns about the quality of the SLM impact data used for the ex post analysis and hence the project efficiency is rated modest.

Administrative and Institutional Efficiency

The project closed one year later than expected. The project implementation was affected by funding and procurement delays. As a result of these delays, approximately 50% of the total budget was disbursed in the last 18 months of the project; and the majority of project activities were established in the final 12 months. This left a very limited timeframe to mobilize communities, establish micro grants, and fully and robustly assess the impact and viability (economic, social and environmental) of the project’s interventions (ICR, para 39). The delays in financial disbursements also impacted the establishment and functioning of the M&E system (ICR, para 43). There were significant delays in the procurement process which contributed to delays in recruiting the consultants to develop the Kenya Sustainable Land Management Investment Framework (KSIF).

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		0	0 <input type="checkbox"/> Not Applicable



ICR Estimate	0	0 <input type="checkbox"/> Not Applicable
--------------	---	--

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

6. Outcome

Relevance of objectives was rated high while relevance of design was rated substantial. Efficacy was rated modest due to the lack of evidence that the project achieved its PDO and the failure to meet the targets of the outcome indicators. Efficiency was rated modest due to concerns on the quality of data used in the ex post analysis as well as weaknesses on the administrative and institutional efficiency.

a. Outcome Rating

Moderately Unsatisfactory

7. Rationale for Risk to Development Outcome Rating

The risk to the development outcome is rated high based on the following:

- **Policy risk.** The formulation and implementation of the Kenya Sustainable Land Management Investment Framework (KSIF) was to enhance the SLM sector coordination and catalyze more funding. However, the KSIF had been only developed by the project closing date with insufficient time for it to be adopted by both the national and county governments, and stakeholders. In addition, the funding and institutional mechanisms for implementation of the KSIF may not yet be fully in place. Therefore, implementation and adoption of KSIF recommendations remains a key risk to the developmental outcome of the project -- given the emphasis and resources expended so far to develop KSIF (ICR, para 100).
- **Institutional risks.** There is a concern that an institutional gap will be left behind after project completion; and this may jeopardize the community mobilization and investments. Furthermore, most counties seem more interested in the visible physical infrastructure investments as compared to the soft investments such as extension services (ICR, para 102).
- **Political/social changes.** Keeping squatters off ecologically-sensitive areas - especially hillsides, forests and riparian areas is considered the main political risk for the SLM interventions supported by the project. On the social side, land subdivision mean that fewer individuals may be willing to invest in soil and water conservation structures. These activities are considered to compete with food production as well as other quick-pay investment alternatives in light of limited available capital resource (ICR, para 103).
- **Environmental.** In Taita catchment, opening up very steep slopes for human settlement was an unsustainable strategy at the environmental level and livelihood level. However, local political leaders supported these actions for political expediency. Also, in Chawia artisanal mining for gemstones high in hills was carried out using rudimentary tools and without any measures in place to



rehabilitate or ameliorate the environmental impact. These two activities negated the good work the project aimed to achieve in its design (ICR, para 104).

- **Integrating beneficiaries into value chains.** Beneficiaries had difficulty obtaining planting material for the newly introduced crops such as strawberries and tree tomatoes. Also, for livestock and fisheries enterprises, the main constraint was obtaining artificial insemination services for cows, healthy fingerlings for aquaculture, chicks and eggs for poultry farmers and brood stock for rabbit farmers (ICR, para 105).

a. Risk to Development Outcome Rating

High

8. Assessment of Bank Performance

a. Quality-at-Entry

- The project was designed to support and complement the Kenya Agricultural Productivity Agribusiness Project (KAPAP) by focusing on issues of sustainable land use; and support Kenya's National Biodiversity Strategy and Action Plan (NBSAP, 2000). NBSAP recognized encroachment for agriculture and the resulting loss of vegetation as a major threat to biodiversity.
- The project design phase took approximately six years. The project concept note was approved in 2004 while the project was prepared and approved in September 2010. This long time might have undermined the project because there were institutional changes on going in Kenya that needed to be reflected in the design.
- Design benefitted from key lessons learned from World Bank Group programs that were implemented in Brazil (Third São Paulo Land Management Project (P006474), China (Loess Plateau Watershed Rehabilitation Project I and II, China (P056216) and Egypt (Matruh Resource Management Project I and II (P074075).
- Design aimed to pilot new mechanisms for service delivery, establish new structures of governance and design a strategic framework for creating an enabling environment for land reform. This was overly ambitious, given the project's scale and timeframe.
- The design of the project did not place enough focus on exploring and resolving the trade-off between income from increased productivity and the public good as well as private good needs of sustainable land management. The logical chain between some of the productive technologies and the impact on soils was not clear.
- The PAD gave insufficient attention to the substance of sustainable productivity gains and engaging farmers in new value chains in a sustainable manner.
- Notable design shortcomings included: the lack an analytical framework to assess key gaps in value chains and market systems and relevant risk management strategies that would reduce farmer's exposure to shocks.



- The PAD included six risks that were all rated substantial. While design reflected capacity as a substantial risk, the changing institutional mandates and incomplete implementation arrangements were not anticipated. This prevented the project from being implemented as planned.
- M&E design was complicated and this complexity hindered successful implementation (see section 10 for more details).

Quality-at-Entry Rating

Moderately Unsatisfactory

b. Quality of supervision

According to the ICR (para 107) the Bank carried out regular supervision with task team leader and staff based within the region. The supervision teams were responsive to dealing with implementation issues. However, the Bank's performance could have improved on several issues: first, to respond promptly to requests made by project staff rather than taking long to respond to or approve requests for "No Objection" by the project staff, for example, requests to approve consultants to undertake studies in preparation for KSIF were excessively delayed. Second, the project M&E could have benefited from the Banks technical capacity and experience, had it been appropriately applied at an earlier stage of implementation, especially on weaknesses in M&E that were noted very early into project implementation. Third, the Results Framework experienced some changes that were not properly approved and documented with some indicators remaining unclear until the end of the project.

Quality of Supervision Rating

Moderately Unsatisfactory

Overall Bank Performance Rating

Moderately Unsatisfactory

9. Assessment of Borrower Performance

a. Government Performance

The project implementation coincided with on-going institutional changes in Kenya that impacted government performance. A number of broad government related challenges impacted the startup phase and overall implementation of the project. The process of devolution and shifting institutional mandates were two important examples. While the wider institutional transformations were beyond the direct influence of the project, the transformation clearly contributed to the complexity of the implementation process. In addition, the situation was exacerbated by the slow disbursement of funds to the project accounts. Funds were supposed to flow from the Designated Account to the two project accounts. However, funds were first deposited to the Ministry of Agriculture, Land and Forestry account, then to Ministry of Environment and Mineral Resources account at the Central Bank of Kenya; and eventually transferred to the project's account. This complex process contributed to the delays experienced in the implementation of Component 3.



Government Performance Rating

Moderately Unsatisfactory

b. Implementing Agency Performance

The Ministry of Agriculture through the joint Secretariat between the project and KAPAP implemented components 1, 2, and 4, while the Ministry of Environment and Mineral Resources implemented Component 3. The Agricultural Sector Programs Steering Committee (ASPSC) formed under KAPAP was expanded to serve the project by including representatives from Ministry of Lands, SLM secretariat, Ministry of Local Government, the Comprehensive African Agriculture Development Program focal person in Kenya, and KFS. The ASPSC reported to the sector Inter-Ministerial Coordination Committee (ICC), which consists of the sector Permanent Secretaries.

The joint Secretariat (implementing body) had qualified personnel employed or seconded from other government departments. However, implementation of activities suffered from delays in the flow of funds and weak procurement capacity; both of which eventually undermined project's capacity to achieve its overall objective. Finally, the M&E framework was complex and was poorly implemented which resulted in limited reporting on results.

Implementing Agency Performance Rating

Unsatisfactory

Overall Borrower Performance Rating

Unsatisfactory

10. M&E Design, Implementation, & Utilization

a. M&E Design

The project's M&E system was integrated in a broader framework that incorporates five other World Bank-financed Kenyan projects in the rural development sector. A central MIS for M&E and project implementation support was established at the Kenya Soil Survey Institute, which was housed within Kenya Agriculture Research Institute.

The PDO was to be assessed through four outcome indicators. These were relevant, but it was not clear how they were to be measured. For example, it was not clear how the third outcome indicator "Percent completion of a national institutional framework for SLM planning, implementation and coordination" would be measured. A notable shortcoming was the lack of any outcome indicators geared to assess the GEO. The Results Framework initially included 21 intermediate outcome indicators. Baseline data on market access, hydrological data, water quality, soil erosion, land use cover, and GPS mapping of degradation was expected to be collected early in the project implementation, however, this did not happen.

In summary, the M&E design was complex and beyond the local capacity. Overall, design failed to consider the



institutional capacity, potential delays in establishing capacity, the focus on decentralization in Kenya and the complex realities of project implementation (ICR, para48).

b. M&E Implementation

The project consistently struggled to implement the full M&E framework as it was originally designed (ICR, para 43). Managing data collection systems for 21 intermediate outcome indicators proved to be challenging and beyond the capacity of the project. Thus, data on a number of indicators (related to land degradation and sedimentation) were not collected (ICR. Para 44). Despite reducing the intermediate outcome indicators from 21 to 19 in 2014, the project continued to struggle with data collection on key indicators, for example, no data had been collected on the SLM-enabling environment index, the SLM-coalition-building index and the percent reduction of sedimentation in the Sasumua water reservoir (ICR, para 46). Data collection was also negatively impacted by the rapid expansion of project activities in the final 18 months. "As a result, M&E system could not fully assess and report on the financial, environmental and social sustainability of the interventions being implemented (ICR, par 47)."

It is surprising that, with a soils institution carrying out M&E and a project aimed at SLM, the collection of sedimentation data was not at least initiated.

c. M&E Utilization

The M&E system failed to contribute data that could support effective management of project implementation and full assessment of project outcomes. Overall, M&E design was complex, implementation was poor and utilization was very limited. Therefore, M&E is rated negligible.

M&E Quality Rating

Negligible

11. Other Issues

a. Safeguards

The project was an environmental category B. The safeguard policies on Environmental Assessment (OP4.01), Natural Habitats (OP4.04), Pest Management (OP4.09), Forests (OP4.36) and Indigenous Peoples (OP4.10) were triggered. The Project's principal objectives relate to promoting technologies for SLM and related natural resources, few adverse environmental impacts were foreseen, and no major environmental issues were anticipated. An Environmental and Social Management Framework (ESMF), a brief Integrated Pest Management Plan (IPMP), and an Indigenous Peoples Planning Framework (IPPF) were prepared and disclosed in country (Project site) and in the Infoshop. These would ensure that the environmental and social assessment and management processes were incorporated in the entire sub-project selection, and into planning, implementation, and monitoring processes, at all levels.



Environmental Assessment (OP4.01). All selected community micro-projects were screened for impacts using a standardized safeguards screening checklist. All project implementers as well as beneficiaries trained on administration and application of the screening checklist. The ICR did not provide information on compliance.

Pest Management (OP4.09). The project ensured that beneficiaries submitted names of agrochemicals, active ingredient and where/what, the application would be for IDA no objection before procurement. The ICR did not include a clear statement on compliance with the Bank’s safeguard policies.

The ICR did not provide information on Forests (OP4.36), Natural Habitats (OP4.04), and Indigenous Peoples (OP4.10).

b. Fiduciary Compliance

Financial Management. The project submitted quarterly Interim Financial Reports (IFRs) to the Bank within the timelines stipulated in the Financing Agreement (FA). However, the project suffered from the slow flow of funds from the Designated Account (DA) to project accounts; and low budget absorption capacity. There were also weaknesses in records management resulting in delays in submission of supporting documents. Finally, the project was slow to address outstanding audit qualification issues relating to financial statements (ICR, para 51).

Procurement. The project suffered from procurement delays that negatively impacted implementation. Most notable were major delays in recruiting the consultants to develop the KSIF (ICR, para 52).

c. Unintended impacts (Positive or Negative)

d. Other

12. Ratings

Ratings	ICR	IEG	Reason for Disagreements/Comment
Outcome	Moderately Unsatisfactory	Moderately Unsatisfactory	---
Risk to Development	High	High	---



Outcome			
Bank Performance	Moderately Unsatisfactory	Moderately Unsatisfactory	---
Borrower Performance	Moderately Unsatisfactory	Unsatisfactory	Implementing agency suffered from weaknesses including delays in the flow of funds, weak procurement capacity; and poor implementation of M&E. All of which eventually undermined project's capacity to achieve its overall objective.
Quality of ICR		Substantial	---

Note

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

13. Lessons

The ICR included five lessons. The following two are emphasized with some adaptation of language:

- **Successful engagement in value chains requires the development of clear risk management strategies.** The project sought to address the challenges of sustainability by connecting farmers to commercial ventures and new value chains. Evidence shows that this approach has significant risks. Future SLM programs that adopt this approach should place increased emphasis on value chain assessment and risk management measures.
- **M&E design should have followed the “SMART” principle—simple, measurable, accurate, reliable, and timely.** A number of baselines needed to be established early in order to effectively contribute to project management and monitor progress. M&E activities needed to be understandable to project staff especially those who may not had been in post at project inception. The design of MIS should cater for all components and implementing agencies throughout the life cycle of the project. Finally, M&E should be tailored to local capacity to ensure successful implementation.

The following lesson is emphasized by IEG:

- **In a project supporting sustainable land management, the results chain between the technologies supported and the projected impact on basin land sustainability needs to be explicit at the design stage. Parallel to this, the short term incentives for the farm household to participate, and the longer term incentives for them to continue without the early subsidy, need to be mapped out to demonstrate the path to sustainability and exit strategy.**



14. Assessment Recommended?

Yes

Please explain

To learn more about private versus public goods and farmer incentives in an SLM context and to look particularly at M&E needs for such projects. But it would need to be packaged with other projects of similar intent.

15. Comments on Quality of ICR

The ICR provided fair coverage of project activities and reported candidly on most shortcomings. Discussion of project outcomes was undermined by the poor M&E of the project and lack of data and baselines for several indicators, all of which were factors beyond the control of the ICR team. To the extent that data allowed, which was limited, the ICR attempted a quite thorough efficiency analysis although it could have focused a little more on the short term and longer term farmer incentives to adopt and sustain SLM practices. The ICR also included lessons that reflected the project experience.

It could also have improved on the following:

- Include a clear statement on the compliance with the World Bank's safeguard policies.
- Report on the status of external financial audits.
- Include all abbreviations used within the text of the ICR in the list of abbreviations and acronyms.
- Report accurately on dates and concisely on data across different sections of the ICR.

a. Quality of ICR Rating

Substantial