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Report No.: 20603

PERFORMANCE AUDIT REPORT

KENYA

THIRD FORESTRY PROJECT
(CREDIT 1213-KE/LOAN 2098-KE)

AND

FORESTRY DEVELOPMENT PROJECT
(CREDIT 2198-KE)

June 20, 2000

Sector and Thematic Evaluations Group
Operations Evaluation Department

Currency Equivalents (annual averages)

Local Currency Unit	Kenya Shilling (KSh)
Exchange Rate at	
Appraisal of Third Forestry Project	KSh 10.0
At Appraisal of Forestry Development Project	KSh 22.5
Exchange Rate at	
Completion of Third Forestry Project	KSh 22.0
Completion of Forestry Development Project	KSh 61.4

Abbreviations and Acronyms

DCA	Development Credit Agreement
ERR	Economic rate of return
EU	European Union
GOK	Government of Kenya
ICR	Implementation Completion Report
IDA	International Development Association
NGO	Nongovernmental organization
OED	Operations Evaluation Department
PAR	Performance Audit Report
PCR	Project Completion Report
PPM	Pan-African Paper Mills
SAR	Staff Appraisal Report
SDC	Swiss Agency for Development and Cooperation

Fiscal Year

Government: July 1 – June 30

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The World Bank
Washington, D.C. 20433
U.S.A.

Office of the Director-General
Operations Evaluation

June 20, 2000

MEMORANDUM TO THE EXECUTIVE DIRECTORS AND THE PRESIDENT

SUBJECT: Performance Audit Report on Kenya Third Forestry Project (Cr. 1213 - KE/Ln. 2098 -KE) and Kenya Forestry Development Project (Cr.2198-KE)

Attached is the Performance Audit Report for the Kenya Third Forestry Project (Credit 1213-KE/Loan 2098-KE), for which a credit in the equivalent amount of US$16.0 million and a loan of US$21.5 million was approved in March 1982, and the Kenya Forestry Development Project (Credit 2198-KE), for which a credit in the amount of US $19.9 million equivalent (SDR13.9 million) was approved in December 1990. Actual expenditure for the Third Forestry Project, which closed three years behind schedule, was US $24.6 million and for the Forestry Development Project, which closed four months behind schedule, US $17.2 million. For the Third Forestry Project, cofinancing of US $9.0 million came from the government of Italy and US $7.6 million from the government of Switzerland. For the Forestry Development Project cofinancing from a number of donors had been planned initially, however, due to delays in effectiveness other donors either withdrew or proceeded independently. To a more limited extent the audits are also an impact study of the four project series of Kenya forestry projects starting in 1969

The main objectives of the Third Forestry Project were: to improve and expand the operations of the Forest Department in order to ensure a sustained and increased supply of timber; to promote more efficient softwood plantation operations through new plantings and the maintenance of existing plantations; to improve the operation of Forest Department nurseries; and to establish a forest extension service. The original main objectives of the Forestry Development Project were confusing because they remained as intended at the time of preparation and appraisal and did not accommodate the retreat from the privatization objectives which occurred at negotiations nor the delinking of the components of other donors that then occurred. Thus, from the outset, as noted by the ICR, the design was not relevant to the stated objectives. The original objectives of the project were to: enhance conservation and protection of indigenous forest; alleviate fuelwood deficiency; improve the efficiency of timber production; and establish a framework for the forestry subsector's long-term development. At a much later date the objectives were amended: to "improve the efficiency and financial viability of timber production and to establish an institutional framework for the forestry subsector's long-term development".

Overall it is a sad story with governance playing a major role particularly through the excision of plantation land. Kenya plantation forestry is in its worst state ever, so is indigenous forest. However, since the main focus of World Bank-financed projects over the past 30 years has been on plantation forestry the audits focus on that aspect. Recent surveys, still to be confirmed, suggest that plantation planted stock may have fallen as low as 70,000 hectares on about 120,000 hectares of plantation land. So, over 30 years, stock has gone from about 110,000 hectares in 1969, up to about 170,000 hectares in the

1980s, and down to about 70,000 hectares now. Current harvest rates are unsustainable. By about the year 2006 there is likely to be a sawlog import requirement. At present, the sawmillers have very little information to enable them to plan for the future. However, a part of that future must now lie with the private farm sector, including smallholders. This sector is in its best state ever due simply to huge farmer response since the late '70s and early '80s to market incentives for poles, fuelwood, and construction timber, with modest government support, against declining freely and locally available indigenous supplies.

Outcome of the Third Forestry Project is rated marginally unsatisfactory. While there was significant planting achievement, maintenance at the time and subsequently raises serious questions about the Economic Rate of Return. There was continued weak institutional performance, although it was arguably too early to be expecting more fundamental institutional reform. The project required three years of extensions. The very important roads component failed leaving problems of access to plantations. There was also a violation of the Bank's resettlement safeguards with thousands of families being summarily ejected in 1988 from houses and settlements within plantation areas where they were practicing three-year inter-cropping within young plantations under the so-called "shamba" (nonresident cultivation) system. Outcome of the subsequent Forestry Development Project is rated unsatisfactory, notwithstanding some physical planting achievements, mainly on the grounds of the overall governance failure and the associated plantation land excisions, the local budgetary allocation problems, the clear failure to meet client demands - as revealed in a survey of sawmillers - and declining royalty collection. The plantation excisions problem has been so severe that, if excisions continued at the recent rate, hardly any plantations funded under the series of four Bank projects would reach maturity.

The Project Completion Report of the Third Forestry Project, dated 1991, does not give formal ratings. The audit for that project rates outcome as marginally unsatisfactory, sustainability unlikely, institutional development negligible, and Borrower and Bank performance unsatisfactory. The Implementation Completion Report for the Forestry Development Project rates outcome unsatisfactory, sustainability unlikely, and institutional development partial. It rates Borrower performance for preparation satisfactory, for implementation deficient, and for covenant compliance satisfactory, and it rates Bank performance for identification satisfactory, for preparation satisfactory, for appraisal deficient, and for supervision satisfactory. The audit agrees with the ICR on outcome and sustainability being unsatisfactory and unlikely respectively. However, it rates institutional development as negligible due to the failure to ensure the clearly identified institutional reform. It rates Borrower performance overall as unsatisfactory and Bank performance overall as unsatisfactory. At the negotiations of the Forestry Development Project the Bank retreated from a position calling for a substantial shift towards privatization and went along with the status quo. This appears to have been largely due to pressure to lend. We therefore rate this project as of negligible relevance.

The two projects offer six main lessons. First, there are benefits to dropped projects as well as costs. Second, where significant reversals of a considered Bank position are made at negotiations, a rationale should be provided in the project documentation. Third, the Bank should be proactive on governance at the sectoral level as well as at the country level. Where governance becomes a significant issue during implementation, a sectoral action plan should be developed, with borrower participation, to deal with it. Fourth, safeguards violations are sometimes found in unexpected places and may emerge during implementation. Safeguard compliance should be a routine element of project supervision and the vigilance should not be confined solely to what might have been anticipated at appraisal. Fifth, in isolation from economy-wide fiscal reform and in an environment of declining budgetary resources, it is naive to expect that staff retrenchment savings will be left with a department for increased operation and maintenance funding. Sixth, the key staff who played a role in preparation and appraisal should be present at negotiations.

Given the poor state of the Kenya forestry sector and the governance problems, the audit gave considerable attention to future directions. In particular the audit recommends a strong and independent forestry sector observer group, perhaps growing out of the existing Kenya Forestry Working Group, to provide independent monitoring of changes in forest cover and to provide independent recommendations to government. It also makes suggestions about future institutional structure and proposes greater attention to the flourishing smallholder subsector, particularly the marketing aspects. The above could help to build on a few promising recent changes related to governance.

Attachment

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Tables

Boxes

This report was prepared by Ridley Nelson (Task Manager), who audited the project in January 2000. William Hurlbut edited the report. Helen Philip provided administrative support.

Principal Ratings

Third Forestry Project

	*ICR**	*PAR*
Outcome	NR	Marginally Unsatisfactory
Sustainability	NR	Unlikely
Institutional Development	NR	Negligible
Borrower Performance	NR	Unsatisfactory
Bank Performance	NR	Unsatisfactory

*A 1991 PCR - no ratings

Forestry Development Project

	ICR	*PAR*
Outcome	Unsatisfactory	Unsatisfactory
Sustainability	Unlikely	Unlikely
Institutional Development	Partial	Negligible
Borrower Performance	No overall rating - average Satisfactory. Rated Preparation Satisfactory; Implementation Deficient; Covenant Compliance Satisfactory	Unsatisfactory
Bank Performance	No overall rating. Rated Identification Satisfactory; Preparation Satisfactory; Appraisal Deficient; Supervision Satisfactory	Unsatisfactory

Key Staff Responsible

Third Forestry Project

	Department Director	*Division Chief*	*Task Manager*
Appraisal	C. Madavo	J. Shivakumar	J Gamba
Midterm	NA	NA	NA
Completion	C. Madavo	J. Shivakumar	C Keil

Forestry Development Project

	Department Director	*Division Chief*	*Task Manager*
Appraisal	C. Madavo	J. Shivakumar	C. Keil
Midterm	Jim Adams	Sushma Ganguly	Paul Ryan
Completion	Harold Wackman	Sushma Ganguly	Peter Dewees/Richard Kaguamba

Preface

This is a Performance Audit Report (PAR) for the Kenya Third Forestry Project (Credit 1213-KE/Loan 2098-KE), for which a credit in the equivalent amount of US$16.0 million and a loan of US$21.5 million was approved in March 1982; and the Kenya Forestry Development Project (Credit 2198-KE), for which a credit in the amount of US$19.9 million equivalent (SDR13.9 million) was approved in December 1990. To a more limited extent this report also represents an impact study of the four-project series of Kenya forestry projects starting in 1969.

The Third Forestry Project closed in December 1989, three years behind schedule, and the Forestry Development Project closed in January 1998, four months behind schedule, after the borrower had failed to achieve steps related to institutional reform agreed for the extension. In the Third Forestry Project, cofinancing of US$9.0 million came from the government of Italy and US$7.6 million came from the government of Switzerland. However, due to implementation bottlenecks, only US$1.5 million of the Italian funds were used and half the Swiss loan was canceled. In the Forestry Development Project, cofinancing was initially planned with a number of donors. However, due to delays in meeting effectiveness, other donors either withdrew or proceeded independently, resulting in separately financed projects from the governments of Finland, Great Britain, and Switzerland, and by the European Union. Implementation Completion Reports (ICRs) were submitted on November 5, 1991, for the Third Forestry Project and January 21, 1999, for the Forestry Development Project.

This audit is based on the Implementation Completion Reports, an OED Impact Evaluation Report of 1984 on the First and Second Forestry Projects (Report No. 4911), the Kenya Forestry Subsector Review of 1988, the Staff Appraisal Reports (SAR), the Development Credit Agreements (DCA), review of Bank files, discussions with Bank staff and discussions with beneficiaries, stakeholders, donors and government staff in the field during a January 2000 mission. Information collection methodologies used in the field included semi-structured individual interviews, group meetings, and meetings with donors and NGOs. The audit also drew on the very useful timber industry survey done for the Forest Development Project ICR. The cooperation and assistance of all stakeholders and government officials is gratefully acknowledged and also the support of the Kenya Country Office staff.

Following standard OED procedures the draft PAR was sent to the borrower for comments before being finalized. Borrower comments have been taken into account, and are included as Annex E.

BACKGROUND

The World Bank has been supporting the forestry sector in Kenya for 30 years. The first project, approved in 1969, was the Forest Plantations Project (US$4.0 million total project cost). The second, was the Second Forestry Plantations Project (US$55.5 million), approved in 1975. The third was the Third Forestry Project (US$74.1 million), approved in March 1982, a subject of this audit. The fourth was the Forestry Development Project (US$83.8 million total project costs, including donor funding that later became separately financed), approved in December 1990, also a subject of this audit. In addition to the establishment of new plantations, which, over the four projects has totaled about 112,000 hectares, all of these projects in some way or another supported plantation maintenance and institutional development for the Forestry Department. They also included studies, technical assistance, and training. The third project also included a component of forestry extension. By and large they did not directly support the conservation of indigenous forest, although the original intent of the last project had been to do this through cofinancing from other donors. Except for a small component in the third project, they did little for forest extension.

The PCR for the Third Forestry Project is rated satisfactory, but mainly because the audit makes allowance for the thinking of the time and forgo the benefits of hindsight. In reality, and in retrospect, it was a missed opportunity since in its lessons it did not go beyond the need for better accounting and for technical assistance and institution building to accommodate the Forest Department's weak implementation when, in fact, even at that time, far more fundamental changes were needed. The ICR for the Forestry Development Project was exemplary and for this reason the audit focuses on addressing issues from somewhat different angles, raising one or two new ones, looking ahead at the future, and bringing issues up-to-date with quite significant recent changes.

The main objectives of the Third Forestry Project were as follows: to improve and expand the operations of the Forest Department in order to ensure a sustained and increased supply of timber; to promote more efficient softwood plantation operations through new plantings and the maintenance of existing plantations; to improve the operation of Forest Department nurseries; and to establish a forest extension service.

The original main objectives of the Forestry Development Project were confusing because they remained as intended at the time of preparation and appraisal and did not accommodate the retreat from the privatization objectives which occurred at negotiations nor the delinking of the components of other donors that then occurred. Thus, from the outset, as noted by the ICR, the design was not relevant to the stated objectives. The original objectives of the project were as follows: to enhance conservation and protection of indigenous forest; to alleviate fuelwood deficiency; to improve the efficiency of timber production; and to establish a framework for the forestry subsector's long-term development. At a much later date the objectives were amended and stated as, "to improve the efficiency and financial viability of timber production and to establish an institutional framework for the forestry subsector's long-term development."

Kenya's plantation and indigenous forests are in their worst state ever. The smallholder sector is in its best state ever.

Kenya plantation forestry is currently in its worst state ever. This applies also to the indigenous forest. However, since the main focus of World Bank-financed projects over the past 30 years has been plantation forestry this report focuses predominantly on that aspect. Recent surveys, still to be confirmed, suggest that plantation planted stock may have fallen as low as 70,000 hectares on about 120,000 hectares of plantation land, implying either 50,000 hectares unplanted or less than the previously estimated 120,000 hectares available. So, over 30 years, stock has gone from about 110,000 hectares in 1969, up to about 170,000 hectares in the 1980s, and down to about 70,000 hectares now. Current harvest rates, which have been running at over 6,000 hectares per year, are unsustainable. By about 2006 there is likely to be a sawlog import requirement, although projections suggest peaks and troughs in the supply over time that are different in different areas and with respect to different species. This difficult industry future needs planning for, by both government and the industry itself. At present, the timber industry has very little information to enable it to plan for the future. However, a part of that future must now lie with the private farm sector, including smallholders. That sector is in its best state ever. This is due largely to huge farmer response since the late 1970s and early 1980s to incentives for poles, fuelwood, and construction timber, with modest government support, against declining freely and locally available indigenous supplies.

With respect to the state of indigenous forests, losses have been severe. For example, a recent survey of Mount Kenya showed 8,200 hectares of illegal logging estimated to be less than three months old. At this rate, the whole of the Mount Kenya indigenous forest area, excluding bamboo, would be gone in less than 10 years, although that point would never actually be reached due to increasing rarity of mature hardwoods and inaccessibility. On the slopes of the Aberdares the mission walked through a recently cleared steeply sloping area planted with potatoes with a charcoal kiln smoldering.

This audit set out to answer a number of questions of which the following were the most important:

- Did the Forestry Development Project prop up an inefficient public plantation management system which, in the absence of the project, might have been reformed earlier? (Arguably, the same question could be posed about the previous project but that would offer too much to hindsight.)
- Why did the appraisal and negotiations of the most recent project—the Forestry Development Project—at the last minute abandon the fundamental new privatization path of the prepared project? Was it purely pressure to lend? Did the Bank sufficiently grasp the political economy issues? Should it have anticipated the abrupt reversal of the government position?
- Why did the Bank not react to the abolition of the "shamba" system in 1987 which, even setting aside the violation of a Bank safeguard policy on resettlement, substantially raised the cost of plantation management at a time when budgets were under increasing pressure?
- What should be done now to ensure sustained development in the sector for the future? What might be the vision?

SUMMARY AND PROJECT OUTCOME

While this report audits the last two projects, it also reviews the outcome from the overall program. The outcome of the 30-year lending program is rated unsatisfactory because losses from forest plantation estate excisions have substantially negated plantation investment and because the improvements in institutional efficiency were not achieved. While new plantations were being established, previously established plantations were deteriorating due to lack of maintenance. While training programs were sometimes going well, the institutional environment to exploit that improved human resource capacity was deteriorating. While tree planting on farms was increasing rapidly, indigenous forest areas were being lost to illegal felling. While trees were being planted in one place, they were being lost to politically motivated excisions in another, a situation much like a person trying to walk up a down escalator.

Within a generally erratic progression, the first project of the four was, on balance, satisfactory, and the second marginally unsatisfactory. Thereafter, with respect to the projects being audited here, Bank interventions exhibited limited learning from experience during appraisal. There was over-optimism about borrower ownership, over-optimism about implementation capacity, insufficient attention to the political economy, pressure to lend, and insufficient attention to sectoral linkages such as agricultural land pressure. In addition, the recommendations of the very thorough 1988 Kenya Forestry Subsector Review for much more emphasis on protection of natural forests, development of fuelwood resources, and promotion of farm forestry, while partly picked up in the Forestry Development Project design through the cofinanced components, were lost during implementation.

The outcome of 30 years of Bank support for plantations is rated unsatisfactory due largely to the governance impact, particularly with respect to excisions.

Outcome of the Third Forestry Project is rated marginally unsatisfactory. While there was significant planting achievement, maintenance at the time and subsequently and the excisions raises serious questions about the economic rate of return. There was continued weak institutional performance, although it was arguably too early to be expecting more fundamental institutional reform. The very important roads component failed. Outcome of the subsequent Forestry Development Project is rated unsatisfactory, notwithstanding some physical achievements, mainly on the grounds of the overall governance failure and the associated excisions, the local budgetary allocation problems, the clear failure to meet client demands—as revealed in the survey of sawmillers—and the declining royalty collection.

The components of both projects are outlined in Box 1 and project implementation is outlined in more detail in Annex C. Briefly, the **Third Forestry Project** became effective in May 1983, six months behind schedule because of delays in meeting conditions for effectiveness. Implementation was slow and the project was extended three times. The project replanted 43,342 hectares, well above its target of 25,600 hectares. However, an excessive proportion of this planting was in very long rotation hardwoods and there was very limited impact in instituting technically sound and efficient planting techniques. Plantation maintenance was costly and unsatisfactory. Stumpage fees were increased significantly. However, towards the end of the project, stumpage income started to decline again due to increased evasion and legal exemptions. Other implementation problems included inadequate budgetary allocation, failure of maintenance, failure of the roads component, continual transfer of staff, delays in reimbursement due partly to late audits exacerbating the budget situation, an unscheduled move of the Forest Department to a temporary HQ, failure to implement the training component, and poor implementation of the rural afforestation extension component.

The **Forestry Development Project** became effective in October 1992 after an 18-month effectiveness delay and detachment of the other donor components. The project was slow to get underway after effectiveness, but by the midterm review implementation with respect to physical targets had improved. The project succeeded in achieving its target of replanting 19,800 hectares of previously harvested plantation land, although it achieved barely 10 percent of the new land planting target of 3,500 hectares. The project cleared a small part of the substantial backlog in silvicultural operations but much remained. The project provided the Forestry Department with a temporary headquarters and successfully completed training programs (1,294 professional and technical staff were trained), and carried out five studies, mostly identified at the midterm review. However, there were a range of implementation problems including inadequate and declining budget provisions, slow release of funds, slow procurement of vehicles and equipment, delayed road rehabilitation, and declining royalties (by the end of the project it was estimated that only about 45 percent of royalties due were actually collected, representing a substantial subsidy). There was also a failure of the Forestry Department to effectively manage industrial plantations; an overall deteriorating governance environment within which Forestry Department had to operate, with an escalation of forest excisions. A number of these excisions were in forest areas planted under previous Bank-funded projects. There was poor performance in the roads component, with 690 km of roads rehabilitated and 890 km maintained, against a target of 1,600 km to be rehabilitated and 3,000 km to be maintained, with a consequent negative impact on the efficiency of the sawmilling industry. However, the most important failure of the project was in not achieving the fundamental institutional reform in the sector, which was long overdue, and which had been clearly identified during the project preparation exercise. This failure was also reflected in the lack of dialog with the timber industry, which, unfortunately, the industry claims, recurred during the later institutional study.

Box 1. Project Components

Components of the **Third Forestry Project:** establishment of 25,600 hectares of replanting on recently clearfelled areas; plantation maintenance on all plantations; establishment of 30 nurseries and expansion of 125 nurseries and improvement of extension services; upgrading of roads, rebuilding of forest station houses, improvement of water supply at existing forest stations, and, expansion, operation and maintenance of the vehicle fleet; improvement of the Forestry Department's management capability and financial controls including an MIS system, staff training both locally and abroad, and periodic aerial surveys of forest areas for planning purposes.

Original components of the **Forestry Development Project:** forestry extension (to be financed by SDC); indigenous forest management (to be financed by the UK); forestry education (to be financed by EU); forestry research (to be financed by EU); forestry master planning (to be financed by Finland); replanting 19,800 hectares and 3,500 hectares of new plantations (to be financed by IDA); promoting private-sector involvement in commercial forestry (to be financed by IDA); and, improving plantation roads (to be financed by IDA); strengthening Forestry Department (to be financed by IDA).

After an 18-month delay in effectiveness it was agreed to delink the other donors' components from the overall project concept with the Bank focusing only on the industrial plantation development and the strengthening of the Forestry Department.

LESSONS

There are a number of generic lessons for the Bank, the most important of which are the following:

1. There are benefits to dropped projects as well as costs.[1] In this case, the longer-term benefits to the lending program of dropping the Forestry Development Project, even as late as negotiations, probably would have been substantial.

2. Where significant reversals of an important and considered Bank position are made at appraisal or negotiations, a rationale for the reversal should be provided in the project documentation.

3. The Bank should be proactive on governance at the sectoral level. Where governance becomes a significant issue during implementation, an action plan should be developed with borrower participation to deal with it. Clear sets of minimum monitorable and actionable governance targets, at both the country and sector level, should be established, and violation of these should trigger cancellation action.

4. Safeguards violations are sometimes found in unexpected places and may emerge during implementation. Safeguard compliance should be a routine element of project supervision and the vigilance should not be confined solely to what might have been anticipated at appraisal.

5. In isolation from committed and implemented economy-wide civil service and fiscal reform, it is naive to expect that, with declining budgetary resources, staff retrenchment savings in one department will be channeled toward operation and maintenance or capital development.[2]

6. The key staff in preparation and appraisal should be present at negotiations.

FUTURE DIRECTIONS

From the low point to which it has sunk the question now is: What to do? Evident since the completion of the last ICR are a few promising developments, among them are some civil service and governance-related changes, a new draft Forest Bill, and some staff changes in the Forest Department. Less promising is the fact that District Forest Officers still spend ridiculously short times in their post, the average could be as low as six months—they are, as they have been for many years, public service nomads.

Plantations and indigenous forests are in trouble. The future of planted trees lies more on private land than public land and in private management rather than public management.

Even in the promising recent GOK strategic statements the audit mission did not find a clearly articulated vision of the shape of the forestry sector in the future. The following key elements would be reasonable in a **vision** of the forestry sector in 20 years, time:

1. Notionally, there is some optimal level of cost of dropped projects. This issue warrants more analysis to understand the value of the counterfactual.

2. In this respect, the first lesson in the Third Forestry Project Project Completion Report, was misguided. The lesson was that, "In any environment of budgetary constraints it is necessary to restructure the use of whatever scarce resources are available. While payment of personnel is a priority, it may be necessary to retrench their numbers so that a fair amount of the budget can be channeled toward capital development activities in the operation and maintenance of essential vehicles and equipment." Unfortunately, except within a broad framework of reform, Treasuries do not work like that. It was particularly naive given the abolition of the non-resident "shamba" system, which reduced labor availability further.

- A strong and independent forestry sector observer group, perhaps growing out of the Kenya Forestry Working Group, but with adequate resources and an accepted status, who would independently monitor changes in forest cover and propose needed actions to government (see Box 2).
- Gradual replacement of publicly managed plantations on government-owned land with privately managed plantations on government-owned land following a range of contracting and leasing arrangements.
- Possibly some limited further reduction in government-owned plantation land. However, there is a clear strategic role for plantation resources to support the industry and an economic case, so any reduction would only be in carefully chosen locations selected as suitable for excision on the basis of thorough economic, environmental, and social analysis with transparency and accountability.
- Increased growing and harvesting and enhanced quality of the already extraordinary level of tree stock on smallholder farms, as subsidies in the formal plantation sector from uncollected royalties, under-inventorying, etc., are reduced and as the supply falls due to recent excisions and unsustainable levels of felling.[3] This increase would need public/private partnership support through increased attention to quality advice, improved small-scale extractive technologies, improved marketing linkages with sawmills, and increased use of less quality-demanding products such as chip board.[4] (Moves in this direction call for substantial sample inventorying associated with aerial photography in smallholder areas to better understand volume, quality, and age profiles). Bank staff note that there are limits to the potential for substitution of smallholder-grown timber due to quality, with timber being only one of several products. While this is true we believe, that, with as much as 30% in some areas being already suitable for some form of timber, and with advancing technologies and given more marketing support, the proportions suitable in the medium to longer term should not be under-estimated. The ability of smallholders to deliver quality products in Africa has often been under-estimated.
- Further increases in private tree growing on the larger farms responding, again, to a less distorted market.
- A relative increase in private plantation production in medium and lower potential areas where competitiveness with highly intensive, high-potential agriculture is less, a zone where new provenances and silvicultural methods have made enormous recent strides in other countries.

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3. The Kenya Woodfuel Development Program in 1984 found that in Kakamega, Kisii, and Muranga,with high population densities of 260 to 400 persons per sq. km,. more than 20% of the land area was under woody biomass and more than 7% under managed woody biomass planted for woodlots, hedges, windrows, etc. The study found the higher the population density the higher the proportion of farm areas under trees. A more recent study is " Not All African Land Is Being Degraded: A Recent Survey Of Trees On Farms In Kenya Reveals Rapidly Increasing Forest Resources" by Holmgren, Masakha, and Sjoeholm, in Ambio, 1994. This study, done as part of the FINIDA financed Kenya Forestry Master Plan, used aerial photography and sample ground assessments. It found total volumes of woody biomass outside forests to be far higher than in both plantations and indigenous forest put together. They found a strong positive correlation between population and standing wood biomass per hectare - the more people, the more trees. They found standing volume of planted trees on farms to be increasing at 4.7% annually, well above the 3% population growth rate. They found the amount of natural vegetation in the farming areas to be about constant. And they found that about 30% of the planted volume could be used for timber or veneer. See also "Tree Planting And Household Decision-Making Processes Amongst Smallholders In Kenya", Dewees P., 1992, Food Studies Group Oxford.

4. Note, that there is plenty of evidence from agriculture that smallholders, given the incentives, can meet quality requirements.

- In indigenous forest areas with high biodiversity and/or ecosystem linkages to contiguous parks, a switch to national park management systems and status and increased use of new technologies for monitoring (see Annex D).
- Legal reform and penalty revision, penalty indexing, and valuation guidance for magistrates, to raise the cost of illegal encroachment, since *de jure* excision is often simply a legitimization of a *de facto* situation.
- In indigenous forest areas with lower biodiversity, following an initial period of recovery and consolidation through tougher protection measures to regain control, increased community involvement in sustainable management, including low-impact timber extraction, and with quid pro quo conditions under some form of memorandum of understanding related to wildlife usage or alternatively through the incentive of retained tourism earnings.[5]
- Pan-African Paper Mills (PPM) gradually switching to supply from private land, probably part contract managed, part purchased, but by the end of a transition period, with no exclusive demand on publicly owned land, and, one would anticipate, switching to greater eucalypt use and use of wood waste on efficiency grounds and adjusting accordingly the processing technologies. One would also anticipate an integrated harvesting approach with PPM purchasing, harvesting and using whatever it needed in open market competition but selling the peeler and sawlogs to the industry instead of, as it does now, pulping high quality timber due to market distortions.
- A commercially oriented and efficient plantation system management entity operating within essential environment-related constraints monitored by government. (Consultants have proposed some form of parastatal arrangement. This seems insufficiently forward-looking given the movement away from parastatals globally, and in Kenya in other sectors, but this is discussed further in the next paragraph.)

With respect to privatization options at the plantation level, the range of possibilities includes leases to either international or local private firms; leases to communities—all of these options either with or without the non-resident cultivation "shamba" system and at different compartment size levels and, management contracts of varying lengths with some form of stock inventory to ensure incentives for performance. Given the perceived risks of long-term investment in Kenya, it is difficult to be optimistic about the attractiveness of very long leases. The increasing social issues and concerns about tribal conflict may argue for community-based management contracts in some locations. However, outcomes in this area are hard to forecast. This would argue for experimenting with a range of options. Furthermore, given this need for experimentation, and given the uncertainty of outcome, there may be a case for maintaining the management of such privatization arrangements initially in the hands of the Forest Department until the shape of the industry which they are managing becomes more clear. Setting up a new institution immediately to manage an industry, the shape of which is still somewhat unclear, may be premature. Experience suggests that there would be no gain from simply converting a public sector institution into a private monopoly. Experience also suggests that there should be a widely publicized and phased time-frame for reform so that the private sector are given sufficient knowledge and time to prepare. Managing the transition, perhaps over several phases, is particularly important in cases such as this where there is a hybrid public and private good to be

5. One Bank observer has expressed surprise that there are not more "Treetops" -type lodges in or near forest reserves earning substantial incomes for local people.

managed. The devil is in the details. Whatever is done should be widely discussed with stakeholders prior to decisions.

A new **draft Forest Bill** is being finalized and has been discussed openly with industry stakeholders—a promising sign. While implementation of existing laws remains the biggest problem, there are some potential gains from a modified Forest Bill, particularly to make excisions a more considered process than the present 28-day no objection procedure. At a minimum, for excisions, the following would appear to be important requirements:

- An agreed process for widely publicizing the proposed excision.
- Sufficient time for information to be presented by all stakeholders, probably at least a year from announcement to decision.
- The preparation by Forest Department of an environmental, economic, and social assessment for the site. A contribution from the Ministry of Agriculture, or other relevant line agency for the proposed use related to the economic or social potential (e.g., for agriculture, the expected economics of the likely agricultural system; for a school the justification for the school in relation to local needs; etc).
- A submission by the Kenya Wildlife Service on biodiversity impacts, both direct and indirect, in both plantation cases and indigenous forest cases.
- Approval by parliament, through a parliamentary committee with broad representation and required by the law to hold well-advertised public hearings, at least one on-site.
- A written submission by an Independent Kenya Forestry Monitoring Group (see Box 2).
- A written submission, if they choose, by the sawmilling industry itself.

However, as Bank staff have noted, the excision process is not simply the legal steps - which could be improved by the above changes. Typically excision occurs by earlier de facto settlement which is then legalized much later. Political commitment to control the initial encroachments is needed also. An independent forest monitoring group could help in this area.

Box 2. An Independent Forest Monitoring Group

There is a need for some form of independent forest monitoring group. The Kenya Forestry Working Group (KFWG) appears to be a basis for this. The KFWG is an informal committee with a membership composed of local NGO representatives, a UNEP representative working on forestry issues, and the Chief Conservator of Forests. However, to perform an independent monitoring function they would need the following:

- Some form of legal status.
- Money, presumably from a bilateral donor.
- A role acknowledged in writing by government.
- Reporting associations with local groups at the district or provincial level, but independence from those groups.
- Some clearly articulated "rules of the game"—procedures agreed with the Forestry Department and Kenya Wildlife Services for reporting on concerns or making proposals (i.e., trust would soon be lost if the group simply went to the press whenever there was an issue, although given an array of NGO membership government would also need to accept that parent NGOs of members would have to remain free to operate according to their best judgement.).
- Professional assistance from a conflict resolution specialist—since conflicts will arise.
- An agreed formal membership selection process.

RELEVANCE

Ratings: Third Forestry Project – Modest, Forestry Development Project – Negligible

With relevance defined as, "the extent to which the operation's objectives are consistent with current country and sectoral assistance strategies and are appropriate in terms of one or more of the Bank's current social, environmental, or other goals," the first of the two projects is rated as having modest relevance but the second as having negligible relevance. In the Forestry Development Project, while the Bank, in the end, went along with the government's reversal on the institutional reform, it was clearly not consistent with the carefully considered Bank strategy, experience and analysis at the time. The Bank should not have proceeded with the Forest Development project due to insufficient movement on privatization (Box 3).

Box 3. Anatomy of a Decision: Bank Acceptance of GOK's Position on Privatization

In the Forestry Development Project, why did the Bank go along with GOK's reluctance to tackle the fundamental privatization issue identified during project preparation as a key issue for future industry efficiency? The easy answer is that the Bank gave in, during negotiations, due to pressure to lend. The files contain a number of references to not wanting a gap between the two projects. This is certainly a substantial part of the story. However, there is more to it than that. The May 1990 appraisal Working Document No. 3 noted, commendably, that "provision would be made for financing long-term timber leases of gazetted forestland to interested and capable private and para-statal wood-based industry companies and for short-term consultancy to assist with working out the modalities for such leases." However, the same preparation document also noted that, at the appraisal wrap up meeting, FD and MENR had reversed their position on timber leasing, even on a pilot basis, and had stated that it simply could not be allowed. Thus, from May to October the position of government was well known.

There is no evidence in the files that this reversal engendered any fundamental questioning within the Bank about the viability of the project, but there seems to have been some undocumented scrambling to find a compromise option which shortly became the Bank's old standby under such circumstances, an Action Plan to be produced within a year. But during pre-negotiations in October 1990, this itself got further diluted, GOK noting that, in case the Bank insisted on the proposed action plan for private-sector involvement, FD would request one year of extra time. There is also evidence in the files of a slide by the Bank over this issue starting even before appraisal, with warnings to management during preparation that GOK may not accept proposed privatization measures. In light of all this, the audit concludes that, while negotiations represented the formal coup de grace, there was a build up to the final position. There seems to have been insufficient early analysis of the commitment and the stakeholder concerns and not enough attempt to review what rejection of this reform would or should do to project viability assessment or design. Arguably, also the Bank should have made more effort to address GOK's expressed concerns about the leasing option with respect to the social issues, although GOK's record on the social issue in the "shamba" system abolition case seems somewhat at odds with their expressed social concerns related to leasing.

EFFICACY

Both projects achieved significant replanting, but neither achieved its important institutional objectives, which became more crucial with the second project

Ratings: Third Forestry Project – Modest, Forestry Development Project – Negligible

The objectives of the ***Third Forestry Project*** were to improve the Forest Department's management performance, leading to more efficient plantation operations and increased cost recovery; to improve the operation of the Forest Department nurseries and to establish a forest extension service. It is clear from the appraisal report, and deducible from the performance of the two earlier projects, that improvement in the overall efficiency of the Forest Department was the overarching development objective. Physical planting targets were largely met or exceeded. A total of about 43,342 hectares was established, which compared favorably with the original target of 25,600 hectares and the revised target of 44,800 hectares. However, costs were high and a significant proportion of excessively long rotation hardwood was planted. Meanwhile, as throughout the series of the four Kenya forestry projects, maintenance was poor with increasing pruning and thinning backlogs. While there was some increase in stumpage rates to improve cost recovery, much of the gain was negated by a decline in collection rates with widespread evasion by sawmiller's and some exemptions. The Project Completion Report, with which the audit concurs on this point, concluded that, although the project succeeded in attaining physical targets, it had limited impact in instituting technically sound and efficient planting techniques, thus failing to achieve the main objective of improving Forest Department efficiency. However, for this project, the modest, as opposed to negligible, rating for efficacy is attributable to the significant physical achievements. But it should be noted here that a substantial proportion of this physical achievement—the data are not good enough to say exactly how much—was lost later to excisions, an issue taken up later under the headings of efficiency and sustainability.

The objectives of the ***Forestry Development Project*** were confusing because, as noted earlier, the original stated objectives were clearly written for the more comprehensive initial project concept that was to have been supported by the Bank and a number of other donors. The objectives included such statements as, "to enhance conservation and protection of indigenous forest resources as well as of soil and water on forest, farm, and rangeland." In the end, however, the project had a much narrower focus. As noted by the Implementation Completion Report, "the project's scope and content was radically changed from what had been envisaged at appraisal as the donors pulled out or went their separate ways." At a very late stage, with only about two years of the project remaining, the objectives were informally amended to, "improve the efficiency and financial viability of timber production from industrial plantations and to establish an institutional framework for the forestry subsectors long-term development." Such a significant narrowing of the project objectives should have been done formally, should have been done earlier, and was arguably significant enough to have been conveyed to the Board.

Again, as with the earlier project, the project, in the end, did largely attain its physical targets, replanting 19,800 hectares against a target of 19,880 hectares, although only achieving about 10 percent of its 3,500 hectares new planting target. However, again, there was a failure to make much impact on maintenance operations, with less than 20 percent of the original target for maintenance met. Most importantly, the project clearly failed to achieve the improved efficiency, financial viability, and institutional framework that were the main revised objectives.

EFFICIENCY

Efficiency suffered due to the forgone opportunity under the second project for significant institutional reform, excision losses, poor plantation maintenance, and increasing inefficiencies imposed on the client sawmill industry.

Ratings: Both Projects – Negligible

Notwithstanding, economic rates of return claimed for both projects at above 10 percent, OED believes the base case ERRs would be lower than 10 percent and rate efficiency negligible for both projects on the following grounds:

- With respect to the second of the two projects, the counterfactual is important in assessing efficiency, i.e., what would have happened had the Bank chosen not to support forestry at this point. We suggest the counterfactual would have been earlier institutional reform in the sector and the possibility of a re-entry by now to support a more efficient sector. We would suggest that the net present value of this alternative over the alternative chosen would have been highly positive.
- In the event of the likely continued poor maintenance and the present rate of losses through excisions of plantation land, the ERR of the Forestry Development Project would fall well below 10 percent and the ERR of the Third Forestry Project would fall to close to 10 percent and the previously projected ERRs of the earlier two projects would also fall, which would need to be applied to one or both of the two more recent projects. At the present annual rate of excisions close to zero hectares of plantation would remain to reach sawlog maturity, neither economic analysis accommodates that scenario.
- Replanting plantations while already planted plantations deteriorate due to lack of maintenance is not an efficient use of resources and represents another better alternative for at least a portion of the funds.
- The consumers of sawlogs, the sawmillers, expressed grave concern about the quality of material they are receiving, the predictability, and the volumes of supply. (See the industry survey done for the ICR.) The mission met a number of sawmillers and spoke to Association representatives and it is clear that uncertainties are impacting on the efficiency of the timber industry as a whole, limiting investment in more efficient equipment. This aspect of inefficiency is not reflected in the last completion report economic analysis.
- Cost recovery has been steadily declining, albeit with occasional temporary recoveries related more to increased real stumpage rates than to improved collection efficiency. This has impacts on both the efficiency of timber resource use as well as the efficiency of the public sector support.
- The phenomenon of briefcase sawmillers (see Box 4), who have no sawmill but buy and sell political influence, is another aspect of the governance problem leading to overall system inefficiencies which are not reflected in the narrower plantation level economic analyses.

Box 4. Briefcase Sawmillers

A "briefcase sawmiller" is a person who gets a timber felling allocation—a piece of paper giving felling rights—without owning a sawmill. He is a person with political influence who gets the allocations from the authorities in Nairobi. He then sells this allocation to a sawmiller at a profit over what it cost him to acquire it. Either he directly, or the sawmiller in his name, then pays the royalty (stumpage) to the District Office, but often this is evaded. Either it is evaded outright through local influence or it is evaded by paying the royalty bit by bit as a proportion of trees felled but felling more than paid for or claiming, in making partial royalty payments, that trees felled have not been collected when in fact they have. Either the briefcase sawmiller, or the actual sawmiller, also have the option to ensure that the Forest Department Inventory Team, who by the time they inventory know who the buyer is, under-assesses the standing volume. As one sawmiller said during a mission interview, "there are two ways of doing business in this industry, we choose the only way we can survive."

Additionality of Bank Funds. The efficiency of the Bank's funding support itself, at least for the last project, is unclear. Overall budgetary allocation to the Forestry Department for plantations has declined over the past 10 years. The real decline of total personnel plus non-personnel industrial plantation expenditure over the project period was about 30% while Bank disbursement by 1996/97 was approaching two-thirds of the total expenditure. It is not possible to assess whether that decline would have been greater in the absence of Bank funding. However, it is by no means clear that the Bank funding allocation has been additional for the forestry sector, although, at the district level, staff indicated that their (very modest) operating costs had been higher during the period of the project.

It should be noted here, as is reflected in the ICR for the most recent project, that the replanting funded by both the last two Bank projects is the replanting of recently harvested plantation blocks. Except for a very small amount, this does not represent any extension of national planted area. It is simply the normal cyclical replanting of clear-felled areas. Given the high potential value of royalty collection from such harvesting, and given the availability of this inflow of funding to government at the right time immediately prior to the required replanting investment, the need for Bank funding at all is, itself, indicative of an efficiency problem. This was the financing of normal silvicultural operations, not the establishment of incremental forest plantation area for Kenya.

INSTITUTIONAL DEVELOPMENT

Ratings: Both projects – Negligible

The whole series of four projects, including particularly the last two projects, failed to achieve significant institutional development. Indeed, this audit would argue that at least the last project funded the propping up of an institutional structure that was outmoded and never likely to achieve efficiency. Whether simply walking away from the project at the appraisal or negotiations stage or delaying and continuing the dialogue, perhaps with more Economic and Sector Work, to achieve the reform sought is debatable. In the second project, less so the first, significant training was undertaken which has had benefit for the individuals and has made the management of the Forest Department better than it would have been without this training. Moreover, one must note here that there are still some excellent staff in the Forestry Department working with little equipment and few incentives. However, as noted by the Forestry Development Project ICR, the institutional structure was entirely inappropriate for taking advantage of this training.

Despite an ongoing effort to improve the efficiency of the Forest Department, fundamental public sector problems defeated any real progress.

BANK PERFORMANCE

Ratings: Third Forestry – Unsatisfactory, Forestry Development – Unsatisfactory

Bank performance under the Third Forestry Project is rated unsatisfactory, albeit marginally so. The Bank failed to apply its resettlement safeguard in 1987 when it did not react to the abolition of the shamba system, which was a major resettlement program carried out harshly and with no compensation. However, the audit accepts that at that time, in the mid-1980s, there was far less awareness than there is now and safeguards were not being given the attention they deserved. Apart from not noticing the seriousness of the social impact or recognizing it as a resettlement issue, the Bank appears to have not reacted to the abolition due to concerns about the environmental impacts of the often poorly managed shamba system. There was also a lack of appreciation at the time of the serious impact of the loss of low-cost labor on the Forest Department in a deteriorating budgetary situation and alongside Bank pressure to reduce labor costs. While there were plenty of labor inefficiencies to be corrected, the Forest Department found itself squeezed from both sides. In addition, the project design failed to take account of the lessons from the earlier two projects. There was over-optimism with respect to implementation capacity given the history.

With respect to the Forestry Development Project, the audit disagrees with the ICR rating of Bank performance as satisfactory, although the ICR did qualify that it was only marginally so. The audit agrees with the ICR rating of appraisal as deficient, in view of the extraordinary collapse of the Bank on the central issue of private-sector involvement. The audit would rate this as so serious and fundamental to this project that it would outweigh even a highly satisfactory performance on supervision unless that performance had been sufficient to recover the lost ground. However, while much of the supervision work was satisfactory, and on balance deserving of a satisfactory rating, there are two concerns: first, as noted by the ICR, there was an insufficient frequency of formal supervision reporting to management, which has been noted before by OED in connection with the Kenya portfolio. Second, as also noted by the ICR, notwithstanding the presence of two economists and one financial analyst on the appraisal mission it was almost four years before a financial analyst joined a supervision mission and six years before an economist joined for the midterm review. Thus, on balance, the audit rates Bank performance unsatisfactory.

The failure of the Bank in the last project to remain firm on the need for fundamental institutional reform was a major shortcoming of appraisal and negotiations and outweighs a satisfactory performance on supervision.

Governance. Arguably, the Bank could have been more proactive on the governance front at the sectoral level, although staff report that there had been follow-up on some governance issues, for example meetings with DFOs about the excisions problem. Typically, in the Bank, governance has been left too much to the overall country dialog. There are often sector-specific, results-based, monitorable and actionable governance thresholds that could be put in place as triggers—for both halting or reinstating lending. For example, in the Kenya forestry sector the following might have been suitable (positive) thresholds:

- Excisions with full economic, social, and environmental analysis, and with sufficient time (at least 6 months?) for objection and hearings, reduced by a certain percentage.
- Concrete evidence of quick and sustained action on corruption cases (court cases filed within a certain agreed time, etc.).
- Cutting by x% the surveyed rate of loss of indigenous forest.
- Evidence from industry consultation and hearings, and through the industry associations, of significant governance improvements at the field level
- Halting all allocations to briefcase sawmillers (this would require checking allocations against sawmill database)
- Evidence from a sample of independent verifications of plantation block inventories that the majority of inventorying is being accurately done (i.e., not under—valued (this would require retention of an independent firm managed from outside the Department)
- Acceptance of, and cooperation with, an independent in-country forests monitoring group with wide representation.

To achieve the above, Bank staff note that greater investment in monitoring, including remote sensing, would be needed. This may be true, although considerable investment in monitoring was made under the two projects but still, for surveying the state of industrial plantations, the main vehicle is letters to DFOs.

In the absence of a full-scale lending operation, support by the Bank for introducing governance changes at the sectoral level is difficult. But it might be initiated through Economic and Sector Work presumably with an understanding that satisfactory outcome in key areas would lead to at least the initiation of project identification work, or it might be supported more concretely with a LIL.

BORROWER PERFORMANCE

Ratings: Third Forestry – Satisfactory, Forestry Development – Unsatisfactory

Under the Third Forestry Project, borrower performance was, on balance, satisfactory, although marginally so. The precipitate abolition of the shamba system, including the destruction of houses and social services in forest reserves, was inequitable and socially disruptive and proved inefficient for the Forestry Department operations. There were a number of implementation problems, and funding allocation by GOK was inadequate for much of the project. However, planting targets were more than met, although there were questions about species and maintenance.

Borrower performance deteriorated as local budgetary allocation and the governance problem increasingly affected implementation. Much of this was outside the control of the Forestry Department.

Under the Forestry Development Project, borrower performance was unsatisfactory largely on the grounds of overall failure of governance, particularly with respect to plantation excisions and weaknesses in royalty collection; poor performance with the improvement of operational efficiency; deteriorating local funding, and poor performance of the road rehabilitation component.

SUSTAINABILITY

Ratings: Both projects – Unlikely

Sustainability of the Third Forestry Project is rated as unlikely, [6]although if audited earlier, closer to project closing, it would probably have been rated uncertain for lack of later performance information. The unlikely rating is due to inadequate budget allocation, inadequate maintenance activities, problems with road rehabilitation; deterioration in the collection of royalties negating an increase in stumpage rates; a failure to improve labor productivity alongside the declining budget situation; and weak achievements in institutional strengthening.

Sustainability is unlikely due to excisions, budgetary problems, poor maintenance, and failure to implement fundamental institutional reform.

Sustainability of the Forestry Development Project, is rated unlikely, in agreement with the ICR, due largely to the overall inefficiency of

6. It should be noted that, with the hindsight permitted by an audit some years after closing, we are able to unequivocally rate sustainability as unlikely when, at the time of closing we would possibly have rated sustainability uncertain. Uncertain can also, of course, turn into likely.

publicly managed plantations; the failure of the Forest Department to sustain maintenance due partly to declining budgetary support for the sector; and the escalating excision of forest plantation land, and the rapidly escalating uncertainty for the sawmill industry still substantially dependent on the plantations.

With respect to environmental sustainability, the plantations established have undoubtedly reduced pressures on indigenous forests (and, conversely, the losses to excisions increased the pressures) - but the question is - how much?. The extent is difficult to assess since the products are different, with indigenous forests giving hardwood species mostly unavailable from plantations - typically going for furniture. However, notwithstanding the difference in quality, with product substitution, combined, perhaps, with some price effect due to the risks of illegal sale, there will have been some impact - partly within Kenya and partly, due to imports, Africa-wide or even globally.

Community Participation. In the longer term, and stepping somewhat outside plantations alone, a critical issue for sustainability of Kenya forestry as a whole is community participation. Kenya has lagged most other countries in community participation in indigenous forest management despite being one of the first in this direction with early attempts related to wildlife (e.g., the Amboseli Park story). Given the breakdown of governance in recent years, and the increasing pressures on indigenous forests, now is not an easy time to start to increase such initiatives. But a start in expanding this needs to be made. The vision would be that communities bordering indigenous forests, especially around Mount Kenya and the Aberdares, would play an increasing role in protection. But this can only happen if they also start to see significant benefits. Being able to collect dead fuelwood and put livestock in for a fee is surely not enough to generate much community enthusiasm, particularly if they see some continued illegal hardwood felling by outsiders.

It will be important to identify and experiment with low-impact management systems in indigenous forests through which benefits for local people can be maximized. This would need to include selective harvesting of hardwoods, which indigenous forests can almost certainly sustain if it is managed. The Ragati Shamba Committee, visited by the audit mission, appears to be an example of a community helping to manage both the plantation shamba element and, to some extent, the local indigenous forest, although any cooperation there on the indigenous forest front appears to be held together more by a strong chairman and the lure of adequate plantation "shamba system" land than by any incentives arising from the indigenous forest itself. But such an initiative is a start that could be built upon. Perhaps for carefully selected communities an exception could be made as an experiment to allow them to monitor and patrol and selectively harvest some timber. In another location, a community group is functioning well at Gatamayu in Kiambu, where Kenya Environmental Volunteers (KENVO)[7] is working with the local community. A group is also reported to be functioning well in the Shimba Hills/Mwalunganja corridor where local farmers have actually formed a company and receive gate-takings and campsite fees. But here there is a high revenue source in elephant viewing which makes it easier. These initiatives need to be expanded, but circumspectly. They may benefit from further study of the different modalities and how well they work in different circumstances.

7. David Kuria works with the community.

Basic Data Sheet

KENYA FORESTRY DEVELOPMENT PROJECT (CREDIT 2198-KE)

Key Project Data *(Amounts in US$ million)*

	Appraisal estimate	*Actual or current estimate*	*Actual as % of Appraisal estimate*
Total project costs	83.83	21.19	25%
Credit amount		17.25	

Cumulative Estimated and Actual Disbursements (US$M)

	FY91	*FY92*	*FY93*	*FY94*	*FY95*	*FY96*	*FY97*	*FY98*	*FY99*
Appraisal estimate	.600	2.8	7.6	10.7	13.1	16.7	19.9		
Actual			2.21	3.87	6.61	9.98	15.27	17.68	17.25
Actual as % of appraisal			29	36	50	60	77		
Date of Final disbursement: July 10, 1998									

Project Dates

	Original	*Actual*
Identification	May 1988	April 1988
Preparation	February 1989	February 1989
Appraisal	March/April 1990	March/April 1990
Negotiations	October 30-November 2, 1990	October 30-November 2, 1990
Board Presentation	December 20, 1990	December 20, 1990
Signing	February 2, 1991	February 21, 1991
Effectiveness	May 1, 1991 December 31, 1991 August 1, 1992	October 30, 1992
Midterm review	January 16 – February 7, 1996	January 16 – February 7, 1996
Project Completion	Date not specified	May/June 1998
Closing date	September 30, 1997	January 31, 1998

Staff Inputs (staff weeks)

	Actual Weeks	*Actual US$000*
Preparation to appraisal	139.0	185,600
Appraisal	52.4	131,000
Negotiations through Board approval	4.0	11,700
Supervision	148.4	413,800
Completion	.9	3,700
Total	344.8	745,800

Mission Data

	Date (month/year)	*No. of persons*	*Staff days in field*	*Specialization represented*[8]	*Performance rating*[9]		*Types of Problems*[10]
					Implementation Status	Development objectives	
Preparation	02-05/89						
Appraisal	03-04/90	10	180	FO,FO,FO,FO, FO,FI,EN,EC,E ,E			
Portfolio update	08/91	1	n.a.	FO	NR	NR	CF,LC
Portfolio update	08/92	1	n.a.	FO	2	2	PM,PR,LC
Supervision 1	07/93	2	18	FO,PR	3	2	PM,PR,LC
Portfolio update	08/93	1	n.a.	FO	3	2	PM,PR,LC
Supervision 2	03-04/94	3	75	FO,FI,PR	2	1	PM,PR,LC
Portfolio update	08.94	1	n.a.	FO	S	HS	
Supervision 3	03/95	3	54	FO,FI	U	S	CF,PM
Portfolio update	06/95	1	n.a.	FO,FI,PR	U	S	CF,PM
Mid-Term Review	01-02/96	6	108	E,FI,FO,FO,FO ,PR	S	S	
Supervision 4							
Supervision 5	06/97	3	21	FO,FI,PR	S	S	
Supervision 6	07/97	2	14	FO,PR	S	S	
Portfolio update	02/98	2	15	E,PO	U	S	FC
Completion report mission	06/98	3	54	E,FO,EN	U	U	CF,FC,LC

8. E = Economist; EC = Ecologist; EN = Engineer; FI = Financial Analyst; FO = Forester; PR = Procurement Specialist

9. S = Satisfactory; U = Unsatisfactory; HU = Highly Unsatisfactory; HS = Highly Satisfactory; NR = Not Rated

10. CF = Counterpart Funds; FC = Financial Covenants; PM = Project management; LC = Legal Covenants; PR = Procurement.

Other Project Data

FOLLOW-ON OPERATIONS

Operation	*Loan no.*	*Amount (US$ million)*	*Board date*
Wildlife Services Project		60.5	1992
National Agricultural Research Project II		39.7	1997
Biodiversity Strategy (GEF Enabling Activity Grant)			1997

Basic Data Sheet

KENYA THIRD FORESTRY PROJECT (CREDIT 1213-KE/LOAN 2098-KE)

Key Project Data *(Amounts in US$ million)*

	Appraisal estimate	*Actual or current estimate*	*Actual as % of Appraisal estimate*
Total project costs	74.1	51.7	70
Credit amount			

Cumulative Estimated and Actual Disbursements

	FY83	*FY84*	*FY85*	*FY86*	*FY87*	*FY88*	*FY89*	*FY90*
Appraisal estimate	3.7	11.3	21.5	31.8	37.5			
Actual (US$M)		3.3	6.9	8.9	16.6	20.4	23.2	24.6
Actual as % of appraisal		29	32	28	44			

Project Dates

	Original	*Actual*
Identification		May 1979
Preparation	January 1980	June 1980
Appraisal		November 1980
Negotiations		November 1981
Board Presentation		March 1982
Signing		August 1082
Effectiveness	November 1982	May 1983
Project Completion	December 1986	April 1990
Closing date	December 1986	December 1989

Staff Inputs (staff weeks)

	Actual US$000
Through Appraisal	95.8
Appraisal through Board Approval	66.5
Board Approval through Effectiveness	3.0
Supervision	299.7
Total	465.0

Mission Data

	Date (month/year)	*No. of persons*	*Staff days in field*	*Specialization represented*[11]	*Performance rating*[12]	*Types of Problems*[13]
Supervision 1	April 1982	1	3	F		P
Supervision 2	August 1982	2	7	F,E		P
Supervision 3	January 1983	3	6	F, EF, AE		P
Supervision 4	October 1983	2	6	F, AE		P,M
Supervision 5	May 1984	3	13	F,E		F,P,M
Supervision 6	November 1984	2	12	F		F,T,P,M
Supervision 7	September 1985	2	4	F, A		n.a.
Supervision 8	November 1985	1	10	F		n.a.
Supervision 9	June 1986	3	10	F,EF		n.a.
Supervision 10	September 1986	2	n.a.	F		n.a.
Supervision 11	December 1987	2	12	F,E		n.a.
Supervision 12	September 1988	1	10	F		n.a.
Supervision 13	April 1989	2	12	F, FA		n.a.

Other Project Data

FOLLOW-ON OPERATIONS

Operation	*Loan no.*	*Amount (US$ million)*	*Board date*
None under preparation.			

11. F = Forester; E = Economist; EF = Economist/Financial Analyst; EA = Agricultural Economist; A = Agriculturalist; FA = Financial Analyst

12. 1 = problem Free or minor problem; 2 = Moderate problems; 3 = Major problems.

13. F = Financial; M = Managerial; T = Technical; p = Political; O = Others

Land Use Optimization – Some Hypotheses on What Should Be Grown Where

The issue of optimizing land use is complex, being technical, social and economic in nature. The Bank erred with lasting consequences by not insisting on the completion of the Land Use Study proposed and funded under the Second Forestry Project. While economic calculations cannot answer all questions, some of which are social and political in nature, such a study could have raised important questions for resolution in strategy discussions. The study could have contributed to clarifying some of the comparative economic issues outlined below.

A hypothesis would be that the **advantages of plantations** combined with non-resident cultivation over smallholder intensive cropping with scattered trees with respect to economics and environment are likely to include:

At the level of local benefits:

- a somewhat higher Net Present Value per hectare than intensive smallholding *provided* the plantations are well managed[14] (although tea may come close) but a lower Economic Rate of Return - meaning that under plantations a hectare of land, assuming no financial constraints,. can get higher economic value for the economy than a hectare of mixed cropping but that, if the highest return to KSh spent is the objective (i.e. if the constraint is KSh), then cropping gives the highest value. (But in practice the economic argument should be allowed to play out through private sector decision making.)
- where land slope is significant, better soil retention, except compared to smallholder tea which, provided it stays under tea, is almost as good. (Given externalities of soil loss, government have a public responsibility here.)
- more even river flow in catchment but lower total annual volume delivered at the bottom of the catchment- since trees transpire more water than other vegetation. (Again, given externalities of water flow changes, government have a public responsibility here).
- better biodiversity in the post-non-resident cultivation phase, although, as monoculture, it is of largely game-corridor value. (Again, given externalities of biodiversity changes, especially in Kenya with high levels of tourism, government have a public responsibility here.)
- somewhat greater provision of fuelwood, although probably not far ahead of intensive smallholder production with scattered trees.

At the level of global benefits:

- greater carbon sequestration.
- better biodiversity role, but with the above caveats.

The **advantages of smallholder intensive cropping** with scattered trees over plantations with non-resident cultivation are likely to include:

14. Based on unpublished estimates by Paul Ryan, World Bank, 1992?

At the level of local benefits:

- a higher return to investment (higher Economic Rate of Return even though Net Present Value per hectare may be somewhat lower).
- more immediate returns where household level poverty is reflected in high private discount rates (short time horizons).
- higher employment per hectare, possibly translating, in some locations, into reduced pressure on indigenous forest.

At the level of global benefits:

- some carbon sequestration, but less than plantations.

Note that a key question with respect to optimizing land use is whether plantations should shift to drier areas. Plantations were sited, for historical reasons, often in high potential areas where the gap between plantation economic returns and agriculture economic returns is probably the narrowest. The comparative advantage of plantations against agriculture may be best expressed in the drier zones, particularly since advances in dryland tree technology with new provenances in countries such as Australia and USA have been enormous in recent years with remarkable rates of growth shown in dryland situations.

Another key comparative economics variable is the extent to which the non-resident "shamba system" cropping could be stretched safely to longer periods because every additional year has a very big impact on the economic returns. More research is needed on this, especially with Grevillea systems.

Project Implementation

The Third Forestry Project (components are outlined in Box 1) became effective in May 1983, six months behind schedule because of delays in meeting conditions for effectiveness. Later, due to slow implementation the project was extended three times. The project planted 43,342 ha, well above its target of 25,600 ha. However, an excessive proportion of this planting was in very long rotation hardwoods (some over 100 years) and there was very limited impact in instituting technically sound and efficient planting techniques. Plantation maintenance was costly and unsatisfactory. Stumpage fees were increased significantly, however, towards the end of the project, stumpage income started to decline due to evasion and exemptions. As noted in the PCR, the project faced a number of implementation problems. The most serious included:

- inadequate budgetary allocation (88 percent was spent on personnel costs - now it is up to 98 percent).
- Overall failure of maintenance and inadequate mobility due to lack of spare parts.
- Failure of the roads component (financed by Italy) due to problems with procurement and expenditure ceilings.
- Continual transfer of staff.
- Delays in reimbursement due partly to late audits, exacerbating the budget situation.
- An unscheduled move of the Forest Department to a temporary HQ.
- Failure to implement the training component.
- Poor implementation of the rural afforestation extension component.

The Forestry Development Project became effective in October 1992 after an 18 month effectiveness delay and detachment of the other donor components. The project was slow to get underway after effectiveness, however by the Mid-term Review implementation with respect to physical targets had improved. The project succeeded in achieving its target of replanting 19,800 hectares of previously harvested plantation land, although it achieved barely 10 percent of the new land planting target of 3,500 hectares. The project cleared a small part of the substantial backlog in silvicultural operations but much remained. The project provided FD with a temporary headquarters and successfully completed training programs (1294 professional and technical staff were trained), and carried out five studies, mostly identified at the Mid-term Review. However, there were a range of implementation problems including:

- Inadequate and declining budget provisions and slow release of funds. By FY94/95 total recurrent and development expenditure on plantation establishment had fallen to 37 percent of the 1980/81 level.
- Slow procurement of vehicles and equipment and delayed road rehabilitation.
- Declining royalties. Timber royalty collection had declined by 1994/95 to about 30% of the 1986/87 level due to failure to keep up with inflation and under-collection. By the end of the project it was estimated that only about 45 percent of royalties due were actually collected. Given some conservatism in the calculation of royalty value there has been a very substantial subsidy.
- Failure of the FD to effectively manage industrial plantations, an issue raised at appraisal but not addressed again from the Bank's side until late 1994. Too late the Bank came back to the need for institutional reform following the preparation of a new draft Forest

Policy and the Kenya Forestry MasterPlan (funded by Finida). However, not until November 1996 did the agreed study on institutional options get underway. On completion in July 1997 it was shelved, although it remains a matter under some discussion within FD.

- An overall deteriorating governance environment within which Forestry Department had to operate with an escalation of forest excisions, including a number of excisions in forest areas planted under previous Bank funded projects.
- Poor performance of the roads component, with 690 km of roads rehabilitated and 890 km maintained against a target of 1600 km to be rehabilitated and 3000 km to be maintained. The poor state of roads has had a substantial impact on the efficiency of the sawmilling industry, as was widely noted in the survey of the industry and mentioned frequently to the mission. (A possible bonus may have been reduced accessibility for indigenous forest poaching of timber, but this is difficult to demonstrate.)

However, the most important failure of the project was in not achieving the fundamental institutional reform in the sector which was long overdue, and which had been clearly identified during the project preparation exercise. This failure was also reflected in the lack of dialog with the timber industry, which, unfortunately, persisted during the institutional study. Timber industry representatives complained to the audit mission that there had been negligible consultation with the industry by the consultants beyond a pro forma meeting.

Forest Poaching Monitoring Technologies

While currently governance is the overwhelming constraint, there are two areas in the realm of information technology which would need addressing as soon as governance improvement permits. First, the computerized management systems setup under both the Third Forestry Project and the Forestry Development Project appear to have largely collapsed, and what is available is not being fully used by management. A recent survey of the plantation estate carried out by Forestry Department was largely based on traditional questionnaires sent out to Provincial Forest Officers and District Forest Officers. Had there been an adequate database this survey would have largely been based on that database simply with some questionnaire updating. A functioning database would have all the information for each plantation block readily available to both HQ and District Offices, and would be routinely updated annually and would be an input into checking inventorying for harvest.

Second, greater use of Global Positioning Systems (GPS) would improve poaching control, again, provided first an improvement in governance throughout the system. With recent aerial surveys now available of Mount Kenya, and continued regular flying by the warden, data on GPS coordinates of encroachment locations should now reach District Offices immediately and selected Forest Guards, with GPS training and equipment, should be dispatched immediately to identify sites on the ground. The GPS coordinates would be reported both to District Offices and to HQ to enable FD management to check on action. There may be a case, also, for making such information publicly available. Of course, without the will and the vehicles and equipment to carry out such immediate ground follow-up, such a GPS-based system would be of no value other than perhaps to the aerial observers to monitor rates of destruction.

Comments from the Ministry of Environment and Natural Resources

KENYA THIRD FORESTRY PROJECT, AND FORESTRY DEVELOPMENT PROJECT AUDIT REPORTS

The Forest Department concurs with the report that the original main objectives of the Forestry Development Project (KFDP) were confusing as they remained as intended at the time of Project preparation and Appraisal. It is true the design was not wholly relevant to the stated objectives which were only rectified very late in the life of the Project when implementation had already progressed. Some key issues on stakeholders' involvement and environmental objectives were not emphasized at the preparation/Appraisal time. Public goods realized during implementation were not assessed at the end of the Project.

After revision of the Project, no modalities of coordinating the Project (with other project funded by other donors) were prepared. These shortcomings affected implementation.

The objective to improve the efficiency of timber production is subjective and long-term and inconsistent with the 6 year life of the Project. Preparation of time bound, monitorable and achievable indicators could not have been realistically developed.

From Kenya's experience, Forest plantation area being in high potential zones was prone to competition with other land uses viz settlement and agriculture. The current Forest Act is weak in protecting Forest land and hence the loss (excision) in spite of Government goodwill.

As stated in the report, destruction of indigenous Forest was widespread. This was mainly due to the policy to allow ex-licensees to remove felled indigenous trees between 1992 and 1997. This authority has now been withdrawn and our surveillance intensified resulting to improved Forest protection impact.

Had there been coordination (inter project) the issue of surveillance in indigenous Forests could have been addressed. Currently, measures ranging from inter-institutional collaboration to setting up of mobile protection bases are in place. This will need further elaboration and support within the framework of the proposed Forest Bill.

Forest protection cannot be effectively addressed by sectoral approach especially where the capacity is inadequate. There are a complexity of issues e.g. Bhangi cultivation, timber and wildlife poaching which require inter-institutional, and community based strategies to address.

The support given by IDA in the last 30 years initially provided impetus for Forest Industrial development including Pan African Paper Mills development to a capacity of 0.3 million public meters per year and also plywood/fiber board mills establishment in Elborgen, Eldoret and Elgeyo which have grown in size and production capacity. There are also 450 sawmills sustained by the Department currently. The wood supply has been steady without imports. The multiplier effects of these industries are significant although the country would have exported surplus had efficiency in production and utilization been achieved. Without this support reforestation and silvicultural programmes have declined drastically from 1998 to-date. Major changes are now needed to turn round the Forest sector.

The biggest problem in management has been unsustainable harvesting where for example 6,570 hectares and 6,850 hectares were allocated for harvesting in 1998 and 1999 respectively while the sustainable yield is 2,300 hectares per year.

Regarding recovering of economic royalties, PPM which is a monopoly has continued to demand subsidies which the Government cannot evade due to earlier Agreements with the mill, on royalty adjustments and increments. To avoid industrial and labor unrest the Government has had to succumb to their demands and currently Pan African Paper Mills pays a royalty of Ksh 305.81 per m^3 of wood.

Problems of poor utilization have not improved and the industry has neither modernized nor improved recovery and the use of obsolete and outdated technology is widespread including the Pan African Paper Mills.

Implementation of Forestry Development Project became increasing difficult as there were no safeguards made to minimize risks from long procurement procedures of both IDA and GOK. Many major equipment and vehicles were consequently not procured. The above, and lack of financial flexibility due to liquidity and quarterly issues of A.I.E.s created an environment not conducive to Project implementation. This is elaborated in the report especially with regard to Italian and Swiss Support during the Third Project.

It is important to recognize that IDA over the years has been instrumental in assisting the Government to identify policies which discouraged deforestation and which re-oriented Forestry towards participation of stakeholders. Non residence cultivation, full valuation of Forest products including pricing and creation of reform and institutional re-organization are areas IDA has worked closely with GOK. Unfortunately, a breakthrough on this front was never achieved.

During reforestation replanting of backlogs was given priority and the 10,000 hectares planted was 100% of what was planned. The survival was still a big issue due to extraneous problems e.g. vagaries of weather, fires and animal conflicts.

Programme for the 3,500 hectares total area of new planting was not prioritized as it was regenerating with bushy vegetation and was abandoned. Priority had to be given to the replanting of backlogs (30,000 ha in 1996) and also additional area harvested annually. It is true silvicultural programmes did not fair well. There were new policies i.e. stoppage of NRC in 1989, and the retrenchment programme early 1990s which seriously affected accomplishments of Forestry programmes.

The Department lost 7,000 workers over a period of 6 years and savings were not made available to employ casuals.

The roads programme failure was attributed to the adapted policy during Project planning of big contracts (7) without foreseeing implementation problems. Supervising consultants were of little support to Government in assisting on timely identification of implementation problems. This strategy led to delays, variation of prices, claims of interest etc. It was only at Mid-Term review that the policy was revised to many small district based programmes.

Turning now to the lack of achievement of fundamental institutional reform in the sector, it is critically important to note that through IDA support and GOK interest, various strides were initiated towards institutional reform.

In 1990 the Kenya Forestry Master Plan (Finnida supported Project) recommended that Industrial Plantations should be commercialized and the economic benefits would support indigenous Forests and several models were discussed and recommended.

Under the Conservation and management project supported by European Union, it was stipulated that indigenous Forests and industrial plantations are inseparable and they should be managed by one entity through a piloting model.

Through IDA support the Price Waterhouse report was undertaken. It recommended formation of a parastatal or a Government owned company as structural organization with contract or self(in house) management options. For obvious historical reasons these options were untenable. Price Waterhouse report relegated and dismissed leasing as an option on the grounds of equality and contestability. This was however a substantive action by GOK and IDA towards reform of industrial plantations.

During the ongoing Ministerial Rationalization programme the same rejected leasing option was highly prioritized. The various divergent proposals and uncertainty did not ease decision making by the Government. It is our view that the reform route is a long process of involvement, consultation, creation of awareness on workable alternatives and models throughout the world which both GOK and World Bank are already undertaking in preparation of implementation of long term reforms.

This has laid a foundation and the decision is now not whether to commercialize but how it can successfully be undertaken with various stakeholder groups who value not only the economic benefits but also social- cultural and environmental benefits from their forests.

Some of the difficulties hindering reform included unknown financial value of plantations.

The proposed Forest Bill has sought to collate the views of stakeholders on implementation of these options e.g. leasing. The reform would encompass Forest sector and other Forest stakeholders involvement and participation in management sharing costs and benefits. This Bill when enacted will also make it extremely difficult for excision with the E.I.A and Parliamentary approval preconditions being in place.

The four IDA supported Projects although may have fallen short of achievement of high expectation in meeting the objectives have nevertheless created unprecedented conducive environment for information, capacity building, research, and awareness creation, management discipline and reporting, industrial development and alleviation of poverty through provisions of employment at secondary and tertiary levels. They laid ground work for further plantation development in this Country.

Seedlings raised were either sold or given to farmers and this impact was not recognized at evaluation but the results are indisputable. Information on various reform options will steer the Government to making the appropriate re-organization and restructuring decision.

Regarding Monitoring, the Kenya Forestry Working Group (KFWG) provided an independent Forest Monitoring Group. Currently, the KFWG has been informally brought on board playing a purely advisory role. We have had collaboration approaches to Forest conservation specifically in Eburu Forest and Bahali Dundori Forests. The real problem would be the legal base of KFWG.

As indicated, environmental Conservation was central and should have been recognized and appropriate objectives and performance indicators be included at Project preparation. Other areas of scope would have been food security and alleviation of poverty objectives.

The four Projects have been established of over 120,000 hectares of plantations. There is no doubt that the programme absorbed pressure from indigenous Forests and the overall impacts beyond the Forest sector were not evaluated.

Sustainability on short term is dependent upon adequate budget. This is due to low valuation of Forestry not foreseen.

On the medium term appropriate institutional re-organization/reform supported by corresponding legal instruments would ensure sustainable production of wood and improve efficiency and financial viability of its production.

In conclusion, the 3rd and 4th Projects were having obstacles of Project preparations and design which had a bearing on the implementation affecting achievement of objectives, degree of impacts and the outcome.

In our view it is difficult to assess in depth the impacts of this 30 year support while applying the stated objectives since the support went beyond the scope of the project.