KENYA AGRICULTURAL RESEARCH INSTITUTE

MID-TERM REVIEW OF THE WESTERN KENYA INTEGRATED ECOSYSTEM MANAGEMENT PROJECT (WKIEMP)

First Draft Report

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East Africa

The Mid Term Review for Western Kenya Integrated Ecosystem Management Project (WKIEMP) was commissioned by the Kenya Agricultural Research Institute (KARI) and executed by ETC East Africa Ltd.

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The Review Team wishes to thank Dr. Ephraim Mukisira, Director, KARI, and Dr. Jane Wamuongo, Assistant Director (Land and Water Management), for availing themselves for discussions and sharing their views on the project. The Team is grateful to Dr. George Ayaga, the Project Coordinator, and all the Project Coordination Office staff for facilitating its work. Our appreciation also goes to Dr. Louis Verchot and other ICRAF staff in Kisumu, the community members and all other persons who in one way or other contributed to this review.

The post election crisis in Kenya affected timeliness of execution of the assignment. Fieldwork could not be carried out from 7th January 2008 onwards as originally planned. However, after passing by Parliament the National Accord and Reconciliation Act, we were glad to be able to carry out the fieldwork from 25th March to 2nd April 2008.

The content of this report is the sole responsibility of the authors.

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Abbreviations and Acronyms

AEZ	Agro Ecological Zone
AWP	Annual Work Plan
BTC	Basin Technical Committee
CBO	Community Based Organisation
COP	Conference of Parties
COSOFAP	Consortium for Scaling UP Options for Improving Soil Fertility in Western Kenya
EIA	Environmental Impact Assessment
ESMF	Environmental and Social Management Framework
FADC	Focal Area Development Committee
FMR	Financial Monitoring Reports
GEF	Global Environment Facility
GHG	Green House Gas
ICRAF	International Centre for Research on Agro-Forestry
IEM	Integrated Ecosystem Management
IDA	International Development Association
IF	Implementation Framework
KARI	Kenya Agricultural Research Institute
KAPP	Kenya Agricultural Productivity Project
KAPSLMP	Kenya Agricultural Productivity and Sustainable Land Management Project
KEFRI	Kenya Forestry Research Institute
LVEMP	Lake Victoria Environmental Management Project
M&E	Monitoring and Evaluation
MIS	Management Information System
MTR	Mid Term Review
MTEP	Medium Term Expenditure Plan
NEMA	National Environment Management Authority
NGO	Non Governmental Organisation
NIB	National Irrigation Board
PAD	Project Appraisal Document
PAP	Participatory Action Plan
PCO	Project Coordination Office
PRSP	Poverty Reduction Strategy Paper
SESS	Seconded Environmental and Social Specialist
SOE	Statement of Expenditure
SOFO	Successes, Obstacles, Failures and Opportunities
SWOT	Strengths, Weaknesses, Opportunities, Threats
TAG	Technical Advisory Group
ToR	Terms of Reference
UNDP	United Nations Development Programme
UNEP	United Nations Environmental Programme
UNFCCC	United Nations Framework Convention on Climate Change
WAC	World Agro-forestry Centre (ICRAF)
WKIEMP	Western Kenya Integrated Ecosystem Management Project
WRMA	Water Resources Management Authority
WWF	World Wide Fund for Nature

EXECUTIVE SUMMARY

Introduction

1. The Mid Term Review (MTR) of the Western Kenya Integrated Ecosystem Management Project (WKIEMP) was commissioned by the Kenya Agricultural Research Institute (KARI) and executed by three consultants from ETC East Africa.
2. The project seeks to improve the productivity and sustainability of land use systems in selected watersheds in Nzoia, Yala and Nyando river basins through adoption of an integrated ecosystem management approach. The Project's global environmental objective is to promote a set of integrated ecosystem management interventions so as to achieve local and global benefits (reduced land degradation, reduced greenhouse gas accumulation in the atmosphere, improved on- and off-farm biodiversity and decreased erosion in watersheds that feed into the above mentioned river basins.
3. According to the Terms of Reference (ToR), the objective of the MTR is to assess project performance and progress to date in moving towards the achievement of its objectives. This includes the physical progress, financial status and outputs in relation to objectives. The MTR is also expected to provide recommendations for refining implementation arrangements and procedures, and identify areas for restructuring in order to enhance project performance and enable the project meet its development objectives.
4. The review approach was participatory and comprised three phases: (a) an inception phase that included initial discussions and briefing by the project management and coordination staff and review of available documents; (b) field visits and assessments of progress of activities in selected areas including focus group discussions and interviews with stakeholders; and (c) critical analysis and reporting.
5. The assignment commenced on 20th December 2007 with an initial visit to PCO Kisumu. Field visits were delayed from 7th January 2008 due to tense political and security situation in the country and were carried out from 25th March to 2nd April 2008. Compilation of the draft report was completed by 9th April 2008.

Findings and Conclusions

Project Design

6. The project design did not initially include livestock aspects and the social dimensions, which are important if the project outcomes have to be achieved. However, the Review Team notes that early in the implementation process, livestock related activities and livelihood support activities such as horticultural crops production and bee keeping were incorporated.
7. In the project design, sediment analysis is included as one of the monitoring indicators. However, the Review Team while recognising the importance of this parameter notes that its measurement is complex and expensive and that the project is not likely to do it during the current timeframe. The Team considers that general water quality parameters will suffice as monitoring indicators and suggest that for the time being the PCO initiates discussions with other stakeholders such

as the Water Resources Management Authority (WRMA) and seek their participation in undertaking sediment measurements.

8. In view of the shift to micro-catchments, the entry points for project intervention will need to include both the community-based organisations and individual farmers since portions of the micro-catchments may be privately owned as opposed to community-owned.

Relevance of activities being implemented

9. On close examination of project objectives and the activities being implemented (e.g. tree planting, rehabilitation of degraded areas, livelihood activities etc), the Review Team is of the opinion that these activities are relevant and will contribute to achievement of objectives. Integration of alternative sources of livelihood is providing impetus and motivation to the communities to participate in the project activities such as tree planting and soil conservation.

Organisation and institutional set up

10. The project is well structured with representation of all key ministries and departments at the Technical Advisory Group (TAG) level. However, the effectiveness of the TAG in guiding the project has been affected by poor attendance of group meetings. Nevertheless field visits by some members of the TAG have provided useful comments on how to make the project more effective.

11. The Basin Technical Committees have been effective in addressing basin wide issues and specifically the approval of sub-projects for small grants. However, for performance to be enhanced, they need to be fully included in the loop (joint planning, joint calendar of implementation and participatory monitoring of project activities).

12. The umbrella micro-catchment committees were noted to be active and effective in providing direction to member groups but would require additional capacity building to ensure sustainability of the interventions.

Relationship with ICRAF

13. The relationship between KARI and ICRAF has come along way and is currently satisfactory for the achievement of project objectives. However, the shortcomings highlighted in the report, particularly the need for scientific staff on the ground, should be addressed to enhance successful implementation of the project.

Project Implementation Progress

14. Considerable progress has been made in the implementation of interventions in the lower blocks of Nyando, Yala and Nzoia Rivers. However, in order for the project to achieve its objectives, interventions are required in selected representative microcatchments in all the three landscape positions, that is, the lower, middle and upper levels.

15. In terms of specific activities, there has been significant and satisfactory progress and the Review Team considers this a modest achievement taking into account the prevailing logistics and limitations (financial, human and equipment). Activities accomplished include preparation of biophysical and socio economic baselines (although analytical data not available), establishment of the necessary structures for project implementation (TAG, Basin Technical Committees, Catchment Committees etc) and adjusting to the micro-catchment approach. The Small Grants Programme is only operational in Nyando basin due to limitations in the flow of funds. An M&E framework for the project has been developed although it needs to

be enhanced further to enable the project to capture the effects and tangible impacts.

16. The Review Team is of the opinion that the concept of integrated ecosystem management is well understood by the project staff and the target communities are slowly assimilating this. The positive environmental and social impacts of the interventions are greater compared to negative impacts. Some of the reported impact areas among others (see section 2.9 of the report) are:
    - Increased community awareness on the need to bring up and manage tree seedlings from community-managed nurseries has enhanced the availability of tree seedlings and subsequent planting of trees.
    - Degraded areas in lower Nyando block, which were fenced and re-vegetated, are healing and are now producing hay for livestock.
    - The desilted dams and constructed water pans have positive effects on communities in that the water is used for domestic and livestock purposes, for irrigation and hence improved food security and incomes, fish farming and protection of farm lands through control of floods.
17. The Team observed that the environmental screening checklists contained in the ESMF are always used in screening sub-projects. The checklists are also contained in the Grants Management Manual and are used during the preparation of the sub-project proposals.
18. On implementation of activities related to the carbon sequestration component, the progress is rated as slow since no data from analysis of carbon stocks has been availed to the project. The initial delay was however as a result of late procurement of equipment needed by ICRAF and also staff changes in ICRAF.
19. With regard to the biophysical baseline survey, the Review Team observed that the sampling process did not utilise existing information such as soil, agro-ecological zonation, landscape units, vegetation and present land use. Without this information it has been difficult for project staff to develop a criteria for prioritising micro-catchments for initiation of interventions. The right criteria would enable the project to select an optimal number of micro-catchments to allow implementation of activities within a specified period in a given block.
20. Overall the Review Team's observation is that there is a steady progress in project implementation. Considering the issues raised above and assuming that the financial limitations due to the flow of funds will be addressed, improved partnership with ICRAF continues, adequate human resources is ensured and absence of external influences such as political stability and insecurity, the Review Team is of the view that the project will go along way towards achieving the set objectives.

Recommendations

Project design

21. The Review Team endorses the use of micro-catchments as entry units for initiating integrated ecosystem interventions in the identified blocks. However, considering that within a block there may be many micro-catchments, the project should develop criteria for their prioritisation and selection of a few representative ones to allow for optimum implementation of activities in a block during the remaining part of this phase of the project.

22. Attainment of project objectives hinges on intervening in the three broad landscape positions (upper, middle and lower blocks) as the processes underpinning land degradation in these topographic sections are interlinked. So far, the project activities have concentrated in the lower blocks. To address this concern, it is recommended that the PCO initiate the process of sensitisation in the upper blocks for the Nzoia and Nyando basins followed by livelihood alternatives that are linked with ecosystem management. Where there may be staff limitation, KARI should explore the possibilities of contracting qualified and experienced staff.

23. Alternatively, the time spent in the identified blocks by the project staff should be limited to less than one year by putting in place mechanisms to allow early weaning and handing over of activities to micro-catchments committees. This will release time to initiate interventions in other blocks and allow communities to continue with the activities but receiving technical backstopping support when needed.

24. Given the nature of the project where IEM underpins the whole project, an environmentalist with experience is required in the PCO to ensure ESMF requirements are fully integrated. Additional technical skills may be required in business management and economics to ensure sustainability of interventions. Further, the project is designed to demonstrate best practices; part of which must include demonstrating that the practices are economically viable and socially acceptable.

25. The project should also enhance partnerships (public – private) with organisations that have been active and strengthen them to take over some of the technical responsibilities as the core team moves to other blocks.

26. Silt/sediment measurements are important in establishing the level of pollution but the process involved is complex and expensive such that the project is unlikely to carry it out within the remaining period. It is therefore recommended that this activity be addressed where resources can allow while at the same time the staff seek ways to collaborate with WRMA.

Relationship with ICRAF

27. The improved relationship between KARI and ICRAF should not be jeopardised by any of the two players by not adhering to the terms of agreement. The relationship should actually be viewed as a partnership. To utilise the provisions of the project, the Review Team recommends that a KARI scientist should work closely with ICRAF on carbon stocks, carbon sequestration, carbon measurements and monitoring as part of capacity building. For effective performance ICRAF and the scientist should come up with a firm working arrangement spelling out the tasks to be performed, when, by whom, where and the deliverables within given time frames. This will enhance transparency and accountability. The scientist should be facilitated to perform the assigned tasks.

28. Noting that delivery of expected output by ICRAF has been relatively slow and considering the importance of these deliverables towards overall success of the project, the Review Team recommends that ICRAF assign a senior scientist on the ground to work in partnership with the PCO.

Implementation progress

29. Based on the assessment of the implementation progress of planned activities by the Review Team and also from previous supervision missions' reports by World Bank, the issue of poor financial flows has emerged as one of the major factor that has influenced project performance. It is therefore recommended that KARI, GoK

and World Bank arrive at a lasting solution on how the financial flow mechanisms could be enhanced. This will reduce implementation delays especially because agricultural activities are season-specific. A Review of existing funds flow and accountability arrangements should be made by KARI and appropriate changes for efficiency and value for money be put in place as a matter of urgency. The WKIEMP Technical Advisory Group (TAG) should take responsibility for monitoring compliance with agreed funds flow arrangements.

30. To further improve on the financial flows, KARI should explore the possibility of requesting the Ministry of Finance to allow them open and operate a special account in a local bank or branch instead of operating an off shore account. This will enable KARI to regularly check on the status of the account and the in/out flows of project funds.

31. To enhance the financial flows between KARI and ICRAF, the Review Team notes that the new contract agreement clearly indicates the payment schedule and urges that the parties respect the contents of the contract.

Communication and documentation

32. Notwithstanding that the project has hired a communications consultant, the Review Team would like to underscore the importance of communication between all the parties involved in the project implementation (KARI, ICRAF, WB, collaborators and participating partners). Further, the Team recommends that the PCO should be more proactive in sharing lessons, experiences and effective IEM models with the wider audience.

33. To enhance documentation, data storage, analysis, retrieval and dissemination it is recommended that the project develop a computerised Information Management System.

Carbon sequestration

34. Noting the importance of the manuals in guiding staff in the assessment of carbon and non-CO_2 GHGs, it is imperative that they should be prepared in a user-friendly language for ease of understanding and assimilation by the targeted users. The Review Team is in agreement with KARI's request and recommends that these manuals should be synthesised. PCO staff should also be trained on their utilisation.

35. Noting that nothing has been done as stipulated in the project sub component 1.2 (enhance capacity for developing carbon finance proposals), the Review Team recommends that ICRAF urgently address this aspect.

Capacity building

36. Considering the efforts and resources spent on team building and management of the project, and notwithstanding the fact that the Training Consultant has carried out a compressive training needs assessment and a training plan the Review Team recommends that at PCO level the following capacity building be accorded priority:
    - Training on leadership, team building and management for change;
    - Project cycle management including financial management;
    - Environmental and social impact assessment;
    - Facilitation skills;
    - Reporting and scientific writing; and
    - Peace building and conflict management.

37. The Team also recommends that at community level the following capacity building be accorded priority:
    - The umbrella micro-catchments committees should be empowered to be service providers for continuity of the project impacts beyond the life of the project and as an exit strategy.
    - The umbrella micro-catchments committees should also be trained on leadership roles and project related aspects to competently undertake their responsibilities. This should be done in all river basins as a viable linkage to the community and for monitoring purposes.
38. The Review Team notes that the funds allocated for training have been exhausted and recommend that reallocation of funds be done to enable the project undertake required trainings.

Lessons Learned

39. A number of lessons learned during the implementation of the project (see section 2.10 of this report) if taken into consideration would be useful in guiding the project during the remaining part of this phase and formulation of a possible extension phase.

Way Forward

40. There is need to include Integrated Pest Management (IPM) since pest infestation was observed and reported to be rampant in most horticultural plots and on tree nurseries. Young trees are also a favourite of ants. Consideration should be given to utilising indigenous technical knowledge on pest management.
41. There is need to up scale value addition and products processing. For instance, hay making, honey harvesting and processing. The communities need to be trained to undertake such income generating activities.
42. As a motivation to participating communities, the project should come up with activities for inter-basin competitions to strengthen linkages among communities addressing IEM concern. Appropriate rewards should be given to further encourage such activities even outside “a project context”.
43. The PCO and ICRAF should take a proactive approach to ensure integration of biophysical and socio economic data. The PCO and ICRAF should adapt the cluster sampling approach currently used by ICRAF to address the gaps identified in order to allow extrapolation of point data to spatial interpretation.
44. As the project gets into the second part of this first phase, the project staff should facilitate in defining roles and responsibilities of various committees and collaborators operating at community level for effective implementation.
45. In order to enhance partnership and build the capacity of PCO staff, the project should encourage joint research (screening trials) and production of publications using the generated information. Further, the project should utilise the monitoring and evaluation baseline data already collected by carrying out detailed analysis and using the results to write scientific papers.
46. Finally, the Review Team is of the opinion that it is not too early to craft a project phasing-out or exit strategy. It is also not too early to think of a new (next) phase of the project whose formulation should take into account the lessons learnt up to the present time.

1. INTRODUCTION

1.1 Background

Western Kenya has one of the densest and poorest populations in Kenya, with up to 1200-persons/sq. km in some rural areas. The region is characterized by low agricultural productivity, high population pressure and the lack of off-farm income opportunities. Over 58 percent of households in the area live in absolute poverty.

Traditional land management in Western Kenya relied on the fallowing of unproductive fields to restore fertility and decrease pest problems. High rural population growth has made this practice untenable, and has led to wide scale abandonment of fallowing and the search for new agricultural land. There has been little restriction on encroachment onto steep slopes, wetlands, or forests, despite the existence of laws and regulations against such practices.

As a result, conversion of woodlands, forests, and wetlands into farmlands for agricultural production has accelerated in recent years with significant negative impact on the natural resource base. Studies conducted in the context of the Lake Victoria Integrated Land Management Project uniformly indicate the occurrence of severely accelerated land degradation in the Lake Victoria watershed. Measurements performed on sediment cores collected in the Nyando estuary show that sedimentation rates of the basin have increased fourfold over the last 100 years[1]. This has resulted in the formation of large gullies that advance at the rate of up to 200 meters per year and large quantities of sediment is deposited into the Winam Gulf of Lake Victoria.

Western Kenya's rich stock of biodiversity has suffered as a result of land degradation. By the mid 1980s, some 400 endemic species of cichlid fish were approaching extinction due to encroachment from water hyacinth and increasing eutrophication of Lake Victoria. Deforestation and loss of vegetative cover has also resulted in a shortage of plant and tree resources. Over the last 150 years the most important land cover conversion pathways in the Nyando basin have been characterized by substitutions of vegetation dominated by trees.

Experiences from Central Kenya, where there is evidence of high productivity, high profits, and good land management, indicate that poverty reduction, land degradation, and sustainable agriculture are intricately linked. Adoption of an ecosystem management approach focusing on: (i) participatory planning of land use and natural resources management at the village, location, district, watershed and provincial levels; (ii) empowerment of communities with proven technology, information and financial resources to make the best investment decisions; and (iii) dissemination of agro-ecosystem management techniques (e.g. improved soil fertility, erosion control, etc.), will be necessary to address problems of natural resource degradation and achieve sustainable farming systems.

It is against the backdrop of the above background that the Western Kenya Integrated Ecosystem Management Project (WKIEMP) was formulated.

1.2 Overview of WKIEMP

The WKIEMP formulation process was started way back in 2004 as a direct concern to the serious silting of Lake Victoria as a result of massive runoff and sediment flows from rivers that feed into it, especially the Nyando River. The project was formulated between

[1] Walsh, unpublished data

2000 and 2004 and was approved in March 2005. It became effective in July 2005 with a core team composed of a Project Coordinator, three Field Officers each in charge of a river basin, a Monitoring and Evaluation Officer, an Accountant and a Supplies Officer as part of the fulfilment of conditions for effectiveness. However, actual implementation did not start till December 2005 due to various logistical issues that had to be tackled like re-locating the project staff to Kisumu. The core team was expected to interpret the Project Appraisal Document (PAD) and come up with relevant activities that ensure integrated ecosystem management. The objectives and components of the project are as follows (Textbox 1):

Textbox 1: Development Objectives and Components/Subcomponents of WKIEMP

The **Development Objective** of WKIEMP is to improve the productivity and sustainability of land use systems in selected watersheds in Nzoia, Yala and Nyando river basins through adoption of an integrated ecosystem management approach.

Global Environmental Objective is to promote a set of integrated ecosystem management interventions so as to achieve local and global benefits (reduced land degradation, reduced greenhouse gas accumulation in the atmosphere, improved on- and off-farm biodiversity and decreased erosion in watersheds that feed into the Nyando, Yala and Nzoia river basins).

The **Project Components** and **sub-components** are:

1) Capacity Building for Community Driven Integrated Ecosystem Management
   - 1.1 Strengthen Local Development and IEM Planning
     - Community mobilisation for PAP formulation
     - Capacity building for service providers and district and focal development committees for integrated ecosystem management
     - Establishment of local learning centres and farmer to farmer linkages
   - 1.2 Enhance Capacity for Developing Carbon Finance Proposals
     - Capacity building for carbon finance administration and market development
2) Scaling up and Financing IEM Interventions
     - Support to community identified PAP sub-projects in improved land management
     - Support to community ecosystem management activities
3) Establishing a Monitoring and Evaluation System
     - Biophysical monitoring
     - Net-net accounting for carbon sequestration
     - Monitoring of project activities and impact
4) Project Administration
     - Support implementation, monitoring and evaluation of project components

Related to the above components/sub components there are the following **outputs**:

Component 1:

1.1 Strengthened local development and IEM planning

1.2 Enhanced capacity for developing carbon finance proposals

Component 2

2.1 Implementation of community driven IEM activities and PAP identified sub-projects

Component 3

3.1 Cost effective monitoring and evaluation to measure social, economic and environmental impact of project activities.

The project is being implemented in three river catchments as follows: the Nyando River catchment (3,500 km^2), Yala River catchment (3,250 km^2) and Nzoia River catchment (13,250 km^2). However, the project coverage within the catchments consists of three priority blocks of 10km x 10km delineated in the upper, middle and lower reaches of each basin.

The area of focus translates to about 8.5 percent, 8.9 percent and 4.6 percent of the land area in Nyando, Yala and Nzoia basins respectively.

Since the start of the project, four joint review missions have been organised by KARI and World Bank to monitor progress and provide direction and recommendations to the implementation team.

The first IDA review mission carried out progress review of WKIEMP in February 2006 and the main conclusions of the review were that:

- The project became effective in July 2005 and since then a coordination office had been set up and the project had moved from desk work to a participatory mode for implementation of project activities;
- A broad consensus on the future direction of the project had been reached through repeated process of consultations with stakeholders and prioritisation of project agenda was under way;
- Project was proactive in collaborating with stakeholders. The first stakeholder workshop was held in September 2005;
- Project Coordination Office (PCO) was functioning, however, some important positions had to be filled and inter and intra-institutional coordinating mechanisms had to be refined;
- Progress was being made in developing survey questionnaires for biophysical and socio-economic studies and linkages with ICRAF were being strengthened
- Several stakeholders had been identified for initiating project activities and a coordinating committee representing a broad range of participating institutions had been established;
- The project had its own budget and procedures;
- An annual work plan (AWP) for 2005/06 had been developed and was being implemented; and
- On the whole the implementation of the project components was proceeding apace though the implementation of the M&E component needed extra attention.

The first mission recommended some agreed actions, which were to be implemented by the project. The second IDA review mission reviewed the implementation progress of the project together with the agreed actions in August 2006 and the main conclusions of the review on achievements after one year of project implementation were:

- A functioning PCO with almost all the positions duly filled;
- An adequate budget;
- Procurement and delivery of assorted office equipment and vehicles;
- Implementation of a bottom up approach to ensure the relevance and effectiveness of the programme;
- Building a data base on biophysical and socio-economic aspects of households in the project areas;
- Significant community mobilization and sensitisation works to crystallize project objectives;
- Establishment and functioning of a basin-wide technical committee to backstop technical operations (Nyando);
- Development of a “Master Training Plan” to facilitate capacity building of stakeholders;
- Expanding the clientele of the project;

- Identification, verification and sensitisation of potential CBOs;
- Identification and prioritisation of community preferred bets and implementation of options;
- Building strategic partnerships with a number of institutions for technical backstopping and collaborative work, including finalizing a framework for collaborative work with Moi University on biodiversity baseline survey and formulation of an "Integrated Basin-wide Watershed Management Plan" for the three river basins; with Maseno University on gully management study; and with ICRAF for specific activities; and
- Conducting a series of workshops and consultations with all stakeholders, attracting wider participation.

Nonetheless, while recognizing the establishment problems inherent in setting up any project, the mission felt that, after over a year of operation, there should have been a greater evidence of clear direction, forward movement, and engagement in setting priorities. They noted that the project needed to:

(a) Complete with speed the overall catchment based strategy, woven out of several self-standing activities prepared for specific blocks within given geographical location/catchment;
(b) Complete the biophysical and socio-economic surveys, with highest priority being given to the Nyando basin where there is sufficient data established and given that the project can not be in all the basins at one and the same time;
(c) Continue to expand the community sensitisation programme;
(d) Implement the capacity building component of the project to keep pace with the overall project objectives; and
(e) Develop detailed planning to guide programme prioritisation and implementation.

One of the recommendations that emerged during the second review mission was to operate within micro-catchment areas instead of a square block as initially required as specified in the PAD. This necessitated minor changes in the way the team operated at community level by incorporating individual farmers in addition to working with farmer groups. The initial approach of concentrating in tree planting and soil conservation was also expanded to include introduction of livelihood options due to high levels of poverty experienced in the area.

The third IDA review mission took place in March 2007 and their overall assessment of the implementation status of the project was:

- There was clear progress since the last mission, especially in terms of the relationship with ICRAF, and thought towards the development of an implementation framework. The mission noted significant progress in working with communities. Nonetheless, there continue to be difficulties, which could potentially delay production of the baselines;
- The first baseline had just been received, and its usefulness in terms of supporting project objectives was being determined, including clarifying the link between the bio-physical and the socio-economic, and the project interventions. The community-based activity has advanced well ahead of the bio-physical and socio-economic analysis. Logically, the baseline data should be guiding the targeting of community interventions;
- The mission noted that the project needs to be more proactive in presenting its agenda to ICRAF and coordinating its activities with stakeholders;

- Overall situation in the procurement work was unsatisfactory; and
- The financial management performance was moderately unsatisfactory owing to significant constraints in flow of funds and delayed implementation of planned activities.

The mission gave detailed recommendations on coordination between PCO and ICRAF, project implementation framework, baseline data, project coverage, project objectives and sequencing of activities and financial management. The implementation of these recommendations and the proposed actions was appraised by a pre-Mid-Term Review IDA Supervision Mission in December 2007. The overall assessment of the mission was:

- There was a clear and observable participatory approach to planning and formulation of project activities and interventions, a transformation that had ensured that the programme was responsive to beneficiary needs while also addressing its global environmental objectives.
- There was improved collaboration between the project and ICRAF with agreement on strategy, data needs/gaps and time frameworks for delivery of products. Provisions are available for twice-monthly meetings where progress is discussed and outstanding issues resolved. The project had held consultative meetings and workshops with district administrations and community representatives. ICRAF, had considerably stepped-up efforts to fulfil its responsibilities in implementing agreed technical aspects of the project. They (ICRAF) had produced draft baseline reports, guidelines and manuals on several aspects.
- Overall the implementation of the project components was proceeding apace, however, certain activities need extra attention and action.

The Kenya Agricultural Research Institute (KARI) through a financial support from the Global Environmental Facility (GEF) has commissioned a team of consultants[2] from ETC East Africa Limited to undertake a Mid Term Review (MTR) of the Western Kenya Integrated Ecosystem Management Project (WKIEMP). The MTR will take into consideration the conclusions, recommendations and proposed actions by all the four supervision missions.

1.3 Objectives of the Review

The objective of the Mid Term Review is to assess performance and progress to date in moving towards the achievement of the project objectives, including the physical progress, financial status and outputs in relation to objectives. The MTR is also expected to provide recommendations for refining implementation arrangements/procedures and areas for restructuring in order to enhance project performance and enable the project meet its development objectives.

The detailed objectives of the review are presented in the Terms of Reference (ToR) - Appendix 1.

1.4 Review Approach and Methodology

Based on the requirements of the Client and tasks listed, the MTR was conducted using a participatory approach that was guided by questions and issues expressed according to the ToR. The review was conducted using a combination of extensive literature review, field visits and discussions with project staff and stakeholders at different levels.

[2] Dr. Fredrick Muchena, Professor Steven Njuguna and Ms. Evelyn Njue

The approach comprised three phases: (a) an inception phase that included initial discussions and briefing by the project management and coordination staff and review of availed documents; (b) field visits and assessments of progress of activities in selected areas including focus group discussions with stakeholders; and (c) critical analysis and reporting.

Briefing and Desk Review: Discussions were held with the project staff to further understand the ToR, appreciate the project environment, acquire relevant project documents, discuss methodologies and logistics and concretise various aspects of the review. This was followed by a review of available documents including Project Appraisal Document (PAD), Supervision Mission Reports, ESMF MTR final draft report, Progress reports, financial statements, monitoring and evaluation reports, work plans and budgets, baseline reports among others (see Appendix 2). On the basis of the initial discussions and desk review an inception report was prepared containing a detailed plan for the review. Upon receipt of comments on the inception report a final draft was produced and sent to the Client.

Field Visits and Assessments of Activities Progress: Field visits to the project area were not made as originally planned in the inception report due to the prevailing insecurity situation in the country. However, as part of field visits in Nairobi focused group discussions and key informant interviews (semi-structured) were held with KARI Headquarters staff (Director KARI, Assistant Director Land and Water Management, Chief Accountant, Chief Supplies Officer), ICRAF staff and other stakeholders involved in the project (see Appendix 3). The output of the series of meetings was used to prepare the interim report. Based on the positive political changes, field visits were carried out from 25th March to 2nd April and the Review Team held discussions with communities/beneficiaries and other stakeholders involved in the project and made observations on activities being carried out on the ground to validate information collected during earlier discussions. However, since the situation was not completely stable, the Review Team held discussions with representative of BTC and other stakeholders in PCOs office in Kisumu instead of holding a stakeholders workshop. During these discussions, Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis and SOFO (Successes, Obstacles, Failures and Opportunities) analysis were carried out to capture the institutional linkages, roles and their perceptions on the implementation status.

Data Analysis and Reporting: Report writing and data analysis were concurrently carried during consultations with project staff and other stakeholders and during the fieldwork. After the fieldwork, a draft report was prepared and shared with the Client. Comments from the Client will be used to finalise the report.

1.5 Structure of the Report

The report is structured as follows: Chapter One provides the background and a broad overview of the WKIEMP, the purpose of the mid-term review and the approach and methodology followed. In response to the objectives of the review, Chapter Two gives the findings of the review specifically addressing issues raised in the ToR. Chapter Three, finally, presents conclusions, recommendations, and the way forward.

2. FINDINGS

2.1 Project Design

According to the Project Appraisal Document (PAD) the project was designed to incorporate the following implementation approaches: (i) Integrated ecosystem management to natural resource management, (ii) Linking and promoting the upstream-downstream links and interactions, (iii) Participation of the concerned communities in planning the use and management of natural resources, (iv) Empowerment of communities through the introduction of management options (capacity building), (v) scaling up of existing successes and by extension, building on the complementarity with other programmes and projects and (vi) incorporating national and global environmental benefits into the development decision process. The project logical framework matrix presented in the PAD has a sector-related goal "*to foster economic growth and reduce poverty within the framework of the PRSP by developing sound natural resource management practices"*, a project development objective, a global objective, four components and outputs to be accomplished during the project period (see Textbox 1). The framework also provides key performance indicators, data collection strategy and critical assumptions. The outputs as presented in the project logical framework will be used for assessment of implementation of the WKIEMP since project effectiveness.

However, before an assessment and review of the project activities, the following general comments are made on the current project logical framework.

Project Development Objective: Since it is not the only project that leads to improved productivity and sustainability of land use systems in the basins, it is important that the contribution by the project be assessed only in areas where it has carried out interventions while at the same time taking into account the contributions from other actors.

It is important to note that most of the officers implementing the project were not involved in the initial design. Subsequently they had to take some time to acquaint themselves with project objectives, the desired outputs and deliverables and implementation mechanisms. Generally, it seems that no proper induction of the current staff took place as a few had no clear understanding of the project as a whole. This may to some extent have affected project implementation at the initial stages (particularly year one). The project design did not initially include livestock aspects and the social dimensions, which are important aspects if the project outcomes have to be achieved. However, the Review Team notes that early in the implementation process (during the second half of year one), livestock related activities and livelihood support activities such as horticultural crops production and bee keeping were incorporated.

In the project logical framework matrix (pages 32-35 of the PAD) there is a tendency to mix up outcome, effect and target accomplishment indicators. This is particularly at the output level. It is important to note that at activity implementation there is need to set targets (usually expressed as numbers) that have to be reached in order to obtain the desired outputs. Once this is accomplished the effect of the outputs would lead to a desired change or outcome, which normally is a proportion (expressed as percentage) of the targets reached that leads to the set objective. From discussions with the PCO it seems that this aspect in the logical framework is not very clear and hence the need to revisit the indicators and come out with clear indicators and targets without necessarily changing the project objectives or components.

The project was initially designed to cover three 10x10 km blocks within each of the three river basins. However, a change in the project implementation strategy was

effected following the recommendations of the World Bank Mission of March 2007 since it was not practical for the project to confine itself to the square blocks but rather re-focus its activities to micro-catchments. The first step was the identification, of micro catchments within the lower blocks of Nyando and Yala River basins while land management units were delineated in the lower block of Nzoia River basin. These land management units were riparian zones and wetlands.

In the project design, it is suggested that a few changes be made. These include the consideration of sediment analysis in the monitoring indicators as this is complex and expensive and which the project is not likely to do during its current time frame. It is considered that general water quality parameters will suffice as indicators for determining the effect of degradation and conservation. . Secondly, in view of the shift to micro-catchments, the entry points will need to include both the community-based organisations and individual farmers since portions of the micro-catchments may be privately owned as opposed to community-owned.

The free grazing livestock system practiced by most farmers in the project area contributes a lot to environmental degradation and destruction of planted trees hence the need to give it a higher profile in the project. It is also suggested that a battery of income generating activities such as poultry, aquaculture, apiculture, sericulture, medicinal plants, fruit trees as well as related value addition be linked to environmental conservation activities.

2.2 Assessment of Implementation Progress since Project Effectiveness

The assessment of the project implementation is with effect from March 2005 when the project was signed. However, the actual implementation of project activities started in December 2005. The project interventions are being carried out in nine micro-catchments identified in priority blocks in the Lower Nyando (Katuk-Kapsiti, Onyuongo and Kapsokale), Lower Yala (Sidundu, Samathi-Luore, Nyanya, Dhene, Gogwa and Kanyadet) and in three land management units in Lower Nzoia (riparian zones and wetlands). No interventions are being carried out in the upper reaches of all the three basins and in the middle reaches of Nyando and Yala basins. Sensitisation of communities has been done in the middle block of Yala basin. However, in order for the project to achieve its objectives, interventions are required in all the three landscape positions, that is, the lower, middle and upper levels.

Since its effectiveness in July 2005 the project has prepared annual work plans that have guided implementation of project activities. Upon a close examination of the work plans for the three years, the Review Team notes that its preparation has improved over the years in respect to focus and targeting of activities towards accomplishment of project objectives. This has been as a result of establishing a Monitoring and Evaluation Results Framework[3] where cumulative target values for each activity per year are projected. Subsequently the Review Team has used the targets set in the draft Monitoring and Evaluation Plan to assess the implementation progress and the effect of these interventions towards obtaining the project desirable outcomes. The assessment is made in accordance with project components: capacity building, scaling up and financing IEM interventions, establishing monitoring and evaluation system and project administration. Progress of implementation and assessment of each component/specific objective is dealt with in separate sub-sections below.

[3] The Monitoring and Evaluation Results framework has been derived from the Project Appraisal Document and Annual Work Plans.

2.2.1 Capacity building

This component focuses on two areas of capacity building: (i) strengthening the local development and IEM planning capacity of rural communities and local governments and (ii) capacity building at local and national levels for piloting carbon financing mechanisms. During the first year (1st July 2005 to 30th June 2006) the first output/sub-component had six activities while the second one had ten activities aimed towards attainment of the outputs. By end of the financial year at least 12 activities (75 per cent of planned activities) had been initiated or completed. However, most of the research activities planned under sub-component 1.2-capacity for developing carbon finance were not implemented. During the second year (1st July 2006 to 30th June 2007) for both sub-components there were 12 planned activities (10 and two for sub-components 1.1 and 1.2 respectively) and nine (75 percent) of them had been initiated or completed by the end of planned period. For the current financial year (1st July 2007 to 30th June 2008) there are 10 main activities (nine and one for sub-components 1.1 and 1.2 respectively). The MTR Review Team assessed progress of implementation up to end of March 2008 (see Table 2.1 for component 1: capacity building).

Table 2.1: Expected outputs/targets and status of activity implementation for Component 1: Capacity Building since project effectiveness (July 2005 - March 2008)

Activity	Outputs/Targets by end of Year 3	Status of implementation as at end March 2008
Sub-Component 1.1: Strengthen Local Development and IEM Planning		
1.1.1 Establish community based organisations (CBOs) or groups based on a community driven model	90 CBOs or groups	• Nine micro catchments and three land management units delineated • 96 CBOs sensitised
1.1.2 Facilitate the inclusion of local and regional institutions in ecosystem management planning	111Ecosystem management activities inclusive of local/or regional institutions	• 15 local and regional institutions collaborating in IEM planning • 86 ecosystem management planning activities (77%)
1.1.3 Facilitate community participation in village land management	600 groups participating	• 463 groups participating (77%)
1.1.4 Create community participatory action plans (PAPs)	75 PAPs created	• 76 PAPs developed (101%)
1.1.5 Train farmers, extension experts and service providers	1638 farmers, extension experts and service providers trained	• 2538 trained (154%)
1.1.6 Train farmers and institutions at local and national level to participate in IEM planning	671 persons and institutions trained	• 421 trained (63%) predominantly farmers and extension staff
1.1.7 Facilitate communities to plan conservation strategies for endangered or endemic species	85% of community plans including conservation strategy	• 95 % planned activities include conservation strategy
1.1.8 Facilitate inclusion of global environmental benefits (upstream-downstream linkages) in community plans	50 PAPs contribute to global environmental benefits	• 47 PAPs (94%)

Activity	Outputs/Targets by end of Year 3	Status of implementation as at end March 2008
1.1.9 Facilitate the dissemination of project outputs to stakeholders	Number of extension packages developed	• A draft Knowledge Communication Strategy (KCS) compiled.
Sub-Component 1.2: Enhance Capacity for Developing Carbon Finance Proposals		
1.2.1 Establish the training needs of institutions and communities in Western Kenya to participate in carbon trade	Training needs for 10 communities and 5 institutions established/identified	• [illegible] communities • No institution
1.2.2 Train local institutions and communities on carbon trade and link them to the carbon markets	10 communities and 5 institutions trained	• No institution trained • No [illegible]munities

Source: Project staff, PAD, Progress reports, Work plans and Aide Memoires

Observations/assessments

- With regard to capacity building for strengthening local development and IEM planning, efforts have been twofold: targeting communities and other institutions/partners for collaboration and training. A number of local partners such as Water Resources Management Authority (WRMA), National Irrigation Board (NIB) and the Consortium for Scaling up Options for improving Soil Fertility in Western Kenya (COSOFAP) have been brought on board and are collaborating on IEM at the project level.
- Community capacity building has been undertaken for 89 groups on various topics (see details in Textbox 2.6 in section 2.7.4). However, all groups were sensitized on the project and on aspects of carbon effect on the atmosphere. A number of training workshops on environment, agriculture and livestock production, fruit tree grafting among others have been conducted for participating communities. Over nine technology dissemination sessions were conducted on various themes including soil fertility and improved fallows among others. Study tours were conducted for some groups to introduce them to better managed nurseries.
- The sensitisation and trainings have increased community awareness on the need for integrated ecosystem management and the benefits accruing from subsequent interventions. It has also empowered them with the knowledge and skills to carry out interventions geared towards increasing productivity and livelihoods.
- The project prepared a detailed training plan in 2006 for eight months. This was to provide a systematic framework of building the capacity of stakeholders to effectively implement the project activities. This training plan was not followed due to lack of funds.
- Ten CBOs in each of the micro catchments have been sensitized. Other community members not affiliated to any CBOs have also been sensitized to engage in IEM and the communities are involved in preparation of participatory action plans (PAPs). The project has so far facilitated the development of 76 PAPs.

- In regard to enhancing capacity for development of carbon finance proposals and action plan, training needs have not been identified and the actual training has not been carried out. However, project staff have been introduced to Carbon finance and how it relates to the project goals and four project staff participated in the United Nations Framework Convention on Climate Change (UNFCCC) Conference of Parties (COP) workshop. Training needs for institutions for enhancing capacity for developing carbon finance have also not been established and hence the Review Team urges that attention be paid to this aspect. Issues of carbon trade and linkages to the market also need to be addressed.
- The Review Team observed that no training modules had been prepared by ICRAF for training communities and staff on aspects related to carbon finance. These modules should be a precursor to any training (by ICRAF and PCO) for delivering the desired outputs. However, the Review Team notes that the proposed "Training Plan February 2008 – June 2010", prepared by the Training Consultant has clearly spelt out modules on different aspects of capacity building of staff, communities and other collaborators.
- The Project team has developed a preliminary knowledge and communication strategy and a communication expert is developing a more detailed strategy for use in the remaining project period.
- Understanding and application of IEM concept is moderate and the project is enhancing its application. The project staff have been innovative in utilising indigenous knowledge in presenting the concept.
- The water shed management approach adopted for implementation of activities in the Nzoia River basin at the micro-catchment level is effective. However, there is need to focus on the linkage between the upstream and downstream zones for effective management at river basin (macro) level for the three basins.
- A review of some of the participatory action plans by the Review Team confirmed that most of the activities prioritised for support by the project are linked to environmental improvement. For instance, the PAP report for Lower Yala basin shows that river bank protection, soil fertility management, establishment of tree nurseries and soil and water conservation were prioritised.
- The project has adopted a strategy of providing technical assistance and local training not only for the project staff, but also for the rural communities and government system to formulate proposals on the basis of priorities identified during preparation of PAPs. These proposals are appraised for compliance in ESMF conditionalities and once approved, grants are given for implementation.

2.2.2 Scaling up and financing IEM interventions

This component focuses on supporting implementation of IEM activities identified in component 1 (sub-component 1) as well as financing community-based sub-projects (identified in the PAPs). It funds activities such as technical and extension assistance for farmers and community organisations, farm infrastructure to ensure better production and environmental management, improved seeds/germplasm, fertilizer and other related investments (village tree nurseries, conservation of existing biodiversity, increase in tree cover in severely degraded sites etc). During the first year (July 2005 to June 2006) there were 10 activities in the work plan and six (60 percent) were initiated or completed while during the second and third years there were seven and 12 planned activities out of which seven (100 percent) activities for year two and most of the activities for year three respectively had been initiated or completed (see Table 2.2)

Table 2.2: Expected outputs/targets and status of activity implementation for Component 2: Scaling up and financing IEM interventions (July 2005 - March 2008)

Activity	Outputs/Targets by end of Year 3	Status of implementation as at end March 2008
Sub-Component 2.1: Technical Backstopping from ICRAF		
2.1.1 Establish species screening trials	At least 100 tree species screening trials at 3 blocks	• 205 tree screening trials established (45 in lower Nyando and 160 in lower Yala. (205%)
2.1.2 Increase tree cover on severely degraded sites	At least 3 severely degraded sites in each lower block identified and 20% of them planted with trees	• 256 000 assorted tree seedlings planted in degraded areas in Lower blocks of Nyando and Yala
2.1.3 Establish village nurseries to support agroforestry	At least 100 000 seedlings are available and planted	• 56 community managed tree nurseries established • 115 000 seedlings available and planted (115%)
Sub-Component 2.2: Facilitate Rehabilitation of Gullies in the Lower Nyando Block		
2.2.1 Facilitate fencing of target gullies and planting trees and grasses	Fence enclosing gullies Assorted tree seedlings and grasses planted	• Three gullies fenced and four degraded areas being rehabilitated (31 000 tree seedlings planted)
2.2.2 Establish mechanisms to enhance survival rates of planted seedlings	Agreement between the project and Water Service Board	• Survival counts carried out after three months (80% survival rate for first count)
2.2.3 Improve dams in the lower block of Nyando	No of check dams[4] constructed	• Two water dams desilted (Koyombe and kapsechwererin (Tabaitha) and water holding capacity increased • One new dam under construction (Kobam) • One water pan under construction (Kaluko)
Sub-Component 2.3: Facilitate the Establishment of Demonstration Model Farms Applying IEM strategies		
2.3.1 Facilitate the design of community managed IEM demonstration sites	At least 3 demo sites in each stratified micro catchments in the lower blocks of the three basins	• Use of farm yard manure demonstrated in 4 crop production sites; biomass transfer technology in horticulture production demonstrated on 3 sites
2.3.2 Facilitate implementation of best bet options within the community managed IEM demonstration sites	Length of soil and water conservation structures constructed No. of erosion monitoring sites set and functional No of PAPs and sub-projects implemented	• Soil conservation structures planted with assorted trees on constructed bunds at the 4 gully heads; Napier grass to stabilize soil demonstrated on 4 sites • Construction of a poultry unit completed; introduction of improved livestock (dairy goats, bee keeping) and sericulture was started; 20,000 mulberry cuttings for sericulture and goat feeding planted

[4] Use of terminologies - check dam, water pan and dams is being done interchangeably. There is need for systematic use of the terminologies. Dams are constructed across rivers while check dams and /or water pans are used to collect and store rain water.

Activity	Outputs/Targets by end of Year 3	Status of implementation as at end March 2008
2.3.4 Facilitate implementation of small grants sub-projects	No of small grants projects funded	• Grant Management Manual compiled and operationalised • Seven small grants to seven communities in Lower Nyando
2.3.5 Provide incentives for community participation in IEM interventions	50% of community members are voluntarily participating in IEM implementation	• Integration of tree planting with other livelihood options apart from environmental conservation to entice community participation
2.3.6 Purchase of seedlings	450 000 seedlings purchased	• 150 000 assorted tree seedlings purchased (33%)

Source: Project staff, PAD, Progress reports, Work plans and Aide memoires

The communities are using local materials for fencing in addition to barbed wire. Tree seedlings are planted as woodlots, along the fence perimeters and following farm contours.

Observations/Assessments

- From the information contained in the Table above and information received from group discussions, a relatively large number of tree seedlings have been grown, purchased by the project and distributed to the communities for planting (see Table 2.3). However, the Review Team was not able to verify the survival rate of the seedlings given to communities. Therefore, the project staff need to organise follow-ups to document the actual survival rate of various species.

Table 2.3: Number of tree seedlings established and distributed by the project in the three basins as of March 2008

Basin	Total number of tree seedlings grown	Number of tree seedlings distributed
Nyando	126,615	57,850
Yala	201,990	82,610
Nzoia	82,560	40485
Total	**411,165**	**180,945**

Source: PCO staff and Tree nurseries

- The Review Team confirmed that ICRAF has planted 205 screening trials (45 in lower Nyando and 160 in Lower Yala) using both exotic (*Grevillea sp, Casuarina, Senna sp*) and indigenous (*Markhamia sp and Albizia sp*) tree species. However, there is limited use of other valuable indigenous tree species such as *Prunus sp, Cordia sp, Moringa sp. Milicia sp (Mvule), Syzygium sp. Croton sp* which are being grown in some of the nurseries. It was noted that ICRAF has left the management of the screening trials to farmers. This introduces variability since management varies from farmer to farmer. Where there is good management, good performance is observed and vice versa.
- The regeneration of vegetation on the degraded sites and the establishment of the planted trees has been successful in several sites. This was noted for Kalacha (15 acres), Kokoto (3 acres) and Kowala rehabilitation sites.
- The Review Team noted that the gully heads in the fenced areas in lower Nyando area are still advancing which calls for targeted upstream interventions to minimise the expansion by controlling the amount of runoff from the upper catchments.

- The demonstration sites around the water pans address both environmental concerns such as tree nursery establishment and also livelihood concerns (irrigation for horticultural production that is contributing to food security, nutrition and incomes).
- The grant management manual prepared by the PCOs and the collaborators includes the ESMF procedures and checklist. The manual is used to appraise the proposals from CBOs. The first round of grants was made to groups within the lower Nyando block, where applications were received prior to adoption of the micro-catchment approach. Only 20 sub-projects were vetted for Nyando basin and seven of them approved for funding (see Appendix 4). In addition, 83 sub-project proposals have been submitted to the small grant appraisal committee from CBOs operating in the Yala River basin
- The groups managing nurseries are constrained by inadequate water especially during the dry season. The project however initially emphasised the need to set the nurseries near streams, rivers or next to water pans for ease of watering.. The Review Team also noted that other factors contributing to poor performance of some nurseries was the delayed payment for the tree seedlings, the political skirmishes and internal conflicts within the groups.
- The Review Team noted during the field visits that most of the groups managing the tree nurseries are weak in record keeping, and hence need for capacity building on this aspect.

2.2.3 Establishing a monitoring and evaluation system

This component focuses on development of an effective monitoring and evaluation system for project socio-economic impact and global environmental services of carbon sequestration and biodiversity. The major activities comprise collection of baseline data (biophysical, socio-economic including biodiversity), preparation of annual work plans with simplified target indicators, development of an overall framework for monitoring the project impact, installation and calibration of equipment, development of manuals to measure carbon stocks and non CO_2 GHGs and hands-on training on M&E procedures**.** The implementation of most of the activities is on-going albeit at various levels (see Table 2.4).

Table 2.4 : Expected outputs/targets and status of activity implementation for Component 3: Establishing a Monitoring and Evaluation system (July 2005 - March 2008)

Activity	Outputs/Targets by end of Year 3	Status of implementation as at end March 2008
Sub-Component 3.1: Establish the Biophysical and Socio-economic Baseline Status at the Basin Level (blocks of Nyando, Yala, and Nzoia)		
3.1.1 Facilitate collection of baseline data and production of baseline reports for the 9 priority blocks	Baseline reports for 9 blocks	• Biophysical and socio-economic baseline data collection has been completed for 7 blocks and draft reports produced for two blocks (lower Yala and lower Nyando).
Sub-Component 3.2: Establish the Biodiversity Baseline Status of the Lower Blocks of Nyando, Yala, Nzoia and mid Yala		
3.2.1 Facilitate collection of biodiversity baseline data and production of reports	Biodiversity baseline reports	• Biodiversity baseline data inventory undertaken and draft report produced

Activity	Outputs/Targets by end of Year 3	Status of implementation as at end March 2008
Sub-Component 3.3: Develop M&E System for the Project		
3.3.1 Facilitate simplification of the project Logframe in line with the PAD	Simplified log frame with Key indicators to report physical progress against set activities	• Progress made in identifying key indicators to record and report physical progress in the work plans but Logframe as in PAD not revised
3.3.2 Facilitate revision of annual work plans to match indicators in the logframe as recommended by the supervision review missions	Revised work plans	• Work plan for 1st July 2006 – 30th June 2007 revised
3.3.3 Develop an overall framework for monitoring the project impact	M&E Results Framework	• M&E Results Framework finalized
Sub-Component 3.4: Develop a System for Measuring and Monitoring Carbon Stocks		
3.4.1 Facilitate development of a manual to measure carbon stocks	A manual of procedures produced	• A carbon Assessment Manual developed
3.4.2 Facilitate a hands-on training on M&E procedures for measurement of carbon stocks	Number of KARI scientists trained	• [illegible] staff have not been trained on M&E procedures for carbon stocks measurement.
Sub-Component 3.5: Establish a Monitoring System for Greenhouse Gases (GHGs)		
3.5.1Install and calibrate equipment for measuring non CO_2 GHGs	Equipment in place and functioning	• A Gas Chromatograph installed and calibrated at ICRAF laboratories in Kisumu but it is not working
3.5.2 Develop manual for measurement of non CO_2 GHGs	A manual of procedures produced	• A manual of procedures developed
3.5.3 Facilitate hands on training on M&E for measurements of non CO_2 GHGs	Number of KARI scientists trained	• One KARI scientist being trained

Source: Project staff, PAD, Progress reports, Work plans and Aide memoires and observation from the field

Observations/assessments

- The biophysical and socio-economic baseline data collection has been completed in all the three blocks in the Nyando and Yala River basins and in the lower block of Nzoia basin. Baseline data collection in the rest of the river Nzoia basin has not been carried out[illegible]vised draft copies of the baseline reports for Yala and Nzoia river basins have been submitted to KARI by ICRAF. JKARI is presently reviewing the reports which
- With regard to the biophysical baseline survey, the sampling process did not utilise existing information such as soil, agro-ecological zo[illegible]tion, landscape units, vegetation and present land use. Without this information it has been difficult for project staff to develop a criteria for prioritising micro-catchments for initiation of interventions.
- The M&E indicators developed by the staff are operational achievements (numbers) that do not bring out how the community and those involved are impacted in respect to improvement in livelihoods and incomes. These numbers should be further interpreted to help the project assess effects and impacts.
- Draft Biodiversity baseline report consists of species lists and focuses on endangered species rather than the broad biodiversity. Species are also

erroneously identified. Location maps showing the distribution of biodiversity are lacking. Agro-biodiversity assessment is not made in terms of abundance, density and relative frequency. The value of indigenous plants especially those of medicinal significance has not been specified. Accurate measurement of biodiversity is essential for evaluation of project interventions.

- With regard to non-CO_2 GHGs, only one scientist is currently receiving training. The number of scientists required to receive training in this specialized area needs to be increased. The ability to accurately measure carbon sequestration and perform net-net accounting is crucial for accurate evaluation of environmental benefits.
- The manuals for carbon assessment and accounting system for non-CO_2 GHGs could be made more useful if they are simplified to the point that non specialised persons in these fields could apply them through a simple set of guided steps to collect and collate the needed data

2.2.4 Project Coordination

The component focuses on activities related to project coordination, administration, monitoring and auditing of project activities and fostering collaboration and linkages with other relevant programmes/projects. The component has six planned activities (coordination meetings, monitoring of project activities, procurement and accounting, vehicle and equipment maintenance and facilitating short term evaluations and reviews). Most of the activities have been implemented or are in progress (see Table 2.5). To facilitate implementation of this component all senior positions were initially filled as part of the fulfilment of the project effectiveness and the PCO in Kisumu has adequate office space albeit with borrowed office furniture. The delivery of project vehicles has been completed.

Table 2.5: Expected outputs/targets and status of activity implementation for Component 4: Project Coordination (July 2005 - March 2008)

Activity	Outputs/Targets by end of Year 3	Status of implementation as at end March 2008
Sub-Component 4.1: Project Coordination at PCO in Kisumu		
4.1.1 Facilitate implementation and attendance of coordination and linkage meetings at PCO	72 Coordination meetings	• 60 Coordination meetings (83%)
4.1.2 Monitor and evaluate field based activities	150 monitoring and evaluation visits	• 150 M&E visits undertaken (100%).
4.1.3 Facilitate procurement and accounting	Equipment and vehicles procured and operational	• 60% adherence to project procurement plan • 46% of budgeted funds disbursed
4.1.4 Facilitate project vehicle and equipment maintenance	Efficiency and working conditions of project vehicles and equipment	• Not all project vehicles are working (2 affected during skirmishes and are now grounded) • All equipment are working
Sub-Component 4.2: Project Coordination at KARI HQs		
4.2.1 Facilitate coordination at KARI HQs	Facilitation of project reviews and audits	• Support to STEs, project reviews and audits
4.2.2 Facilitate short term evaluations (STEs) and backstopping institutions	6 STEs and 7 project reviews successfully implemented	• 5 STEs carried out 4 project reviews

Source: Project staff, PAD, Progress reports, Work plans and Aide memoires

Observations/assessments

- The project has prepared timely annual work plans and budgets including procurement plans. These work plans contain activities focused towards obtaining outputs that would lead to attainment of project objectives. However, delayed flow of funds has affected the implementation of the procurement plan and has slowed down timely implementation of project activities. For instance, some groups are still waiting to be supplied with necessary equipment and tools for tree nursery management while at the same time the office furniture is still to be procured.
- The Review Team was informed by the PCO that the 150 monitoring and evaluation visits comprise two monthly joint visits by the PC and M&E Officer in addition to the usual monitoring visits by other project staff during their normal work. For the purpose of transparency, accountability and cost effectiveness, there is need to combine the field monitoring visits to allow learning and sharing observations during the visits. This will ensure timely correction of project implementation aspects and value for money.
- With regard to monitoring of aspects related to integrated ecosystem management, not all the institutional components proposed in the initial ESMF are in place. The critical one missing is Seconded Environmental and Social Specialist (SESS) whose main role is provision of technical backstopping on all aspects of environmental and social mitigation in the project area. Subsequently, some of the subprojects have been screened for environmental and social safeguards with participation of NEMA and District Environmental Officer (DEO) while other projects have not been screened.
- The PCO reports significant constraints in the flow of funds resulting in delayed implementation of critical activities (see section 2.6).

2.2.5 Assessment of Implementation Strategy

The project has adopted an implementation strategy that is in line with the design as detailed in the PAD but has been flexible enough to allow for impact-oriented implementation. This is noted by the change in community entry units where micro-catchments are now used instead of the 10x10 km blocks. Other strategies noted by the Review Team are presented as observations below.

Observations/Assessments

- Though the project was designed to address IEM issues through out the basin in order to tackle upstream-downstream linkages, it has so far concentrated activities in the lower blocks. Given that land use issues in the upper basin substantially cause problems in the lower basins, effective action within these lower blocks is limited unless and until the upper river reaches are included in the implementation. In view of this, the project needs to move swiftly into the highland blocks, starting with the middle block of Yala and the upper block of Nyando basins.
- From discussions with project staff, review of progress reports and observations of activities on the ground, the Review team is of the view that implementation of activities is progressing. However, the speed of implementation is hampered by poor flow of funds.

- As an implementation strategy, the project has been giving small grants for IEM compliant sub-projects based on competitive proposals prepared by CBOs in the different basins. The proposals are appraised by the Small Grants Management Committees who also oversee implementation of the funded projects in accordance with the small grants management manual.
- From discussions with PCO and observation made during the field visits, it is apparent that there is need to consider integrated pest management in the project due to the extensive damage that termites have caused to tree nurseries and on the young transplanted trees.
- **Relevance of activities being implemented:** On close examination of project objectives and the activities being implemented, the Review Team is of the opinion that these activities are relevant and will contribute to achievement of objectives. Integration of alternative sources of livelihood is providing impetus and motivation to the communities to participate in the project activities such as tree planting and soil conservation.

2.3 Planning and Budgeting

2.3.1 Planning

The project has adopted a participatory approach to planning and formulation of project interventions and related activities through involvement of stakeholders during preparation of annual work plans and budgets. This approach has ensured that the project is responsive to beneficiary needs while also addressing its global environmental objectives. At community level the participatory process followed leads to development of action plans based on identified IEM constraints and livelihood options within the identified micro catchments. The process involved in preparation of PAPs is shown in Textbox 2.1.

Textbox 2.1: Steps in preparation of PAPs

- Selection of micro-catchment
- Identification of community in specific micro catchment or land management unit
- Sensitisation and mobilisation of identified community on IEM
- Participatory identification of Environmental and Social problems
- Matrix ranking of identified problems
- Prioritisation of interventions
- Formulation of Community participatory action plans (PAPs) with details on operations needed to implement the interventions

Source: Project Reports

The Review Team notes that most of the PAPs prepared by the project staff leave out key steps towards the end as shown in the Textbox 2.1. All PAPs should give details on activities and sub-activities to be carried out, where, when, the targets to be achieved, resources (inputs required and budget), and who is responsible for undertaking these activities. These details are necessary to guide the process of implementation and monitoring.

Within the micro-catchments, the interventions should be spatially distributed based on prevailing environmental issues. Use of maps would be an important tool particularly in respect to location of the participatory process generated activities within the micro catchments. The maps would also show what intervention is being carried out and where and hence facilitate monitoring of the implementation process. All maps prepared should also be available to communities and up-dated continuously as changes occur.

2.3.2 Budgeting

According to PAD the Project Coordinator is supposed to prepare annual work programmes and budgets for the individual components, sub-components and activities under the project and submit them to the Director-KARI for review and approval. After approval the draft budget is incorporated in the consolidated budget of KARI, reviewed and approved by the Board of Management of KARI and submitted to the Ministry of Finance through the Ministry of Agriculture in accordance with the GoK Medium Term Expenditure Plans (MTEP) guidelines.

Observations

- From discussions with the PCO and KARI Headquarters the project has largely adhered to the budgeting process as prescribed in the PAD and in accordance with the GoK procedures.
- An examination of the workplans for project year one (July 2005 - June 2006) and year two (July 2006 – June 2007) shows that although the action plans indicate the resources required, there is no specific budget indicated for each activity. However, for the work plan for financial year July 2007-June 2008 the project has adopted a results oriented activity budgeting, which is a change in the right direction in terms of transparency and accountability. However, the Review Team is of the view that to enhance visibility and equitable distribution of resources, there is need to disaggregate the workplans and budgets according to basins. It is also important to ensure the decision making process should be participatory and inclusive such that all stakeholders are involved.

2.4 Project Management and Institutional Arrangements

The project is implemented under the agreement made between the World Bank and the Government of the Republic of Kenya. The development objectives and institutional arrangements are specified in the PAD. The document specifies clearly the responsibility of each partner to the agreement and the basic procedures for funding (budgeting, financial flows, accounting and disbursement arrangements, procurement, reporting, management and monitoring of project assets). The overall responsibility for project implementation is assigned to KARI.

2.4.1 Project management and coordination

The project is coordinated from Kisumu where the project coordination office (PCO) is located. A Project Coordinator who administratively reports to the Director, KARI through the Assistant Director in charge of Land and Water Management based at KARI Headquarters heads the PCO. The PCO has also three Field Officers[5], one M&E Officer, one Livestock Officer, one Accountant, two Community Participation Officers, one Supplies Officer and several support staff.

The PCO is working closely with district officials, non-governmental organisations (NGOs), community-based organisations (CBOs) and local administration (chiefs) in respective project areas. It is providing leadership and direction in implementation of project activities. The PCO collaborates with ICRAF for technical backstopping and implementation of specified activities, which are contained in contracts signed between KARI and ICRAF. The project also networks and collaborates with Kenya Forestry

[5] During the field visit, the Review Team noted that the field officer responsible for Yala basin has relocated to Nairobi because of the skirmishes and her tasks are being carried out by one of the community participation officers.

Research Institute (KEFRI), National Universities (Moi and Maseno Universities), National Environment Management Authority (NEMA) and extension service providers in implementation of project activities.

A Technical Advisory Group (TAG) comprising members from KARI, NEMA, Ministry of Agriculture (MoA), Ministry of Environment and Natural resources (MENR), KEFRI, and ICRAF oversees project work as required in the Project and Grant Agreements. The TAG was established in July 2005 to provide the project appropriate direction and focus (see Textbox 2.2).

Textbox 2.2: Functions and responsibilities of the TAG

According to the PAD the tasks of the TAG are to:

- Secure inter-agency coordination to ensure implementation of the project;
- Recommend changes when necessary;
- Review progress of implementation every quarter and provide direction to the PCO;
- Ensure capacity building; and
- Promote the integrated ecosystem management approach.

Source: The Project Appraisal Document

Since its formation, the TAG has held four instead of ten meetings (July 2005, June 2006, March 07 and June 07) in addition to a field trip to the project sites in September/October 2006. The TAG meetings are poorly attended. From discussions with the PCO, the TAG has not met the challenge of guiding the project. Two TAG members (Agriculture and NEMA) have also participated in some of the review missions.

The project has developed and established an implementation framework (see Appendix 5), which shows the linkages and pathways for project implementation, monitoring and evaluation. From this framework it is apparent that the project brings together many actors involved in both research and development and is very diverse in its activities. As such the management of WKIEMP requires a clear understanding of the complexity of the project from both technical and management dimension. Management 'styles' particularly inter-personal relationships and organisational culture can influence the effectiveness of the project and performance of implementing staff and partners. From discussions with the various staff of the PCO, it was apparent that the project had faced challenges related to management style and internal differences. However, the review team was informed that after discussions of issues among themselves, team work and synergy among project staff is improving.

Observations/Assessments

- A well-equipped and staffed PCO is in place. The PCO management and staff have developed a vision to drive the project over the period of implementation using information contained in the PAD (see section 2.5.2). The broad vision is being addressed by the project staff through adoption of a strategic approach in the implementation process with clear linkages between the riparian zones, wet lands and upper parts in case of Nzoia while implementation in the other basins is taking a similar approach.
- The TAG members need sensitisation on carbon emission, sequestration, finance and trade.
- The Procurement Unit in KARI is handling most of the procurement while the PCO can handle procurement up to KES 500,0006 according to the Government

[6] The project procurement office was handling KES 300,000 before the introduction of the new Procurement Act that raised the amount to KES 500,000.

procurement rules and regulation. While procurement of goods and services is generally in compliance with World Bank rules, there have been delays in timely execution, which are likely to lead to expiry of validity periods of the quotations. This may have an effect on the project implementation due to lack of equipment.

- Although many recommendations from the past supervision missions concerning project management and coordination have been addressed there are still delays particularly with regard to procurement and financial flow. These are beyond project control and need to be addressed by senior KARI management. Some delays are expected during the initial project period; however**,** the project needs now to advance quickly if it is to meet its objectives. KARI and ICRAF should expedite the signing and implementation of the second contract agreement and adhere to the timeframe of deliverables.

2.4.2 Qualifications and strengths of staff

The project has highly qualified and competent staff. However, most come from a research background and may lack experience in implementation of development oriented projects. The Review Team notes that the technical skills are available and it is the responsibility of the project management to maximise use of those skills fully for achievement of project objectives. However, the complexity of the project is recognized and the PC has had to 'learn on the job'. Additional management training would be advantageous.

Given the nature of the project where IEM underpins the whole project, an environmentalist with experience is required to ensure ESMF requirements are fully integrated. Additional technical skills may be required in business management and economics to ensure sustainability of interventions. Further, the project is designed to demonstrate best practices; part of which must include demonstrating that the practices are economically viable and socially acceptable.

The issue of staffing to support the community based work within each basin was raised by the previous supervision missions. While no action has been taken to date to assess and address this issue, the PCO is using extension staff at Divisional level to support project activities, which addresses to some degree the expected staffing constraint, builds institutional capacity (within the extension service), and supports sustainability. As the number of communities with project interventions increases, available staff could become increasingly constrained. To overcome this, the project needs to empower the community leaders to continue with activities with minimal supervision by project staff.

Initiation of activities in other blocks is expected to increase the workload and requires careful distribution of activities and available staff. This could be addressed by recruiting field assistants preferably graduates who can stay within the basin to cut on costs of operation. This will also free the senior project staff to concentrate in the middle and upper blocks.

The M&E team has been reduced by the resignation of one assigned staff and a replacement has not been hired. However, the remaining Officer has continued to provide the project with needed services, albeit overloaded.

The Review Team has noted that the project personnel have been affected by the recent skirmishes with one of the Field Officers and a driver temporarily relocated at KARI NARL. The project has also experienced the demise of one staff in the accounts department.

2.4.3 Institutional arrangements and linkages

The project has strong involvement of research institutions (ICRAF and KEFRI) compared to community development. The project has room for participation of national universities that are involved in undertaking studies through consultancies. To effectively address the development objective, the project is also linking with the extension service of the Ministry of Agriculture and Ministry of Livestock and Fisheries Development. Other relevant Government of Kenya Ministries that are participating are Environment and Natural Resources and Ministry of Water and Irrigation. The local NGOs and CBOs are involved as important stakeholders.

The project has established two Basin Technical Committees (one for Nyando basin and the other covering Nzoia and Yala basins). The roles of the BTC include:

- Backstopping the PCO through identification of appropriate mitigation measures in different landscapes in the three river basins;
- Backstopping the rural communities to implement the desired mitigation measures;
- Monitoring the implementation and impact of interventions at the various sites
- Evaluating and recommending sub-projects for the small grants; and
- Acting as linkages with different stakeholders in the respective basins.

The project has facilitated the establishment of 12 member umbrella micro catchment committees. The functions of the committees are given in Textbox 2.3.

Textbox 2.3: Roles of the umbrella micro catchment committee

- Mediate between groups project and other bodies(linkage)
- Discuss and find solutions to riverbank cultivation e.g. alternative sources of livelihoods
- Sensitise farmers on better farming practices (need for training members)
- Identify the needed resources and how to source for them e.g. fund raising
- Planning community activities with stakeholders
- Sharing information
- Formulate rules i.e. drafting constitution and setting the pace for governance.
- Registration of the committee as a legal entity.

The project has developed relationships with community groups, local organisations and individuals for the purpose of targeting. Through an analysis of its stakeholders, WKIEMP has recognised the need for stronger networking and collaboration. Linkages with the larger community are largely through District Stakeholder Fora of which the project is an active member. Interaction also takes place at other public fora such as field days and Regional shows.

Where the Micro-catchments overlap with the NALEP supported Focal Area Development Committee (FADC), the umbrella micro-catchment committee incorporates the chairman of the FADC to act as link to the other members.

Observations/assessments

- Discussions with the BTC revealed that the committee has been quite active and have been instrumental in the development of the small grants manual and in the evaluation and vetting the applications for the small grants sub projects.
- The effectiveness of the BTC has been constrained by the following**:**
  - Inadequate induction;
  - Limited joint planning meetings to come out with an agreed calendar of events;
  - Poor communication and information sharing that limits their participation in project activities effectively; and
  - Lack of peer persons to act as initiator of joint activities and remind others of their roles.

- To make the BTC more effective, the project should come up with ways of addressing these constraints and especially involve the BTC in joint planning and regularly update the members on status of activities.

2.4.4 Quality of collaboration/cooperation with ICRAF

The relationship between KARI and ICRAF started at the project development stage. After the project approval KARI was to be responsible for all deliverables and was expected to sub-contract ICRAF for specific activities. The Review Team notes that there was a long delay in undertaking the biophysical and socio-economic baseline surveys which was the responsibility of ICRAF. This has affected implementation of other activities planned by the project. The PCO and ICRAF have discussed the delays and have held a strategic alignment workshop to iron out operational differences. This enhanced the working relationship with ICRAF and has led to improvement in aspects of strategy development, planning and implementation. Provisions are available for the two institutions to meet twice every month where progress is discussed and outstanding issues resolved.

2.4.5 Support by Service Divisions of KARI

The PCO is responsible to the Director KARI through the Assistant Director, Land and Water Management for the overall implementation of the project. KARI Headquarters supports the project in procurement (vehicles, equipment and consultancy), financial management and disbursement, audits, monitoring and evaluation of project activities.

The Kenya Soil Survey gives technical support to the project on preparation of catchment maps and other services that use GIS. The Review Team understands that KSS will provide GIS services and data base for all World Bank funded projects and its capacity is being strengthened. It was anticipated that the Project would draw technical and human resource support from KARI Centres based in western Kenya such as Kakamega, Kisii and Kibos. However, this has so far not taken place on day to day implementation of the project. There is also opportunity for the project to work with KARI Kitale while implementing activities in the upper block of Nzoia River. There is need for the project to strengthen linkages with other KARI centres as a strategy for sustainability.

The Review Team was informed that a senior scientist with Ph.D from KARI is attached to the project to work closely with ICRAF on carbon stocks, carbon sequestration, carbon measurements and monitoring. For effective performance ICRAF and the scientist should come up with a firm working arrangement spelling out the tasks to be performed, when, by whom, where and the deliverables within given time frames. This will enhance transparency and accountability. The scientist should be facilitated to perform the assigned tasks.

2.5 Monitoring and Evaluation, Reporting and Documentation

2.5.1 Monitoring and evaluation

A monitoring and evaluation (M&E) manual describing the process through which carbon gains resulting from smallholder agroforestry may be monitored and evaluated has been prepared by ICRAF. The manual sets out how the project will assess development impacts, including livelihood impacts. However, the project also needs to be monitoring the implementation of on-going activities, and the movement towards the agreed implementation completion. This needs to be developed on a micro-catchment basis, as each micro-catchment has different issues and activities specific to identified needs.

With the help of World Bank staff, the project has defined and formulated a results framework and a monitoring and evaluation plan with clearly articulated responsibilities for implementing institutions and staff. The M&E framework has two parts. The first part is focused on 'intermediate outcomes' and is thus more evaluation than monitoring. This is organised by sub-component where a series of outcomes are determined. Notable in the framework is that most of the indicators are mostly numbers or percentages, which may not be well suited to evaluate outcomes/impacts. In addition, the carbon indicators need to be based on a baseline situation, which should have been determined at the inception of implementation of interventions.

As part of their responsibility in the M&E process, ICRAF has collected biophysical baseline data in seven of the nine project blocks. Baseline data are being analysed by basin and so far, revised draft reports for Nzoia and Yala Basins have been produced and submitted to KARI for review and comments. The baseline data should act as the starting point from which the project impact could be assessed.

Observations/assessments:

- The development of the monitoring and evaluation results framework and the monitoring and evaluation plan is a step in the right direction albeit almost two years after the project effectiveness.
- The developed M&E system focuses only on annual reporting and a tracking mechanism will need to be developed to assist project management in reviewing implementation progress on a monthly basis. A fully developed M&E system should be able to provide quantitative performance reports on request. Therefore it is recommended that the project should develop a computerised M&E system linked to a Management Information System (MIS). The PCO can borrow a leaf from KAPSLMP to see such M&E and MIS systems.
- The baselines on biophysical and socio-economic conditions in the project intervention areas should form the basis for monitoring the changes that have taken place and evaluating the effects and impact on livelihoods of the beneficiaries and effects on the global environmental objectives of the project such as reducing land degradation, increasing biodiversity and carbon levels. At the moment the link between the M&E and the baseline survey results is not very clear. Hence the project should appreciate and address this linkage.
- At present there is only one M&E Officer carrying out the M&E function within the project. Considering the importance of monitoring aspects related to carbon sequestration, carbon financing and carbon trade, it is recommended that the project should ensure that there is enough capacity to undertake the requisite M&E activities in these aspects. In addition considering that the work load for M&E will increase as project activities expand into new sites it is imperative that the M&E function should not be a confine of the M&E officers alone. For effectiveness the process should be participatory with the involvement of all stakeholders involved in project implementation. In light of this all those involved in project implementation should be inducted into the M&E system as it evolves.
- From discussions with the PCO and observations of the Review Team, there is concern that the information contained in the baseline reports is not adequately responding to the project activity planning needs. In the interim, project activities are being planned and undertaken without incorporating baseline information. In the light of this ICRAF and KARI should as a matter of priority expeditiously agree on the content, formats and other required information necessary as they finalize the baseline reports.

2.5.2 Reporting and documentation

The project has consistently produced annual reports as required by KARI while quarterly progress reports are prepared and in some cases not timely submitted to KARI headquarters. The PCO also prepares workshop and field reports as necessary. The annual reports indicate what the project has accomplished through the year. The Review Team emphasises the importance of sharing these documents among the staff and other stakeholders.

The terms of funding agreement require the preparation and submission of quarterly financial monitoring reports (FMR). This requirement was not met in the first year of project implementation. The Review Team was informed that this was not done because there was room for the project to access finances through the Statement of Expenditure (SoE) mode and gradually move to FMR. So far the project has prepared and produced FMRs for the following quarters: 1st Jan. to 31st March, 2007, 1st April to 30th June, 2007, 1st July to 30th September 2007 and 1st October to 31st December. However, the Ministry of Finance has not authorised KARI to use the FMR for requesting funds from the World Bank.

- Observations/Assessments
- The project produced a service charter in November 2007 that gives a snapshot of the mandate, vision, mission, core values, functions, organisational structure, partners and core components. This charter is available to any interested person. It is important that every member of the PCO clearly understands and shares the project principles and core values.
- As way of sharing experiences gained, the project has produced posters, scientific papers and brochures that have been shared with various audiences in the country.
- To improve on documentation especially of project successes and lessons, the project has procured a consultant to advice on the way forward regarding production of brochures and other materials about the project. The Review Team urges the project staff to actively engage in producing publications of their findings to a broader audience.

2.6 Financial Management, Disbursement and Accounting Systems

According to the PAD, financial management procedures follow the Kenya Government financial regulations with the Director KARI as the Accounting Officer. The Director KARI has delegated to the PCO the responsibility to manage project funds using the established KARI accounting procedures. So far, the management of financial resources has been acceptable although irregularity in the flow of funds has in some cases affected implementation of project activities. The status of financial utilisation is shown in Table 2.6 and Table 2.7 below.

Table 2.6: Financial utilisation as at 29th February 2008 (in USD)

Category	Allocated amount	Cumulative Disbursement as at 29th February	Percent Spent so far
Goods	756,000	258,938	34.3
Consultants services including audits	1,551,000	291,525	18.8
Training	201,000	291,494	145.0
Community sub-projects grants	607,000	76,698	12.6
Operating costs	693,000	583,151	84.1
Unallocated	292,000		-
Advance from special account		400,000	-
Total	**4,100,000**	**1,901,805**	**46.4**

Source: WKIEMP

Table 2.7: Requests and Disbursements of the project (in KES)

Period \ FY	2005/2006		2006/2007		2007/2008	
	Requested	Received	Requested	Received	Requested	Received
Q1	12,000,000	0	12,145,250	7,500,000	8,214,434	8,358,643
Q2	13,306,800	2,000,000	13,295,245	3,000,000	11,656,093	2,000,000
Q3	12,193,650	12,818,300	11,795,245	9,000,000	8,632,007	6,000,000
Q4	10,145,250	7,653,400	11,295,245	11,000,000	0[7]	0
Total	**47,645,700**	**22,471,700**	**48,530,985**	**30,500,000**	**28,502,534**	**16,358,643**
% received		**47%**		**63%**		**57%**

Source: WKIEMP

Observations/Assessments

- Most World Bank funded projects in Kenya are affected by poor financial flows. The weakness in financial management is attributed to all parties involved, that is for the case of WKIEMP, the implementer (KARI), participating Ministry (Ministry of Agriculture), borrower (Ministry of Finance), and the funder (World Bank). The delay in disbursement is attributed in part to relocation of the WB disbursement office from Kenya to South Africa, although internal delays within KARI and other Kenya government arms have contributed to the experienced delays.
- KARI admitted there have been problems with the accountability of funds and this is being addressed by introduction of a more versatile financial management system that is compliant with FMR. However, the new system is not fully understood by the project personnel. It is suggested that a workshop be organized to streamline the financial procedures.
- The long chain followed in the process of requesting for funds affected timely implementation of project activities. It was noted that seven steps are involved from the World Bank to when KARI can receive the funds. The independence of borrower has led to disappearance of some money that was released by the World Bank to KARI. This happened in 2007 and has reduced the amount of operational funds for KARI. So far it has not been established what happened to the disbursement.
- An indication of financial utilization by the WKIEMP project is presented in Table 2.6. The data reveal that:
  - About USD 1,901,805 have been disbursed by KARI headquarters for project activities, which is 46% of the total budget. Considering the project is halfway its implementation period, the level of funds utilisation in general is acceptable. However, the utilisation of funds is not commensurate with the extent of activities so far implemented since only.
  - From Table 2.6, the expenditure on training is more than what was allocated while that of operational costs is notably high. The PCO should therefore control their spending on these two budget items.
- A glance at Table 2.7 reveals that all second quarters did not receive much money in the three financial years. The highest percentage received was 23 while the lowest was 15 percent of the requested amount. The project should review the cause of this discrepancy and put in place mechanisms to address the weakness. Information on the Table further shows that in the last three years, the

[7] The 4th quarter of this financial year is April to June that is not yet applied for, hence the zero value for request and received.

project has requested for KES 124,679,219 and has only received KES 69,330,343, which accounts for 56 percent of the requested amount. The main concern of the Review Team is the huge backlog created. Its effect was evident at the community level from the outstanding amounts the project is owing groups managing tree nurseries (see Table 2.8). In some instances the long wait has led to poor management and loss of tree seedlings.

- A key issue that emerged from the PCO in Kisumu is the issue of cash flow. Project activities have been repeatedly constrained and delayed by cash flow problems. This is a serious issue particularly with regard to implementation of field activities. This has implications on the community trust and confidence especially in regard to the huge outstanding payments the project owes the groups managing tree nurseries of KES 1,322,715 in the three basins (see Table 2.8). It also raises questions about extending project activities to additional blocks when the project cannot guarantee activities within the existing blocks. The Review Team appreciates that because of these delays, KARI management has assisted the project with financial resources to ensure continuity of activities. It was also noted that project staff continued to undertake their activities despite the fact that payments of their allowances is delayed.

Table 2.8: Status of payments for tree nurseries (in KES)

River basin	Amount paid for tree seedlings	Pending payments	Total
Yala	467,510	542,440	1,009,950
Nyando	265,600	367,475	633,075
Nzoia	0	412,800	412,800
Total	**733,110**	**1,322,715**	**2,055,825**

Source: Compiled by Review Team

- Disbursement of funds from KARI to ICRAF has had its share of problems. Payment to ICRAF has been delayed for more than one year. However, this did not affect implementation of activities since there was a contractual agreement between the two participating institutions.

2.7 Technical Assistance and Training

2.7.1 Technical assistance

According to the PAD the technical backstopping and facilitation of planning, implementation and evaluation of the project interventions was to be provided by NGOs and other service providers as well as KARI, KEFRI, and ICRAF. The District Agriculture and Livestock Development Offices were to perform the key role of interfacing with farmer organisations and liaising with the project coordination office.

KARI entered into contract with ICRAF to facilitate the provision of the technical assistance expected as enumerated in the Textbox 2.

Textbox 2.4: Main objectives and activities of the backstopping by ICRAF

Main Objectives for backstopping

- Establish interventions that mitigate land degradation;
- Evaluate and document the potential of different tree species to sequester carbon on degraded land;
- Evaluate options for river bank protection;
- Establish interventions that sequester carbon on agricultural systems;
- Establish PAP intervention plots at several sites;
- Establish a system for monitoring and evaluation changes in carbon stocks; and
- Build capacity of KARI staff, other local institutions and communities to actively undertake monitoring and evaluation of changes in carbon stocks.

Specifically the backstopping will support the following activities:

- Develop a manual for the methods of measuring and monitoring carbon stocks;
- Develop a manual for the methods of measuring non CO_2 Green House Gases;
- Train KARI scientists on methods of measuring carbon stocks including data collection, laboratory procedures, monitoring and statistical analysis;
- Train KARI scientists on measurements of non CO_2 Green House Gases including data collection, laboratory procedures, monitoring and statistical analysis;
- Establish and document training needs of various institutions in Western Kenya on carbon trade;
- Establish village tree nurseries to support Agroforestry;
- Establish and implement species screening trials;
- Increase tree cover on severely degraded sites;
- Establish and document the status of the environment in the initial 4 blocks including satellite, biophysical and socio-economic baseline data;
- Develop a manual for the project monitoring and evaluation (M&E) procedures; and
- Provide hands on training to KARI scientists on M&E procedures.

Source: PAD; KARI 2006.

Since the signing of the contract with KARI, ICRAF has been able to fulfil part of their obligations as shown in Textbox 2.5.

Textbox 2.5: Activities accomplished by ICRAF

- Developed a manual for the methods of measuring and monitoring carbon stocks;
- Developed a manual for the methods of measuring non CO_2 Green House Gases;
- Trained KARI scientists on methods of measuring carbon stocks including data collection, laboratory procedures and monitoring;
- Established village tree nurseries with 3 sites in Yala to support Agroforestry;
- Established and implemented species screening trials;
- Increased tree cover on severely degraded sites;
- Established and documenting the status of the environment in the initial 7 blocks including satellite, biophysical and socio-economic baseline data;
- Developed a manual for the project monitoring and evaluation (M&E) procedures; and
- Provided hands on training to KARI scientists on M&E procedures.
- Prepared draft baseline reports for Yala and Nzoia basins

Source: Review Team analysis.

ICRAF has yet to train KARI scientists on statistical analysis of carbon stocks data. Training of KARI scientists on measurements of non CO_2 Green House Gases including data collection, laboratory procedures, monitoring and statistical analysis has also not been accomplished. Discussions are ongoing with regard to establishing and documenting training needs of various institutions in Western Kenya on carbon trade. No report has been prepared on this as yet. In general capacity building on carbon stocks and other Green House Gases remains to be done. The main concern about technical

backstopping by ICRAF is the t staffing by qualified people at the project level. This has affected the quality of support needed by the PCO.

As part of capacity building on carbon issues, one of the officers from KARI Kakamega has been attached to the project to work with ICRAF scientists in collecting samples from Kakamega forest for Green House Gases (GHGs) for analysis at ICRAF laboratories in Nairobi. This is supposed to give hands-on training on M&E procedures as stipulated in the Contract Agreement between KARI and ICRAF. Outputs from the studies will assist in understanding the various mechanisms for production and consumption of NO, N_2O, CO_2 and CH_4, developing and validating models for rapid and cost effective prediction of greenhouse gas emission from forest, agriculture and agro-forestry land uses and finally establishing carbon sequestration baselines.

Moi University was contracted to conduct a study to obtain baseline information on biodiversity, their threats, benefits/values and the conservation status of these resources in selected project sites within Nyando, Yala and Nzoia river basins. The study was conducted in July 2007 and a draft report submitted in September 2007. The draft biodiversity report was reviewed by PCO and comments submitted to the consultant in November 2007 to finalize the draft report. A final report had not been received by the time of this Mid-Term review.

The biodiversity report is compiled from four separate surveys carried out by Moi University in the different subject areas (use of remote sensing; below ground biodiversity; plant diversity; etc.). The draft report consists of list of species found and focuses on endangered species, rather than biodiversity as a whole. A few issues being raised on the biodiversity survey report include:

- The report is very shallow in covering various biodiversity aspects. It does not cover adequately plant species diversity and ecosystem diversity (wetlands, forests, grasslands and bushlands etc) in the micro-catchments studies is not addressed at all. On the whole the report lacks detailed analysis and interpretation of the data gathered.
- Lack of location maps showing areas and distribution of endangered, vulnerable, rare and threatened species within the three lower blocks of Nyando, Yala and Nzoia where baseline data was collected. These maps will be necessary to provide guidance on the identification of the hot spots where appropriate mitigation measures could be implemented;
- Many errors in species identification and naming are common within the report and will require correction. Additionally, appendices indicated as attached to the report are not all given.
- No methods are indicated or given regarding species identification and manuals used are not specified. A publication like *the Kenya Trees, Shrubs and Lianas* should have been consulted. A visit to the Centre for Biodiversity at the National Museums of Kenya should have helped in the identification of the other species.
- Use of the report is therefore limited given the limitations mentioned above. However, the promotion of planting endangered plant species is being encouraged by the project.

2.7.2 Training of staff

Several trainings were provided to the PCO staff by ICRAF during the period under review. These include:

- Training on nursery establishment and management
- An introduction course to the socio economic database.
- Field training in vegetation classification using an ICRAF designed biophysical datasheet.
- Two courses on the use of GPS and GIS application for the development of micro catchment maps, geo-referencing project intervention sites within these micro catchments and mapping of project activities as well as displaying baseline data information spatially.
- Additionally one M&E Officer attended a training course on Planning, Monitoring and Evaluation and impact assessment at Egerton University organized by ILRI/IFPRI in July 2007.

The Review Team notes that the staff are effectively utilising the knowledge and skills gained during the training. The PCO staff needs further training on financial management and management for change.

2.7.3 Capacity building on assessment of land degradation and monitoring C-stocks

The Review Team noted that steps had been taken towards building the capacity of project staff on the use of established protocols of land degradation. ICRAF field staff and the project M&E Officer had worked together in some of the block surveys. However, the Review Team observed that no deliberate capacity building efforts for C-stocks monitoring were being done save for the one KARI scientist that is involved in GHG emission measurements in Kakamega.

ICRAF produced a carbon assessment manual providing guidelines for measuring carbon stocks and gains in different ecosystem pools. The manual is still under review and upon acceptance, it is anticipated that ICRAF will train the PCO staff in its application. Before undertaking the training, ICRAF should produce a module that is technically acceptable by the PCO. It is also important that ICRAF should identify and dedicate a senior scientist to work on the ground with the PCO staff and other institutions on issues of carbon (carbon measurement and monitoring, carbon accounting, GHGs accounting, soil degradation, and GHGs in agricultural and forested areas) in order to meet the project objectives.

2.7.4 Capacity building efforts for developing carbon finance proposal

The Review Team notes that no capacity building has been carried out towards developing carbon finance proposals. In light of the piloting nature of the carbon-trading component, the project should identify and document institutions that require training. The identified institutions should be trained and are expected to afterwards train communities through their extension workers. ICRAF should expedite capacity building on aspects of carbon finance.

2.7.5 Training of primary stakeholders

The following trainings have been carried out as shown in Textbox 2.6.

Textbox 2.6: Trainings conducted for communities

- 40 farmer groups of approx. 25 farmers each were trained in the three blocks of Nyando, Yala and Nzoia river basins on tree nursery management. The trained groups are already managing their own tree nurseries.
- Twenty (20) community members per micro catchment in the lower blocks of Nyando and Yala were trained on soil and water conservation methods.

- Thirteen (13) CBO's from Kokoto area were trained in fruit tree grafting by ICRAF. A total of 70 farmers participated in the 2-day training.
- A total of 108 members from 12 groups in lower Yala were assessed on their group work performance (demonstration and tree nursery sites) and given induction training in November 2007 on group members' inter-relation, resource sharing / benefits accrued, challenges and possible solutions. The sessions were attended by 30 committee members from 3 micro catchments (conflict resolving remedy).
- Sixty five (65) farmers from 5 groups in lower Nyando were trained on local poultry production.
- Forty five (45) farmers were trained on dairy goats, poultry, beekeeping and sericulture in lower block of Yala representing 15 groups.
- 60 farmers were trained on composting from four groups in Wagai Division

Observations/assessments

- The capacity building done to the community has empowered them and they have demonstrated capacity to be in charge of development of their areas. Those who received training are performing their roles and implementing activities effectively. For instance, the Amboka Home Based Care Group in lower Nyando basin is rearing local poultry and was able to manage and feed the chicken well even during the period of the political skirmishes. Secondly, the Gogwa micro-catchment umbrella committee has embraced plantation tree planting where they have planted more than 3000 trees. The members of Sidundu micro catchment committee have planted woodlots on their farms. The woodlots were planted with over 2000 seedlings with different tree species.
- Primary stakeholders are yet to receive training in carbon trading and carbon credits.
- The participating communities need training on leadership and group dynamics, proposal writing, seed collection, preparation and preservation.
- To prepare the groups for project exit, they should be trained on entrepreneurship, marketing and value addition.

2.8 Integration of Research and Development

2.8.1 Research and development

The project has adopted an implementation modality that encourages merging research and development components. However, the project implementers are both research organizations who have different perceptions regarding research and development. The Review Team perceives that ICRAF is more responsible for the research component while the PCO is responsible for the development aspects of the project although they both contribute to the achievement of overall objective. About 90 percent of project activities are leaned towards development work while only 10 percent is applied research. It is noted that there are researchable areas identified in the PAD.

To enhance the integration of research and development components, the following activities have been undertaken jointly:

- Frequent meetings;
- Planning and review of progress;
- Field trips (by senior staff); and
- Social interactions such as retreats.

The Review Team underpins the importance of this integration in strengthening collaboration and partnership. Further the Review Team noted the presence of a strong will by KARI and ICRAF to make this project successful.

2.8.2 Environmental and Social Management Framework

Since subprojects were to be identified by communities during the project implementation, an Environmental and Social Management Framework (ESMF) was prepared to facilitate their screening for potential environmental and social impacts and to ensure compliance with environmental safeguard policies. These guidelines are being used to screen projects as mentioned in section 2.2.4. The Review Team observed that environmental screening checklists contained in the ESMF are used in screening sub-projects. The checklists are also contained in the grants manual. However, at times the screening is carried out in the absence of a qualified environmentalist.

In most cases, communities will have very little knowledge of environmental and social screening, hence the need for Contract Service Providers (CSPs) whose role is being done by the grant management committees.

The EIAs carried out so far by the project show no indication that they have been done by NEMA registered experts. However, the District Environmental Officers are usually consulted in the process of conducting the EIAs.

2.8.3 Development of competence of staff to integrate carbon benefits

The carbon trading component of the project is a novel initiative in Africa. This component can be considered as one of the pioneer ones in Africa and capacity is needed. As the process of training institutions for carbon benefits is undertaken, active engagement of project staff in assessing progress of the screening trials and measurement of above and below ground carbon changes should be strengthened.

With regard to carbon measurements and monitoring at landscape level, there are still many research questions being addressed. Research questions such as (a) ways to link carbon sequestration, biodiversity, land restoration, water quality and household well being as interactive components and (b) measurements of below ground carbon sequestration.

According to information obtained from ICRAF, the research being undertaken on measurements of carbon and potential for carbon trading has drawn interest and recognition of several organisations such as the World Bank, UNEP, UNDP, World Wide Fund for nature (WWF), and Terra Africa and is under consideration for replication in other parts of Africa.

2.9 Project Results and Impact

2.9.1 Project's impact on stakeholder groups

According to discussions with project staff and communities, and observations made during field visits, supported activities have led to positive impacts on the participating groups as well as the improvement of the environment. Specifically, reported impact areas are:

- Increased community awareness on the need to bring up and manage tree seedlings from community-managed nurseries has enhanced the availability of tree seedlings for planting. This intervention has created economic, social and environmental impacts.
- Enhanced capacity of communities and CBOs to identify and address community needs through participatory planning has long-term effect on development. Knowledge sharing with groups has exposed beneficiaries to integrated ecosystem management and other environmental issues.

- Sensitisation and involvement of all gender categories has empowered women since they can now make decisions unlike before when they were hindered by cultural impediments that are being reduced. Women can now plant and own trees and other income generating activities.
- Introduction of livelihood interventions such as horticultural crops, tissue culture bananas, dairy goats, indigenous poultry improvement and bee keeping in the micro-catchments is giving participating groups and individual farmers opportunities to earn a living.
- Social cultural biases such as ownership of trees and livestock have been diluted through sensitisation and awareness meetings.
- The project has initiated activities with special CBOs such as those living with HIV/AIDS. The supported interventions have led to the improvement of the group members in respect to access to nutritious meals and income to purchase the required drugs as demonstrated in Textbox 2.7.

Textbox 2.7: Appreciation and impact of projects interventions in Samadhe Luore micro-catchment

The coordinator of the Aluor widows and orphans group said that the project has given the group a lot of knowledge and skills in relation to composting, horticulture, laying out soil and water conservation structures, managing the tree nursery, dairy goats and poultry. These have had positive impact on the group in regard to food and nutrition, and incomes that has enabled them to support the orphans. The group has contributed to technology dissemination through training and demonstrating to other members of the community.

One member reported that they have been taught on soil conservation and is now reaping the benefits. The group appreciated that the knowledge gained on compost making and use of *Tithonia* for soil fertility improvement. These activities have resulted to increased yields.

Another member reported that he owns land on a hill that was of no use before but he has now established a tree nursery to raise seedlings that he will plant on the bare ground for future benefits.

- Emerging knowledge on carbon sequestration has potential for creating positive impact on communities in project area as an entry point for carbon trading. The aspect of carbon credits constitutes a key component of national and international emissions trading schemes that have been implemented to mitigate global warming. A potential outcome of WKIEMP is the creation of certified carbon emission units which could generate a source of funds for the communities engaged in agroforestry activities, and in turn, enhance the sustainability of such activities. These aspects of the project are yet to be addressed.

2.9.2 On relevant institutions

- The project has facilitated the establishment of structures such as the Basin Technical Committee (BTC) and micro-catchment committees[8]. Each committee has an elected chairman and secretary. However, these institutions should be empowered through capacity building and specification of their roles

[8] The membership of BTC is drawn from senior district staff in departments of Social services; Water Resource Management Authority; Livestock Agriculture; NEMA; Forest Service, Roads, Water and Irrigation, Public Health and LVEMP (Wetlands for Yala / Nzoia and Soil and Water for Nyando), Representation is also drawn from major NGOs in respective basins such as ADRA and VI Agro forestry for Nyando and Dominion for Yala / Nzoia as a private company.

and responsibilities in order to accelerate project implementation and for sustainability.

- The institutions' performance varies depending on the membership and the level of commitment to those elected in leadership positions. The impact of the project is seen in the way different departments are addressing issues jointly and in an interdisciplinary manner.
- The micro-catchments committees are spearheading implementation of interventions identified in the participatory action plans and are even initiating activities on their own in case the project staff delays using the knowledge and skills gained during initial training.

2.9.3 On land degradation and environment

- The tree planting activities around the gullies and in various parts of individuals' farms have started bearing results. The trees have positively contributed to the healing of degraded land, increased biodiversity and riverbank protection among other benefits.
- Land rehabilitation activities include trees planted along the river Yala, and individual homesteads. The rehabilitated areas in Nyando are planted with trees and shrubs. These are likely to have global and local environmental benefits in terms of carbon sequestration, control erosion and riverbank protection.
- The rehabilitation of the riparian zone of Nzoia River by planting trees is expected to have the impact of reducing flooding of the surrounding areas that is frequently experienced. Also the tree planting and conservation measures starting from the higher parts of the land management units to the wetlands is expected to mitigate effects of land degradation and flooding.
- The desilted dams and constructed water pans have positive effects on communities in that the water is used for domestic and livestock purposes, for irrigation and hence better food security and incomes, fish farming and protection of farm lands through control of floods.
- Degraded areas, which were fenced and re-vegetated are now producing hay. This was reported for gullies and degraded areas in the lower Nyando block.
- Other potential impacts include:
  - Improvement of micro-climate;
  - Carbon sequestration and related benefits;
  - Reduction of stream/river/water pans/dam siltation; and
  - Improved food security and incomes.

2.10 Lessons Learned

- Induction of project staff can save much on start up time. The staff attached and given the responsibility to start off the WKIEMP were not adequately briefed on what was expected of them and what the project was all about. Most of them were not part of the project development process, which is imperative for effective project implementation. An early induction of staff is needed to speed up the takeoff.
- Strengthened capacity of the community towards IEM concept is key to the sustainability of interventions. Communities have confidence in their own institutions such as micro-catchment, land management unit, environment, gully

and dam committees and these can be utilized in conception, planning and monitoring of IEM activities.

- Proactive and integrated approach to ecosystem management is more efficient than curative/reactive measures put in place to curb already extensively degraded areas. For instance the degradation in Nyando river basin (gullies, depleted soils) cannot be effectively managed by the ongoing curative measures (the gullies are still expanding despite the fencing). Therefore the project has started management of other potential hotspots identified for riparian zone protection and for intensified re-forestation. For the gullies, the project should move fast and start activities upstream.
- Community approach in the implementation of IEM intervention slows down the decision-making and implementation process. However, this has a long-term impact of sustainability of interventions. Community involvement needs to take place in an atmosphere of trust, consensus and confidence building. It also requires focused consultative processes.
- Locating technical staff in the project areas makes it easy for community leaders to have easier access to information and advice and ensures their availability and visible presence to offer assistance when needed.
- To fully achieve the project objectives, it is important to initiate activities covering the upper reaches, middle and lower parts of the basins.
- To ensure environmental issues are sustainably addressed, there is need to concurrently initiate multi-faceted activities that ensure natural resource conservation as well as livelihood improvement. This will serve as an eye opener for participating communities to see the linkages.
- Although facilitation of community groups with materials and tools for tree nursery establishment is acceptable, the payments for the seedlings if not carefully presented at the initial sensitisation phase may create dependency and unsustainability of project interventions.
- For effective partnership, clear memorandums of understanding and rules of engagement are critical.
- Streamlined flow of funds is critical for effective implementation of project activities.

3. CONCLUSIONS AND RECOMMENDATIONS

3.1 Conclusions

The 5-year WKIEMP project was signed in March 2005, became effective in July 2005, and effectively started operations in December 2005. The Project has therefore been operational for three years.

On project design

*Project coverage***.** The project coverage represents 8.5 percent of the Nyando basin, 8.9 percent of Yala basin and 4.6 percent of Nzoia basin that represent the three 10x10 km blocks that was to be covered in each basin. The blocks are intended to be representative of different bio-physical conditions in the upper, middle and lower reaches of the concerned basins. Notable is that the aim of the pilot project is to demonstrate successful *interventions* and to generate *lessons learned* for future application and up-scaling. Currently most of the project interventions are concentrated in the lower blocks of the three basins. In Nzoia basin, activities initiated are in tree nursery establishment and tree planting while in Yala sensitisation and mobilisation activities have started in the middle block. The slow shift to the upper reaches is attributed to the slow induction, conceptualisation of project requirements and logistics. This has also been exacerbated by limited project staff.

Silt/sediment measurements are important in establishing the level of pollution but for practical purposes these measurements are not possible within the project period.

Since remaining project period is limited, the PCO should move with speed to cover as much as is possible in order to attain the project objectives. Preferably they should now concentrate interventions in the upper reaches (middle and upper blocks) where most of the adverse effects originate.

On organisation and institutional set up

The project is well structured with representation of all key ministries and departments at the Technical Advisory Group (TAG) level. However, poor attendance of group meetings has made it not very effective. Nevertheless during field visits some members of the TAG have provided useful comments on how to make the project more effective.

The Basin Technical Committees have been effective in addressing basin wide issues and specifically the approval of sub-projects for small grants. However, for performance to be enhanced, they need to be fully included in the loop (joint planning, joint calendar of implementation and participatory monitoring of project activities).

The umbrella micro-catchment committees were noted to be active and effective in providing direction to member groups but would require additional capacity building to ensure sustainability of the interventions.

On relationship with ICRAF

The relationship between KARI and ICRAF has come along way and is currently satisfactory for the achievement of project objectives. However, the shortcomings highlighted in the report, particularly the need for scientific staff on the ground, should be addressed to enhance successful implementation of the project.

On implementation progress

After three years (March 2005 to March 2008) the project staff (KARI and ICRAF) have more confidence in their contribution to project objectives and clearer sense of direction and purpose. In terms of specific activities, there has been significant and satisfactory progress although much more could have been achieved with the resources availed. Activities accomplished include preparation of biophysical and socio economic baselines, establishment of the necessary structures for project implementation, and adjusting to the micro-catchment approach. The Small Grants Programme is operational in Nyando basin due to limitations in the flow of funds. An M&E framework for the project has been developed although it needs to be enhanced further to enable the project to capture the effects and tangible impacts.

The Review Team is of the opinion that the concept of integrated ecosystem management is well understood by the project staff and the target communities are slowly assimilating this. The positive environmental and social impacts of the interventions are greater compared to negative impacts.

On the carbon sequestration component, the progress is rated as slow since no data from analysis of carbon stocks has been availed to the project. The initial delay was however as a result of late procurement of equipment needed by ICRAF and also staff changes in ICRAF.

The absence of biophysical baseline information which clearly shows characteristics of soils, land forms, vegetation, and land use has hindered the development of criteria for prioritisation and selection of micro-catchments for interventions. The right criteria would enable the project to select an optimal number of micro-catchments to allow implementation of activities within a specified period in a given block.

Overall the Review Team's observation is that there is a steady progress in project implementation. Considering the issues raised above and assuming that the financial limitations due to the flow of funds will be addressed, improved partnership with ICRAF continues, adequate human resources is ensured and absence of external influences such as skirmishes, the Review Team is of the view that the project will go along way towards achieving the set objectives.

3.2 Recommendations

On project design

The Review Team endorses the use of micro-catchments as entry units for initiating integrated ecosystem interventions in the identified blocks. However, considering that within a block there may be many micro-catchments, the project should develop a criteria for their prioritisation to allow for implementation of activities in a block.

Attainment of project objectives hinges on intervening in the three broad landscape positions (upper, middle and lower blocks) as the processes underpinning land degradation in these topographic sections are interlinked. So far, the project activities have concentrated in the lower blocks. To address this concern, it is recommended that the PCO initiates the process of sensitisation in the upper blocks for the Nzoia and Nyando basins. This should then be followed by livelihood alternatives that are linked with ecosystem management. Where there may be staff limitation, KARI explores the possibilities of contracting qualified and experienced staff.

Alternatively, the time spent in the identified blocks by the project staff should be limited to less than one year by putting in place mechanisms to allow early weaning and handing over of activities to micro-catchments committees. This will release time to initiate interventions in other blocks and allow communities to continue with the activities but receiving technical backstopping support when needed.

The project should also enhance partnerships (public – private) with organisations that have been active and strengthen them to take over some of the technical responsibilities as the core team moves to other blocks.

Silt/sediment measurements are important in establishing the level of pollution but process involved is complex and expensive such that the project is unlikely to carry it out within the remaining period. It is therefore recommended that this activity be addressed where resources can allow while at the same time seeking ways to collaborate with WRMA.

On relationship with ICRAF

The improved relationship between KARI and ICRAF should not be jeopardised by any of the two players by not adhering to the terms of agreement. The relationship should actually be viewed as a partnership. To utilise the provisions of the project, the Review Team recommends that a KARI scientist should work closely with ICRAF on carbon stocks, carbon sequestration, carbon measurements and monitoring as part of capacity building. For effective performance ICRAF and the scientist should come up with a firm working arrangement spelling out the tasks to be performed, when, by whom, where and the deliverables within given time frames. This will enhance transparency and accountability. The scientist should be facilitated to perform the assigned tasks.

Noting that delivery of expected output by ICRAF has been relatively slow and considering the importance of these deliverables towards overall success of the project, the Review Team recommends that ICRAF assign a senior scientist on the ground to work in partnership with the PCO.

On implementation progress

Based on the assessment of the implementation progress of planned activities by the Review Team and also from previous supervision missions' reports by World Bank, the issue of poor financial flows has emerged as one of the major factors that has influenced project performance. It is therefore recommended that KARI, GoK and World Bank arrive at a lasting solution on how the financial flow mechanisms could be enhanced. This will reduce implementation delays especially because agricultural activities are season specific. A Review of existing funds flow and accountability arrangements should be followed by KARI and appropriate changes for efficiency and value for money be put in place as a matter of urgency. The WKIEMP Technical Advisory Group (TAG) should take responsibility for monitoring compliance with agreed funds flow arrangements.

To further improve on the financial flows, KARI should explore the possibility of requesting the Ministry of Finance to allow them open and operate a special account in a local bank or branch instead of operating an off shore account. This will enable KARI to regularly check on the status of the account and the in/out flows of project funds.

To enhance the financial flows between KARI and ICRAF, the Review Team notes that the new contract agreement clearly indicates the payment schedule and urges that the parties respect the contents of the contract.

On communication and documentation

Notwithstanding that the project has hired a communications consultant the Review Team would like to underscore the importance of communication between all the parties involved in the project implementation (KARI, ICRAF, WB collaborators and participating partners). Further, the Review Team recommends that the PCO should be more proactive in sharing lessons, experiences and effective IEM models with the wider audience. To enhance documentation, data storage, analysis, retrieval and dissemination it is recommended that the project develops a computerised Information Management System.

On carbon sequestration

Noting the importance of the manuals in guiding staff in the assessment of carbon and non-CO_2 GHGs, it is imperative that they should be prepared in a user friendly language for ease of understanding and assimilation by the targeted users. The Review Team is in agreement with KARIs request and recommends that these manuals should be synthesised.

Noting that nothing has been done as stipulated in the project sub component 1.2 (enhance capacity for developing carbon finance proposals), the Review Team recommends that ICRAF urgently address this aspect.

On capacity building

Considering the efforts and resources spent on team building and management of the project, and notwithstanding the fact that the Training Consultant has carried out a compressive training needs assessment and a training plan the Review Team recommends that at PCO level the following capacity building be accorded priority:

- Training on leadership, team building and management for change;
- Project cycle management including financial management;
- Environmental and social impact assessment;
- Facilitation skills;
- Reporting and scientific writing; and
- Peace building and conflict management.

The Review Team also recommends that at community level the following capacity building be accorded priority:

- The umbrella micro-catchment committees should be empowered to be service providers for continuity of the project impacts beyond the life of the project and as an exit strategy.
- The umbrella micro-catchment committees should also be trained on leadership roles and project related aspects to competently undertake their responsibilities. This should be done in all river basins as a viable linkage to the community and for monitoring purpose.

3.3 Way Forward

a) There is need to include Integrated Pest Management (IPM) since pest infestation was observed and reported to be rampant in most horticultural plots and on tree nurseries. Young trees are also a favourite of ants. Consideration should be given to utilising indigenous technical knowledge on pest management.

b) There is need to up scale value addition and products processing. For instance, hay making, honey harvesting and processing. The communities need to be trained to undertake such income generating activities.

c) As a motivation to participating communities, the project should come up with activities for inter-basin competitions to strengthen linkages among communities addressing IEM concern. Appropriate rewards should be given to further encourage such activities even outside “a project context”.

d) The PCO and ICRAF should take a proactive approach to ensure integration of biophysical and socio economic data. The PCO and ICRAF should adapt the cluster sampling approach currently used by ICRAF to address the gaps identified in order to allow extrapolation of point data to spatial interpretation.

e) As the project gets into the second part of this first phase, the project staff should facilitate in defining roles and responsibilities of various committees and collaborators operating at community level for effective implementation.

f) In order to enhance partnership and build the capacity of PCO staff, the project should encourage joint research (screening trials) and production of publications using the generated information. Further, the project should utilise the monitoring and evaluation baseline data already collected by carrying out detailed analysis and using the results to write scientific papers.

g) Finally, the review Team is of the opinion that it is not too early to craft a project phasing-out or exit strategy. It is also not too early to think of a new (next) phase of the project whose formulation should take into account the lessons learnt up to the present time.

APPENDICES

Appendix 1: Terms of Reference for a Mid-Term Review for Western Kenya Integrated Ecosystem Management Project (WKIEMP)

Background

The Western Kenya Integrated Ecosystem Management Project (WKIEMP) was set up to build the capacity of local communities and other institutions to identify and manage ecosystem issues, as well as to implement conservation and/or mitigation measures. The project addresses the linkages between upstream and downstream land use practices through the development and financing of community managed Integrated Ecosystem Management (IEM) plans.

The project is expected to enhance sustainability of agricultural land use through the financial support of IEM planning, capacity building, creating awareness of the need for improved farm management practices, and the protection of habitat areas of critical importance. It is expected that IEM interventions such as sustainable land management will, with time, increase above and below ground carbon sequestration while simultaneously reducing erosion and harmful agricultural run-off into waterways.

The project also targets improvements in the health of wetlands and other critical habitats. The protection and restoration of forest habitat for improved biodiversity will increase carbon sequestration, reduce soil erosion and maintain hydrological cycles thereby having a positive effect on both climate change and downstream land and water uses.

The Project's Development Objective (DO)) is to improve the productivity and sustainability of land use systems in selected watersheds in the Nzoia, Yala and Nyando river basins through adoption of integrated ecosystem management approach.

To achieve this DO, the project is designed to:

(i) Support on- and off-farm conservation strategies, and

(ii) Improve the capacity of local communities and institutions to identify, formulate and implement integrated ecosystem management activities capturing local and global environmental benefits.

The project activities are implemented through a community driven development process whereby the communities will decide on resources for infrastructure investments, technical assistance and implementation of ecosystem management activities.

The main project activities are:

(i) To improve the productivity and sustainability of land use systems in selected watersheds in the Nzoia, Yala and Nyando river basins through adoption of an integrated ecosystem management approach.

(ii) To promote a set of integrated ecosystem management interventions so as to achieve local and global benefits.

The project implementation has both developmental and research oriented components, both answering to the overall goal of improving the ecosystem of ***the*** Western Kenya region. The developmental component's objectives will be

achieved through a community driven process whereby communities decide by themselves on resources for infrastructure investments, technical assistance and implementation of ecosystem management activities. The research oriented component is the undertaking of ***targeted*** research to develop procedures by which carbon and Green House Gases (GHGs) can be monitored in a cost effective manner. This component also facilitates the participation of targeted communities in the global carbon market through capacity building of local institutions, communities and government, and is spearheaded ***by the*** World Agroforestry Centre (formerly ICRAF) under a signed agreement with KARI. The overall responsibility of the project implementation, however, rests with KARI which is also the counterpart agency to IDA for the project.

Mid-Term Review

The Mid-Term review (MTR) is an important milestone in the implementation of the project. The MTR is anticipated to provide an opportunity to assess performance to date in moving towards the achievement of the project objectives, including the physical progress, financial status and output in relation to objectives, and refine implementation arrangements/procedures as necessary in order to enhance the project performance.

General scope

The MTR will assess operational aspects, such as project management and implementation of activities, and also the extent to which objectives are being fulfilled. It will focus on corrective actions needed for the project to achieve impact.

Organizational relationship

The MTR team leader will be answerable ***to the*** IDA and the GoK through KARI, and will work closely with the Assistant Director-Land and Water Management, ***the*** Project Coordinator, implementing partners and key project staff, especially the Field Officers and M&E staff, to design and undertake the review. The project will provide key background documentation to the Review Team (Project Appraisal Document, Supervision Mission Reports, Progress Reports and any other available documents as may be deemed necessary)

Responsibilities and Tasks

The main objective of the WKIEMP MTR mission is to review implementation progress since project effectiveness, and recommend areas of restructuring/changes to enable the project to meet its development objective. Specifically the MTR will:

(i) Review implementation progress of the whole project since the project effectiveness in July, 2005

(ii) Review and assess the Project's process of planning and budgeting, implementation, monitoring and evaluation, and support by service divisions of KARI. Propose how the process can be improved for quality outputs/outcomes

(iii) Review the existing financial management, disbursement and accounting systems and suggest ways of improvement for efficiency and accountability

(iv) Assess the efficiency of project organization and management and policy, the qualifications of local staff and consultants, reporting, effectiveness of the M&E system (in defining performance indicators and collecting and analyzing

monitoring data on project progress) and follow-up on primary stakeholders' reactions to project activities.

(v) Assess the relevance and effectiveness of technical assistance and training given to primary stakeholders and staff in relation to design objectives, and the extent to which they have been given based on needs assessment and followed up onto determine their impact.

(vi) Assess the quality of collaboration/cooperation with institutions and effectiveness of coordination mechanisms, with respect to composition and membership of coordination committees, and contribution to timely decision making and problem solving. Changes in project design in this respect will be thoroughly assessed.

(vii) Assess the integration of the research and development components, and the developing competence of project staff to integrate carbon benefits into future development planning and assistance.

(viii) Assess project results and impacts, in terms of development outcomes, based on the project's actual and potential development impact on the primary stakeholder groups, relevant institutions and wider context. This includes identifiable benefits for primary stakeholders – including wider livelihood and capacity-building – in terms of depth, spread and gender, primary stakeholder participation and environmental concerns.

(ix) Identify where project design needs adjusting/reorienting in order to increase its effectiveness in reaching the target groups. Provide proposals to adjust the project objectives and strategy, activities, budget and inputs, organizational/institutional set-up and implementation plan wherever necessary

(x) Develop and agree with KARI on an action plan to address the identified issues and amendments (if necessary) to the Development Credit Agreement.

Qualifications and experience required

The MTR team should include diverse professional expertise to cover the various tasks (various disciplines, ***including carbon sequestration)*** and methodological skills (local development, empowerment, experience with MTRs, workshop facilitation, participatory research, gender competence, etc.) as well as knowledge of the region/country.

Submission of proposals

Interested professional facilitators from private or public organizations either local or international are requested to submit a short proposal containing:

a. Description of the understanding of the task including comments on the terms of reference;
b. A succinct but short description of the methodology to be followed, to achieve the desired objectives
c. Time scheduling of information gathering and other activities;
d. CV(s) of the main facilitator(s) to be involved as per the provided format (Appendix A);
e. A budget proposal presented as per the outline given in the attached budget table (Appendix B).

Appendix 2: Documents Reviewed

Markus Walsh, Louis Verchot and Ric Coe (2007). Katuk-Odeyo Baseline Report. ICRAF, Nairobi

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Appendix 3: People Met/Consulted

Name		Title
1.	Dr. Ephraim Mukisira	Director, KARI
2.	Dr. Louis Verchot	ICRAF Scientist
3.	Dr. Jane Wamuongo	Assistant Director, KARI
4.	Dr. George Ayaga	Project Coordinator
5.	Wilson Aore	Field Officer
6.	Daniel Kiplangat Rotich	Livestock Officer
7.	Ruth Orlale	Community Participation Officer
8.	Dorcas Mutsotso Wamalwa	Technical Officer, Community Participation
9.	Maurice Shiluli	M&E Officer
10.	Andrew Otolo	Chief Accountant KARI
11.	Fredrick Ruiru	Chief Supplies Officer
12.	Hezekiah Otieno	Accountant- Donor funds
13.	Agnes C. Yobterik	Community Participation Officer
14.	Samuel Obaga	Field Officer
15.	Christine Esendi	Technical Officer
16.	Eva Gacheru	Field Officer
17.	Dr. Patrick Gicheru	Centre Director, NARL
18.	Peter Macharia	Head, Kenya Soil Survey
19.	John Gachanja	Project Accountant
20.	Joannes Atela	Research Assistant, Environment
21.	Joan Kute	Project Administrative Officer
22.	Phillip Echakara	Supplies Officer
23.	Joe Lusisa	Accounts assistant
24.	Caroline Ngewa	Data Management
25.	Isaac Loremo	Technician, ICRAF
26.	Walter Odongo	Technician, ICRAF
27.	Joash Mango	Technician, ICRAF
28.	Odanga	Poultry Officer, Nyando
29.	John Koske	Forester, Sigomet Division, Kericho
30.	Job Chepkwony	Sigomet Water and Sanitation Company
31.	Francis Kurgat	Frontline Extension Worker, MoA, Kapsokale microcatchment
32.	Ken Owuor	Agricultural Extension Worker, Wagai Division
33.	Philip Oketch	Livestock Extension Worker, Wagai Division
34.	Nahashon Ahayo	Forestry Department, Wagai Divisiont
35.	Dr. Fridah Mugo	Consultant
Basin Technical Committee (BTC) members		
36.	Shem Oradu Ipomai	Ministry of Agriculture, Siaya
37.	Palapala Muteshi	District Environmental Officer (DEO)-NEMA Busia,
38.	John Mumbo	DEO-NEMA, Nyando
39.	Ochieng' Aseno	Kenya Forestry Service, Siaya
40.	Paul Okong'o	TATTRO/COSOFAP
41.	William Adera	Ministry of Agriculture, Nyando
42.	John K. Maina	Ministry of Agriculture, Kericho
43.	Maurice Ngoleyang'	Ministry of Gender & Social services, Nyando

Name		Title
44.	Clement Wangai	WRMA, Busia
45.	Margaret Ojago	Ministry of Gender and Social Services, Busia
46.	Aggrey Mambiri	KFH&SMP, Kakamega
Community Groups, Committees and Members		
47.	James Owino	Chairman, Got Gae Mojwono Group, Katuk Odeyo Gully
48.	G. Nyagada	Katuk Odeyo Group
49.	Grace Atieno Outa	Chairperson, Odeyo Widows women Group
50.	Michael Awino	Member, Koyombe Dam Development Committee
51.	Aspro Jullu	"
52.	Herina Awino	Treasurer, "
53.	Joice Omolo	Member
54.	Jenifa Osungu	Member
55.	Benedeta Opiko	Member
56.	Penina Okech	Member
57.	Moses Masiko	Chairman, Sifa Group
58.	Carilus Ojwang'	Assistant Secretary, Angudha Women Group
59.	Consolata Osiro	Treasurer, Angudha Women Group
60.	Hypolitus Ocheng	Secretary, Kokoto Water Pan
61.	Brigita Ondiek	Chairperson, Amboka Home Based Care Women Group
62.	Susan Odhiambo	Treasurer, "
63.	Margaret Uswa	Secretary, "
64.	Eddy	Coordinator, Kokoto Rehabilitation area
65.	Lucas Omwando	Chairman, Onyuongo Microcatchment Committee
66.	Pamela Odhiambo	Chairperson, Onyuongo Home Based Care Group
67.	Nancy Achieng Omondi	Coordinator, Kowala Women Group
68.	Monica Owiti	Treasurer Onyuongo Microcatchment Committee
69.	Andrew Biegon	Assistant Chief, Kapsomboch Sub-Location
70.	Daniel Koech	Vice-Chairman, Kapsomboch Microcatchment Tree Nursery
71.	Geofrey Langat	Secretary, "
72.	Richard Bore	Head Teacher, Kapsomboch Primary School
73.	Ngeno	Teacher in charge Kapsomboch Primary School Tree nursery
74.	John Magut	Secretary, Kaplelartet Takasa Farmers Group
75.	Susan Tum	Vice Chairperson, "
76.	Solomon Cheruiyot	Treasurer, "
77.	Joseph kurgat	Secretary, Cheronik beekeeping and tree Nurseries Group
78.	Eliud Rono	Secretary, Kapsorok Horticulture and Tree Nursery Group
79.	Lena Ngeny	Chairperson, Kapsorok Horticulture and Tree nursery Group
80.	Edah Cheruiyot	Treasurer, "
81.	Richard Mutai	Chairperson, Kapsokale Umbrella Microcatchment Committee
82.	Richard Ngetich	Chairman, Chesombai Youth Group
83.	Benea Orega	Organising Secretary, Masat Disabled Group
84.	Merciline Otieno	Chairperson, Bonde Youth Group
85.	Stephen M. Oloo	Coordinator, Sifuyo Youth Group
86.	Stephen Oduyo	Chairperson, West Ugenya Focal Area Development committee
87.	Phyllis Atieno Osero	Chairperson, Sifuyo Riparian Area Development Committee

Name		Title
88.	Charles Onyanga Obanjo	Assistant Chief, Sifuyo West
89.	Fredrick Oduor	Chairperson, Gendro Youth Group
90.	Silvester Ouma	Area Chief, Kapili Location?
91.	N. Were	Chairlady, Kapili Women Group
92.	Rose Atieno	Chairlady, Nyadorera Resource and Learning Centre
93.	Catherine Odhiambo	Member "
94.	William Ogolla	Member "
95.	Consolata akinyi	Member "
96.	Willis	Chairperson, Gogwa Microcatchment Committee
97.	Leonard Ateng	Secretary, Kanyasibok Self Help Group
98.		Kopiyo Youth Group
99.		Ongema Group
100.	Rose Awere	Nyiasembo Moyie Women Group
101.		Kanyadet Primary School
102.		Alwale Youth Group
103.		Kasiwa Youth Group
104.	Christopher Owino	Chairperson, Sidundu Microcatchment
105.	Teresa Owino	Chairperson, Togo Women group
106.	Benard Atuoma	Siala Kaduol Youth Group
107.	Peter Abayo	Farm Manager, Siala Kaduol Youth Group
108.	Jane Peris Orale	Aluor Moyie Women and widows Support Group
109.	Jemima Odok	Coordinator, "
110.	Morris Ochieng Owuor	Chairman, Samadhe Loure Microcatchment Committee
111.	Oloo	Aluor alive Youth Group

Appendix 4: Some Information on the Seven Grant Sub-Projects funded

No	Name of CBO	District	Location	Membership		Date of registration	Date grant received	Previous activities	Proposed grant sub-project	Current status	Remarks
				Male	Female						
1	Seronik Bee Keeping	Kericho	Kaplelartet	8	8	25/05/06	26/09/07	Beekeeping using traditional hives	Beekeeping and tree nursery establishment	Ordered for 20 hives from Baraka College in Molo and already paid KES 100,000. Identified and fenced off an apiary site. Has established a tree nursery near Chulchuliet stream and has seedlings ready for planting.	There are incidences of bees being trapped by effluents (mollases) from the nearby sugar factory at Soin. Pests problems in traditional hives Require training on beekeeping and and tree planting. Availability of tree seeds is an issue.
2	Tich Tek Kauma Women Group	Nyando	North East Nyakach	2	8	10/11/05	25/09/07	Local poultry keeping Beekeeping using traditional hives Merry go round, Farming, Hiring out chairs, catering	Beekeeping project	Currently using traditional beehives. Have ordered15 modern hives from Baraka College in Molo and have paid a deposit of KES 45,000	Deforestation and scarcity of water
3	Kaplelartet Takasa Farmers Group	Kericho	Kaplelartet	15	13	7/7/05	26/09/07	Tree nursery	Agroforestry	Producing tree seedlings	Availability of tree seeds and water is a challenge
4	Angudha Women Group	Nyando	East Nyakach	10	14	12/5/06	25/09/07	Poultry keeping	Poultry keeping	Have donated 48 hens for the project and are waiting for the improved Kenbrew cocks. They have been trained on general management and feed formulation	Scarcity of water

No	Name of CBO	District	Location	Membership		Date of registration	Date grant received	Previous activities	Proposed grant sub-project	Current status	Remarks
				Male	Female						
5	Sare Irrigation Farmers Association	Nyando	North East Nyakach	6	15	3/3/06	25/09/07	Horticulture	Horticultural farming	Are harvesting their horticultural products. Have bought a water pump and hired land near Awach River for cultivation.	
6	Koyombe Pan Catchment Developme-nt Group	Nyando	East Nyakach	9	6	30/9/05	25/09/07	Pan desilting, horticulture, tree nursery management	Pan fencing and fish pond	Have fenced the water pan and identified a site for the fishpond.	Arsonists cutting off the fence
7	Jimo Onyuongo Soil and Environmen tal Group (Joseco Group)	Nyando	East Nyakach	30	32	9/06/05	21/12/06		Construction of Kaluko water pan	Community hand digging the water pan	Leadership wrangles

Source: PCO

Appendix 5: Western Kenya Integrated Ecosystem Management Project implementation Framework