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Environmental and Social
Management Framework for the
Western Kenya Community-
driven Development and Flood
Mitigation Project, and the
Natural Resources Management
Project

FINAL REPORT

ERM

the precise location and nature of impacts at this stage. This is due to the highly community-driven nature of the projects. The components of the project are described in more detail in *Chapter 2.*

The ESMF is based on the aim of fully mainstreaming environmental and social considerations into the participatory process for identifying, planning, implementing and monitoring activities or sub-projects. The decision trees, forms and guidance presented in *Chapter 4* have been designed to be merged fully with the Project Implementation Manual, and the overall system of project management.

1.2.1 *Principles*

The ESMF has been prepared on the basis of the following principles.

Firstly, this ESMF, and the World Bank safeguard policies, are taken as an opportunity to contribute to the objectives of the projects, and their intended development outcomes. For example there is an opportunity to assist the development of Kenya's policy on resettlement through the application of the World Bank safeguard policy on involuntary resettlement, or to assist the coordination of watershed management through the application of the safeguard policy on safety of dams.

Secondly, sustainable catchment and watershed management is the underlying philosophy to the WKCDD and NRM projects. Therefore this ESMF is designed in order to maximise the contribution of the projects to sustainable catchment and watershed management. For example, the WKCDD project has the opportunity to facilitate the development of a coherent vision of sustainable microcatchment management in each district, using Mobile Community Advisors (MCAs) and District Steering Groups (DSGs), and then work with communities and governmental partners to achieve this.

1.3 PREPARATION OF THE ESMF

This ESMF is the result of a preparation study with the following objectives:

1. To assess the potential areas of environmental and social impact of the proposed WKCDD and Flood Mitigation Project and NRM Project;
2. To inform the project preparation process of the potential environmental and social impacts of different alternative livelihoods and propose relevant mitigation measures;
3. To establish clear directives and methodologies for the environmental and social screening of project activities that will be supported by the proposed project;
4. To establish a mechanism to determine and assess potential environmental and social impacts of proposed WKCDD and NRM sub-projects, and set out mitigation, monitoring and institutional measures to be taken during

1   INTRODUCTION

The Government of Kenya (GoK) has requested loans or credits from the World Bank for the implementation of two proposed projects, *the Western Kenya Community Driven Development and Flood Mitigation Project* (WKCDD project) operating across Western Province and in the Bondo and Siaya Districts of Nyanza province, and the *Natural Resources Management Project* (NRM project), operating in Central Province.

This report is the Environmental and Social Management Framework (ESMF) to be used jointly for both projects, in order to ensure that all environmental and social safeguards are adequately addressed by the projects.

1.1   BENEFITS OF THE WKCDD AND NRM PROJECTS

Both the WKCDD and NRM projects directly address environmental management and poverty reduction, and are likely to deliver significant positive environmental and social benefits. Both will address ongoing problems of environmental destruction and associated deepening poverty. In particular they address: (i) forest destruction owing to encroachment, and the resulting loss of forests' watershed, non-forest product, timber, and cultural values, and (ii) mitigation, through improved watershed management, of environmentally-damaging and social disruptive floods. The current ('no – project') situation has very significant negative environmental and social impacts, and therefore if the projects are effective, they will deliver significant positive environmental and social benefits.

However, the individual sub-projects that the WKCDD and NRM projects will finance carry some risks of localized, adverse environmental and social impacts. Therefore an Environmental and Social Management Framework (ESMF) is required, to screen for and manage the adverse environmental and social impacts of the project, and to strategically manage its overall environmental and social impact.

1.2   PURPOSE OF THE ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK

The activities of both projects encompass: (i) small-scale initiatives, including community-driven development projects as well as other projects related to natural resource management (eg forest infrastructure), (ii) construction of large- to medium-scale infrastructure (eg dams, irrigation schemes), and (iii) policy, institutional and legal development.

An ESMF is required for the projects because the precise details of the majority of investments are sub-projects which are yet to be defined in terms of their type, exact location, materials used etc. Therefore it is not possible to ascertain

implementation and operations of the sub-projects, in order to eliminate their adverse environmental and social impacts, offset them, or reduce them to acceptable levels.

The deliverables of the study were this ESMF report, and an accompanying Resettlement Policy Framework, both addressing the two projects.

1.3.1 *Activities Completed in Preparation of the ESMF*

Activities completed during the preparation to date include:

* Familiarisation with background documentation;
* A field visit to Western Province, encompassing Kakamega, Bungoma, Mt Elgon, Vihiga and Busia districts, and including meetings with District Officers, CBO representatives and other stakeholders, and visits to existing projects;
* A field visit to Nyanza Province, encompassing meetings with Provincial level stakeholders in Kisumu and visits to potential project sites in Siaya and Bondo;
* A field visit to Central Province, encompassing Nyeri and Thika Districts, and similar meetings/projects;
* Preparation of this ESMF report, incorporating comments from the project preparation team.

1.3.2 *Experience of the Arid Lands Resource Management Project*

This design of ESMF draws on the successful experience of implementation of a similar Environmental Management Framework for the Arid Lands Resource Management Project, Phase II (ALRMP II). The ALRMP EMF has been under implementation since 2002, and has successfully screened for environmental impacts of numerous small sub-projects in Kenya's arid and semi-arid lands. Natural resources management officers appointed at the PMU level in the Office of the President oversee the implementation of this EMF. The experience of ALRMP is particularly relevant because of the similar nature of the WKCDD and NRM projects, ie their financing of numerous small-scale community-driven projects, and to the location of a management unit in the Office of the President. Screening processes and reporting systems have therefore drawn on the models successfully applied in the case of the ALRMP.

1.4 LAYOUT OF THIS REPORT

This ESMF report is structured as follows.

* *Chapter 1* – Introduction (this section)
* *Chapter 2* – Description of the Projects and Potential Sub-projects
* *Chapter 3* – Environmental and Social Management Requirements
* *Chapter 4* – Sub-project Preparation, Approval and Implementation

- *Chapter 5* – Environmental Management
- *Chapter 6* – Safety of Dams
- *Chapter 7* – Capacity-building, Technical Assistance and Training Requirements
- *Chapter 8* – Monitoring Requirements
- *Chapter 9* – ESMF Implementation Budget

Annexes provide:
- A list of people met during ESMF preparation (*Annex A*);
- Itinerary of the preparation study field visits (*Annex B*);
- Environmental and social baseline (*Annex C*);
- A description of stakeholder consultation carried out to date (*Annex D*);
- Terms of reference for a Project Report (*Annex E*);
- Guidelines on environmental and social impacts of sub-project types (*Annex F*); and
- Further guidance on impact assessment on cultural property (*Annex G*).

This chapter sets out descriptions of the proposed WKCDD and NRM projects, and the potential sub-projects to be financed under the various components of the projects.

2.1   WESTERN KENYA CDD AND FLOOD MITIGATION PROJECT

2.1.1   Background

Western Kenya is particularly vulnerable to seasonal flooding, land erosion and degradation. The WKCDD project will prioritise measures that address these poverty-aggravating issues, as well as supporting and promoting the economic empowerment of local communities and their organisations in the region.

The project will work with decentralised structures of the local government as well as the provincial administration to:

- Enhance capacity to identify, plan, manage, and mobilise resources for interventions aimed at poverty reduction, flood management and land use improvement at regional, district and community levels;
- Understand and bring about sustainable development that is anchored in good governance, accountable leadership and a results-based approach to service delivery; and
- Enhance capacity to monitor and evaluate programmes.

2.1.2   Project Development Objective

The project development objective of the WKCDD project is:

To empower local communities of men and women to move out of poverty, create wealth, and to reduce the frequency and costs of recurrent floods.

Based on the CDD approach used by the Kenya Arid Lands Resource Management Project, the WKCDD project will invest in building the capacity of multi-purpose community development committees which then provide entry points for other programmes to include appropriate and effective investments in flood protection and natural resources management. The flooding emanating from major rivers in the Western Kenya region will be addressed through multi-purpose investments that will benefit all districts in Western Kenya province, and two districts in neighbouring Nyanza province.

2.1.3   Components

The project is comprised of the following three components.

Component One - Community Driven Development (US$ 40.8 million, of which US$ 32.9 m IDA)

Subcomponent 1.1 - Enhancing communities' abilities to plan, manage and implement prioritized investments at the community level (US$ 28.4 million of which 23.0 m IDA). This sub-component will finance livelihoods-based micro-projects identified and implemented by communities. Communities will be assisted by Mobile Advisory Teams (MATs) which will comprise technical personnel from district governments and civil society organizations operating in ten project districts. Innovative capacity building mechanisms will be explored so that the communities do not only learn from training but also though exchange visits to other communities, and an approach utilized by the Kenyan Agricultural Research Institute (KARI) to empower rural households involved in small scale agriculture will be explored for scaling up. NGOs working in these areas will be given incentives to work together with government and private sector organisations in order to speed up level of engagement and assist in evaluating impacts. In addition to livelihoods based microprojects, the project will: finance training and microprojects up to US$5000 per community, targeted at addressing the malaria scourge in Western Kenya; finance youth microprojects, with an expectation that at least 200 youth groups could benefit from livelihoods-based matching grants; and support a community foundation operating the area which gathers remittances from diaspora with technical assistance and seed money.

Subcomponent 1.2 - Local Level Development Support (US $ 12.4 million including US$ 9.9 million IDA). This sub-component will support sustainable development investment and planning at the district level. These investments and activities will enhance planning and response mechanisms in the ten project districts, and strengthen the capacity for district level development players such as district government, local government, and civil society organizations to facilitate implementation of activities. The approach will be based on the successful district development model implemented in 22 districts under the Arid Lands Resource Management Project, and therefore district steering groups (DSGs) will be established in all districts and will be supported with project funds to plan and guide participatory development. Each of the ten project districts will be provided with resources, managed by the DSG, the secretary of which will be the District Project Coordinator (DPC), to support prioritized areas of intervention based on annual work plans resulting from district consultation and prioritization.

As a pilot activity under this component, two micro hydropower generation sites in Maseno and Kaimosi which have become disused will be studied and if feasible restored for local level management/use.

Component Two - Flood Mitigation (US$ 37.5 million, including US$ 32.5 m IDA)

The flood mitigation component will address three aspects in the Nzoia River Basin: 1) Immediate floodplain management options; 2) the identification and design of mid-catchment multipurpose structural flood protection options; and 3) the establishment of a flood early warning system. Linkages will also

be established with the Nile Basin Initiative (NBI) to explore further investment opportunities in the catchment area. Investments in this component will be supported by investments being funded under the proposed Kenya Natural Resource Management Project, including capacity building for the soon to be established Kenya Forest Service (KFS), investments in gazetted forests, capacity building for the Water Resource Management Authority (WRMA), and irrigation investments in the lower catchment.

Subcomponent 2.1 – Catchment Management (US$ million 20.7 million including US$ 19.8 m IDA). Key catchments will be identified and prioritized for on- and off- farm catchment management investments, based on the pilot catchment management activities carried out by the Lake Victoria North Water Resource Management Authority (LVNWRMA). These will include reforesting and protecting gazetted forests, changing land use patterns on steep slopes and eroded areas, river bank protection, improved agronomic practices in fragile areas, and improved water management including check dams and small scale regulating mechanisms. Communities will have their capacity built to allow them to take advantage of the resources allocated to management of the upper catchment. Livelihood-based catchment management by communities will allow poor communities to realize benefits from their efforts in conserving these catchments. Several forested areas are key watersheds for both the Nzoia and Yala rivers, and as part of the forest sector reforms, community management of the forests and areas adjacent will be increased. In keeping with new regulations, Participatory Forest Management Plans (PFMPs) will be prepared in the Mt. Elgon, Kakamega and Cherangani Forest areas, with communities surrounding the forest. The project will draw on and support the positive experiences of activities being carried out by the Kakamega Environment Education Program (KEEP) and other Kakamega Forest youth groups.

Subcomponent 2.2 – Flood Mitigation (US$ 15.5 million including US$ 11.5 m IDA). The flood mitigation activities of the project will focus on two areas: 1) Budalangi Flood Plain Management; 2) The identification and preparation of multi-purpose flood protection structures in the mid-catchment zone of the Nzoia River Basin. Further details are provided in *Box 2.1*.

In addition, a communications strategy involving consultations with communities and other stakeholders in the basin will be a major activity of this component, including the integration of public-private partnerships such as the Nzoia River Management Initiative program developed by the Mumias Sugar Company.

Subcomponent 2.3 – Flood Early Warning System (US$ 1.3 million including US$1.2 m IDA). The establishment and running of an effective flood early warning system is an important dimension to flood mitigation. An effective, two way flow of information will assist communities and government in decreasing the substantial social and economic cost of floods in the project area. It will also serve as a model for the establishment of systems in other

catchments. The system will focus on the collection of information on rainfall and river levels in the catchment, as well as information from computer modeling and satellite imagery, with the objective of providing information to decision makers and communities at the earliest possible time. The development of capacity for disaster management and the development of national and local flood mitigation plans will also be included.

Box 2.1   *Flood Management Activities in the Nzoia Catchment*

1. Budalangi Flood Plain Management
Activities will be targeted at alleviating the social and economic costs of flooding in the flood plain. The project will invest in flood mitigation structures, including the rehabilitation and strengthening the existing levies in the flood plain in order to provide short and medium term relief to communities vulnerable to seasonal flooding. Measures will be investigated to address high levels of sedimentation between existing levies in the flood plain and increase the safe discharge capacity of the flood plain in order to reduce the flood storage and attenuation requirements in the mid-catchment reaches of the Basin. Flood plain management activities will be carried out in close collaboration with communities in order to accommodate controlled seasonal flooding of fields to maintain fertility and increase agricultural incomes. The communities have in the past deliberately breached the levies to ensure flooding which is an indication of inadequate engagement of communities in the development process. In addition the protection of assets in the floodplain will be undertaken together with ancillary activities such as supporting fisheries which have developed in recent years using floodwaters.

2. Mid-catchment multi-purpose flood protection structures.
The project will invest in detailed option identification and analysis to develop an integrated flood management strategy. This will include activities such as mapping, hydrological studies and engineering feasibility studies aimed at the development of appropriate multipurpose flood protection structures in the middle catchment. Detailed economic analysis will be undertaken of multi-purpose use of stored flood waters for functions such as irrigation, micro-hydropower generation, village and town water supplies etc. Activities will include all of the preparation work necessary prepare the identified optimum multi-purpose flood protection works for financing as a stand-alone operation. These preparation activities will address:
- social impacts including resettlement and compensation;
- environmental impacts including instream flow requirements;
- technical issues such as basic design and sizing, reservoir sediment;
- management, geotechnical investigations;
- financial issues such as detailed costing and investment finance packaging.

Component Three – Implementation Support (US$ 14.8 million, of which 12.9 m IDA)

Subcomponent 3.1 – Support to Policy Analysis, Advocacy and Local Development (US$ 1.0 million, of which 1.0 m IDA). Through support to research, market assessments, and advocacy work, this sub-component will support the identification and development of new opportunities for economic growth in the region.

Subcomponent 3.2 - Management, monitoring, and evaluation (US$ 13.8 million of which 11.9 m IDA). This sub-component will fund the establishment and running of key coordination mechanisms in the Office of the President, Special Programmes (OP). OP is the government entity mandated with disaster management, including floods and drought. The project coordination structure mirrors the successful Arid Lands Resource Management Project,

with a strong emphasis on building capacity at local level through the empowerment of District Steering Groups (DSG). The DSG in the ten project districts will be supported by a district project coordinator and a small staff who will manage development of annual work programs, fiduciary and safeguards management. Substantial training of district and project staff in various project management skills, fiduciary and accountability skills, environmental management, community participatory processes, watershed management, and communications have been included. The monitoring and evaluation system supported by project funds will be participatory, and will include report-cards and scorecards and expenditure tracking, together with statistical surveys of economic, social, and environmental indicators. This monitoring and evaluation system will be developed in conjunction with four other World Bank-financed projects in the rural development sector.

2.1.4   *Potential Sub-projects*

The types of sub-projects that are likely to be financed by each component are set out in *Table 2.1*.

Table 2.1   **WKCDD Project: Likely Sub-projects**

Component	Sub-component	Types of sub-projects
Community Driven Development (CDD)	Enhancing communities' abilities to plan, manage and implement prioritized investments at the community level	CDD micro-projects e.g. agro-forestry, tree nurseries, bee hives, fish farming, basket weaving, micro-credit schemes etc; youth development activities (especially income generating); malaria reduction initiatives; social accountability mechanisms; capacity building.
	Local Level Development Support	Capacity building and training at district and provincial level; infrastructure projects such as hydropower generation facilities. As a pilot activity under this component, two micro hydropower generation sites in Maseno and Kaimosi which have become disused will be studied and if feasible restored for local level management/use
Flood Management	Catchment Management	Catchment conservation e.g. reforestation, river bank protection; farmer training and sensitising; small works such as dams, erosion control etc; agro-forestry (e.g. Kakamega, Mt Elgon).
	Flood Mitigation	Community awareness and training; small-scale flood management infrastructure with multi-purpose benefits.
	Flood Early Warning System	Monitoring forecasting, community based early warning systems; communication mechanisms; disaster management; capacity building; coordination.
Implementation Support	Support to Policy Analysis, Advocacy and Local Development	Policy analysis; market assessment; advocacy

Component	Sub-component	Types of sub-projects
	Management, monitoring, and evaluation	Financial management; monitoring and evaluation; communication strategy.

Qualification

Given the primary objective of this project of poverty alleviation through community-driven approaches focusing on water catchment initiatives, the types of projects that will not, or are unlikely to be financed by the WKCDD project are:

- Community infrastructure projects that are eligible for financing from other sources, such as the Constituency Development Fund. These are likely to include school buildings, clinic buildings etc;
- Projects that result in significant adverse environmental impacts especially where related to watershed or natural resources management (*eg* forests, river banks);
- Projects that are not community-driven, or result in significant adverse impacts on communities.

2.1.5   *Project Target Areas*

The WKCDD project will target the area of the Nzoia River Basin that lies within Western Province and Nyanza Province. This is almost the entirety of the Nzoia Basin, excluding only a part of the upper catchment that is situated within Rift Valley Province. The WKCDD project will coordinate with similar initiatives concerning the upper catchment that are ongoing in Rift Valley Province.

Specifically, the project will cover the eight districts of Western Province and two districts in Nyanza Province (see *Figure 2.1*):

Upper- middle catchment districts (all in Western Province):
- Mt. Elgon;
- Teso;
- Vihiga;
- Bungoma;
- Butere/Mumias;
- Kakamega; and
- Lugari

Lower catchment districts:
- Busia (Western Province);
- Bondo (Nyanza Province);
- Siaya (Nyanza Province).

2.1.6   Budget

Table 2.2 presents the budget of the WKCDD project by component.

Table 2.2   WKCDD Project Budget

Component	Sub-component	Budget (US Dollars)
Community Driven Development (CDD)	Enhancing communities' abilities to plan, manage and implement prioritized investments at the community level	28.4 million
	Local Level Development Support	12.4 million
Flood Management	Catchment Management	20.7 million
	Flood Mitigation	15.5 million
	Flood Early Warning System	1.3 million
Implementation Support	Support to Policy Analysis, Advocacy and Local Development	1.0 million
	Management, monitoring, and evaluation	13.8 million
Total		**93.1 million**

Figure 2.1   *Project Target Areas*
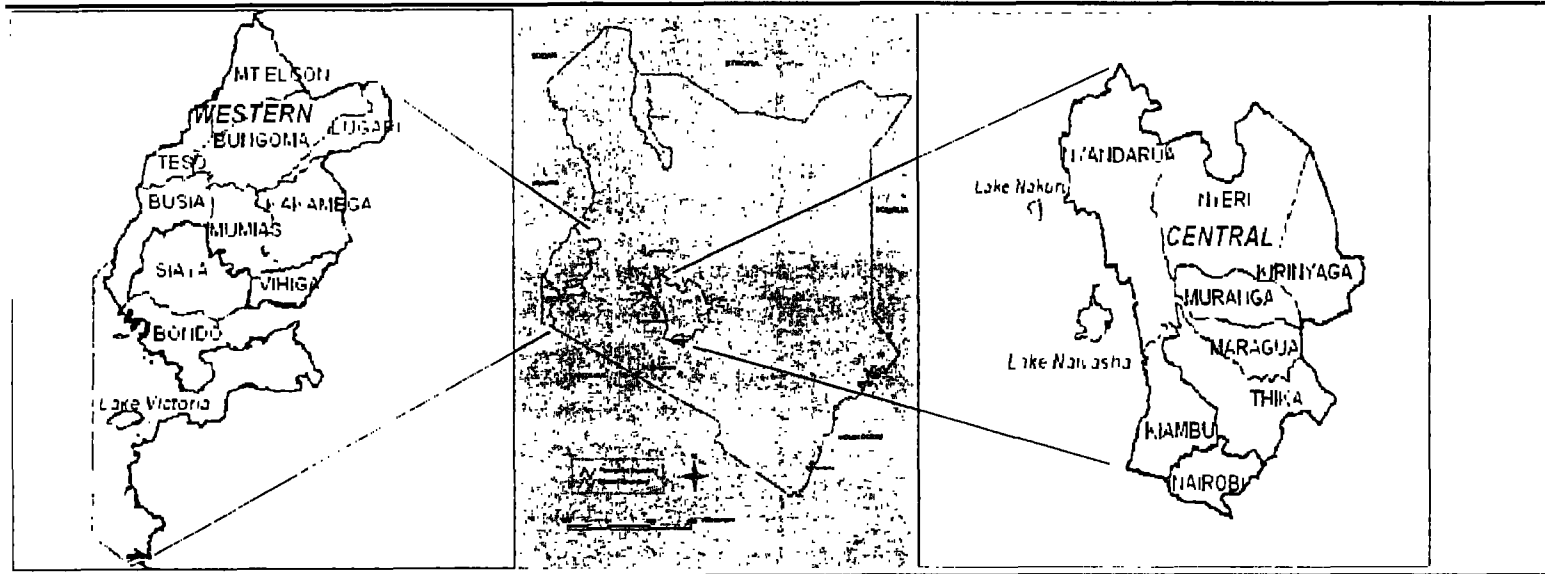
2.2 NATURAL RESOURCES MANAGEMENT (NRM) PROJECT

2.2.1 Background

The NRM project addresses sustainable water, irrigation and forest management. Water is one of Kenya's key natural resources upon which it depends for development and growth. Over the past several years the Kenya government has undertaken a far-reaching program of reform in the water sector which has resulted in the promulgation of the 2002 Water Act. This has substantially improved the country's potential to manage its water resources but the effectiveness of the reform program now depends on the ability to implement the principles of the new Act.

The main objectives of irrigation and drainage development in the country are optimal utilization of national irrigation potential, attainment of food security, improvement of income generation, employment and wealth creation. In order for this objective to be fully realized in Kenya the ongoing reform of the irrigation sector, represented by institutional restructuring of the National Irrigation Board (NIB) and preparation of the draft National Irrigation and Drainage policy, needs to be consolidated.

With the recent passage of the Forest Act, Kenya is advocating a major shift away from exclusive government conservation and management of forest resources. The Act emphasizes co-management by local communities and private sector for the protection and sustainable use of forests. This requires participation and investment by stakeholders. This is consistent with the wider and ongoing reforms in related sectors such as water resources. To operationalize the Act the Ministry of Environment and Natural Resource (MENR) and the newly established Kenya Forest Service (KFS) will require (i) assistance in creating the regulatory and institutional framework, and (ii) targeted support to implement the Act.

2.2.2 Project Development Objective

The objectives of the NRM project are to enhance institutional capacity in Central and Western Provinces to manage water and forest resources, reduce the incidence and severity of water shocks in river catchments, and improve the livelihoods of communities participating in the co-management of water and forests.

These objectives overlap to some extent with those of the WKCDD project. However the main focus of the NRM project is on the conservation of the middle and lower Tana water catchment in Central Province, with a lesser focus on natural resource management activities in Western Kenya.

2.2.3 Components

The project is comprised of the following four components.

Component One - Water Resource Management

The project will support the following subcomponents:

- *Subcomponent 1.1 - Legal and Institutional Strengthening (US$1.1 million, including.1.0 m IDA).* This will support the completion of the realignment of existing laws, policy, and regulations related to water resources management, following promulgation of the 2002 Water Act. Technical support, and funds for consultation and institutional strengthening are provided, specifically to ensure the effective functioning of Water Resource Management Authorities. An economic analytical study will be undertaken to identify key strategic investments in water resources infrastructure that are required to underpin the growth of Kenya's economy. This will include the identification of key investments, selected pre-feasibility studies, and the determination of financing options. This component will build on a body of previous work, including the work of the Kenya Water Security Task Force.

- *Subcomponent 1.2 - Tana Catchment Investments (US$ 6.2 million, including US$ 5.9 m IDA).* The degradation of catchments and watersheds is a common phenomenon throughout Kenya. Degradation has been caused by encroachment into forests, cultivation on steep hillsides and river banks and the use of poor farming methods as people look for arable land for food production to feed the increasing population. Addressing this issue is therefore a key natural resources management concern facing the country. Because of the widespread nature of the problem it is necessary to target initial strategic catchments both to reduce the consequences of degradation in the targeted catchment and to use these activities as pilots to determine the most effective methodologies for achieving integrated sustainable catchment management. A similar approach is planned in the related Western Kenya CDD Flood Mitigation Project for the conservation of the upper Nzoia catchment. The primary institutional mechanism for these activities will be the Water Resources Management Authority and their river basin offices which were established through the 2001 Water Act. The focus will be on management of catchment area of upper Tana River in the South-east Aberdares and southwest Mt. Kenya . Activities will include strengthening of the information base, improving decision making to include water users, and training and sensitization of farmers to improve land-use and water conservation methods. The WRMA will target microcatchment 'hotspots' and through the above mentioned process invest one million dollars per year in catchment protection activities such as erosion control and terracing, small to medium water storage infrastructure and the rehabilitation of existing structures, as well as improvement of on-farm agronomic practices. The regional WRMAs will work closely with the Kenya Forest Service to ensure synergies with their work in the gazetted forest and with neighbouring communities.

- *Subcomponent 1.3 - Consolidation of Irrigation Reforms and Investments (US$ 19.9 million, including US$ 15.1 m IDA).* This subcomponent will support

the ongoing reform of the irrigation sector, encompassing institutional restructuring of the National Irrigation Board (NIB) while strengthening the role of farmers in scheme management, and preparation of the draft National Irrigation and Drainage policy. It will support comprehensive reforms of the management, policy and legislative framework of Kenya's irrigation and drainage sector including institutional realignment and a review of the role and functions of the NIB and of public irrigation schemes. This work has already started through a study being financed under the project preparation facility (PPF). In relation to this, the project will finance targeted investments in the modernization of public irrigation schemes. Mwea, the largest public irrigation scheme in Kenya, will benefit from more comprehensive scheme improvement. Options are currently being identified in on-going feasibility studies to improve overall scheme management and achieve equitable allocation of water. This could include for example the development of water storage facilities that will stabilize irrigation water supply at the tail ends of Wamumu section, downstream parts of the scheme, reducing conflicts and sustaining production during critical water scarce periods. In addition, in order to capture benefits from upstream investments in catchment management and flood mitigation under the WKCDD/FM project, the project will invest in the development of up to 3,000 hectares of gravity irrigation in the lower catchment of the Nzoia.

Component Two - Management of Forest Resources

The project will support the following subcomponents.

- *Subcomponent 2.1 - Forest Sector Institutional Reforms. (US$ 7.8 million, including US$7.2 IDA).* Activities planned under this sub-component will assist the GOK with the reforms necessary to transform the Forest Department (FD) to the KFS as a semi-autonomous institution. Inputs will be targeted at capacity building and forest management not available in the GOK budget. Among the investments to be financed are training, equipment and infrastructure, at different levels with particular emphasis at district level, improving the information base to provide the necessary data for setting forest policy and management targets, design and implementation of a coherent forest revenue strategy to increase net revenues, and a phased Forest Resources Assessment (FRA) for all forest resources.

- *Subcomponent 2.2 - Enabling Community Participation and Benefit Sharing (US$ 7.5 million, including cost US$ 5.7 m IDA).* While the new Forest Act is innovative with respect to the promotion of stakeholder participation, it does not clearly articulate rights and responsibilities of concerned parties, processes for developing and approving management plans, or benefit sharing arrangements. Subsidiary legislation of the Forests Act will be critical guiding decision-making, management responsibilities and benefit-sharing. Assistance will be provided to identify and prioritize an array of partnership models to implement the legislative framework and improve

benefit sharing. Support for enhancing incentive structures for sustainable resource use through development and piloting of payments for environmental services schemes will also be available. The project will also support increasing awareness on the benefits of sustainable land management practices and the conservation of forests. Encroachment of certain forest areas and the process for reclaiming these areas has aggravated the already tense relationship between encroachers and the GOK, and made enforcement challenging. To address this situation, financing will be provided to formulate and implement a coherent and transparent framework to mitigate current and future conflicts over land, customary rights and rights of indigenous people. It is expected that evictions of persons who have customary or traditional rights to forests will not be carried out till the aforementioned framework is in place.

- *Community and Private Sector Investment in Commercial Forestry. (US$ 2.4 million, including US$ 2.2 m IDA).* The Forest Act aims to revitalize Kenya's forest industries and ensure closer integration between forest products manufacturing, harvesting and forest management objectives as well as to generate increased rural incomes. Assistance will be provided to strengthen institutional support services for the creation of an enabling environment for community and private sector involvement in the development and management of production forests. This will be achieved by supporting the establishment of the KFS Investment Centre. Funding will also be provided to improve plantation management planning capacity. The project will also assist the assessment of technical and financial feasibility of the plantation estate in a transparent manner.

Component Three - Livelihood-based Multisectoral Microcatchment Management Investments in the Upper Tana Catchment (US$ 5.5 million, including US$ 4.0 m IDA)

As the roles and opportunities for communities in the implementation of components one and two above are identified, a third, more demand-driven window of funding for livelihoods investments in the Upper Tana catchment will be offered. Using a CDD approach, proposals will be sought from communities in the catchment to invest in livelihood-enhancing microprojects which support the natural resource base. For example, opportunities to establish afforestation schemes in the watersheds, development of private sector/community partnerships for timber, fuelwood and pulp production, production and sale of seedlings, introduction of productivity-enhancing techniques of agro-forestry or conservation farming, and other investments in on farm agriculture development will be considered. The approach will bring different actors from different sectors under a steering committee to vet and prioritize proposals in March of every year for funding in the next fiscal year. One million dollars per year would be available for community microprojects, with additional funds for capacity-building and training. A secretariat for the component will be established in the Water Resources Management Authority (WRMA) offices in Nyeri, to manage the component. Once proposals are selected, targeted engagement with communities, employing capacity-

building techniques and technical training will be used to support the communities in implementation of their microprojects. As much as will be feasible, this component will utilize the local management modalities being developed for the WKCDD/FM Project, which are modelled on the district disbursement and monitoring system successfully used by the Arid Lands Resource Management Project. Similar arrangements for the Aberdares catchment would be developed, maximizing NGO/CBO partnerships. This would provide an efficient, multisectoral delivery mechanism for community based interventions in any given district.

Component Four - Management and Monitoring and Evaluation (US$ 2.4 million, of which US$ 2.3 million IDA)

This component will provide the resources necessary for effective management and monitoring of the project. Management of the tasks undertaken by two line ministries will be mainstreamed within the ministries. The ministries will, however, be strengthened in the financial management and procurement functions in order to manage the requirements of IDA credit management. Funds will also be made available for the development and implementation of a communications strategy. In addition, an overarching framework for monitoring and evaluation will be necessary. To accomplish the management of monitoring and evaluation, each ministry will have an M&E expert assigned. Additional resources will be made from other sustainable development projects in Kenya (WKCDD/FM, KAPP, KAPSLM and WKIEMP) to establish an overarching management information system and impact evaluation system. The projects will have to the extent possible a merged set of indicators for monitoring and evaluation capturing both the changing status of the natural resources (water, forests, and biodiversity) and the welfare of participating communities.

2.2.4 *Potential Sub-projects*

The types of sub-projects that are likely to be financed by each component are set out in *Table 2.3*.

Table 2.3 **NRM Project: Likely Sub-projects**

Component	Sub-Component	Types of sub-projects
Water resource management and irrigation	Legislation harmonisation and identification of priority investments	Harmonisation of water related legislation; strategic water investment identification.
	Tana catchment investments	Catchment conservation; Farmer training and sensitisation; small works including dams, erosion control etc.
	Irrigation reform and investments	Irrigation sector reform; Policy formulation; investment in lower Nzoia and Mwea; malaria control
Forest resource management	Forest sector institutional reform	Creation of a human development and business plans; provision of vehicles and equipment; training and capacity building; development of a forest strategy and rapid forest assessment.

Component	Sub-Component	Types of sub-projects
	Enabling Community Participation and Benefit Sharing	Reforestation/ afforestation in Aberdares, Mt Kenya and Mt Elgon; promotion of partnership management of forests; awareness and capacity building; resettlement schemes.
	Community and private investment in commercial forestry	Support for concessioning approaches; technical assistance and training; on-farm forestry initiatives; support for improved revenue collection system; plantation initiatives.
Multi-sectoral micro-catchment management		Livelihood support in Upper Tana that promotes natural resource conservation e.g. tree- nurseries, agro-forestry, plantations etc.; social accountability; institutional strengthening.
Management, monitoring and evaluation		Financial management; monitoring and evaluation; communication strategy.

Qualification

For similar reasons as the WKCDD project, the NRM project is unlikely to finance:

- Community infrastructure projects that are eligible for financing from other sources, such as the Constituency Development Fund (school buildings, clinic buildings etc);
- Community-driven projects that are not related to sustainable watershed or forests management;
- Projects that result in significant adverse environmental impacts especially where related to watershed or natural resources management (*eg* forests, river banks);
- Projects that are not community-driven, or result in significant adverse impacts on communities.

2.2.5   *Project Target Areas*

The projects' target areas are depicted in *Figure 2.1*. The key water catchment targeted by the NRM project is the Tana River catchment, flowing from the Aberdares and Mt Kenya. This catchment is a key component of Nairobi's water supply, owing to the position of the Nkaidini Dam on the Tana River.

Specifically, the project will cover the seven districts of Central Province:
- Nyeri
- Murang'a
- Maragwa
- Thika
- Nyandarua
- Kiambu
- Kirinyaga

In addition, the NRM project will support the WKCDD/ FMP activities in Western Province, particularly where they relate to water resources and forestry management *eg* around Mt Elgon.

2.2.6 *Proposed Budget*

Table 2.4 presents the budget of the NRM project by component.

Table 2.4 *NRM Project Budget*

Component	Sub-Component	Budget (US Dollars)
Water resource management and irrigation	Legislation harmonisation and identification of priority investments	1.0 million
	Tana catchment investments	6.1 million
	Irrigation reform and investments	20.8 million
Forest resource management	Forest sector institutional reform	7.8 million
	Enabling Community Participation and Benefit Sharing	7.6 million
	Community and private investment in commercial forestry	2.5 million
Multi-sectoral micro-catchment management		5.5 million
Management, monitoring and evaluation		2.4 million
TOTAL		53.7 million

2.3 LINKAGES BETWEEN *WKCDD* AND *NRM* PROJECTS

The WKCDD and NRM projects are highly complementary, and have the following linkages:

- Both projects concern the effective management of water catchments (the Nzoia Basin in western Kenya and the Tana catchment in Central Province respectively).

- Similarly, both projects involve close collaboration with the Irrigation sector.

- The WKCDD and NRM projects are linked to the same policy and legislative context concerning forests and watershed management, although the NRM project has a greater direct role in legal harmonisation and reform and institutional reform;

- Both projects support a CDD approach to encourage co-management of these water catchments. Whilst the CDD initiatives supported under WKCDD/ FMP encompass a wide range of livelihood activities that might help to alleviate poverty and avert pressure from natural resource exploitation, the NRM CDD component will focus on those initiatives that support natural resource management objectives only.

- Whilst the implementation arrangements for each project will compose different institutional bodies, these bodies will work together in order to capitalise on project synergies and facilitate the most effective management of both catchment areas.

The project will be implemented through the Ministry of Water and Irrigation (MoWI) and the Ministry of Environment and Natural Resources (MENR). A national project steering committee consisting of permanent secretaries of MOWI, MENR, Special Programmes, Agriculture, Lands and any other relevant institutions to be determined would meet twice a year to discuss the project work programme, progress and potential areas of synergy with other programmes and projects.

Water Resource Management and Irrigation Component. MoWI and WRMA at national level will jointly manage the institutional strengthening subcomponent. The Tana River WRMA will manage the catchment management component, with strong partnerships with the relevant line ministries and civil society organizations in the catchment. MoWI headquarters and the NIB will manage the Irrigation Reform and Investment subcomponent.

Management of Forest Resources Component. MENR and the Forest Department will manage this component. Once the KFS is formed, communities and the private sector will play a much bigger role in the management of Kenya's forest resources.

Livelihood-based Multisectoral Microcatchment Management Investments in the Upper Tana Catchment. This component will be managed by a Secretariat seated in the WRMA offices in Nyeri. A steering committee consisting of water, forestry, agriculture and other key ministry and civil society organizations involved in NRM will vet community microprojects for approval. At local level, the implementation will be carried out using district based delivery mechanisms.

The following table outlines the anticipated institutional arrangements in place for both projects.

Table 2.5   *Institutional Arrangements to Ensure Implementation at Each Level*

Institutional level	WKCDD/ FMP		NRM		
	CDD	Flood Mitigation	Water resource Management	Forest resource Management	Micro-catchment Mmt
National level	Ministry for Water and Irrigation; WRMA; NIB Office of the President- PMU		Ministry for Water and Irrigation; WRMA; NIB	MENR, Forest Department	WRMA Tana
District level	District Steering Committees with District Project Coordinator- funds flowing to district through district coordinator; overlapping with regional offices of KFS and WRMA				
Community / micro-catchment level	Community / micro-catchment representative; Assistance by Mobile Community Advisors				

2.4.1   National-level Arrangements

The location for the WKCDD project will be under the Office of the President. A Project Management Unit (PMU) will be established with very strong ties with the Provincial Administration for effective coordination and response to the disasters emanating from flooding. The PMU will report to PS Provincial Administration. There will be a PMU main coordinator and a coordinator responsible for implementation of each component.

This project is likely to adopt a river basin management approach with the development of river basin management steering committees.

2.4.2   Provincial-Level Arrangements

For both projects, the provincial level administration is to develop strong links with the PMU in order to provide more effective coordination and response to project requirements, in particular in response to disasters resulting from flooding.

2.4.3   District-Level Arrangements

The composition of the DSG will include the key stakeholders in Government districts (including the DEO, DFO, DDO etc), and all other stakeholders operating in the districts from the government as well as the civil society.

2.4.4   Community-level Arrangements

Micro-catchments within the project areas would be selected based on criteria such as: community readiness (such as pre-existing and functional river basin committees), significance of the micro-catchments' environmentally sensitive or critical areas, particularly those which are highly vulnerable to degradation (such as erosion); presence of springs or other sources of surface or ground water critical to the maintenance of ecosystem services; concentration of small

producers; forest resources; existing level of community organization; and land use and soil management aspects.

This chapter sets out the legal requirements for environmental and social management in Kenya, and relevant World Bank safeguard policies.

3.1   *LEGAL REQUIREMENTS FOR ENVIRONMENTAL PROTECTION AND MANAGEMENT*

3.1.1   *Requirements of the Environmental Management and Coordination Act (EMCA) 1999*

EMCA 1999 was enacted in 2000 to harmonize environmental legislation previously scattered among 77 national laws. As the principal environmental legislation in Kenya, EMCA sets the legal framework for environmental management. It's core elements are as follows.

Creation of a National Environmental Management Authority (NEMA)

EMCA 1999 allows for formation of the National Environmental Management Authority (NEMA) as the body charged with the overall coordination of environmental protection in Kenya, mainly through setting and harmonizing standards for environmental quality. NEMA was established in 2001, and is headed by a Director General appointed by the President. The Director General is assisted by several directors in charge of Enforcement, Education, and Policy, who in turn are assisted by Assistant Directors and Senior Officers. To facilitate coordination of environmental matters at a District level, EMCA 1999 allows for the creation of District Environmental Committees chaired by respective District Commissioners, and the appointment of a District Environmental Officer who oversees environmental coordination and is also secretary to the DEC.

Environmental Assessments

Section 58 of EMCA requires that an Environmental Impact Assessment precedes all development activities proposed to be implemented in Kenya. This requirement was operationalised by NEMA through its publication of the Guidelines for the Conduct of EIAs and Environmental Audits (Kenya Gazette Supplement No. 56 of 13th June 2003).

The framework for environmental assessment in Kenya and a description of types of development that should be subjected to environmental impact assessment are outlined in Legal Notice 101 and the Second Schedule of EMCA respectively.

Legal Notice 101 is silent on the minimum size threshold for projects triggering EIA requirements. However Section 10(2) (Part II) of Legal Notice 101 allows for the approval of proposed projects at the 'Project Report' Stage.

This Section is used by NEMA to grant Environmental Licenses to small projects without the requirement for a full-scale EIA.

Environmental Audits

Under Sections 68 and 69, EMCA requires that all ongoing projects be subjected to annual environmental audits as further expounded in Regulation 35 (1) and (2) of Legal Notice 101 of June 2003. Part V of the Legal Notice 101 defines the focus and scope of Environmental Audit studies as including an appraisal of all the project activities, within the perspective of environmental regulatory frameworks, environmental health and safety measures and sustainable use of natural resources.

Sectoral Coordination in Environmental Protection

Among other functions, EMCA mandates NEMA to regularly review and gazette standards and regulations for environmental quality as a way of guiding activity in all sectors.

Further, in recognition that EMCA is an umbrella law coordinating diverse sectoral statutes, all of which are still in force, the Legal Notice 101 of EMCA requires that the respective sectors be consulted as 'Lead Agencies' in making decisions pertaining to environmental assessment for projects in respective sectors. Therefore to ensure that NEMA does not approve projects that contradict sector policies and legislation, all EIA reports are subjected to review by the relevant sector in their capacity as Lead Agency. Their opinions have a strong bearing on the final decision arrived at by NEMA.

Preparation of a State of the Environment Report

State of the Environment Reports are issued annually for the entire country and also for each individual district. They are tools for environmental monitoring, and outline progress made in environmental management via existing policy goals and strategies and through the publication of emergent environmental concerns, especially those pertaining to unsustainable utilization of natural resources.

3.1.2   *Environmental Protection through Sectoral Laws*

Since the advent of EMCA, all sectoral laws require that EIAs be undertaken for all major projects touching on the sectors. Through the process of public disclosure demanded for all EIA reports, all proposed developments are subjected to public debate which facilitates development of a public position.

Some specific sectoral laws have important requirements for environmental / natural resource protection as follows.

Sessional Paper no. 1of 1999 on the National Water Policy on Water Resources Management and Development provides policy direction for the water sector. The policy directions include:

- Preservation, conservation and protection of available water resource;
- Sustainable, rational and economical allocation of water resources;
- Supplying adequate amounts of water meeting acceptable standards for the various needs;
- Ensuring safe wastewater disposal for environmental protection;
- Developing a sound and sustainable financial system for effective water resources management, water supply and water borne sewage collection, treatment and disposal.

The Water Act 2002 forms the principal legislation governing protection and management of water resources in Kenya. This legislation provides diverse safeguards to regulate water development as follows:

- *Ownership of Water Resources.* In an effort to control abuse and irrational allocation, Section 3 of the Water Act vests the entire national water resource base to the State, which then authorizes utilization. Abstraction is regulated under Section 25 of the Water Act 2002 with the Water Resource Management Authority (WRMA) assuming responsibility of issuing Water Permits subject to conditions as specified in Sections 27 to 43 and the Second Schedule of the Act. Decisions on the granting of water permits will take account of other existing lawful uses, efficient and beneficial use of water in the public interest, requisite catchment management strategies, potential impact of abstraction on the water resource and other users, quality considerations, and strategic importance of the proposed water use among other factors.

- *Requirements for Environmental and Social Impact Assessment.* It is a requirement under Section 29(4) of the Water Act "for all proposed water projects to be subjected to public consultation and possibly an Environmental Impact Assessment Report" for review by NEMA through Lead Agencies including District Environmental Committees. Further, in order to complement the Water Act, NEMA sets guidelines for waste disposal into natural waters and the environment and also spells out penalties for the pollution of water.

- *Service Provider Agreements (SPA).* Section 73(1) of the Water Act 2002 requires Water Service Boards (WSBs) and other Licensees of the Water Services Regulatory Board to make rules for provision of water services and tariff levels. The WSBs are required to enter into SPAs with water service providers, which specify the approved tariff levels and performance targets for the project. This includes measures to ensure that those unable to pay for water are not denied access to clean water.

Irrigation Act (CAP 347)

The existing Irrigation Act Cap. 347 of 1966, which established the National Irrigation Board, does not give clear provisions for the management and coordination of irrigation activities nor provide for beneficiary participation in the planning and implementation of irrigation projects. In addition, it does not create a conducive environment for sustainable irrigation and drainage development. The Act is of limited scope as it was formulated specifically for tenant-based irrigation settlement schemes, which are no longer tenable in their current form in a liberalised environment.

In addition to the Irrigation Act Cap 347, there are also a number of other Acts that are relevant for irrigation and drainage development and management. These include but are not limited to TARDA Act Cap 443, CDA Act Cap 449, ENNDA Act Cap 448, KVDA Act Cap 441, LBDA Act, and ENSDA Act, Agriculture Act Cap 318 and the Water Act Cap 372.

To address this, a National Irrigation Policy and Master Plan is under preparation. The National Irrigation Master Plan will be largely based on the National Water Master Plan (1992) or its update and the District Irrigation Profiles compiled by the Ministry of Agriculture and Rural Development (1992 – 1995) or their updates. The new policy is likely to require the repeal of the Irrigation Act 1966, in order to pave way for one which is of a wider scope covering all categories of irrigation development and to give clear provisions for the management and coordination of irrigation activities and provide for stakeholder participation in all stages of irrigation projects development in Kenya.

The Agriculture Act

This act provides legislative control over soil conservation and land management. According to the agricultural land-use rules, which are enforceable under Cap 318, any activities that may destabilize river beds are prohibited and the Ministry of Agriculture can impose land conservation orders to control cultivation, grazing and clearing of vegetation.

The Lakes and Rivers Act Cap 409

This act makes provision for the protection of bird and other wildlife in or on lakes and rivers.

The Public Health Act Cap 242

The Public Health Act regulates activities detrimental to human health. The owner(s) of the premises responsible for environmental nuisances such as noise and emissions, at levels that can affect human health, are liable to prosecution under this act. An environmental nuisance is defined in the act as one that causes danger, discomfort or annoyance to the local inhabitants or which is hazardous to human health.

The Pest Control Products Act Cap 346

All the chemicals used in any agricultural undertaking must be registered under the Pest Control Products Board (PCPB). All pest control products sold in Kenya must bear a label showing a PCPB registration number. Under this act, there are a number of pesticides that are banned in Kenya. All pesticide storage and handling set-ups must be inspected and licensed under this Act.

The Forests Act 2005

Gazetted forest land is reserved using the Forest Act 2005. Under the Forest Act, a piece of forest land can be degazzeted and converted to other uses. However, the Forest Act requires all de-gazettement of forest land to be discussed and approved by Parliament following preparation of a comprehensive EIA Report. All degazzeted land then reverts to the Commissioner of Lands who then proceeds to allocate the land in accordance with the Land Control Act.

Under the Forest Act 2005, forest land can also be leased for use for other purposes provided that such use does not contradict conservation goals. The same act also allows for Participatory Management of Forests and thus guarantees communities rights to access and utilize certain forest goods and services including citing of water supply intake works in forest areas.

The Wildlife Act

Nature Reserves and National Parks are controlled by the Kenya Wildlife Service under the Wildlife (Management and Co-ordination) Act of 1976. The common feature with all land reserved for use by wildlife is that its conversion to any other form must be approved by Parliament.

3.2   *LEGAL REQUIREMENTS CONCERNING SOCIAL ISSUES*

There is no legislation in Kenya expressly devoted to safeguarding of social issues. However the rights of all citizens and residents of Kenya are elaborated and specified in the National Constitution and further expounded in various laws and statutes, all of which seek to ensure fair play in the administration of public affairs.

Since the mid-1990s, the government has developed and pursued a policy on the Social Dimensions of Development, in which it seeks to ensure that development policies and strategies do not marginalize those that are less economically empowered. Therefore, it is a requirement by the government for all projects to have facilities for cushioning those at risk of economic marginalization. Indeed, for over a decade now, GoK has embraced poverty alleviation as its top priority goal and has actively pursued action towards this. In 1992, the Government developed and published the National Policy Eradication Plan (NPEP) which set out the national strategy and targets towards poverty eradication. To enhance delivery on policy goals as set in the

NPEP, the government facilitated the participatory development of Poverty Reduction Strategy Papers (PRSPs) for each district with a view to identifying root causes of poverty at district level and to identify priority action for each district. The PRSPs have since then shaped the focus of development planning at District level as captured in the District Development Plans and as recently refocused by present government's development blueprint on Economic Recovery for Employment and Wealth Creation.

3.3 RECENT DEVELOPMENTS

The WKCDD and NRM projects have been conceived and developed within the context of recently concluded legal reforms in both the forestry and water sectors in Kenya.

3.3.1 Reforms in the Forestry Sector

The Forests Act 2005 and draft Policy have their origins in the Kenya Forestry Master Plan which was developed between 1990 and 1994, and which called for reforms in forestry policy and legislation to facilitate development of the sector over the next 25 years. Those reforms were implemented in varying measures in the 2005 Act, and the NRM project has been shaped by ensuing institutional reforms.

Broadly, the reforms are aimed at improving efficiency in the forestry sector's contribution to social and economic development and environmental sustainability. They include new institutional arrangements for forest sector regulation and forest management, replacement of the Forestry Department with a parastatal (the Kenya Forest Service), greater involvement of local government and local communities in forest management, and provisions for forest industry involvement in timber production. The forest department has recently commissioned a study to provide a roadmap towards institutionalizing the legal reforms. [1]

The Kenya Forest Service (KFS) will be administered based on new boundaries that do not follow government administrative boundaries. The KFS proposes to divide the country into 8 regions called conservancies with 32 divisions based on ecosystem structure and functions. There will be an administrator for each conservancy and each division. As result, upon the establishment of the KFS, District Forest Offices will be transferred to the new system of conservancies and divisions.

3.3.2 Reforms in the Water Sector

The enactment of the Water Act 2002 has driven the implementation of the national water policy. Towards this, a National Water Resources Management Strategy (NWRMS 2005-2007) was released in December 2004 to provide a

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(1) White, S. P. (2006). An Assessment of the Roadmap for the Transition from Forest Department to Kenya Forest Service Draft, 15 August 2006.

clear, accountable and transparent roadmap for assessing, maintaining, enhancing, developing and managing the limited available, renewable, freshwater resources using an integrated approach and on a sustainable basis. In line with the Water Act 2002, new institutions have been formed to take responsibilities formerly held by the Central Ministry of Water. These new institutions include:

- *The Water Resource Management Authority (WRMA)*. A body corporate charged (under Section 8(1) of the Water Act 2002) with the overall responsibility of managing the water resources of the country;

- *Water Service Boards (WSBs)* responsible for ensuring adequate access to water and sanitation services within their jurisdictions. Where government assets exist they will be owned by the WSBs and operated by Water Service Providers (see below). The WSB is the primary agent of service quality oversight;

- *Water Services Regulatory Board (WSRB)* mandated as the national regulator with responsibility for providing guidelines on tariff setting and quality standards. The WSRB also is responsible for issuing licenses to WSBs;

- *Water Services Trust Fund (WSTF)* for providing financial support to the rural water sector through grant finance for capital investments; and

- *Water Service Providers* to provide water services to consumers, ranging from public urban utilities, small private network operators in rural areas and community managed self supply through water users' associations.

WRMA will be administered based on new boundaries that do not follow the government administrative boundaries. WRMA has divided the country into 6 regions and 25 sub regions based on catchments. Each region has a regional officer and each sub-region has a sub-regional officer. In addition, the Ministry of Water and Irrigation (MWI) is currently working to realign and rationalize the institutional functions and responsibilities based on the 2002 National Water Act so as to eliminate duplications and overlaps of roles and responsibilities among different institutions. It is envisaged that the MWI will be downsized and many of the district water offices' current responsibilities and tasks will be taken over by the WRMA and the Water Service Board in the coming years.

3.3.3 Other Legal Trends

Further policy and legal initiatives have been mounted to further enhance the management of public affairs and to ensure that the Kenyan practice is in keeping with international thinking. Ongoing national initiatives, for example on womens' empowerment, are aimed at ensuring that the less privileged in society are given a voice in the decision making process.

3.4	WORLD BANK SAFEGUARD POLICIES

The comprehensive framework for environmental assessment provided by EMCA, built on in the Water Act 2002 and the Forests Act 2005, ensures that Kenyan processes for environmental and social assessment are consistent with World Bank safeguard policies.

Under OP 4.01 concerning environmental assessment, both the WKCDD and NRM projects are Category B. The triggering of each World Bank safeguard policy is presented in *Table 3.1*, with an accompanying explanation.

The processes presented in *Chapter 4* of this ESMF are based on the requirements of the safeguard policies that are triggered, and further detail is provided in subsequent chapters.

3.4.1	*Disclosure*

OP 4.01 further requires that this ESMF report must be disclosed as a separate and stand alone report by the Executing Agencies and the World Bank, as a condition for World Bank Appraisal of the projects.

In keeping with this requirement, and the further detail set out in, the draft report will firstly be made publicly available to project-affected groups and local NGOs in Kenya by placing a public notice in a national newspaper and making the report available at the Office of the President. This measure will also satisfy the EMCA 1999 requirement that EIA reports are disclosed and be subjected to review by the public. Following revisions, the ESMF will be officially submitted to the World Bank, and made publicly available at least 30 days prior to the Board date.

Table 3.1   Triggering of World Bank Safeguard Policies

Policy	WKCDD Project	NRM Project	Discussion
Environmental Assessment (OP 4.01, BP 4.01, GP 4.01)	Yes	Yes	Both projects trigger the Environmental Assessment safeguard, and both projects are Category B. This ESMF has been prepared to satisfy the requirements of the Environmental Safeguard. Category B ratings are given for the projects, as all of the investments to be financed will be of a small or medium-sized nature. The EA process takes into account the natural environment (air, water, and land); human health and safety; social aspects (involuntary resettlement, indigenous peoples, and cultural property) and trans-boundary and global environmental aspects.
Natural Habitats (OP 4.04, BP 4.04, GP 4.04)	Yes	Yes	Both projects trigger the Natural Habitats safeguard. The WKCDD project's activities in watershed management may directly and indirectly result in the conversion or degradation of natural habitats. The NRM project's activities directly concern natural habitats, and may include sub-projects that carry direct risks of the conversion or degradation of natural habitats.
Forestry (OP4.36, GP 4.36)	Yes	Yes	Both projects are consistent with OP 4.36. Both assist the GoK to harness the potential of forests to reduce poverty in a sustainable manner, integrate forests effectively into sustainable economic development, and protect the vital local and global environmental services and values of forests, by supporting community based approaches to forest and watershed management. The WKCDD project will finance sub-projects that concern the management, protection or restoration of forests. The NRM project aims to bring about changes in the management, protection and utilisation of natural forests and plantations, and directly concerns forest policy and legislation. Potential forestry-related environmental impacts such as introduction of invasive species, reforestation of critical non-forest habitats and alterations to hydrological regimes will be addressed through implementation of the ESMF.
Pest Management (OP 4.09)	Yes	Yes	Pesticide use among beneficiary communities of the project is currently very low to non-existent and the project is not likely to provide support to the purchase or use of pesticides. However, given the indirect effect of potential increased pesticide use on farm and forests and in the control of malaria, the Pest Management safeguard is triggered. The requirement to screen for pesticide use is included in the processes set out in *Chapter 4*. In addition, the indirect effect of increased pesticide use on farms and forests, and in the control of malaria cannot be ruled out, and therefore a specific measure of the ESMF will be to monitor whether this increased use of pesticide actually occurs, and if so to take mitigating action.

Policy	WKCDD Project	NRM Project	Discussion
Physical Cultural Resources (OP 4.11)	Yes	Yes	In the area covered by the WKCDD/FMP and NRM projects, there are a number of identified religiously important sites that are considered to be culturally significant (e.g. forests), and which could be affected through the variety of expected micro-initiatives. Furthermore, for both projects, small or medium large scale infrastructure projects (e.g. dykes, hydros) could disturb culturally significant sites. Therefore consistent with OP 4.11, the Physical Cultural Resources is triggered for both projects and consequently steps to safeguard this issue will be integrated into the ESMF.
Indigenous Peoples (OP 4.10)	Yes	Yes	There are a number of tribal groups in both project areas that, consistent with the revised Indigenous Peoples Safeguards, would be characterised as Indigenous Peoples. Therefore as both projects have the potential to impact both positively and negatively on these groups, this safeguard is triggered in both instances. While there are varying degrees to which the different groups in the project areas satisfy the characteristics as outlined in the safeguard policy, there are nevertheless distinct cultures and traditions that need to be carefully considered prior to implementing an initiative. The types of measures that could trigger this safeguard include changes in rights of access to forestry areas on which Indigenous Peoples rely both for subsistence and cultural purposes; changes in use of culturally sensitive areas (e.g. burial sites); or resettlement of Indigenous Peoples residing in environmentally sensitive areas to another location. Given the community driven nature of both projects, it is not clear now which projects will impact which groups, therefore the Indigenous People's Planning Framework should be referred to enable screening and review of initiatives in a manner consistent with the policy.
Involuntary Resettlement (OP4.12, BP 4.12)	Yes	Yes	OP 4.12 is to be complied with where involuntary resettlement may take place as a result of the projects. The types of projects which are likely to trigger the involuntary resettlement safeguards include category A projects, such as the construction of a dam, as well as some category B projects such as those that result in restricted access to land. The safeguards require that involuntary resettlement should be avoided through exploration all viable alternative project designs where feasible, or similarly minimized. Where it is not feasible to avoid resettlement, resettlement activities should be conceived and executed as sustainable development programs, providing sufficient investment resources to enable the persons displaced by the project to share in project benefits. Displaced persons should be meaningfully consulted and should have opportunities to participate in planning and implementing resettlement programs.

Policy	WKCDD Project	NRM Project	Discussion
Safety of Dams (OP 4.37, BP 4.37)	No	No	Neither of the projects will involve the construction of large dams as defined in the safeguard policy. The NRM project will operate in the Tana catchment that encompasses a dam, but effects dam operation or risks to the NRM project from this dam are negligible. However, further details concerning dam safety are set out in *Chapter 6*.
Projects in International Waterways (OP 7.50, BP 7.50, GP 7.50)	Yes	No	The WKCDD project triggers the International Waterways safeguard, owing to its financing of flood control and irrigation facilities in the Nzoia and Yala Rivers which are part of the wider Nile Basin. The International Waterways safeguard will be addressed through the notification of parties to the Nile Basin Agreement prior to the disclosure deadline on December 27, and the presentation of the projects at the next Nile Basin Council of Ministers annual meeting in March/April 2007. GoK is already aware of this and is in the process of preparing the notification. The NRM project's activities in the Nile Basin are limited to forest conservation measures, and activities in Central Province concern the Tana River catchment which does not form part of any international waterway. The NRM project therefore does not trigger the International Waterways safeguard.
Projects in Disputed Areas (OP 7.60, BP 7.60, GP 7.60)	No	No	Neither of the projects will be implemented in disputed areas.

This chapter sets out the decision trees, reporting systems, and responsibilities of officers in implementing the ESMF. The chapter begins with details of issues that will be addressed by the ESMF, and the specific next steps to be taken. It then describes the various elements of the ESMF including:

- Decision tree on sub-project preparation and approval;
- Screening checklist for sub-projects;
- Screening checklist review form;
- Project Report form for sub-projects;
- Responsibilities for monitoring and reporting;
- Annual report forms; and
- Descriptions of roles, accompanied by terms of reference.

The ESMF has been designed to fit with Kenyan law on environmental impact assessment. Kenyan EIA requirements are set out under Legal Notice 101 of June 2003. Regulation 6 of Legal Notice 101 stipulate that "An application for an Environmental Impact Assessment License shall be in the form of a Project Report in the form set out in the First Schedule to these Regulations, and the applicant shall submit the application together with the prescribed fee to the Authority". Section 7(1) of Part 11 of the Legal Notice 101 specifies the contents of the project report. Project Reports are normally prepared as a means of informing NEMA of the proposed development such that after review of the report, NEMA advises on the need or otherwise for a full EIA. However, section 10(2) of Part II of Legal Notice 101 allows for approval of proposed projects at the Project Report Stage and has been effectively used by NEMA to grant environmental licenses to small projects without requiring a full EIA.

Legal Notice 101 of EMCA does not set minimum size thresholds for projects that should trigger EIA requirements. However, discussions with NEMA have revealed existence of an on-the-ground arrangement through which micro-projects can be cleared by the District Environmental Committee under coordination by NEMA.

Accordingly, the procedures below include a screening checklist system which allows for micro-projects to be cleared by the District Environmental Committee if they are considered to be of minimal environmental or social impact. The screening checklist, and screening checklist review form to be completed by the District Environmental Officer, will automatically trigger the requirement for an ESMP (or RAP or Indigenous People's Plan etc) for a list of projects deemed 'Category A'; or can trigger the requirement for a Project Report, based on a field appraisal, which may in turn trigger a requirement for a full ESMP (or RAP etc).

4.1   KEY ISSUES AND PROPOSED ACTIONS WITHIN THE ESMF

Table 4.1 sets out proposed actions against a list of key issues. Both WKCDD and NRM projects will have a significant environmental and social benefits, owing to their focus on addressing the root causes of forest descruction, and on reducing the impacts of damaging floods. However there are risks of *adverse* environmental and social impacts, owing to:

- The scale of some of the anticipated investments is significant, including a potential USD 40 million flood mitigation project for example. Details are provided in *Box 4.1;*
- The delivery of improvements in watershed management is a complex task that is unlikely to be achieved with simplistic or technological solutions. For example, the effect of tree planting on watershed management depends greatly on the species of tree planted, and the location of the plantings;
- Equally, the delivery of poverty reduction is unlikely to be achieved without understanding social development and the situation of vulnerable groups. Support that benefits one group in society may lead to reduced welfare among others;
- Aspects of the projects are based on an assumption that people who have encroached on forests or damaged forest cover (or carried out any other environmentally damaging activity) as a result of their poverty will cease to damage the environment if their welfare improves. This is a false assumption, unless measures to govern environmental management are established at community levels or as a result of government intervention;
- The projects are based on the assumption of a positive cumulative impact of small-scale measures on overall watershed management. This is to be encouraged, but it will require (i) that understanding of a watershed management approach is promoted at District and community levels, and (ii) cumulative impacts of unforeseen *adverse* impacts are avoided.

These risks will be taken very seriously by GoK and the WKCDD and NRM projects, owing to the importance of the environmental receptors involved and the pressing need to ensure improvements in people's well-being in these provinces on a sustainable basis. The Tana catchment is a source of water for Nairobi's main supply of drinking water, the Ndaikaini Dam, and the Nzoia and Yalla catchments feed the internationally important Lake Victoria and are important fishery resources.

Box 4.1   *Anticipated Sub-Projects of Larger Scale*

- Medium-scale water storage structures and rehabilitation of existing structures;
- Flood mitigation measures in the Nzoia catchment which will be limited to small-scale measures;
- Irrigation schemes in the Nzoia basin and development of water storage in the Mwea irrigation scheme;
- Private sector partnerships in forestry operations;
- Implementation of a strategy to mitigate current and future conflict over land, customary rights and rights of indigenous peoples, including purchase of land, support for alternative livelihoods, and rehabilitation of forest areas.

These issues will be address by a series of measures, key among which are:

- At the national level, staff members appointed within the WKCCD and NRM PMU with specific responsibilities for addressing environmental and social issues;
- Also at the national level, the appointment of a full-time officer to address river basin management;
- An annual environmental and social performance audit, to be carried out by independent consultants;
- NEMA scrutiny of all EIA / ESMP reports, RAPs and IPPs, and NEMA approval or rejection of the proposed sub-project;
- World Bank review of the NEMA decision and approval/rejection of a number of types of projects deemed to be 'Category A' by this ESMF (see below).

4.1.1   Next steps

The specific next steps to be taken are, in chronological order:
- MoWI, FD and OP to consult with NEMA and World Bank on this ESMF;
- Implementation arrangements for both projects to be confirmed as a matter of urgency, and a PMU fully established within the OP;
- PMU to clarify roles of Kenya Forest Service and WRMA officers in view of the emerging/changing geographical structure of these organisations;
- PMU to consult with District Environmental Committees on the ESMF, or stimulate their operation in cases where they are yet to be formed;
- Retroactive screening, using this ESMF of the sub-projects that are already under preparation, and the instigation of measures to detail environmental and social management plans as required;
- PMU to prepare the project implementation manuals (PIMs), with the help of external consultants, to integrate the Environmental and Social Management Framework into the procedures set out in the PIM;
- Appraisal mission to confirm the proposed operation of the ESMF with GoK;
- PMU to confirm and develop the proposals for training and capacity building;
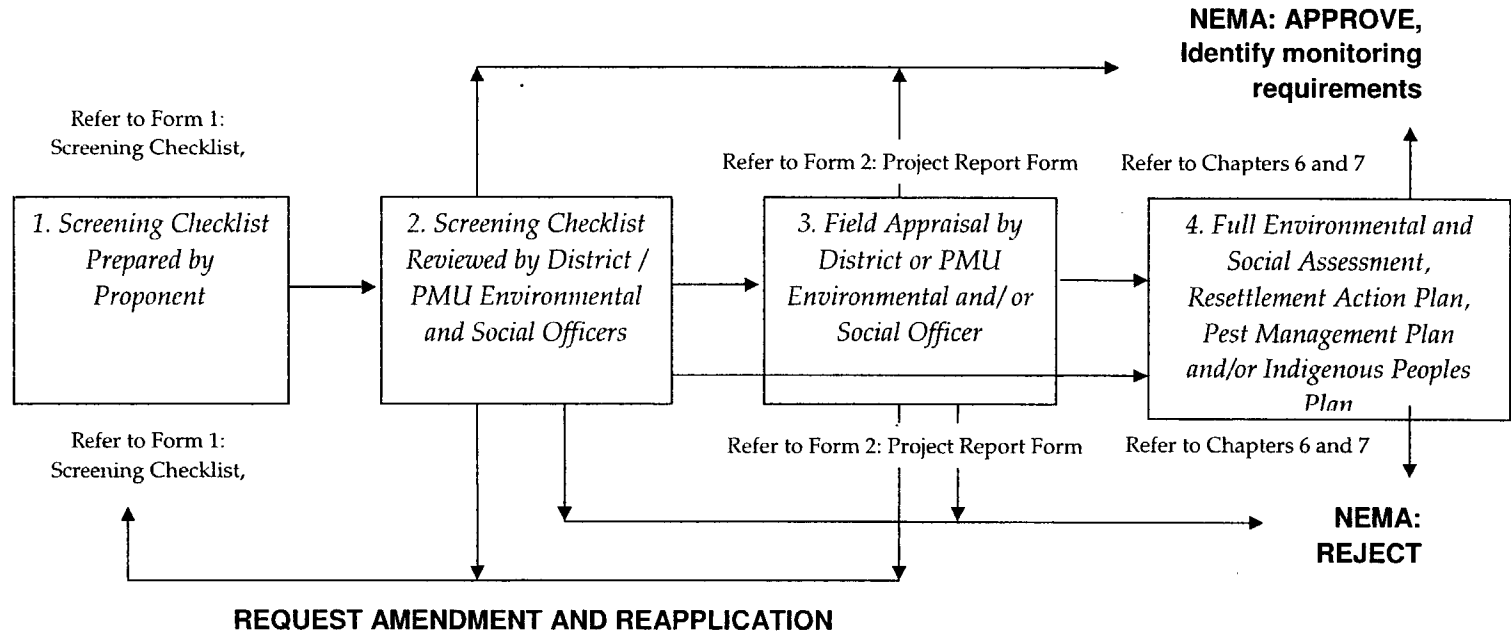- Inclusion of discussion on the ESMF in project launch workshop(s).

Table 4.1 *Issues addressed by the ESMF*

Issue	Mainstreaming or mitigation measures	Responsibility for action	Timing
1. Requirement for the mainstreaming of the Environmental and Social Management Framework into project activities	a. Appoint PMU River basin officer addressing the Nzoia, Yala, and Tana river basins.	PMU	From project start
	b. Appoint Environmental Mitigation Officer	PMU	From project start
	c. Appoint Social Mitigation Officer	PMU	From project start
	d. An annual environmental and social performance audit, carried out by independent consultants (or one consultant with sufficient combined environmental and social experience).	PMU	Annually
	e. Integration of environmental and social review within mid-term review, ICR, and/or World Bank missions.	PMU	At MTR etc
2. Requirement for the ESMF to trigger appropriate 'strategic' level of environmental and social impact assessment of catchment management measures, to ensure an environmentally and socially optimal number and location of flood mitigation and irrigation measures, and to trigger full-scale environmental and social assessment of larger-scale investments	a. Design of the ESMF to ensure triggering of suitable strategic EA or full-scale EA	[Integrated into this ESMF]	-
	b. Monitoring of compliance of the projects with the ESMF by World Bank and NEMA	NEMA, with World Bank advice	At regular intervals
3. Requirement for formal approval of EIAs, ESMPs, RAPs or IPPs for larger-scale sub-projects	a. Design of the ESMF to ensure that PMU forwards EIAs, ESMPs, RAPs or IPPs to NEMA for approval	PMU to forward Project Reports and full-scale EIA / ESMPs, RAPs and IPPs to NEMA.	On preparation of EIA etc reports
	b. Design of ESMF to ensure World Bank approval of EIAs, ESMPs, RAPs or IPPs for 'Category A' projects	PMU to forward Project Reports and full-scale EIA / ESMPs, RAPs and IPPs to World Bank.	On preparation of EIA etc reports
4. Need to promote sustainable watershed management, including as part of international watershed management, as a key outcome of both projects.	a. Appoint a River Basin Management officer with the PMU	PMU	From project start
5. Localised impacts of community micro-projects	a. Implement the ESMF as set out in this report.	District Steering Committees responsible to delegate implementation to District Environmental Officer and District Development Officer	From project start, and throughout project

Issue	Mainstreaming or mitigation measures	Responsibility for action	Timing
6. Cumulative impacts on some environmental resources	a. Use ESMF to trigger and carry out assessments of cumulative impacts on surface water flows, surface water sediment loading, and forest cover.	Environmental Mitigation Officer	As required
	b. Ensure that a catchment management approach is taken, drawing on the newly established WRMA and their river catchment management approach	River Basin Officer	As required
	c. Sensitise communities to issues of cumulative impacts and catchment management.	Mobile Community Advisors	Start of project
	d. Carry out two or three 'demonstration' studies in selected districts.	PMU River Basin Officer with support of District Environmental Officers.	Start of project
7. Weak capacity for environmental and social management at District levels	a. Develop partnerships with NGOs for environmental management	District Environmental Officers	Ongoing
	b. Develop partnerships with NGOs for social management	District Development Officers	
	c. Stimulate the operation of the DECs and the DDCs	District Environmental Officers/ District Development Officers	By project start
	d. Address budgetary constraints by earmarking finance for ongoing environmental and social management	PMU	During project preparation
8. Need for more effective watershed management and poverty alleviation in target areas	a. Assign sufficient budget for components addressing 'sustainable development investment and planning' (Under WKCDD) and 'multisectoral microcatchment management' (NRM)	PMU	During project preparation
	b. Promote opportunities to apply the 'Micro-catchment' approach to the Nzoia and Tana river catchments	PMU River Basin Officer(s)	Ongoing
	c. Compile social and environmental baseline at micro-catchment levels to feed into this (eg on current vs sustainable forest exploitation levels)	PMU River Basin Officer(s) with support of District Environmental and District Development Officers.	Pre-project kick-off
	d. Undertake participatory activities with 'Micro-catchment' communities to obtain input into the management plan for each catchment, and encourage ownership.	Mobile Community Support representative with support of District Environmental Officer and the District Development Officer.	Pre-project kick-off and Ongoing
	e. Develop management plans for each catchment identified, focusing on the combination of sustainable natural resource management and appropriate poverty alleviation strategies	District Steering Groups, with support of PMU	Pre-project kick-off and Ongoing
9. Requirement for integration of pro-user (i.e. community) considerations in the Forestry and Water policies	a. Continue to advocate participatory Forestry and Water policy implementation	PMU	Ongoing
	b. Identify and advocate reform of policies that limit sustainable Forestry and water resource use	PMU River Basin Officer(s)	Ongoing

Issue	Mainstreaming or mitigation measures	Responsibility for action	Timing
10. Requirement to optimise integration of technical advice with a demand-driven, participatory approach	a. District-level workshops to reach consensus among government officers and NGOs on optimum integration of technical advice	District Steering Groups	Start of project
	b. Sensitise 'micro-catchment' communities to the range of technical advice available, and their responsibility to choose whether they require technical advice (and in what)	Mobile Community Advisors	Start of project
11. Requirement to provide advice on relevant environmental and social laws to communities	a. Include relevant clause in the MoU's signed with communities.	District officers.	Ongoing
	b. MCAs to provide information on relevant environmental and social laws to communities.	Mobile community advisors	Ongoing
	c. District Environmental Officers and District Development Officers to provide information on environmental and social laws to MCAs, or where applicable, feedback the inappropriateness of particular laws to PMU.	District Environmental Officers/District Development Officers	Ongoing
12. Requirement to upscale positive environmental and social micro-projects	a. MCAs to lead participatory approach with micro-catchment' communities, aligned with catchment management plan, to support identification of micro-projects that support environmental and social objectives.	District Environmental Officers	Start of project

Figure 4.1   *Decision Tree for Sub-project Preparation and Approval*

NEMA: APPROVE, Identify monitoring requirements

Refer to Form 1: Screening Checklist,

Refer to Form 2: Project Report Form   Refer to Chapters 6 and 7

| 1. Screening Checklist Prepared by Proponent | 2. Screening Checklist Reviewed by District / PMU Environmental and Social Officers | 3. Field Appraisal by District or PMU Environmental and/or Social Officer | 4. Full Environmental and Social Assessment, Resettlement Action Plan, Pest Management Plan and/or Indigenous Peoples Plan |

Refer to Form 1: Screening Checklist,

Refer to Form 2: Project Report Form   Refer to Chapters 6 and 7

NEMA: REJECT

REQUEST AMENDMENT AND REAPPLICATION

There will be thousands of micro-projects financed by the WKCDD and NRM projects that will each need to be reviewed for potential environmental and social impacts, while there is only one District Environmental Officer and one District Development Officer per district. Therefore, a system that is streamlined is required, and as far as is feasible, communities must be responsible for completion of this screening process.

As part of the identification of sub-projects, the project proponent will prepare a simple screening checklist (*Format 4.1*). The screening checklist will be prepared by the project proponent, whether they are a community group, a Mobile Community Adviser, a District Government Officer, a Kenya Forest Service Officer, or any other proponent.

In the case of community-driven projects, MCAs will encourage communities to carry out this task themselves, possibly by the more literate members of the community. The same screening checklist will be used for projects that are proposed by other parties, for example the Kenya Forest Service in the case of small-scale forest infrastructure to be financed under the NRM project

The screening checklist will also be used for larger investments, including those concerning flood mitigation and irrigation infrastructure. In this case, it may be necessary for the Water Resources Management Authority or the Ministry of Water and Irrigation to prepare the checklist for example. This will lead to the preparation a Project Report for review by NEMA in line with legal Notice 101 of EMCA, and if required a full EIA (and/or RAP etc). Project reports can only be prepared by independent consultants as registered by NEMA, paid for by the project proponents.

The checklist is based on a categorisation of projects into Categories A and B. A Category A project is, by its nature, likely to have significant adverse environmental or social impacts, especially in the locality of the project, that are sensitive, diverse or unprecedented, and may affect an area that is broader than the physical works. One or more of the following are required if the project is Category A: ESMP; RAP (abbreviated or full); IPP; PMP. These will be prepared by an independent expert. For some projects that are highly risky or contentious, or involve serious environmental or social concerns, an independent, internationally recognised panel of experts will be appointed.

Category B projects may have potential adverse environmental or social impacts but these are less adverse than Category A, or they may have no adverse environmental or social impacts. Impacts are site-specific, few are irreversible if any, and mitigation measures can be readily defined.

For Category A projects, the form simply triggers the requirement for an ESMP, RAP, IPP or PMP. For Category B projects, simple yes/no answers are required, culminating in a request for details of mitigation and sustainability, and a conclusion on the next steps required.

4.3   *SCREENING CHECKLIST REVIEW FORM*

Based on this application, the proposal will be reviewed and selection for the next stage of evaluation undertaken. At this selection stage, a first level of environmental screening takes place on the basis of the screening checklist completed by the proponent. Legal Notice 101 of EMCA does not set minimum size thresholds for projects that should trigger EIA requirements. However, discussions with NEMA have revealed existence of an on-the-ground arrangement through which micro-projects can be cleared by the District Environmental Committee under coordination by NEMA.

The screening checklist will be reviewed using the Review Form, to be completed either by the DEO or the PMU Environmental Officer. Where there are social impacts indicated, the form will have to be reviewed in addition by the DDO or the PMU Social Officer. The form prompts the reviewer to verify the information provided by the proponent, and confirm the best course of action. The reviewer must consider the nature and location of the project and the anticipated impacts, and based on his/her judgement, confirm or propose the best course of action: community mitigation, MCA advice on mitigation, specific advice to be provided by the DEO/ DDO, or a more detailed project report. District Environmental Committees will be required to sign off the screening checklist review forms submitted by the DEO/DDO on a monthly basis.

Guidelines on potential social and environmental impacts of sub-project types that are likely to be financed by the WKCDD and NRM projects are provided in *Annex F*, and should be referred to by the proponent, MCA , DEO or DDO.

Please note that all formats for checklists presented in this report will be copied into a Microsoft word document that can be used to provide an electronic record. Selection of the 'forms' toolbar in Microsoft word enables the document to be 'locked' by clicking on the padlock icon, so that the shaded text areas and checkboxes can be filled.

Format 4.2   Screening Checklist

<u>SCREENING CHECKLIST</u>

WKCDD or NRM Project:	Select relevant project
Sub-project name	[type here]
Location	[type here]
Estimated cost (KSh)	[type here]

<u>TYPE OF PROJECT OR ACTIVITY</u>

CATEGORY A	☐ Policy, legal or strategy document
	☐ Dam project greater than 15m in height
	☐ Medium-scale irrigation scheme
	☐ Medium-scale water storage structure
	☐ Rehabilitation of medium-scale water storage structure
	☐ Forestry concession with the private sector
	☐ Construction of roads, bridges

CATEGORY B	☐ Farm forestry or agroforestry, small-scale woodlots and tree nurseries
	☐ Small-scale irrigation scheme
	☐ Small-scale water storage facility
	☐ Spring capping or rural water supply scheme
	☐ Small-scale dam (less than 15 m in height)
	☐ Check-dam
	☐ Forest infrastructure
	☐ Participatory forest management or reafforestation
	☐ Dykes
	☐ Riverbank stabilisation
	☐ Terracing of farmland
	☐ Agricultural interventions
	Please give more details: [type here]
	☐ Support to income generating initiatives
	Please give more details: [type here]
	☐ Other
	Please give more details: [type here]

<u>CATEGORY A PROJECTS</u>

For all Category A projects, an Environmental and Social Management Plan (ESMP) will be required.

In addition, the following studies may be required:

	Yes	No
Will this Category A project affect Indigenous People? If yes, an Indigenous People's Plan will be required.	☐	☐
Will this Category A project require land for its development, and therefore displace individuals, families or businesses from land that is currently occupied, or restrict people's access to crops, pasture, fisheries or forests,	☐	☐

even, whether on a permanent or temporary basis. If yes, a Resettlement Action Plan will be required.		
Will this Category A project involve the use of pesticides? If yes, a pest management plan will be required.	☐	☐

CATEGORY B PROJECTS

Please describe how the project complies with the most relevant planning document, for example the District Development Plan or the Microcatchment Plan:	[type here]

Will the project:	Yes	No
Adversely affect natural habitats nearby, including forests, rivers or wetlands?	☐	☐
Require large volumes of construction materials (eg gravel, stones, water, timber, firewood)?	☐	☐
Use water during or after construction, which will reduce the local availability of groundwater and surface water?	☐	☐
Lead to soil degradation, soil erosion or soil salinity in the area?	☐	☐
Create waste that could adversely affect local soils, vegetation, rivers and streams or groundwater?	☐	☐
Create pools of water that provide breeding grounds for disease vectors (for example malaria or bilharzia)?	☐	☐
Involve significant excavations, demolition, movement of earth, flooding, or other environmental changes?	☐	☐
Affect historically-important or culturally-important sites nearby?	☐	☐
Require land for its development, and therefore displace individuals, families or businesses from land that is currently occupied, or restrict people's access to crops, pasture, fisheries, forests or cultural resources, whether on a permanent or temporary basis?	☐	☐
Result in human health or safety risks during construction or later?	☐	☐
Involve inward migration of people from outside the area for employment or other purposes?	☐	☐
Result in conflict or disputes among communities?	☐	☐
Affect indigenous people, or be located in an area occupied by indigenous people?	☐	☐
Involve the construction of a dam or weir, or depend on water supplied from an existing dam?	☐	☐
Result in a significant change/ loss in livelihood of individuals?	☐	☐
Adversely affect the livelihoods and/or the rights of women?	☐	☐

If you have answered Yes to any of the above, please describe the measures that the project will take to avoid or mitigate environmental and social impacts	[type here]

What measures will the project take to ensure that it is technically and financially	[type here]

sustainable?

CONCLUSION

Which course of action do you recommend?

Category A

☐ ESMP; ☐ IPP; ☐ RAP; ☐ PMP

Category B

☐ There are no environmental or social risks
☐ Community to be given full responsibility to mitigate environmental risks
☐ MCAs to provide detailed guidance on mitigation of risks to the community
☐ Specific advice is required from District Officers in the following area(s):

[type here]

For either Category A or B:

If a RAP is required, will the project displace or restrict access for less than 200 individuals, or if over 200, are losses for all individuals less than 10% of their assets?

If Yes, prepare an abbreviated RAP ☐
If No, prepare a full RAP ☐
Full details of resettlement requirements are provided in the accompanying Resettlement Policy Framework.

Completed by: [type here]
Name: [type here]
Position / Community: [type here]
Date: [type here]

Format 4.3   *Screening Checklist Review Form*

SCREENING CHECKLIST REVIEW FORM

	Yes	No
Has the project proponent selected the correct type and category for this project?	☐	☐

If 'No', please select the correct type of project or activity below:

CATEGORY A		
	☐	Policy, legal or strategy document
	☐	Dam project greater than 15m in height
	☐	Medium-scale irrigation scheme
	☐	Medium-scale water storage structure
	☐	Rehabilitation of water storage structure
	☐	Forestry concession with the private sector
	☐	Construction of roads, bridges

CATEGORY B		
	☐	Farm forestry or agroforestry, small-scale woodlots and tree nurseries
	☐	Small-scale irrigation scheme
	☐	Small-scale water storage facility
	☐	Spring capping or rural water supply scheme
	☐	Small-scale dam (less than 15 m in height)
	☐	Check-dam
	☐	Forest infrastructure
	☐	Participatory forest management or reafforestation
	☐	Dykes
	☐	Riverbank stabilisation
	☐	Terracing of farmland
	☐	Agricultural interventions Please give more details: [type here]
	☐	Support to Income generating initiatives Please give more details: [type here]
	☐	Other Please give more details: [type here]

CATEGORY B PROJECTS

Based on the location and the type of project, please explain whether the Proponent's responses are satisfactory:

	Yes	No
Their description of the compliance of the project with relevant planning documents	☐	☐
If 'No', please explain: [type here]		
Their responses to the questions on environmental and social impacts	☐	☐
If 'No', please explain: [type here]		
Their proposed mitigation measures	☐	☐
If 'No', please explain: [type here]		

Their proposed measures to ensure sustainabililty	☐	☐
If 'No', please explain: [type here]		

REVIEWER'S CONCLUSION

Which course of action do you recommend?

Category A:

☐ ESMP; ☐ IPP; ☐ RAP; ☐ PMP

Category B:

☐ There are no environmental or social risks
☐ Community to be given full responsibility to mitigate environmental and social risks, as set out in the screening checklist
☐ MCAs to provide detailed guidance on mitigation of risks to the community
☐ Specific advice is required from District Officers in the following area(s):

[type here]

For either Category A or B:

If a RAP is required, will the project displace or restrict access for less than 200 individuals, or if over 200, are losses for all individuals less than 10% of their assets?

If Yes, prepare an abbreviated RAP ☐
If No, prepare a full RAP ☐
Full details of resettlement requirements are provided in the accompanying Resettlement Policy Framework.

- - -

If this differs from the Proponent's recommended course of action, please explain:

[type here]

☐ Preparation of a Project Report, based on field appraisal by District Officer, is required to investigate further, specifically to investigate:

[type here]

☐ Reject

Review form completed by: [type here]
Name: [type here]
Position / Community: [type here]
Date: [type here]

The reviewer of the screening checklist has an option to determine whether a more detailed Project Report, based on a field appraisal, is required. A Project Report will require the DEO and/or the DDO to briefly visit the proposed project site, interview the project proponents, and assess the project's impacts in view of their knowledge concerning environmental and social risks and concerns in the area. Both the DEO and DDO can draw on the guidelines on environmental and social impacts of these projects, presented in *Annex F*. Standard terms of reference for the preparation of a project report are provided in *Annex E*.

This Project Report stage is equivalent to EMCA requirements under Legal Notice 101 of June 2003. The focus and scope of a Project Report are defined in Regulation 6, 7 and 8 of Legal Notice 101. Section 6 of part 1 of the LN 101 stipulates that "An application for an Environmental Impact Assessment License shall be in the form of a Project Report in the form set out in the First Schedule to these Regulations, and the applicant shall submit the application together with the prescribed fee to the Authority". Section 7(1) of Part 11 of the Legal Notice 101 specifies the contents of the project report.

Project Reports are normally prepared as a means of informing NEMA of the proposed development such that after review of the report, NEMA advices on the need or otherwise for a full EIA. However, section 10(2) of Part II of Legal Notice 101 allows for approval of proposed projects at the Project Report Stage and has been effectively used by NEMA to grant Environmental Licenses to small projects without requiring a full EIA. This is the process and stage at which the EIA process for most WKCDD and NRM community-drive projects are expected to end. This Project Report will specify suggested changes and mitigation measures associated with the project.

Preparation of Project Report will be the responsibility of the proponent who should hire NEMA registered experts for this purpose. The DEO maintains a register of NEMA approved experts which can be accessed by the WKCDD and NRM PMU at a fee. It should also be noted that NEMA charges a non refundable EIA fee equivalent to 0.1% of the anticipated project cost which is paid to NEMA at the time of submitting the Project Report. This fee is paid once, irrespective of whether the assessments will proceed to the full cycle EIA stage.

Table 4.2 below illustrates the typical process and time taken to process a Project Report through NEMA as per Legal Notice 101 of EMCA. The statutory review period is maximum 45 days effective the date of receipt of a Project Report by NEMA.

Table 4.2   *The NEMA Process for Approving Project Reports*

Steps	Action	Actor	Time requirement
One	Submission of PR to NEMA. NEMA receives PR, issues a receipt and acknowledgement.	CWP	Depends on Support Organization
Two	NEMA mails PR to Lead Agencies including respective District Environmental Committees	NEMA	7 days assuming all requirements are fulfilled
Three	Lead agencies review PR and issue comments	Lead Agencies	21 days (minimum) after receipt of PR from NEMA.
Four	Review of PR by NEMA	NEMA	30 days after receipt of PR.
Five	Communication of findings from NEMA review	NEMA	45 days after receipt of PR.

Typical outcomes of review of Project Reports from NEMA are likely to be as shown in *Table 4.3* below. These are as follows:

- *Project is approved.* Where NEMA and Lead Agencies ascertain that a project report has disclosed adequate mitigation for identified impacts, the project is approved by NEMA upon which, conditions attached to grant of an Environmental License are issued. Once these are fulfilled, an Environmental License is also issued subject to conditions which will be specific to the scheme in question. Among these is the requirement that the scheme design should not be altered without approval by NEMA. As well, an audit report is required of each project after the first year of completion.

- *Project Report does not disclose adequate mitigation measures or information.* In this case, the proponent will be required to undertake a full cycle EIA. The Procedure for a full cycle EIA is outlined in *Chapter 5*.

- *Project Report discloses potential for major irreversible adverse impacts.* In this case, NEMA may not approve the project. Such a proponent has the right to appeal to the National Appeals Tribunal within 14 days of receipt o the verdict.

Table 4.3   *Possible Outcomes of NEMA Review of Project Reports*

Outcome	Recommendation	Important precautions
Project found to have no significant Social and Environmental Impacts or Project report discloses sufficient mitigation measures	An Environmental Licence will be issued by the Authority	Project report must disclose adequate mitigation measures and show proof of comprehensive consultations within the area of influence.
Significant adverse social and	A full cycle EIA will be required by	As above

Outcome	Recommendation	Important precautions
environmental impacts found or Project Report fails to disclose adequate mitigation measures.	NEMA.	
A proponent is dissatisfied with the outcome of the NEMA review.	An appeal is lodged with the National Environmental Tribunal within 14 days.	

Format 4.4   ***Project Report Form***

PROJECT REPORT FORM

WKCDD or NRM Project:	Select relevant project
Sub-project name	[type here]
Estimated cost (KSh)	[type here]
What is the project objective and activities?	[type here]
Reason for field appraisal, based on issues in screening checklist	[type here]
Approximate size of the project in land area	[type here]
Approximate size of the project in terms of affected individuals	[type here]
How was the site of the sub-project chosen?	[type here]

Does the project comply with the most relevant planning document, for example the District Development Plan or the Microcatchment Plan?	[type here]

Will the project:	Yes	No
Adversely affect natural habitats nearby, including forests, rivers or wetlands?	☐	☐
If 'Yes', give details: [type here]		
Is the project sited within a strictly protected area, national park, nature reserve, natural/historical monument or area of cultural heritage?	☐	☐
If 'Yes', give details: [type here]		
Require large volumes of construction materials (eg gravel, stones, water, timber, firewood)?	☐	☐
If 'Yes', give details: [type here]		
Use water during or after construction, which will reduce the local availability of groundwater and surface water?	☐	☐
If 'Yes', give details: [type here]		
Lead to soil degradation, soil erosion or soil salinity in the area?	☐	☐
If 'Yes', give details: [type here]		
Create waste that could adversely affect local soils, vegetation, rivers and streams or groundwater?	☐	☐

If 'Yes', give details: [type here]

Create pools of water that provide breeding grounds for disease vectors (for example malaria or bilharzia)?	☐	☐
If 'Yes', give details: [type here]		
Involve significant excavations, demolition, movement of earth, flooding, or other environmental changes?	☐	☐
If 'Yes', give details: [type here]		
Affect historically-important or culturally-important sites nearby?	☐	☐
If 'Yes', give details: [type here]		
Require land for its development, and therefore displace individuals, families or businesses from land that is currently occupied, or restrict people's access to crops, pasture, fisheries, forests or cultural resources whether on a permanent or temporary basis?	☐	☐
If 'Yes', give details: [type here]		
Result in human health or safety risks during construction or later?	☐	☐
If 'Yes', give details: [type here]		
Involve inward migration of people from outside the area for employment or other purposes?	☐	☐
If 'Yes', give details: [type here]		
Result in conflict or disputes among communities?	☐	☐
If 'Yes', give details: [type here]		
Affect indigenous people, or be located in an area occupied by indigenous people?	☐	☐
If 'Yes', give details: [type here]		
Involve the construction of a dam or weir, or depend on water supplied from an existing dam?	☐	☐
If 'Yes', give details: [type here]		
Result in a significant change/ loss in livelihood of individuals?	☐	☐
If 'Yes', give details: [type here]		
Adversely affect the livelihoods and/or the rights of women?	☐	☐
If 'Yes', give details: [type here]		

MITIGATION MEASURES

If you have answered Yes to any of the above, please propose adequate mitigation measures.

[type here]

ALTERNATIVES

Is it possible to achieve the objectives above in a different way, with fewer environmental and social impacts? If yes, describe these alternatives, and state why they have been rejected.

[type here]

OTHER OBSERVATIONS

Please describe any other observations, especially any related to the reason for the field appraisal.

[type here]

CONCLUSION

☐ Approval:

    ☐ There are no environmental or social risks

    ☐ Community to be given full responsibility to mitigate environmental and social risks, based on screening checklist and proposed mitigation measures described in this field appraisal form

    ☐ MCAs to provide detailed guidance on mitigation of risks to the community based on screening checklist and proposed mitigation measures described in this field appraisal form

☐ Independent Preparation of a Detailed Plan is Required:

    ☐ ESMP
    ☐ IPP
    ☐ RAP
    ☐ PMP

    If a RAP is required, will the project displace or restrict access for less than 200 individuals, or if over 200, are losses for all individuals less than 10% of their assets?

    If Yes, prepare an abbreviated RAP ☐
    If No, prepare a full RAP ☐

    Full details of resettlement requirements are provided in the accompanying Resettlement Policy Framework.

☐ Reject

Review form completed by: [type here names of all contributors to the appraisal]
Name: [type here]

Position / Community: [type here]
Date: [type here]

4.5   *ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT*

In the eventuality that a Project cannot be approved by NEMA on the basis of a Project Report, the proponent will be advised to undertake full cycle ESIA leading to development of a fully fledged Environmental and Social Impact Assessment Study Report.

4.5.1   *Scoping Report*

Firstly, on advice from NEMA, the proponent will prepare a Scoping Report specifying the project's area of influence, the thematic scope and depth of assessments required, the composition of the required EIA team, and the probable budget required to mount the EIA Study.

4.5.2   *ESIA Study*

Upon review and approval of the Scoping Report, NEMA will advise that an ESIA Study be undertaken. The ESIA Study will entail a systematic investigation of all impact areas as identified in the scoping report, taking care to document the current baseline environment, resource exploitation patterns and ecological pressure points.

It is mandatory for the ESIA study to undertake public consultation with all stakeholders in the project's area of influence. The ESIA Team should note and understand all stakeholder interests so as to cater for them in the ESMP. All accruing information will be written into a Draft ESIA Report prepared in the same format as the project Report and submitted to NEMA for review. Upon review of this report, it will be subjected to public review.

4.5.3   *Public Review of the ESIA Report*

This will entail exposure of all the EIA documents at strategic points within the project's area of influence so as to allow all stakeholders to read and understand how they stand to be affected by the project. The public review period lasts a minimum of 60 days and has to be advertised twice in local dailies that are widely read in Kenya, and are often supplemented by public meetings where the project is explained to local stakeholders. Upon expiry of the public review period, the ESIA team will organise the written comments either into an additional chapter or a volume to the ESIA report. This chapter will clearly explain how each of the comments and concerns have been addressed and resolved.

4.5.4   *EIA License*

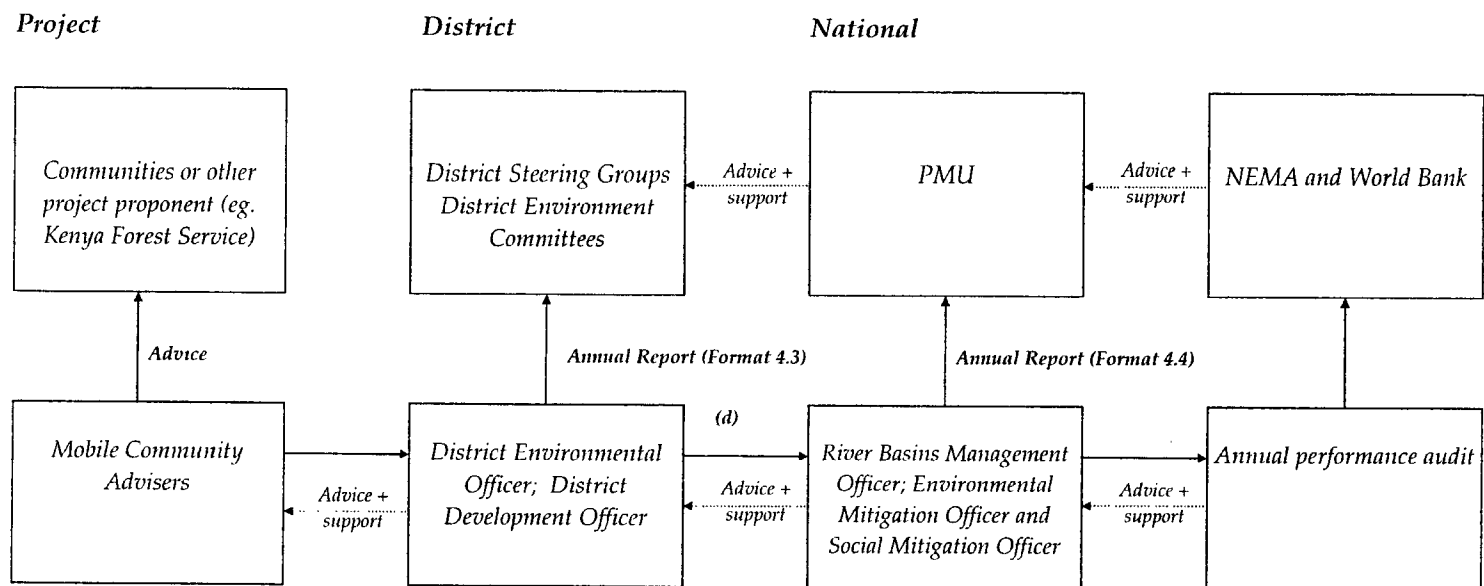This will be issued under the same conditions as is the case of the project report.

4.6   *FLOWCHART FOR ADVICE AND REPORTING ON SMALLER-SCALE PROJECTS*

Figure 4.2 depicts the proposed reporting lines and advisory and support
mechanisms that will be used for smaller, mainly community-driven, projects in
the ESMF. In summary:

- Mobile Community Advisers will work closely with communities to provide
  guidance and advice on types of environmental and social micro-projects,
  related environmental and social risks and appropriate mitigation measures;
- In turn the MCAs will receive advice and support from the District
  Environment Officer on environmental issues, including technical advice, as
  well as day-to-day guidance;
- MCAs will also receive advice on social issues from the District Development
  Officer, including technical advice, as well as day-to-day guidance;
- District Environmental Officer and District Development Officer, will together
  provide an annual report on environmental and social screening and advisory
  activities to each of the District Steering Group, the District Environmental
  Committee, and relevant officers in the PMU. A separate annual report will be
  completed for both the WKCDD and the NRM projects;
- The PMU Officers (namely the River Basins Management Officer, the
  Environmental Mitigation Officer and the Social Mitigation Officer), will
  provide ongoing technical advice to District Environmental and District
  Development Officers, or any other District-level officers involved in the
  micro-projects;
- The PMU Officers will prepare one annual report for each project, for delivery
  to the PMU, the relevant interested Ministries, and to the consultant appointed
  to carry out the annual environmental and social performance audit;
- An external performance audit will be carried out on an annual basis, and will
  be submitted to both NEMA and the World Bank.

For smaller projects of this nature, monitoring of the 'compliance' of the sub-
project with agreed environmental or social mitigation measures will not be
necessary, owing to the involvement of the DEO and DDO in project preparation
and screening. However, DEOs and DDOs are required to carry out 'spot check'
monitoring of sub-projects.

Figure 4.2   Flowchart of Reporting and Advice for Smaller-Scale Projects

Project   **District**   **National**

```
┌─────────────────┐      ┌─────────────────┐  Advice +  ┌─────────┐  Advice +  ┌──────────────┐
│ Communities or  │      │ District        │ ◄·support· │         │ ◄·support· │              │
│ other project   │      │ Steering Groups │            │  PMU    │            │ NEMA and     │
│ proponent (eg.  │      │ District        │            │         │            │ World Bank   │
│ Kenya Forest    │      │ Environment     │            │         │            │              │
│ Service)        │      │ Committees      │            │         │            │              │
└─────────────────┘      └─────────────────┘            └─────────┘            └──────────────┘
        ▲                        ▲                           ▲                        ▲
     Advice      Annual Report (Format 4.3)      Annual Report (Format 4.4)
        │                        │            (d)            │                        │
┌─────────────────┐      ┌─────────────────┐      ┌──────────────────────┐      ┌──────────────────┐
│ Mobile          │─────►│ District        │─────►│ River Basins         │─────►│ Annual           │
│ Community       │      │ Environmental   │      │ Management Officer;  │      │ performance audit│
│ Advisers        │◄·····│ Officer;        │◄·····│ Environmental        │◄·····│                  │
│         Advice +│      │ District        │ Advice+│ Mitigation Officer │Advice+│                 │
│         support │      │ Development     │support│ and Social          │support│                 │
│                 │      │ Officer         │      │ Mitigation Officer   │      │                  │
└─────────────────┘      └─────────────────┘      └──────────────────────┘      └──────────────────┘
```

Monitoring of the compliance of sub-project implementation with the mitigation measures set out in its ESMP (resulting from field appraisal or ESIA) will be required.

This is particularly important for some of the larger-scale projects concerning flood mitigation and irrigation, as their environmental and social impacts, if not mitigated, will be highly significant.

The DEO and DDO will have responsibility for carrying out this monitoring by regularly visiting the projects, and pursuing the following corrective measures as required:

1. If a violation of the ESMP is detected during a site visit, the project proponent will be notified of the violation, and the means of rectification, verbally. The DEO/ DDO will discuss with the proponent a realistic deadline for rectifying the violation. It will be the proponent's duty to convey these discussions to any other parties involved, for example the contractor used for contraction.

2. If a violation is reported to the DEO/ DDO by some other entity, they will conduct a site visit and, similarly, issue the verbal warning and deadline.

3. The verbal warning will be confirmed in writing to the proponent within 5 working days.

4. The DEO/ DDO will return to the site on the deadline, and if the violation is still occurring, he will notify the contractor / operator in writing of the continuing violation, informing them of the disciplinary action to be taken. The DEO/ DDO will inform NEMA in writing of the situation, and copy correspondence to the PMU and relevant line ministry.

5. If after 2 months the violation has not been rectified, NEMA will instigate disciplinary procedures.

4.8   OVERALL PROJECT COMPLIANCE AND REPORTING

Owing to the significant nature of some of the project activities, a strict system of compliance monitoring and reporting will be adopted. *Figure 4.3* sets out the key reporting lines and triggers.

Figure 4.3   *Flowchart for Reporting and Corrective Measures: 'Global' Level*
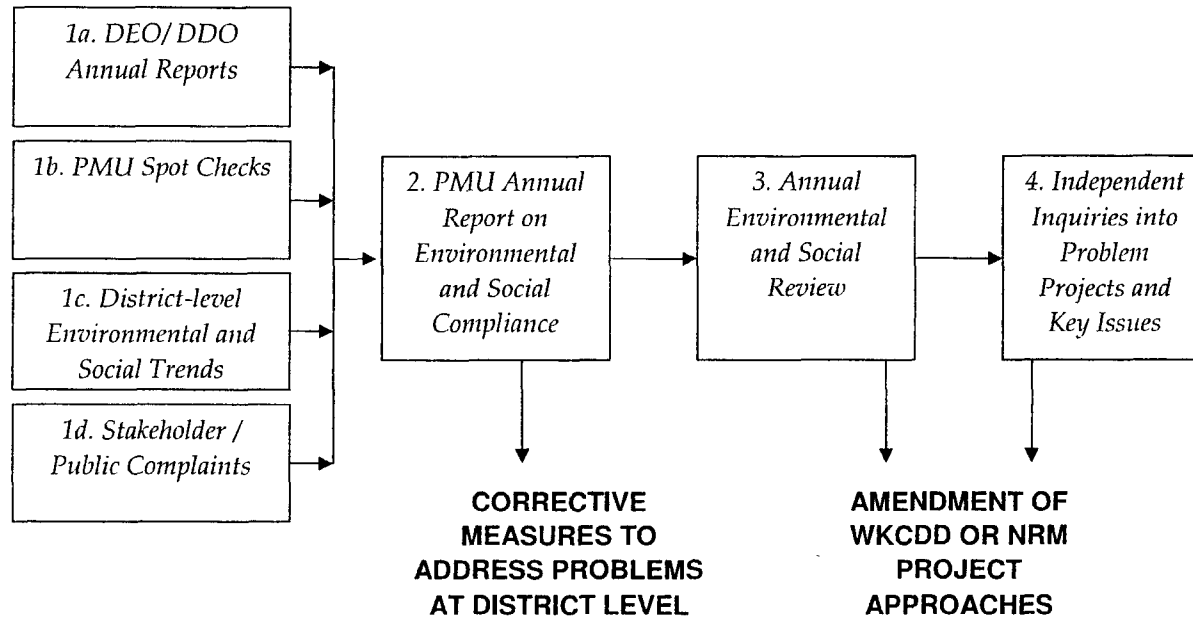
Forms proposed for completion on an annual basis are set out in *Formats 5.4* and *5.5* below. These will comply with Kenyan EIA regulations, and will provide:

- A means of communication between districts and PMU team at national level (i.e. through the national River Basins Officer, Environmental Mitigation Officer and Social Mitigation Officer in the PMU), and between the PMU and the relevant government departments;
- A paper trail of experience and issues running from year to year throughout the project;
- Practical information from which the River Basins Management Officer can assess strategic effectiveness of water catchment plans in achieving project objectives;
- Practical information from which the Environmental and Social Mitigation Officers and the consultant used to carry out the annual performance audit can draw on.

The District-level annual report will be completed with input in the appropriate sections by the District Environmental Officer or the District Development Officer. The objective of the report is to feedback on activities and observations from sub-projects implemented over the review period in the district. The form will be submitted to the District Environmental Committee and the PMU. A separate report will be used for each of the WKCDD and NRM projects.

This national-level annual report is to be completed by the PMU principally by the River Basins Officer, Environmental Mitigation Officer and Social Mitigation Officer. The objective of the report is to consolidate and summarise the feedback from the districts, and assess the overall progress of the WKCDD or NRM projects against objectives. A separate report will be used for each of the projects.

Format 4.5   *Annual Report Form for the District Level*

WKCDD or NRM project: Select relevant project

District: [type here]

Reporting year: [type here]

Date of report: [type here]

PROJECT SUMMARY

Please enter numbers of sub-projects in the following table:

	Approved this year	Application included a screening checjklist	Community carried out mitigation without advice	MET provided advice on mitigation	Field Appraisal	ESMP	RAP	IPDP	PMP
CATEGORY A									
Policy, legal or strategy document									
Dam project greater than 15m in height									
Medium-scale irrigation scheme									
Medium-scale water storage structure									
Rehabilitation of water storage structure									
Forestry concession with the private sector									
Construction of roads and bridges									
CATEGORY B									
Farm forestry or agroforestry, small-scale woodlots and tree nurseries									
Small-scale irrigation scheme									
Small-scale water storage facility									
Spring capping or rural water supply scheme									
Small-scale dam (less than 15 m in height)									
Check-dam									
Forest infrastructure									
Participatory forest management or reafforestation									
Dykes									
Riverbank stabilisation									
Terracing of farmland									

Agricultural interventions									
Support to Income generating initiatives									
Other									
Total									

CATEGORY A - Results of ESMPs, RAPs etc

Type of projects that have been subject to ESMP, RAPs etc	Impacts identified included:	Are mitigation or monitoring measures being carried out adequately? If not, why not?
[type here]	[type here]	[type here]

CATEGORY B - Please describe the key environmental and social issues that have been identified from screening of community micro-projects

[type here]

Were there any unforeseen environmental and/ or social problems associated with any sub-project?

Problem	Actions taken	Actions to be taken
[type here]	[type here]	[type here]

MANAGEMENT ISSUES

Have you or your predecessor been involved in the targeting or identification of sub-projects?

☐ Yes ☐ No If 'Yes', please describe: [type here]

Have communities been involved in the targeting or identification of sub-projects?

☐ Yes ☐ No If 'Yes', please describe: [type here] Please explain any participatory issues that have impacted ability of communities to identify sub- projects: [type here]

Please describe the activity of the following actors on environmental and social issues in your district this year

	Activity
Government line agencies working with WKCDD / NRM on environmental and/ or social issues	[type here]
NGOs in partnership with WKCDD / CDD to examine environmental and/ or social issues	[type here]
DSG	[type here]
DEC	[type here]

Summarise any gaps/ non-compliance in environmental and/ or social activities:

Key gaps/ areas of non-compliance	Summary of key conclusions	Follow up activities recommended
[type here]	[type here]	[type here]

STRATEGIC IMPACT

Is the project contributing to improved watershed sustainability in this district?
☐ Yes, it's contributing to an overall improvement
☐ No, it's worsening watershed degradation/ it's having a negative impact on the environment
☐ Too early to say

Please explain:

[type here]

Is the project contributing to increased welfare in this district?
☐ Yes, it's contributing to an overall improvement
☐ No, it's reducing income generating opportunities/ it's having a negative impact on social development
☐ Too early to say

Please explain:

[type here]

Has there been any analysis of cumulative environmental impacts in your district? If 'yes', please describe. If 'No' tick here ☐

Activity, review or study	Summary of key conclusions	Was the work successful? eg were its recommendations carried out? If not, why not?
[type here]	[type here]	[type here]

Have there been any other environmental or social analyses that have been carried out in the district?

Examples of activities, reviews or studies	Summary of key conclusions	Levels of success in achieving objectives. If not successful, why not?
[type here]	[type here]	[type here]

Has there been any analyses of 'catchment management plans' in your district? If 'yes', please describe. If 'No' tick here ☐

Activity, review or study	Summary of key conclusions (e.g. does the catchment management plan 'fit' with the River Basins Management plan?)	Was the work successful? eg were its recommendations carried out? If not, why not?
[type here]	[type here]	[type here]

POLICY AND INSTITUTIONAL

Please describe the activity of the projects in addressing policy constraints that affect environmental and social sustainability:

Policy issue	Reforms required
[type here]	[type here]

Are there any policy issues that limit environmental and/ or social sustainability that require addressing at a national level?

Policy issue	Reforms required
[type here]	[type here]

TRAINING

Please list the training you have received under the WKCDD / NRM projects or otherwise	List TWO key areas of training you need in order to carry out your role in managing environmental and social issues in the WKCDD / NRM
[type here]	1) [type here] 2) [type here]

Please list the training others have received under the WKCDD / NRM projects or otherwise	List TWO key areas of training that you suggest other agencies require, in order to improve environmental and social management:
[type here]	1) [type here] 2) [type here]

Completed by: [type here the names of all those who have contributed to completion of the form e.g. DEO and DDO]

Position: [type here position of all contributors to the report]

Date: [type here]

Format 4.6   ***Annual Report Form to be Completed by PMU Officers***

Project reference: Select relevant project

Reporting year: [type here]

Date of report: [type here]

PROJECT SUMMARY

Please enter numbers of micro-project in the following table (ie insert totals from district reports):

Please enter numbers of sub-projects in the following table:

	Approved this year	Application included a screening checjklist	Community carried out mitigation without advice	MCA provided advice on mitigation	Field Appraisal	ESMP	RAP	IPDP	PMP
CATEGORY A									
Policy, legal or strategy document									
Dam project greater than 15m in height									
Medium-scale irrigation scheme									
Medium-scale water storage structure									
Rehabilitation of water storage structure									
Forestry concession with the private sector									
Construction of roads and bridges									
CATEGORY B									
Farm forestry or agroforestry, small-scale woodlots and tree nurseries									
Small-scale irrigation scheme									
Small-scale water storage facility									
Spring capping or rural water supply scheme									
Small-scale dam (less than 15 m in height)									
Check-dam									
Forest infrastructure									
Participatory forest management or reforestation									
Dykes									

Riverbank stabilisation									
Terracing of farmland									
Agricultural interventions									
Support to Income generating initiatives									
Other									
Total									

CATEGORY A - Results of ESMPs, RAPs etc

Type of projects that have been subject to ESMP, RAPs etc	Summary of typical Impacts identified:	Effectiveness of mitigation or monitoring measures carried out. Explain instances where not effective.
[type here]	[type here]	[type here]

CATEGORY B - Please summarise the key environmental and social issues that have been identified from screening processes carried out at District level:

[type here]

Describe key unforeseen environmental and/ or social problems associated with any sub-projects:

Problem	Actions taken	Actions to be taken
[type here]	[type here]	[type here]

MANAGEMENT ISSUES

Summarise, from district level reports, the ways in which District Environmental and Development officers have been involved in the targeting or identification of any sub-projects under the WKCDD/ NRM projects.

[type here]

Summarise the extent to which communities have been involved in the targeting or identification of sub-projects.

[type here]

Please summarise any key participatory issues that have impacted communities' ability to target or identify projects:

[type here]

Please summarise key points concerning the activities of the following actors on environmental and social issues in the districts

	Activity
Government line agencies working with WKCDD / NRM on environmental and/ or social issues	[type here]
NGOs in partnership with WKCDD / NRM	[type here]

to examine environmental and/ or social issues	
DSG	[type here]
DEC	[type here]

Summarise any gaps/ non-compliance in environmental and/ or social activities:

Key gaps/ areas of non-compliance	Summary of key conclusions	Follow up activities recommended
[type here]	[type here]	[type here]

STRATEGIC IMPACT

Is the project contributing to improved watershed sustainability in project area?
☐ Yes, it's contributing to an overall improvement
☐ No, it's worsening watershed degradation/ it's having a negative impact on the environment
☐ It's contributing to improvements in some micro-catchment areas, and deterioration in others
☐ Too early to say

Please explain:

[type here]

Is the project contributing to increased social benefits (both financial and non-financial) in the project area?
☐ Yes, it's contributing to an overall improvement
☐ No, it's reducing income generating opportunities/ it's having a negative impact on social development
☐ It's contributing to improvements in social benefits in some areas, and deterioration in others
☐ Too early to say

Please explain:

[type here]

Summarise key activities to analyse cumulative environmental impacts:

Examples of activities, reviews or studies	Summary of key conclusions	Levels of success in achieving objectives. If not successful, why not?
[type here]	[type here]	[type here]

Summarise any other environmental or social analyses that have been carried out in the districts?

Examples of activities, reviews or studies	Summary of key conclusions	Levels of success in achieving objectives. If not successful, why not?
[type here]	[type here]	[type here]

Summarise any assessments that have been undertaken with respect to the 'catchment management plans'.

Examples of activities, reviews or studies	Summary of key conclusions	Levels of success in achieving objectives. If not successful, why not?
[type here]	[type here]	[type here]

Summarise your overall conclusions on the strategic fit and effectiveness of the 'catchment management plans' in relation to the River Basins Management plan including any revisions that should be made to the River Basins Management plan. Please explain:

[type here]

POLICY AND INSTITUTIONAL

Please describe the activity of the project in addressing policy constraints that affect environmental and social sustainability:

Policy issue	Reforms required
[type here]	[type here]

Are there further policy issues that limit environmental and/ or social sustainability that require addressing at a national level? (please describe, citing any relevant experiences from the districts)

Policy issue	Reforms required
[type here]	[type here]

TRAINING
Based on feedback from the districts, what are the 3 priority training requirements identified under the WKCDD and NRM projects?

Training requirement	Who for
1) [type here] 2) [type here] 3) [type here]	1) [type here] 2) [type here] 3) [type here]

Completed by: [type here the names of all those who have contributed to completion of the form e.g. River Basins Management Officer, Environmental Mitigation Officer, Social Mitigation Officer

Position: [type here position of all contributors to the report]

Date: [type here]

4.10   DESCRIPTION OF ROLES

The roles proposed under the environmental and social management framework, and detailed terms of reference are given in the following sections.

4.10.1   Mobile Community Advisors

- The Mobile Community Advisors will be the key liaisons with the communities to support and facilitate them in the targeting and identification of community-driven projects that meet the objectives of the WKCDD and NRM projects;
- Sensitisation and capacity building will be a key part of their role in interacting with the communities, in particular to ensure that they are equipped to make informed and representative choices for the benefit of the whole community;
- The MCAs will communicate regularly with the District Officers and the PMU project officers in order to facilitate two-way flow of feedback, information and advice.

4.10.2   District Environmental Officers

- District Environmental Officers will be responsible for ensuring that the environmental screening and review system set out in this chapter is integrated into the micro-project cycle, and is used;
- Sensitisation of MCAs and DSGs to environmental issues will be a significant part of ensuring this, as will partnerships with governmental (such as the DEO, DDO, DFO) and non-governmental officers on the DSG;
- The environmental officer may need to draw on the technical advice of their governmental colleagues in other departments, or indeed upon traditional technical knowledge etc;
- Backstopping technical advice will also be available from the Environmental Mitigation officer in PMU;
- Each District Environmental Officer will compile, with the District Development Officer, a brief annual report for both projects, for delivery to the DEC and the Project Officers in PMU.

4.10.3   District Development Officers

- The District Development Officer will be responsible for ensuring that the social screening and review system set out in this chapter is integrated into the micro-project cycle, and is used;
- Sensitisation of MCAs and DSGs to social issues will be a significant part of ensuring this, as will partnerships with governmental (such as the DEO, DDO, DFO) and non-governmental officers on the DSG;
- The DDO may need to draw on the technical advice of their governmental colleagues in other departments, or indeed upon traditional technical knowledge etc;

- Backstopping technical advice will also be available from the Social Mitigation officer in PMU;
- Each District Development Officer will compile, with the District Environmental Officer, a brief annual report for each project for delivery to the District Steering Committee and to the project officers in PMU.

4.10.4 *District Environmental Committees*

District Environmental Committees will be required to sign off all screening checklist review forms, and district annual reports. They will also be required to check full-cycle ESIA reports. They will consider these items during their normal regular meetings, and record any other opinions on the activities of the WKCDD and NRM projects during these meetings.

4.10.5 *District Steering Groups*

District Steering Groups will be informed by the deliberations/conclusions of the DEC.

4.10.6 *District Officers Supporting the DEO and DDO*

The other environmental and social District Officers will be required to provide support to the DEO and DDO as necessary to ensure effective execution of the activities outlined in *Sections 4.10.2* and *4.10.3*.

4.10.7 *Project Officers in PMU (River Basins Officer, Environmental Mitigation Officer and Social Mitigation Officer)*

- The project officers in PMU will provide guidance to the District Officers and the MCAs (as well as stimulating DSGs and specifically the DECs), and provide the key link between districts, NEMA and the Office of the President;
- An annual environmental and social performance audit will report to the PMU, NEMA and the World Bank.

4.10.8 *Terms of Reference for the PMU River Basins Management Officer*

Terms of reference for the River Basins Management Officer will be drawn up based on the following objective and tasks:

Objective

To promote issues of environmentally and socially sustainable watershed management in the operation of the WKCDD and NRM projects, in order to maximise the positive contribution that the project makes to sustainable watershed management and poverty alleviation in the Nzoia, Yala and Tana catchments of Western and Central Kenya.

Tasks

- Develop, with relevant stakeholders, a River Basins Management plan for the Nzoia, Yala and Tana water catchments, that integrate environmental and social sustainability objectives;
- Champion the development of District-level 'micro-catchment management plans' in alignment with the relevant River Basins management plan;
- Provide technical advice on issues of watershed management in the catchment areas to District officers , District Environmental Committees and District Steering Groups;
- Spot issues concerning watershed managemend that may require additional assessment, particularly relating to cumulative impact assessment, or any issues that have a transboundary (ie trans-district) nature and take action as appropriate to investigate;
- Identify and investigate specific issues of national policy that affect the operation of the ESMF or limit the attainment of sustainable watershed management in the project area, and work with the PMU on advocating areas of reform;
- Input to the implementation of all training and sensitisation programmes to be carried out (as set out in *Chapter 8*);
- Identify suitable consultants to be used on all issues of natural resources, social and environmental management in relation to any of the above tasks and oversee their procurement and performance; and
- Participate in and provide information on the projects to national and regional groupings concerning watershed management, particularly the Nile Basin Initiative.

4.10.9   *Terms of Reference for Environmental Mitigation Officer*

Objective

To provide technical advice on environmental management and mitigation, in order to maximise the positive contribution that the project makes to natural resources and environmental sustainability in the Nzoia, Yala and Tana catchments of Western and Central Kenya.

Tasks

- Establish the system of screening checklists and reporting forms set out in this chapter, and oversee their smooth operation including advice to Districts on the procurement of consultants for any required EIA ESMP studies;
- Stimulate the operation of District Environment Committees;
- Liaise with the Kenya National Environmental Management Authority on a regular basis;
- Provide an annual report using the format in *Format 6.4* to the PMU and NEMA;

- Commission an independent NEMA-licensed consulting firm to carry out an environmental performance audit of both WKCDD and NRM projects, on an annual basis;
- Provide technical advice to Districts and MCAs on all technical issues related to natural resources and environmental management. These issues will relate to impacts on surface water, groundwater, agricultural resources and vegetation, sourcing of materials used in construction, human health, ecology and protected areas, land and soil degradation;
- Provide specific technical advice on mitigation measures for micro-projects and inter-community projects;
- Raise awareness and proactively create demand for this technical advice among District officers and MCAs;
- Lead the delivery of training and sensitisation programmes for PMU officers , District officers and MCAs;
- Lead inter-district meetings of District forestry / environmental officers to promote inter-district learning on the ESMF and all issues of natural resources and environmental management;
- With the Social Mitigation Officer, carry out reviews of completed micro-projects / sub-projects independently of District Officers in order to identify improvements in mitigation measures and the screening checklists;
- Provide technical support to the PMU River Basins Management Officer.

4.10.10   *Terms of Reference for Social Mitigation Officer*

Objective

To provide technical advice on social management and mitigation, in order to maximise the positive contribution that the project makes to poverty alleviation and environmental sustainability in the Nzoia and Tana catchments of Western and Central Kenya.

Tasks

- Provide technical advice to Districts and MCAs on all technical issues related to social sustainability. These issues will relate to impacts in particular on livelihoods in terms of livelihood assets and resources, income generation activities, subsistence and support networks, especially as they relate to natural resources vital for water catchment management. The issues will also include impacts on social and financial capital, youth groups, gender equality, indigenous peoples, conflict resolution, food security, cultural capital, welfare, health and education;
- Provide specific technical advice on mitigation measures for micro-projects;
- Raise awareness and proactively create demand for this technical advice among District officers and MCAs;
- Lead the delivery of training and sensitisation programmes for PMU officers , District officers and MCAs;

- Lead inter-district meetings of District Development officers to promote inter-district learning on the ESMF and all issues of social management especially emphasising the links with environmental issues;
- With the Environmental Mitigation Officer, carry out reviews of completed micro-projects / sub-projects independently of District Officers in order to identify improvements in mitigation measures and the screening checklists;
- Provide technical support to the PMU River Basins Management Officer.

4.10.11   *Terms of Reference for an Annual Performance Audit*

Objective

To review the performance of the WKCDD and NRM projects in integrating social and environmental management and mitigation measures into the operation of the project, and make practical recommendations for improving performance, according to the requirement of the EMCA 1999 Act with regard to environmental audit.

Tasks

- Review of the paper trail of screening checklists as well as ESMP and other completed reports, and review of reports on wider issues of social and environmental management;
- On the basis of this review, select a number of community micro-projects and sub-projects for field visits to investigate compliance with proposed mitigation measures, and identification of potential impacts that are not being adequately identified or dealt with by MCAs, communities or District Officers;
- Recommend practical improvements to the ESMF screening checklists in order to fine-tune the operation of the ESMF based on practical experience;
- Discuss project activities in natural resources and flood management planning as well as activities related to provision of income generating opportunities, with PMU River Basins Management Officer and District Officers;
- Recommend additional assessment studies to be carried out to complement development of the project's approach to social and environmental management.

Outputs

A report of the annual performance audit delivered to the PMU, NEMA and the World Bank, setting out:
- Summary of the numbers of micro-projects projects (i) carried out, (ii) screened for environmental and social impacts, (iii) provided with technical advice from MCAs, (iv) assessed with a full ESMP, etc;
- Description of the actual operation of the ESMF as it has occurred in practice;
- Identification of environmental and social risks that are not being fully addressed or mitigated;

- Conclusions on whether the project is maximising its positive contribution to social and environmental management;
- Areas for improvement and practical recommendations.

In *Chapter 4* a procedure for screening for environmental and social impacts was outlined. This chapter sets out the environmental and social code of conduct to be pursued to ensure that the implementation of the WKCDD and NRM projects are sensitive to social and environmental requirements of both Kenyan law and the World Bank's safeguard policies. Further requirements are set out for small and large-scale dam projects in *Chapter 6* concerning safety of dams.

5.1   LINK TO WORLD BANK SAFEGUARD POLICIES

This ESMF has been prepared as a guarantee that sub-projects supported by the WKCDD/NRM Project will comply with both the Kenyan and World Bank safeguard policies. The impact assessment system prescribed by NEMA largely fulfils all World Bank safeguard requirements. Thus, by preparing either the Project Report or ESIA Report required under EMCA, the WKCDD/ NRM sub-projects will simultaneously also fulfil World Bank safeguard requirements.

5.2   GUIDELINES ON ENVIRONMENTAL AND SOCIAL ASSESSMENT

Kenya, through the EMCA, provides a comprehensive framework for environmental assessment of projects which is consistent with World Bank policies. This ESMF, prepared in line with guidelines provided by the World Bank and those provided for Strategic Environmental Assessment under Legal Notice 101 of EMCA is consistent with both Kenyan and World Bank Policies. Subsequently, the environmental and social screening of the WKCDD or NRM sub-projects should be considered complete once it satisfies conditions set by both the World Bank and NEMA, but in case of divergence, the World Bank requirements will prevail.

Approval, by NEMA, of either a Project Report or EIA Study Report and their attendant Environmental and Social Management Plans, prepared for each sub-project will mark the end of the assessment process and subsequently form the basis for environmental management. In the case of Category A projects, World Bank approval of the ESMP will also be required.

5.2.1   Important Elements of a Project ESMP

The Project Report or ESIA will result in the preparation and implementation of a detailed, costed Environmental and Social Management Plan, setting out practical responsibilities for the proponent, and associated timescales.

The ESMP must meet the following requirements:

- The ESMP will only be valid when approved by NEMA via either the Project Report or EIA report;
- Appropriate training of the proponent groups coupled with adequate public consultation and appropriate planning should result in a subproject design that avoids creating environmental and social impacts that have to be explicitly managed;
- Where specific impact mitigation measures are required, the ESMP will describe what they are and how they will be implemented as part of an overall subproject plan;
- The ESMP will also specify how possible environmental and social impacts, and related mitigation efforts, will be monitored;
- The ESMP will fit the needs of a subproject, be easy to use and will have no standard format or length. For many smaller-scale subprojects, it may be no more than a few paragraphs in the application;
- For larger subprojects with inherent environmental or social concerns, a separate ESMP document will be required, in keeping with the greater significance of predicted environmental or social impacts.

5.2.2   *Content of the ESMP*

An ESMP will include:

- A description of the possible adverse effects that the ESMP is intended to deal with (refer to *Annex F* for guidance);
- Identification of alternative projects that would meet similar objectives, and a description of why these projects are not viable, especially if they have a lesser environmental or social impact;
- A description of planned mitigation measures, and how and when they will be implemented;
- A program for monitoring the environmental and social impacts of the project, both positive and negative;
- A description of who will be responsible for implementing the ESMP; and
- A cost estimate and source of funds.

Community participation in preparing an ESMP is critical since local knowledge is important in identifying, designing and planning the implementation of practical mitigation measures. It is especially important where the success of an ESMP depends on community support and action, both in implementing mitigation measures and in monitoring their success.

5.3   RESETTLEMENT, INDIGENOUS PEOPLES, PEST MANAGEMENT AND CULTURAL RESOURCES

If identified as a requirement of the sub-project through the screening process, this ESMF requires that either a Resettlement Action Plan, an Indigenous People's Plan, a Pest Management Plan or a Physical Cultural Resources Management Plan or a combination of these, is prepared alongside or as an integrated part of the ESMP.

5.3.1 Resettlement Action Plan

If through the screening process the sub-project has been identified to require the involuntary displacement of people and/ or their land assets present in the project area, then the Resettlement Policy Framework (RPF) must be referred to. The RPF outlines the relevant steps required in order to ensure that appropriate measures are put in place to safeguard the rights of affected communities.

5.3.2 Indigenous People's Plan

If through the screening process the sub-project has been identified to have Indigenous Peoples present in, or to have collective attachment to, the project area, then the Indigenous Peoples Planning Framework (IPPF) must be referred to. The IPPF outlines the relevant steps required in order to ensure that appropriate measures are put in place to safeguard the rights of affected communities.

5.3.3 Pest Management Plan

The assessment of pest management requirements is made in the context of the project's environmental assessment and is recorded in the project documents. The project documents also include (in the text or in an annex) a list of pesticide products authorized for procurement under the project, or an indication of when and how this list will be developed and agreed on. This authorized list is included by reference in legal documents relating to the project, with provisions for adding or deleting materials. Any required measures to manage and/ or mitigate adverse impacts of pesticides should be considered as part of the ESMP.

5.3.4 Physical Cultural Resources Management Plan

Within the ESMP, should the sub-project be expected to have adverse impacts on physical cultural resources as identified during the screening process, then measures will need to be integrated into the ESMP to address the following areas:
- Avoidance or mitigation of identified adverse impacts;
- Provisions for chance finds (see guidance note included in *Annex G*);
- Measures for strengthening institutional capacity; and
- Monitoring systems to track progress of these activities.

The plan should be consistent with the country's overall policy framework and national legislation and should take into account institutional capabilities relating to the management and preservation of physical cultural resources.

A template ESMP is provided in *Table 6.1* below. Key features of an ESMP are as follows:

- *Identification of Environmental Impacts.* Each sub-project to be supported under the WKCDD or NRM projects will be assessed for impacts under its own merit taking due recognition of the size, geographical and ecological setting for each project following the assessment system required by NEMA as outlined in *Chapter 4* above. Guidance on potential impacts are provided in *Annex F*, based on experience accrued from projects similar to those likely to be supported under the WKCDD or NRM projects, as well as ESMF Guidelines provided by the World Bank;
- *Identification of Social Impacts.* Each sub-project to be supported under the WKCDD or NRM projects will be assessed for impacts taking due recognition of the social and socio-economic conditions for each project as outlined in *Chapter 4* above. Guidance on potential impacts are provided in *Annex F*, based on experience accrued from projects similar to those likely to be supported under the WKCDD or NRM projects, as well as ESMF Guidelines provided by the World Bank;
- *Identification of Measures for Environmental and Social Mitigation.* To facilitate effective mitigation of adverse impacts, this ESMF requires that impact mitigation for the WKCDD or NRM sub-projects be mainstreamed into the preparation, and implementation of the sub-project;
- *Identification of responsibilities.* Specific responsibilities for the completion of the mitigation measures will be set out in the ESMP, with associated timing;
- *Costs.* It is highly important that the ESMP includes the actual cost to the proponent of carrying out mitigation measures, and equally important that these costs are sufficient to ensure that adequate mitigation is undertaken.
- *Monitoring.* The ESMP should include specific, monitorable indicators to ascertain whether the ESMP is being implemented, and its effect on the environmental or social baseline.

Table 5.1   *ESMP Template*

Mitigation Measures	Specific Actions to include:	Responsibility	Timing	Incremental Costs	Capacity Building and Training Requirements	Monitoring Requirements
Impact 1:						
a.						
b. etc						
Impact 2:						
a.						
b. etc						
Impact 3:						
a.						
b. etc						

This chapter of the ESMF focuses particular attention on the requirement to follow satisfactory procedures on environmental and social assessment of dam projects, and projects that will draw on the water supplies of dams.

The World Bank is highly concerned about the safety of new dams that it finances, and that of existing dams on which a Bank-financed project is directly dependent, because there are serious consequences if a dam does not function properly or fails.

This is highly pertinent to the WKCDD and NRM projects owing to the significant investments in dam projects, especially the anticipated USD 40m investment in flood mitigation in Western Province, as well as likely investments in irrigation and water supply projects.

6.1   *PROPOSED FLOOD MITIGATION MEASURES*

The WKCDD project includes a significant investment in flood mitigation measures in Western Province. However, this will not involve the construction of a large dam (greater than 15m in height), as there do not appear to be any feasible sites.

6.2   *POLICY REQUIREMENTS ON SAFETY OF DAMS*

Kenyan legislation does not pay separate attention to the environmental or social implications of dam projects. Therefore the procedures set out here are based largely on World Bank OP 4.37 and BP 4.37 on Safety of Dams.

When the World Bank finances new dams, OP 4.37 requires that experienced and competent professionals design and supervise construction, and that the borrower adopts and implements dam safety measures through the project cycle. The policy also applies to existing dams where they influence the performance of a project.

For the life of any dam, the owner is responsible for ensuring that appropriate measures are taken and sufficient resources provided for the safety of the dam, irrespective of its funding sources or construction status.

6.2.1   *Small Dams*

OP 4.37 distinguishes between small and large dams. Small dams are normally less than 15 metres in height. This category includes, for example, farm ponds, local silt retention dams, and low embankment tanks. For small dams, generic dam safety measures designed by qualified engineers are adequate.

The measures set out in *Chapter 4* on sub-project preparation and approval are based on the distinction between small and large dams, in order that the full application of OP 4.37 is applied only to dams that are larger than 15 metres in height.

6.2.2   *Large Dams*

Large dams are 15 metres or more in height. In addition, dams that are between 10 and 15 meters in height are treated as large dams if they present special design complexities, for example, an unusually large flood-handling requirement, location in a zone of high seismicity, foundations that are complex and difficult to prepare, or retention of toxic materials.

For large dams, OP 4.37 requires:

- Reviews by an independent panel of experts (the Panel) of the investigation, design, and construction of the dam and the start of operations;
- Preparation and implementation of detailed plans: a plan for construction supervision and quality assurance, an instrumentation plan, an operation and maintenance plan, and an emergency preparedness plan (see *Box 6.1*);
- Prequalification of bidders during procurement and bid tendering; and
- Periodic safety inspections of the dam after completion.

These requirements will be incorporated into the legal agreement between the World Bank and GoK.

In addition, it is in keeping with good international practice that a strategic environmental and social assessment is undertaken, prior to the identification of a particular site or site for dam projects.

Neither the projects will involve the construction of a dam larger than 15 metres. However, the screening procedures set out in *Chapter 4* are adequate to trigger the preparation of an ESMP for a dam larger than 15 metres. In that eventuality, the following steps would be taken:

- The World Bank will discuss with the borrower the World Bank policy on dam safety (OP 4.37).
- GoK will draw up (or amend existing) terms of reference for technical services to investigate the site and design the dam, in order that environmental and social considerations are adequately incorporated into the choice of number of dams, site(s) and design(s).
- GoK will appoint a Panel consisting of three or more experts, acceptable to the Bank, with expertise in the various technical fields relevant to the safety aspects of the particular dam. The primary purpose of the Panel is to review and advise the borrower on matters relative to dam safety and other critical aspects of the dam, its appurtenant structures, the catchment area, the area surrounding the reservoir, and downstream areas.

- The World Bank will advise GoK, as necessary, on the preparation of terms of reference, and review/clear terms of reference for the Panel members proposed by GoK.
- GoK will provide administrative support for the Panels' activities, and arrange regular Panel meetings and reviews, to continue through the investigation, design, construction, and initial filling and start-up phases of the dam.
- GoK will inform the World Bank in advance of the Panel meetings, and the World Bank will send an observer to the meetings.
- After each meeting, the Panel will provide GoK a written report of its conclusions and recommendations, signed by each participating member; and GoK will provide a copy of that report to the Bank.
- The World Bank will review all reports relating to dam safety prepared by GoK or the Panel, and monitor GoK's preparation of the plans for construction supervision and quality assurance, instrumentation, operation and maintenance, and emergency preparedness.
- Following the filling of the reservoir and start-up of the dam, the World Bank will review the Panel's findings and recommendations. If no significant difficulties are encountered in the filling and start-up of the dam, the borrower may disband the Panel.
- Periodic dam safety inspections will be performed by independent qualified professionals who have not been involved with the investigation, design, construction, or operation of the dam.
- During implementation, the World Bank will monitor all activities relating to the dam safety provisions, using technical staff and consultants as required to assess GoK's performance. If performance in regard to dam safety is found to be unsatisfactory, the World Bank will promptly inform GoK that the deficiencies must be remedied.
- During the latter stages of project implementation, the World Bank will discuss post-project operational procedures with the borrower, stressing the importance of ensuring that written instructions for flood operations and emergency preparedness are retained at the dam at all times. The World Bank will also draw attention to new technology or new information (*eg* from floods, seismic events, or discovery of new regional or local geologic features) that may in the future require the borrower to modify the technical criteria for evaluating dam safety. In that case, the World Bank will urge GoK to make such modifications and then apply the revised criteria to the project dam and, as necessary, to other dams under GoK's jurisdiction.

World Bank staff have discussed, and will continue to discuss, with GoK, any measures necessary to strengthen the institutional, legislative, and regulatory frameworks for dam safety programs in those countries. Support to policy dialogue and development of appropriate legislation is an explicit sub-component of both the WKCDD and NRM projects.

6.2.3   *Use of Existing Dams and Dams under Construction*

The WKCDD and NRM projects may finance sub-projects that:

- Draw water directly from a reservoir controlled by an existing dam or a dam under construction;
- Construct dams or hydraulic structures downstream from an existing dam or a dam under construction, where failure of the upstream dam could cause extensive damage to or failure of the new structure; and
- Irrigation or water supply projects that will depend on the storage and operation of an existing dam or a dam under construction for their supply of water and could not function if the dam failed.

In this case, GoK will arrange for one or more independent dam specialists to: (a) inspect and evaluate the safety status of the existing dam or dam under construction, its appurtenances, and its performance history; (b) review and evaluate the owner's operation and maintenance procedures; and (c) provide a written report of findings and recommendations for any remedial work or safety-related measures necessary to upgrade the existing dam or dam under construction to an acceptable standard of safety.

This is fully in keeping with the watershed-wide approach of the WKCDD or NRM projects, and offers an opportunity to coordinate the sustainability of watershed management structures and activities across the watersheds. [1]

(1) The Bank may accept previous assessments of dam safety or recommendations of improvements needed in the existing dam or DUC if the borrower provides evidence that (a) an effective dam safety program is already in operation, and (b) full-level inspections and dam safety assessments of the existing dam or DUC, which are satisfactory to the Bank, have already been conducted and documented.

Necessary additional dam safety measures or remedial work may be financed under the proposed project. When substantial remedial work is needed, the Bank requires that (a) the work be designed and supervised by competent professionals, and (b) the same reports and plans as for a new Bank-financed dam (see para. 4(b)) be prepared and implemented. For high-hazard cases involving significant and complex remedial work, the Bank also requires that a panel of independent experts be employed on the same basis as for a new Bank-financed dam (see paras. 4(a) and 5).

When the owner of the existing dam or DUC is an entity other than the borrower, the borrower enters into agreements or arrangements providing for the measures set out in paras. 8-10 to be undertaken by the owner.

Box 6.1   *Dam Safety Reports: Content and Timing*

1. Plan for construction supervision and quality assurance. This plan is provided to the Bank by appraisal. It covers the organization, staffing levels, procedures, equipment, and qualifications for supervision of the construction of a new dam or of remedial work on an existing dam. For a dam other than a water storage dam, this plan takes into account the usual long construction period, covering the supervision requirements as the dam grows in height—with any accompanying changes in construction materials or the characteristics of the impounded material—over a period of years. The task team uses the plan to assess the need to fund components under the loan to ensure that dam-safety-related elements of the design are implemented during construction.

2. Instrumentation plan. This is a detailed plan for the installation of instruments to monitor and record dam behaviour and the related hydrometeorological, structural, and seismic factors. It is provided to an independent panel of experts (the Panel) and the Bank during the design stage, before bid tendering.

3. Operation and Maintenance (O&M) Plan. This detailed plan covers organizational structure, staffing, technical expertise, and training required; equipment and facilities needed to operate and maintain the dam; O&M procedures; and arrangements for funding O&M, including long-term maintenance and safety inspections. The O&M plan for a dam other than a water storage dam, in particular, reflects changes in the dam's structure or in the nature of the impounded material that may be expected over a period of years. A preliminary plan is provided to the Bank for use at appraisal. The plan is refined and completed during project implementation; the final plan is due not less than six months prior to the initial filling of the reservoir. Elements required to finalize the plan and initiate operations are normally financed under the project. (In the dam safety practice of several countries, the operation and maintenance plan includes both the instrumentation plan and the emergency preparedness plan as specific sections. This practice is acceptable to the Bank, provided the relevant sections are prepared and finalized according to the timetable set out in the Annex to OP 4.37.)

4. Emergency Preparedness Plan. This plan specifies the roles of responsible parties when dam failure is considered imminent, or when expected operational flow release threatens downstream life, property, or economic operations that depend on river flow levels. It includes the following items: clear statements on the responsibility for dam operations decision making and for the related emergency communications; maps outlining inundation levels for various emergency conditions; flood warning system characteristics; and procedures for evacuating threatened areas and mobilizing emergency forces and equipment. The broad framework plan and an estimate of funds needed to prepare the plan in detail are provided to the Bank prior to appraisal. The plan itself is prepared during implementation and is provided to the Panel and Bank for review not later than one year before the projected date of initial filling of the reservoir.

This chapter sets out requirements for the monitoring of the environmental and social impacts of the WKCDD and NRM projects. Monitoring of environmental and social indicators will be mainstreamed into the overall monitoring and evaluation system for both projects. In addition, monitoring of the implementation of this ESMF will be carried out by NEMA and WRMA.

7.1   *MONITORING OF ENVIRONMENTAL AND SOCIAL INDICATORS*

Two opportunities will be taken to build a simple system for the monitoring and evaluation of environmental and social impacts:

* The River Basins Management officer should consider the environmental and social criteria that require measurement (eg groundwater levels, levels of income etc); A list of initial proposals is given below;

* Using this list of criteria, a set of indicators can be integrated into the screening forms used in the project approval process in each district; (this will ensure flexibility at the project design stage, integration of monitoring considerations throughout the project cycle, as well as a participatory approach to environmental and social monitoring).

7.1.1   *Initial proposals*

The key issues to be considered in the WKCDD and NRM projects include monitoring of water quality, water flow patterns, biodiversity indicators, forest cover, agricultural production, income generation, health and population influx. The goals of monitoring are to measure the success rate of the project, determine whether interventions have resulted in dealing with negative impacts, whether further interventions are needed or monitoring is to be extended in some areas. Monitoring indicators will be very much dependent on specific project contexts.

Monitoring and surveillance of micro-projects will take place on a "spot check" basis at it would be impossible to monitor all the micro-projects to be financed under the project. The spot checks consist of controlling the establishment of mitigation measures. It is not recommended to collect large amounts of data, but rather to base monitoring on observations by project technicians and stakeholders to determine the trends in indicators.

Monitoring of participation process

The following are indicators for monitoring of the participation process involved in the project activities.

- Number and percentage of affected households consulted during the planning stage;
- Levels of decision-making of affected people;
- Level of understanding of project impacts and mitigation;
- Effectiveness of local authorities to make decisions;
- Frequency and quality of public meetings;
- Degree of involvement of women or disadvantaged groups in discussions.

Monitoring of implementation of mitigation plans

Table 7.1 lists the recommended indicators for monitoring the implementation of mitigation plans.

Evaluation of Results

The evaluation of results of environmental and social mitigation can be carried out by comparing baseline data collected in the planning phases with targets and post-project situations.

Table 7.1   *Possible indicators for environmental monitoring of WKCDD and NRM projects*

Indicator	Target
AIR QUALITY	
Ambient air quality standards	Non-violation of international standards
Visibility	Visibility not hampered
Ambient Noise levels	Acceptable noise levels by international standards
RIVER FLOW	
River flow speed	Unaltered or minor alterations in river flow
River flow pattern	No or little change in river flow patterns
Velocity in reservoirs	Unaffected velocity or minor changes in velocity in reservoirs
WATER RESOURCES	
Salinisation level	NEMA Standards
Pollution level	Clean water supply
Siltation of water bodies	No or limited temporary siltation
Water transparency	Transparent/clear water
Erosion load	No or limited temporary erosion load
Sedimentation load	No or limited temporary sedimentation load
Microbial counts in water	Low microbial counts in water
Level of water table	Maintenance of high water table
Volume of surface water	Abundant water supply
SOIL CONDITION	
Soil erosion incidence	Low rate of or no soil erosion incidence rate
Soil compaction	No soil compaction
Oil spillage	Controlled oil handling
VEGETATION	
Deforestation/devegetation rate	Conservation awareness and devegetation/reafforestation

Indicator	Target
Changes in species composition	Maintenance of species composition
WILDLIFE	
Disruption of natural habitats	Protection of natural habitats
	Maintenance of species composition
Changes in species composition	Protection of endangered species
Endangered species	Protection of loss in biodiversity
Biodiversity	Ecological restoration
Ecological balance	
AESTHETIC QUALITY	
Changes in natural terrain	Unaltered natural terrain

Table 7.4   *Possible indicators for social monitoring of WKCDD and NRM projects*

Indicator	Target
HEALTH	
Incidence of poor health	Good health rate
Rate of contracted diseases especially malaria	Disease prevention especially malaria and HIV/ AIDS
Infant mortality rate	Prevention of infant deaths
Water borne diseases	Non incidence of water borne diseases
SAFETY	
Accident rate	Non increase in accidents due to project interventions
EDUCATION LEVELS	
Literacy rates	Increase in basic literacy rates of population targeted by intervention
Enrolment at schools (primary, secondary, tertiary)	Increased rates of enrolment of both girls and boys at all schooling levels, to average international rates for those targeted by intervention
Basic qualification levels	Increased basic qualification levels of population targeted by intervention to average international levels
Numbers of school leavers	Reducing the number of school leavers to average international levels
INCOME LEVELS/ WEALTH	
Levels of poverty	Elimination of poverty
Total HH income	Increases in HH income to levels that exceed expenditure and ensure livelihood security.
Total HH expenditure	No change or decreases in average expenditure
POPULATION DYNAMICS	
Levels of inward migration	Manageable levels of inward migration according to carrying capacity (in terms of population, employment opportunities and land

Indicator	Target
	availability) of affected area
Levels of outward migration	Reduce the need for forced outward migration
Levels of outward migration of young people (age 16-25)	Reduce the need for forced outward migration of young people (age 16-25)
LIVELIHOODS	
Number of new enterprises registered	Net increases in types and numbers of enterprises operating in project area
Numbers of new groups registered	Net increases in types and numbers of groups operating in project area
Number of unemployed and underemployed	Reduction in both formal and informal unemployment and underemployment persons to average international levels
Numbers of young people unemployed (age 16-25)	Reduction in both formal and informal unemployment and underemployment of young people (age 16-25)
WELFARE	
% HH with toilets	100% HH with toilet and sanitation facilities
% HH with access to safe water	100% HH with access to safe water
Average time taken to collect water	Reduce average collection times to average international levels
GENDER EQUALITY	
% Of women participating in decision making and consultative fora (50% women representation)	Full participation of women in decision making and consultative process
% Of women accessing extension services and controlling livelihood benefits	Full access of extension services to women.

7.2   *MONITORING OF ESMF IMPLEMENTATION*

In addition to the Project Reports and ESIA studies required under EMCA 1999, an Annual Audit on ESMF Implementation will be prepared by the PMU, and delivered to NEMA. In addition, each large project that has been subject to an ESIA study (or RAP etc) will also be required to produce an annual audit report, for delivery to NEMA.

An Annual Audit Report will include:
- A summary of the environmental performance of the sub-project vis-à-vis the initial ESIA;
- A presentation of compliance and progress in the implementation of the Environmental and Social Management Plan.

Legal Notice 101 of EMCA requires that main tasks of the audit study be pursued as follows:

- Consideration of the description of the project;
- Indicate the objective, scope and criteria of the audit;
- Study all relevant environmental law and regulatory frameworks on health and safety, sustainable use of natural resources and on acceptable national and international standards;
- Verify the level of compliance by the proponent with the conditions of the environmental management plan;
- Evaluate the proponent's knowledge and awareness of and responsibility for the application of relevant legislation;
- Review existing project documentation related to all infrastructure facilities and designs;
- Examine monitoring programs, parameters and procedures in place for control and corrective actions in case of emergencies;
- Examine records of incidents and accidents and the likelihood of future occurrence of the incidents and accidents;
- Inspect all buildings, premises and yards in which manufacturing, testing and transportation takes place within and without the project area, as well as areas where goods are stored and disposed of and give a record of all significant environmental risks associated with such activities;
- Examine and seek views on health and safety issues from the project employees, the local and other potentially affected communities; and
- Prepare a list of health and environmental concerns of past and on-going activities.

This chapter describes the capacity-building and training required to put the ESMF into practice, and to ensure the WKCDD and NRM projects make a positive contribution to sustainable watershed management and enhanced social welfare.

8.1   *TRAINING AND SENSITIZATION*

Training and sensitisation will be required among the following groups:

- Ministry of Water and Irrigation, and Forest Department / Kenya Forest Service;
- The Project Management Unit;
- DSGs (those members who are not otherwise involved in substantive implementation of the project such as DEO, DFO, DDO etc);
- District Environmental Officers, District Forestry Officers, and District WRMA Officers;
- District Development Officers, District Co-operative Officers and District Social Development Officers;
- District Environmental Committees;
- Mobile Community Advisers; and
- Community Workers.

Training will concern:

- Integrated Watershed Management;
- Participatory Forest Management;
- Community Engagement and Mobilisation;
- Stakeholder engagement, consultation and partnerships;
- EIA law, relevant environmental policies;
- Relevant social laws and policies e.g. those related to poverty alleviation, employment, specific industries;
- New Kenyan Law and Policy underpinning sustainable watershed management;
- Development of River Basin and micro-catchment strategies; and
- This ESMF.

Where possible, officers from one agency will provide training to others. For example, a DEO could provide training to other DEOs from neighbouring districts.

Table 8.1 sets out the specific training requirements of each of these groups, and the chronological order of training. For each training session, the value of

inviting participation of other stakeholders, such as those from local authorities and local private sector, should be considered.

For each group, training will be provided to bring them to a different level of expertise in the different areas (refer to *Table 8.1*):

(i) In -depth training to a level that allows trainees to go on to train others, including technical procedures where relevant;

(ii) Sensitisation, in which the trainees become familiar with the issues to a sufficient extent that it allows them to demand their precise requirements for further technical assistance; and

(iii) Awareness-raising in which the participants acknowledge the significance or relevance of the issues, but are not required to have technical or in-depth knowledge of the issues.

Table 8.1   *Training and Sensitisation Requirements*

	Ministry of Water and Irrigation	Kenya Forest Service	PMU	District Steering Groups	DEOs, DFOs, District WRMA Officers	DDO, District Co-operative Officer, DSDO	Mobile Community Advisers	Community workers*
Integrated watershed management, including concepts of cumulative and strategic environmental impacts	T	T	T	S	T	S	T	A
Participatory forest management	-	T	S	S	T	T	T	A
Community engagement and mobilisation	-	-	A	S	T	T	T	S
Stakeholder engagement, consultation and partnerships	-	-	A	S	T	T	T	T
EIA law, relevant environmental policies	-	-	T	S	T	-	S	-
Relevant social laws and policies e.g. related to poverty, employment, specific	-	-	T	S	-	T	S	-

	Ministry of Water and Irrigation	Kenya Forest Service	PMU	District Steering Groups	DEOs, DFOs, District WRMA Officers	DDO, District Co-operative Officer, DSDO	Mobile Community Advisers	Community workers*
industries.								
New Kenyan Law and Policy underpinning sustainable watershed management	T	T	T	S	T	S	S	A
Strategy development for effective management of River Basin and micro-catchments	S	S	T	S	T	T	T	S
ESMF implementation, including localised impacts of micro-projects, mitigation measures, and environmentally and socially positive micro-projects.	-	-	T	S	T	T	T	A

* Community Health Workers, Teachers, Elders, Women's groups' leaders. ** T = detailed training, S = sensitisation to the issues, A = raised awareness.

The details of the training to be carried out are set out in *Table 8.2*, showing that the training will be delivered in five 'training packages'. Training to community workers will be carried out as part of the CDD components of each project, and training in the ESMF will be part and parcel of training in the procedures for sub-project preparation, application and approval etc. Programs will also include refresher courses from time to time in all of the topics identified.

An example of an agenda for a proposed 2 day training workshop on ESMF implementation is given in *Box 8.1*.

Table 8.2   **Proposed Training Packages**

Intended Audience	Training Component	Length	Frequency
MoWI, KFS, PMU	National level Package on Watershed Management: • Integrated watershed management, including concepts of cumulative and strategic environmental impacts • Participatory forest management • Community engagement and mobilisation • EIA law, relevant environmental policies • New Kenyan Law and Policy underpinning sustainable watershed management	1 day workshop per month for YR1	Regular training to bring selected officers up to required level, and regularly update them
MoWI, KFS, PMU	River Basin strategy development • Measurement and analysis of baseline conditions • Stakeholder engagement and consultation • Alignment with the River Basin strategy • Selection of Key Performance Indicators • Implementation/ roll-out • Monitoring and evaluation	2 day workshop at start of project; subsequent feedback and information sharing sessions to facilitate strategy development	Initial workshop with quarterly feedback sessions
DEOs, DFOs, District WRMA Officers	District level Training Package on Watershed Management: • Integrated watershed management, including concepts of cumulative and strategic environmental impacts • Measurement of baseline conditions • Participatory forest management • Community engagement and mobilisation • EIA law, relevant environmental policies • New Kenyan Law and Policy underpinning sustainable watershed management.	Two 2-day workshops per year throughout project	Twice yearly throughout project.
DDOs, DSDOs, District Co-operative Officers	District level Training Package on Community Driven Development: • Types of community driven development initiatives and links to catchment management • Measurement of baseline conditions • Particpatory approaches to facilitate community driven development • Community engagement and mobilisation • Relevant social laws and policies e.g. related to poverty, employment, specific industries • New Kenyan Law and Policy underpinning sustainable watershed management	Two 2-day workshops per year throughout project	Twice yearly throughout project

Intended Audience	Training Component	Length	Frequency
District Officers	Micro-catchment strategy development • Identification of micro-catchments • Measurement and analysis of baseline conditions • Stakeholder engagement and consultation • Alignment with the River Basin strategy • Selection of Key Performance Indicators • Implementation/ roll-out • Monitoring and evaluation	2 day workshop at start of project; subsequent feedback and information sharing sessions to facilitate strategy development	Initial workshop with quarterly feedback sessions
District Steering Groups (for those members who are not otherwise involved in implementation of the project such as DEOs, DDOs etc)	Sensitisation Course, providing basic knowledge of: • Integrated watershed management, including concepts of cumulative and strategic environmental impacts • Participatory forest management • Community engagement and mobilisation • Wider stakeholder engagement and consultation • EIA law, relevant environmental and social policies • New Kenyan Law and Policy underpinning sustainable watershed management • Micro-catchment strategy development and alignment with River Basin Strategy • ESMF implementation, including localised impacts of micro-projects, mitigation measures, and environmentally positive micro-projects.	2 day workshop for every DSG	In years 1, 2, and 4
DEOs and PMU (Environmental Mitigation Officer)	Detailed requirements of the ESMF, including localised impacts of micro-projects, mitigation measures, and environmentally positive micro-projects. The course will be led by the PMU Environmental Mitigation Officer.	2 day course for DEOs jointly	In YR 1, and with refreshers on an annual basis.
DDOs and PMU (Social Mitigation Officer)	Detailed requirements of the ESMF, including localised impacts of micro-projects, mitigation measures, and socially positive micro-projects. The course will be led by the PMU Social Mitigation Officer.	2 day course for DDOs jointly	In YR 1, and with refreshers on an annual basis.
Mobile Community Advisers	• Use of the community micro-project screening checklist, and operation of the ESMF • Training in micro-catchment management, social and environmental issues • Engagement and mobilisation of communities.	2 day workshop in year 1, 1 day refreshers in years 3 and 5	Years 1, 3 and 5

Intended Audience	Training Component	Length	Frequency
Community workers*	• Use of the screening checklist • Mitigation measures for micro-projects • Ideas for environmental and social development projects • Stakeholder engagement and partnerships to facilitate design and implementation of projects	2 days per community	Throughout the project

* Community Animal Health Workers, Community Health Workers, Teachers, Elders, Women groups.

Box 8.1   *Possible Agenda for a 2-day Workshop Introducing the ESMF*

Day 1

(a) *Introduction to Environmental and Social Management Plans*
This section will introduce participants to the theory and application of ESMPs as a decision making tool. It will outline the principles of ESMPs and provide clear definitions on ESMP practice terminology (e.g. screening and scoping, impacts [negative, positive, cumulative, strategic] natural resource base (water, soil, land, biodiversity, air, etc., mitigation and monitoring) and social baseline (employment, social, health, literacy etc)). It will also provide guidance on the criteria required for the development of an effective ESMP in practice.

(b) *World Bank Safeguard Policies and Kenyan Legislation*
This section will discuss the principal World Bank safeguard policies and their application to subprojects under the WKCDD/NRM. Each policy will be discussed in detail. In addition, the applicable Kenyan legislation will be discussed in terms of the relevant environmental and social laws and policies which apply to activities under the program.

(c) *Screening and Scoping of Sub-projects*
A list of potential activities to be financed under the projects will be discussed. Application of the screening checklist will be explained using case studies.

Day 2

(d) *Impact Identification*
Potential impacts related to various types of activities will be discussed, in terms of their significance (adverse or minimal, positive or negative), magnitude (long term versus short term), and impact category (localised or cumulative).

(e) *Mitigation and Monitoring*
Mitigation measures as they apply to various types of CDD activities will be discussed, in terms of their application, cost and feasibility. Monitoring measures will also be recommended to measure the effectiveness of mitigation plans and to monitor performance.

(d) *Responsibilities for Planning and Reporting*
For each target audience, responsibilities for environmental and social management will be discussed as they relate to the WKCDD / NRM project implementation. This will include responsibilities for planning, management of impact identification and mitigation/monitoring, partnerships with NGOs and technical service providers, partnerships among community members, and reporting.

8.2   RECOMMENDATIONS FOR CAPACITY BUILDING

At the time of preparation of this ESMF, the following limitations in capacity are apparent:

- Capacity among District Environmental Officers and District Forestry Offices is highly variable, and very low in some districts. Most DEOs do not have their own equipment (computers or vehicles) to carry out their responsibilities.
- WRMA Authorities have a modest level of equipment, yet lack coordination with District Authorities.
- The Kenya Forest Service is yet to be formed, and has very weak capacity and equipment.
- Capacity among District Development Officers and District Social Development Officers is highly variable with evidence of limited knowledge and awareness in some districts of different approaches to facilitate improved social welfare.

Capacity-building requirements for MoWI, Kenya Forest Service and the WRMA Authority are addressed directly by the WKCDD and NRM projects, and therefore are not described here.

However, a requirement of this ESMF is that each DEOs is provided with improved equipment (a computer, basic vehicle, and a recurrent budget for their use and servicing) in order that they are able to fulfil their responsibilities under this ESMF. It is also critical that the District Development Officers are provided with increased knowledge and awareness of social development-related issues and management approaches.

Cost implications of training and capacity-building requirements are set out in the final chapter of this ESMF, *ESMF Implementation Budget*.

The breakdown of estimated costs in for putting the ESMF into operation is provided in *Tables 9.1* and *9.2*. This includes the costs of providing the capacity building and training set out in *Chapter 8*.

9.1   TOTAL COSTS

The total estimated costs for mainstreaming environment into the WKCDD project and the NRM project are USD 1,960,000 and USD 973,400 respectively, totalling USD 2,933,400, spread out over the project implementation period of 5 years. These budget lines are separately identified in the project budget: this will ensure that the ESMF has significant 'clout' within the operation of the projects, and is not sidelined.

A specific responsibility of the Environmental Mitigation Officer will be to report on expenditure within the project that can be explicitly related to mainstreaming of environment. This will be one way of monitoring the extent that environmental issues are being addressed.

For the sake of simplicity, some costs that will address the NRM project are covered by the WKCDD project, which partly results in the higher cost of implementing the ESMF for the latter. This is particularly the case for staffing costs or centrally-run training, which address both projects.

9.2   MAINSTREAM COSTS

Costs related to the required mitigation measures for sub-projects are not set out in the budgets presented here. These will be assessed and internalised as part of the overall sub-project cost.

For the smaller projects, it is extremely difficult to estimate the proportion of the sub-project cost that can be expected to be devoted to mitigation measures. However, for larger projects, they should be expected to cost between 2% and 5% of the total project cost.

9.3   COSTS OF TRAINING

The budget incorporates a significant allocation for training and sensitisation, USD 522,000 in the case of the WKCDD project, and USD 326,000 in the case of the NRM project, totalling USD 848,000.

Table 9.1   *WKCDD Project Costs (US Dollars)*

Component	Activity	YR1	YR2	YR3	YR4	YR5	Total	Notes
Community Driven Development (CDD)	Project Reports for some projects	54,000	54,000	54,000	54,000	54,000	270,000	Kenyan consultant rate of 300 USD per day x 3 days X estimated 300 sub-projects (based on expected 10% of sub-projects requiring a Project Report, and an average sub-project size of 10,000 USD)
	District-level training in community-driven development	8,000	8,000	8,000	8,000	8,000	40,000	2 training sessions for all districts to attend per year throughout project
Sustainable development investment and planning	Project Reports for some projects	3,600	3,600	3,600	3,600	3,600	18,000	Kenyan consultant rate of 300 USD per day x 3 days X estimated 200 sub-projects (based on expected 10% of sub-projects requiring a Project Report, and an average sub-project size of 50,000 USD)
	ESIA Reports for some projects	30,000	30,000	30,000	30,000	30,000	150,000	Kenyan consultant rate of 300 USD per day x 10 days X estimated 2 sub-projects (based on expected 20% of sub-projects requiring an ESIA, and an average sub-project size of 200,000 USD)
	National-level training in watershed management	24,000					24,000	I day workshop per month for YR 1
	District-level training in watershed management	8,000	8,000	8,000	8,000	8,000	40,000	2 training sessions for all districts to attend per year throughout project
Flood management investments	Training in River Basin strategy development	10,000	8,000				18,000	2 day workshop with quarterly 1 day feedback sessions in YRs1-2
Support to policy analysis, advocacy and local development	Policy studies to identify areas of policy advocacy related to environment	12,000	12,000	12,000	12,000	12,000	60,000	Kenyan consultant rate of 300 USD per day X 40 days per year
Management, monitoring and evaluation	Salary of River Basin Management Officer	40,000	40,000	40,000	40,000	40,000	200,000	Including tax / costs
	Salary of Environmental Mitigation Officer	25,000	25,000	25,000	25,000	25,000	125,000	Including tax / costs
	Salary of Social Mitigation Officer	25,000	25,000	25,000	25,000	25,000	125,000	Including tax / costs
	Annual Audit	10,000	10,000	10,000	10,000	10,000	50,000	Based on use of Kenyan consultant for 20 days at 300 USD per day plus 4000 expenses
	Basic equipment for DEOs	70,000	20,000	20,000	20,000	20,000	150,000	5000 lump sum for basic vehicle (motorbike) and computer equipment, and 2000 per year recurrent costs, X 10 districts
	DSG sensitisation course	40,000	40,000		40,000		120,000	2 days workshop for 10 DSGs in Yrs 1,2 and 4
	Training in ESMF	80,000	40,000	40,000	40,000	40,000	240,000	2 day courses for DEOs and DDOs in YR1 with annual 1 day refreshers
	Screening checklist training for Mobile Community Advisers	40,000		20,000		20,000	80,000	2 day workshop in year 1, 1 day refreshers in years 3 and 5, in each of 10 districts
	Monitoring Programme	50,000	50,000	50,000	50,000	50,000	250,000	Lump sum estimate
TOTAL		529,600	373,600	345,600	365,600	345,600	**1,960,000**	

Note: Resettlement Action planning costs are provided separately in the Resettlement Policy Framework

Table 9.2   **NRM Project Costs (US Dollars)**

Component	Sub-component	Activity	YR1	YR2	YR3	YR4	YR5	Total	Notes
Water resource management and irrigation	Legislation harmonisation and identification of priority investments	None						0	
	Tana catchment investments	Project Reports for some projects	14400	14400	14400	14400	14400	72,000	Kenyan consultant rate of 300 USD per day x 3 days X estimated 800 sub-projects (based on expected 10% of sub-projects requiring a Project Report, and an average sub-project size of 10,000 USD)
	Irrigation reform and investments	Project Reports for some projects	2880	2880	2880	2880	2880	14,400	Kenyan consultant rate of 300 USD per day x 3 days X estimated 160 sub-projects (based on expected 10% of sub-projects requiring a Project Report, and an average sub-project size of 50,000 USD)
		ESIA for some projects	19200	19200	19200	19200	19200	96,000	Kenyan consultant rate of 300 USD per day x 10 days X estimated 160 sub-projects (based on expected 20% of sub-projects requiring a Project Report, and an average sub-project size of 50,000 USD)
Forest resource management	Forest sector institutional reform	ESMP for forest infrastructure plan	5000					5,000	Kenyan consultant rate of 300 USD per day x 10 days plus expenses
	Enabling Community Participation and Benefit Sharing	ESIA of strategy for evictions	5000					5,000	Use of Kenyan consultant for 10 days at 300 USD per day plus 2000 expenses
	Community and private investment in commercial forestry	Preparation of ESMP arising from 'Institutional SEA' that is currently ongoing	5000					5,000	Use of Kenyan consultant for 10 days at 300 USD per day plus 2000 expenses
Multi-sectoral micro-catchment management		Project Reports for some projects	9000	9000	9000	9000	9000	45,000	Kenyan consultant rate of 300 USD per day x 3 days X estimated 500 sub-projects (based on expected 10% of sub-projects requiring a Project Report, and an average sub-project size of 10,000 USD)
		District-level training on community-driven development						0	Included in WKCDD budget
		District-level training on microcatchment management	10.000	8,000				18,000	2 day workshop with quarterly 1 day feedback sessions in YRs1-2
Management, monitoring and evaluation		Annual Audit	10,000	10,000	10,000	10,000	10,000	50,000	Based on use of Kenyan consultant for 20 days at 300 USD per day plus 4000 expenses
		Basic equipment for DEOs	49,000	14,000	14,000	14,000	14,000	105,000	5000 lump sum for basic vehicle (motorbike) and computer equipment, and 2000 per year recurrent costs, X 7 districts
		DSG sensitisation course	28,000	28,000		28,000		84,000	2 days workshop for 7 DSGs in Yrs 1,2 and 4
		Training in ESMF	56,000	28,000	28,000	28,000	28,000	168,000	2 day courses for DEOs and DDOs in YR1 with annual 1 day refreshers
		Screening checklist training for Mobile Community Advisers	28,000		14,000		14,000	56,000	2 day workshop in year 1, 1 day refreshers in years 3 and 5, in each of 10 districts
		Monitoring Programme	50000	50000	50000	50000	50000	250,000	
TOTAL			291480	183480	161480	175480	161480	**973,400**	

Note: Resettlement Action planning costs are provided separately in the Resettlement Policy Framework

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Acronyms

CBO	Community-based Organisation
CDD	Community-driven Development
DDO	District Development Officer
DFO	District Forestry Officer
DEO	District Environment Officer
DEC	District Environment Committee
DSG	District Steering Group
EIA	Environmental Impact Assessment
EMCA	Environmental Management and Coordination Act
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
GoK	Government of Kenya
IPPF	Indigenous Peoples Policy Framework
IPP	Indigenous Peoples Plan
KFS	Kenya Forest Service
KWS	Kenya Wildlife Service
MCAs	Mobile Community Advisers
MENR	Ministry of Environment and Natural Resources
NIB	National Irrigation Board
NEMA	National Environmental Management Authority
NRM Project	Natural Resources Management Project
PIM	Project Implementation Manual
PMU	Project Management Unit
PMP	Pest Management Plan
RAP	Resettlement Action Plan
WKCDD Project	Western Kenya Community-driven Development and Flood Mitigation Project
WRMA	Water Resources Management Authority