Global Environment Facility

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August 10, 2009

Dear LDCF/SCCF Council Member:

The World Bank as the Implementing Agency for the project entitled ***Kenya: Adaptation to Climate Change in Arid Lands (KACCAL)*** has submitted the attached proposed project document for CEO endorsement prior to final Agency approval of the project document in accordance with the World Bank procedures.

The Secretariat has reviewed the project document. It is consistent with the project concept approved by the LDCF/SCCF Council in January 2007 and the proposed project remains consistent with the Instrument and SCCF/GEF policies and procedures. The attached explanation prepared by the World Bank satisfactorily details how Council's comments have been addressed.

We have today posted the proposed project document on the GEF website at www.TheGEF.org for your information. We would welcome any comments you may wish to provide by September 7, 2009 before I endorse the project. You may send your comments to gcoordination@TheGEF.org .

If you do not have access to the Web, you may request the local field office of UNDP or the World Bank to download the document for you. Alternatively, you may request a copy of the document from the Secretariat. If you make such a request, please confirm for us your current mailing address.

Sincerely,

Attachment: Project Document

cc: Alternates, GEF Agencies, STAP, Trustee

REQUEST FOR CEO ENDORSEMENT/APPROVAL

PROJECT TYPE: FSP

THE **SPECIAL CLIMATE CHANGE FUND**

Submission Date: May 18, 2009
Re-submission Date: August 6, 2009

PART I: PROJECT INFORMATION

GEFSEC PROJECT ID: 3249
GEF AGENCY PROJECT ID: WB P091979/UNDP 3792
COUNTRY(IES): Kenya
PROJECT TITLE: Adaptation to Climate Change in Arid and Semi-Arid Lands (KACCAL)
GEF AGENCY (IES): World Bank, UNDP[1]
OTHER EXECUTING PARTNER(S): GOVERNMENT OF KENYA
GEF FOCAL AREA: Climate Change (Adaptation)

Expected Calendar	
Milestones	**Dates**
Work Program (for SCCF FSP)	November 2006
GEF Agency Approval	October 2009
Implementation Start	September 2009
Mid-term Review (if planned)	September 2011
Implementation Completion	September 2013

A. PROJECT FRAMEWORK

Project Objective: The Kenya Adaptation to Climate Change in Arid and Semi-Arid Lands Project's development objective is to improve the ability of selected districts and communities of the ASALs to plan and manage climate change adaptation measures.

Project Components	Indicate whether Investment, TA, or STA**	Expected Outcomes	Expected Outputs	WB SCCF Financing*		Co-financing*		Total ($)
				($)	%	($)	%	
1. Climate information products, policy and advocacy	TA	Increased understanding among national and regional stakeholders of climate change related issues Improved availability of climate risk information at national and regional level	**World Bank**					
			4 Climate risk profiles developed and used for district management plans 1 set of climate scenarios developed and adjusted to regional and provincial levels	1,460,000	22	5,240,000	78	6,700,000
			UNDP					
			Targeted knowledge-based tools developed for effective climate risk management National and regional coordination and information sharing improved for effective climate risk management. Advocacy and outreach programme prepared and conducted for	327,500	43	427,500	57	755,000

[1] Joint submission with UNDP's supported KACCAL component. See UNDP prodoc for details on that component.

			replication of adaptation measures. Adaptation learning disseminated through national, regional and international networks.					
2. Climate risk management at district and local levels	TA and Investments	Increased understanding among local stakeholders of climate related issues Improved availability of climate risk information at district and local level	**World Bank**					
			4 mobile extension teams trained/accredited in community climate risk management 80 percent of public and private sector investments rated satisfactory or better by beneficiaries 20 percent of ALRMP investments screened for improving response to climate risk	1,370,000	20	5,340,000	80	6,710,000
			UNDP					
			Community level capacity increased to undertake adaptation measures.	200,000	40	300,000	60	500,000
3. Community driven initiatives for climate resilience	TA and Investments	Enhanced communities' ability to plan, manage and implement climate-related activities	**World Bank**					
			50 community action plans with concrete climate risk management activities reflected in the budget 50 community adaptation projects developed and implemented	2,670,000	8	30,240,000	92	32,910,000
			UNDP					
			Community based micro-projects supported.	409,500	42	559,500	58	969,000
4. Incremental Project management* (show details in Table E): World Bank				141,400*	100 *	1,500,000		1,641,400*
Incremental Project management* (show details in Table E): UNDP				63,000	50	63,000	50	126,000
WB Total Costs				5,500,000	12	40,820,000	88	46,320,000
UNDP Total Costs				1,000,000	42.5	1,350,000	57.5	2,350,000
Total joint WB-UNDP Project Costs				6,500,000	13	42,170,000	87	48,670,000

* Incremental project management costs for the World Bank SCCF supported activities is incorporated in sub-component 1b. The bulk of the established project management is undertaken under the baseline project, ALRMP.

B. FINANCING PLAN SUMMARY FOR THE PROJECT ($)

	*Project Preparation**	*Project*	*Agency Fee*	*Total at CEO Endorsement*	*For the record At PIF*
World Bank					
SCCF grant	290,000	5,500,000	521,100	6,311,100	N/A
Co-financing	100,000	40,820,000		40,920,000	N/A
Total	390,000	46,320,000	521,100	47,231,100	N/A
UNDP					
SCCF grant		1,000,000	90,000	1,090,000	N/A
Co-financing	348,000	1,350,000		1,698,000	
Total	348,000	2,350,000	90,000	2,788,000	N/A(see note)

C. SOURCES OF CONFIRMED **CO-FINANCING,** including co-financing for project preparation

*Name of co-financier * (source)*	*Classification*	*Type*	*Amount ($)*	*%**
World Bank				
IDA/ALRMP	Impl. Agency	Loan	40,000,000	98%
Government	Nat'l Gov't	Cash/In Kind	690,000	1.7%
Communities	Beneficiaries	Cash/In Kind	130,000	0.3%
World Bank: Total Co-financing			40,820,000	100%
UNDP				
Ministry of State for Arid and Other Northern Lands	Government	Cash/In Kind	810,000	60%
Ministry of Agriculture	Government	In Kind	300,000	22%
Meteorological Office	Government	In Kind	240,000	18%
UNDP: Total Co-financing			1,350,000	100%

D. LDCF/SCCF RESOURCES REQUESTED BY AGENCY(IES) OR COUNTRY(IES)

GEF Agency	*Fund Type*	*Country Name/ Global*	*(in $)*			
			Project Preparation	*Project*	*Agency Fee*	*Total*
World Bank	*SCCF*	Kenya	290,000	5,500,000	521,100	6,311,100
UNDP	*SCCF*	Kenya		1,000,000	90,000	1,090,000
Total Resources			290,000	6,500,000	611,100	7,401,100

E. PROJECT MANAGEMENT BUDGET/COST

Cost Items	*Total Estimated person weeks*	*GEF ($)*	*Other sources ($)*	*Project total ($)*
World Bank				
*Local consultants**	0	0	0	0
*International consultants**	0	0	0	0
*Office facilities, equipment, vehicles and communications***		41,400	1,000,000	1,041,400
*Travel***		100,000	500,000	600,000
Total	0	141,400	1,500,000	1,641,400
** Purchase of computers, printers, software, cost of communication and a vehicle to support project management activities specific to KACCAL.				
UNDP				
*Local consultants**	41	25,000	25,000	50,000
*Office facilities, equipment, vehicles and communications***		20,000	20,000	40,000
*Travel***		18,000	18,000	36,000
Total		63,000	63,000	126,000

F. CONSULTANTS WORKING FOR TECHNICAL ASSISTANCE COMPONENTS:

Component	*Estimated person weeks*	*GEF($)*	*Other sources ($)*	*Project total ($)*
World Bank				
*Local consultants**	175	210,000	1,200,000	1,410,000
*International consultants**	164	574,000	0	574,000
Total	339	784,000	1,200,000	1,984,000
UNDP				
*Local consultants**	248	297,600	140,000	437,600
*International consultants**	72	180,000	0	180,000
Total	320	477,600	140,000	617,600

Note: Detailed information regarding the consultants in Annex C.

G. DESCRIBE THE BUDGETED M&E PLAN:

The M&E system of KACCAL will be fully integrated in the already established and functioning M&E system of the ALRMP and will rely on its institutional set-up and existing structures. The M&E specialist in the PCU of the ALRMP will have overall responsibility of coordinating all M&E activities conducted as part of KACCAL. The ALRMP Management Information Systems will be used to guide KACCAL implementation, and elaborate the results chain. It will be an effective tool for the project to manage project data and monitor and evaluate the performance of individual project components and sub-components as well as in tracking progress towards the PDO. It will also help mainstream activities into the baseline project.

Please refer to section III. C (page 17-18) and Annex 3 (page 41-46) of the World Bank GEF Project Brief and Part IV (page 34-41) of the UNDP project brief for details on M&E arrangement and project result framework.

WORLD BANK MONITORING AND EVALUATION BUDGET

Cost Items	*GEF ($)*	*Other sources ($)*	*Project total ($)*
M & E	90,000	350,000	440,000
Total	**90,000**	**350,000**	**440,000**

* M&E costs for the World Bank SCCF supported activities is incorporated in sub-component 1b. The bulk of the M&E is undertaken under the baseline project, ALRMP.

In addition, periodic supervision of implementation progress will be undertaken by the UNDP Country office and WB team through half yearly missions or more frequently as deemed necessary. Annual Monitoring will take place through the Tripartite Review (TPR). This is the highest policy-level meeting of the parties directly involved in the implementation of the project. The UNDP CO and the ALRMP/OP (and other partners), as appropriate, will conduct yearly visits to field sites, or more often based on an agreed upon scheduled to be detailed in the projects' Inception Report / AWP to assess progress. Annual reporting will be produced. Two independent evaluations will be carried out: mid project and at completion.

PART II: PROJECT JUSTIFICATION

A. DESCRIBE THE PROJECT RATIONALE AND THE EXPECTED MEASURABLE ADAPTATION BENEFITS:

In November 2006, GEF Council approved US$ 6.5 million from the Special Climate Change Fund (SCCF) for the Kenya Adaptation to Climate Change in Arid and Semi-arid Lands (KACCAL) project, with the World Bank entrusted to manage US$ 5.5 million and UNDP to oversee US$ 1 million. As the project is submitted under the SCCF, provision of global environmental benefits is not expected. This project will, however, deliver benefits in terms of adaptation to climate change.

Climate change and variability threaten to undermine poverty reduction and economic growth in the ASALs by exacerbating existing vulnerabilities. Kenya has been identified as being among the countries at highest climate-related risks, particularly through the impacts of droughts and increasingly floods. The overall objective of the project is to increase the capacity of selected districts and communities of the ASALs to adapt to climate variability and change. The adaptation benefits of the project are reflected through the following key indicators: (i) climate risk management mainstreamed into district management and community action plans in pilot areas; (ii) percent of community adaptation projects rated satisfactory or better by participating communities; and (iii) percent of ALRMP projects screened for improving (adapted) response to climate risk. Please refer to GEF Project Document (Section I.A (page 6-8), I.B (page 9), II.B (page 11), Annex 1 (page 31) and Annex 14 (page 100).

The World Bank will support activities in four pilot regions: Garissa, Turkana, Marsabit and Malindi, while UNDP will support similar activities in Mwingi. The WB and UNDP components will be implemented by ALRMP and closely coordinated with support provided from the WB and UNDP according to the comparative advantage of the two agencies. KACCAL will focus on strengthening capacity and knowledge tools development for addressing climate risk at the national, district and community levels as well as on supporting community activities for adaptation to this risk. Coordination will include joint evaluations and shared technical support. ALRMP will be in the driver's seat and will direct implementation across the five districts (four supported by the WB SCCF component and one supported by the UNDP SCCF component). In addition, KACCAL will ensure a continuous dialogue with all the partners and ensure that lessons learned from other World Bank and donors' projects which contribute to increasing country's capacity to adapt to the impacts of climate variability and change, are mainstreamed into the development agenda of the ASALs. Please refer to GEF Project Document Section III.A (page 16) and Annex 2 (page 38).

Adaptation learning will be an important outcome of the project. Lessons from these initiatives will be a valuable contribution to UNDP-GEF's Adaptation Learning Mechanism, an initiative that is designed to contribute to the integration of adaptation to climate change within development planning of non-Annex I countries, and within the GEF's portfolio as a whole. Some of the most salient learning points will be on the question of adaptation financing needs, and on efficient ways of allocating public financing to adaptation. The most pressing of these questions include:

identifying feasible and replicable adaptation options, assessing the costs and benefits of adaptation, finding ways to ensure financial sustainability, sequencing of adaptation measures, exploring the catalytic role of public policy and financing.

B. DESCRIBE THE CONSISTENCY OF THE PROJECT WITH NATIONAL PRIORITIES/PLANS:

The proposed project is consistent with the country's Poverty Reduction Strategy Paper and the Kenya Strategy for Revitalizing Agriculture, which emphasizes the importance of reducing risk and vulnerability for groups that rely on natural resource based livelihoods. The project is also in line with the GoK's Initial National Communications to the Conference of the Parties (COP) of the UNFCCC (2002), which identifies as priority actions to reduce vulnerability in the ASALs, including options for adaptation in agriculture, water and rangeland management as priorities. In addition, the project contributes to the draft National Policy for the Sustainable Development of Arid and Semi Arid Lands, which envisages a reduction in the vulnerability of the population and an increase in capacities to adapt to climate change. Kenya's Vision 2030 emphasizes managing the resource base of the ASALs and highlights that Kenya will enhance disaster preparedness in all disaster-prone areas and improve the capacity to improve the capacity for adaptation to global climate change. It is also consistent with Kenya's Economic Recovery Strategy for Wealth and Employment Creation (2003), which also focuses on ASALs. The Economic Recovery Strategy for Wealth and Employment Creation (ERS) gives particular emphasis to agriculture as the engine for growth for the Kenyan economy (Ministry of Agriculture, March 2004). Please refer to GEF Project Brief Section I.B (page 9), I.C (page 10) and Annex 1 Section III. (page 36).

Kenya ratified the UNFCCC on 30th August 1994 and is eligible for financial support from the SCCF.

C. DESCRIBE THE CONSISTENCY OF THE PROJECT WITH LDCF/SCCF ELIGIBILITY CRITERIA AND PRIORITIES:
The project is consistent with the eligibility criteria for the SCCF (Council paper GEF/C.24/12; October 15, 2004) that the project should be country-driven, cost-effective and integrated into national sustainable development and poverty-reduction strategies, and that the project should also serve as a catalyst to leverage additional resources. The project is in line with the guidelines of the Special Climate Change Fund (SCCF) addressing several of its priority areas, including: water resource management, land management, agriculture, and fragile ecosystems. Through KACCAL, SCCF incremental support will enhance the climate information base, help strengthen the capacity of relevant stakeholders and mainstream climate risk management into its development plans and investment programs. Please refer to GEF Project Document I.B (page 9).

D. OUTLINE THE COORDINATION WITH OTHER RELATED INITIATIVES:

KACCAL project activities will be blended into the operations of the on-going ALRMP II Project, building on its strong multi-sectoral and inter-agency coordination at the district level.

The results of KACCAL will build on support given by UNDP to the government in the area of service delivery and MDG-based planning. The UNDP Country Assistance Plan 2009-2013 will focus on areas relating to effective governance and sustainable economic growth; in particular activities to support improvements in service delivery, decentralized and pro-poor planning and budgeting, improvements in business development and extension services, integration of environment into national planning processes and design of a national adaptation strategy. UNDP regular resources amount to $28 million over 4 years (2009-2013).

E. DESCRIBE ADDITIONAL COST REASONING:

ALRMP II has been focused on addressing the severe repercussions of the recent extended drought, and has targeted emergency rehabilitation and immediate drought recovery priorities. For the remaining project period, an estimated USD 40 million is expected to strengthen national institutions, district level capacities, support CDD micro-projects for service delivery and drought rehabilitation, addressing immediate needs and providing the baseline for the KACCAL project. Additional cost will support the integration of a longer-term perspective in national and district level planning and a variety of local interventions to adapt to climate variability and change that result in the overall mitigation of that risk. The incremental World Bank component of KACCAL will be comprise (a) GEF (US$5.5 million); (b) government

(US$0.69 million); and (c) beneficiary communities (US$0.13 million). In addition, the incremental UNDP component of KACCAL will comprise US$1 million, building on government co-financing of $1,365,944.

F. INDICATE THE RISK THAT MIGHT PREVENT THE PROJECT OBJECTIVE(S) FROM BEING ACHIEVED AND OUTLINE RISK MITIGATION MEASURES:

Capacity constraints in the arid lands are assessed as prevalent. The project will mitigate these constraints by providing substantial capacity strengthening – both in technical issues of climate risk management for service providers, policy makers as well as in community capacity to integrate climate risk in their development plans and in monitoring. In addition, the project will use the same mechanism as the ALRMP i.e. the mobile extension teams for this purpose. Please refer to GEF Project Document Section III.E (page 19 and 20).

G. DESCRIBE HOW COST-EFFECTIVENESS IS REFLECTED IN THE PROJECT DESIGN:

The project will build on ALRMP institutional structures and coordination mechanisms for drought management, which have been shown to work successfully over the last ten years. The ALRMP represents a cost effective way of delivering adaptation support.

Some economic analysis of internal rates of return of sustainable livelihood options has been done; see WB-GEF Project Document, Annex 9 (page 75). More detailed cost effectiveness analysis will be undertaken at the project, where specific adaptation options will be assessed for financial feasibility. Effectiveness will be assessed according to the extent to which the project a) is financial sustainable and b) reduces vulnerability to climate variability and change.

PART III: INSTITUTIONAL COORDINATION AND SUPPORT

A. PROJECT IMPLEMENTATION ARRANGEMENT:

Please refer to the WB GEF Project Document Section Annex 6 (page 55-56), and the UNDP project brief, Part III (page 34). KACCAL is building on substantial management and institutional capacity developed during the first and second phase of ALRMP. KACCAL will be implemented and managed by ALRMP Project Coordination Unit, which reports directly to the Ministry for the Development of Northern Kenya and Other Arid Lands under the Prime Minister's Office.

PART IV: EXPLAIN THE ALIGNMENT OF PROJECT DESIGN WITH THE ORIGINAL PIF:

The GEF Project Document is consistent with the project design approved at work program entry. However during the course of preparation the content of the project brief as approved at WPE has been enriched by the preparation work and has been refined and updated accordingly. The following modifications have been made:

World Bank PIF

At Work Program Entry	At CEO Endorsement	Comments
• WB activities implemented by Arid Lands Resource Management Project structure (parent project). UNDP activities implemented by district agricultural office in Mwingi	Activities of the project will be jointly implemented by the Arid Lands Resource Management Project in the PCU and close coordination through joint planning, supervisions etc will be conducted.	It was agreed to jointly develop and implement the project in light of synergies and complementarities. WB SCCF will support activities in 4 pilot districts and national capacity strengthening while UNDP SCCF will support activities in 1 pilot district and regional knowledge sharing.
• Strategic Context and Rationale	• Strategic Context and Rationale	• This section was refined and updated. More information has been introduced on the baseline project, ALRMP.
• PDO is "to assist Kenya in adapting to expected changes in the	• PDO is "to improve the ability of selected districts and	• PDO has been made more focused and joint WB-UNDP goal added.

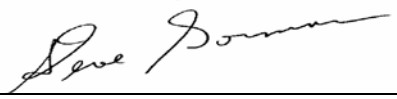
climactic conditions that otherwise threaten the sustainability of rural livelihoods in its arid and semi-arid lands"	communities of the ASALs to plan and manage climate change adaptation measures" • Joint WB-UNDP goal is "to enhance the resilience of communities and the sustainability of rural livelihoods threatened by climate change, in the arid and semi-arid lands of Kenya."	• Correspondingly the indicators in the results framework were refined for better clarity and measurability. This also addresses the comments received from the Swiss Council Representative.
• Components – Four 1. Improve national coordination of information and action for management of climatic risk **SCCF US $0.8 m** 2. Integrate a long-term climate risk perspective into local/district planning and investments and support to engage private sector for climate risk reduction **SCCF US $1.75 m** 3. Support Community Driven Initiatives to enhance long term livelihood strategies **SCCF US $3.51m** 4. Program Management, technical assistance, project and impact monitoring and evaluation and knowledge sharing **SCCF US $1.4 m** **SCCF Total US $6.5 m**	• Components – Three 1. Climate information products, policy and advocacy **WB SCCF US $1.46 m** 2. Climate risk management at district and local levels **WB SCCF US $1.37 m** 3. Community driven initiatives for climate resilience **WB SCCF US $2.67 m** **WB SCCF Total US $5.5 m** **(and UNDP SCCF: US $ 1 m; SCCF Total: US $6.5 m)**	• Component structure remains the same except the number of components has been reduced to three. The activities under the fourth component have been folded into sub-component 1.2. Most of project management costs will be incurred by the baseline project, ALRMP. • Given the innovativeness of the project and the knowledge-intensity of climate change issues, it was decided – in consultation with the ALRMP Team – to slightly increase the resources for climate information products. This is reflected in the costs for the first component. • At work-program, it was decided to have a joint WB-UNDP project. The component costs reflect this change.
• Co-Financing Total: US$ 44,724,681	• Co-Financing Total: US$ 41,820,000	• The delay in the approval of KACCAL has resulted in changes to the available financing from the baseline project.
• Section III E	• Section III E	• Key lessons and Risks Section edited and summarized to shorten document length and in order to better reflect those operationally relevant to the project
Implementing agency – Ministry of State for Special Programs, Office of President	• Implementing agency – Ministry of State for the Development of Northern and Other Arid Lands, Office of the Prime Minister	• Institutional and implementation arrangements: Institutional structure updated to reflect changes in Government – Coalition administration established post crisis.

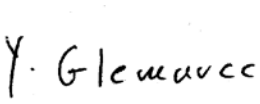
UNDP _Project Brief

Section changed	At Work Program Entry	At CEO Endorsement	Justification
Consistent objective and outcomes with the WB project	Objective: To support the integration of climate risk management in the development processes in arid and semi-arid lands towards improved adaptation response to changes in climatic conditions that otherwise threaten the sustainability of its rural livelihoods. Outcomes: 1. Strengthened knowledge base, coordination and information sharing towards action on management of climatic risk at the National and Regional levels. 2. Capacity developed and investments made to integrate CRM into local/district planning and for engaging the private sector. 3. Support provided for community driven initiatives to enhance the resilience of livelihoods and ecosystems to climatic risk.	Objective: To increase the capacity of selected districts and communities of ASALs to adapt to climate variability and change. Outcomes: 1. Enhanced capacity of national and regional stakeholders to plan, manage and implement climate change adaptation measures 2. Enhanced capacity of district and local level stakeholders to plan, manage and implement climate change adaptation measures 3. Enhanced communities' ability to plan, manage and implement climate-related activities	Closer integration with the World Bank project to facilitate more effective learning about adaptation approaches, and project management cost savings.

Section changed	At Work Program Entry	At CEO Endorsement	Justification
Outcome structure remains the same but outputs have been re-configured.	National-level advocacy was part of Outcome 2: Enhanced Capacity at Local Level. Capacity strengthening for different user groups was spread along 2 outcomes: 2 and 3.	National level advocacy and outreach have been added to Outcome 1: Enhanced capacity of national and regional stakeholders to plan, manage and implement climate change adaptation measures . A new output on adaptation learning has been added to Outcome 1. One output on capacity strengthening for all user groups (GoK, NGOs, private sector, Natural Resource Managers, extension staff, local communities) under Outcome 2.	Outputs have been organized according to scale at which the project is operating. Outcome 1 is about the national scale changes. Outcome 2 is about changes at the local governance level. <u>Adaptation learning:</u> The project will contribute the recently established Adaptation Learning Mechanism on the question of adaptation financing needs, and on efficient ways of allocating public financing to adaptation. The most important of these questions include: identifying feasible and replicable adaptation options, assessing the costs and benefits of adaptation, finding ways to ensure financial sustainability, sequencing of adaptation measures, exploring the catalytic role of public policy and financing
SCCF financing per outcome changed	Outcome 1: **SCCF: USD 102,500** Outcome 2: **SCCF: USD 115,000** Outcome 3: **SCCF: USD 609,500** Monitoring and evaluation/adaptation learning: **SCCF: USD 110,000**	Outcome 1: **SCCF: USD 327,500** Outcome 2: **SCCF: USD 200,000** Outcome 3: **SCCF: USD 409,500**	Outcome 3 is now fully focused on investments in demonstration projects.
Risk table added	No table was included.	Included now in Part II, Pg 28.	Missing risk information now included.

PART V: AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF policies and procedures and meets the LDCF/SCCF criteria for CEO Endorsement.	
World Bank	
Steve Gorman GEF Agency Coordinator 	Paola Agostini Regional Coordinator Project Contact Person
Date: *April 29 , 2009*	Tel. and Email:1-202-473-7620 pagostini@worldbank.org

This request has been prepared in accordance with GEF policies and procedures and meets the LDCF/SCCF criteria for CEO Endorsement.	
UNDP	
 Yannick Glemarec Executive Coordinator UNDP/GEF	Jessica Troni Regional Technical Adviser Climate Change Adaptation UNDP/GEF Project Contact Person
Date: May 8, 2009	Tel. and Email: +27 12 354 8056 Jessica.troni@undp.org

ANNEX A: WORLD BANK PROJECT RESULTS FRAMEWORK

PDO	Project Outcome Indicators	Use of Project Outcome Information
The PDO is to improve the ability of selected districts and communities of the ASALs to plan and manage climate change adaptation measures	District management plans with concrete climate risk management activities reflected in the budget (number) Community adaptation projects rated satisfactory or better by participating communities (%) (communities assess whether outcomes have been achieved)	The project outcome indicators will test the effectiveness of the adaptation interventions promoted by KACCAL and will help guide future adaptation efforts in the ASALs.
Intermediate Outcomes	**Intermediate Outcome Indicators**	**Use of Intermediate Outcome Monitoring**
Component 1. Climate information products, policy and advocacy		
Increased understanding among national and regional stakeholders of climate change related issues Improved availability of climate risk information at national and regional level	Climate risk profiles developed and used for district management plans (number) Climate scenarios developed and adjusted to regional and provincial levels (number)	To assess whether a critical stakeholders have the capacity to implement climate-related policies and strategies
Component 2. Climate risk management at district and local levels		
Increased understanding among local stakeholders of climate related issues Improved availability of climate risk information at district and local level	Mobile extension teams trained/accredited in community climate risk management (number) ALRMP investments screened for improving response to climate risk (%) Public and private sector investments rated satisfactory or better by beneficiaries (%) (beneficiaries assess whether outcomes have been achieved)	To evaluate whether a critical number of extension staff have acquired knowledge to advice communities on climate risk management To assess whether generated climate information products are accessible to end users To determine whether public and private investments are contributing to increased adaptive capacity

Component 3: Community driven initiatives for climate resilience		
Enhanced communities' ability to plan, manage and implement climate-related activities	Community Action Plans with concrete climate risk management activities reflected in the budget (number)	To evaluate whether communities acquiring knowledge and interest in implementing climate change adaptation activities supported by the project
	Community adaptation projects developed and implemented (number)	To determine how microprojects are contributing to adaptive capacity

Arrangements for results monitoring

		Target Values (cumulative)				Data Collection and Reporting		
Project Outcome Indicators	**Baseline**	**YR1**	**YR2**	**YR3**	**YR4**	**Frequency and Reports**	**Data Collection Instruments**	**Responsibility for Data Collection**
District management plans with concrete climate risk management activities reflected in the budget (number)	0	0	2	4	4	Annually from district and community reports	Records and reports	DCU and DSG
Community adaptation projects rated satisfactory or better by participating communities (%)	0	0	0	60	80	Annually from community reports	Participatory evaluation	DCU and DSG (including METs)
Intermediate Outcomes								
Component 1								
Climate risk profiles developed and used for district management plans (number)	0	0	2	4	4	Annually from project progress reports	Records and reports	PCU (M&E Unit)
Climate scenarios developed and adjusted to regional and provincial levels (number)	0	0	1	1	1	Annually from project progress reports	Records and reports	PCU (M&E Unit)
Component 2								
Mobile extension teams trained/accredited in community climate risk management (number)	0	0	4	4	4	Annually from project progress reports	Records reported from training activities	DCU and DSG
ALRMP investments screened for improving response to climate risk.	0	0	10	15	20	Annually from district reports	Reports and records	DCU and DSG (incl. METs)

Public and private sector investments rated satisfactory or better by beneficiaries (%)	0	0	0	60	80	Annually from evaluation reports	Participatory evaluation	PCU / DCU and DSG
Component 3								
Community Action Plans with concrete climate risk management activities reflected in the budget (number)	0	0	16	32	50	Annually from project progress reports	Review of Community Action Plans	DCU and DSG (incl. METs)
Community adaptation projects developed and implemented (number)	0	0	16	32	50	Annually from project progress reports	Review of Community Action Plans	DCU and DSG (incl. METs)

ANNEX B: RESPONSES TO PROJECT REVIEWS

1. Response to STAP Review is found in Annex 14 of the project document. All comments were addressed during WP entry.

2. COMMENTS FROM GEFSEC IN REVIEW SHEET OF NOVEMBER 7, 2006

►Detailed Monitoring assessment plan expected.

The Results Framework has been revised with refined indicators and target values. Please see Annex 3 for details. More implementation details are available in the Project Implementation Manual (PIM), which will be available before Effectiveness.

3. COMMENTS FROM SWITZERLAND

These comments have been addressed fully in the current document which has considerably strengthened the WP entry Project document.

► The sectors of intervention are not yet clearly specified. Thus, the potential fields of intervention are too vast.

This issue has been addressed in the revised project document – see component description (Section IIC) with further detail in the areas of intervention, particularly in component 3 (community grants). The specific interventions will be based on the community needs prioritization process during the project. The particular needs of the communities and districts will also be tailored by districts (under component 2 – public investments) based on the hazards and risks faced by them.

► The geographical scope is not yet soundly defined, and the 4-5 pilot districts are not yet identified.

The geographical scope has been defined. Project activities will be piloted in four ASAL districts, Garissa, Turkana, Marsabit and Malindi, with the intention of scaling-up KACCAL climate change adaptation work in other districts of the baseline project. Related activities in a fifth district, Mwingi, will be supported by the proposed United Nations Development Program (UNDP) implemented SCCF grant. (Project Brief Section II A).

► Component 3 is as of now still too vague.

Component 3 has been revised and defined. While maintaining flexibility to respond to community needs based on the planned prioritization process (through participatory rapid appraisals, PRAs), the specific areas for intervention have been narrowed and listed under six areas. Details are available in component 3.

► Project's targets and performance indicators are only given in very general terms.

Project targets and indicators have been specified, refined and detailed in Annex 3 (Results Framework). This RF is also consistent with ALRMP's M&E framework. Detailed implementation arrangements are defined in the Project Implementation Manual (PIM), which follows the implementation guidelines of the baseline project ALRMP.

► As of now, there is also a general lack of background information.

This has been considerably strengthened with details available in Section I A and Annex I of the Project Document.

► The Project Result Framework does not yet follow the outline of the project components, and the outcome indicators are so far defined only in rather vague terms.

See above. Results Framework is consistent with the project components and indicators have been refined and have target values.

► **Implementing arrangements**
World Bank is the Executing agency. The Government of Kenya (GOK) Ministry of Northern and other Arid Lands is the implementing agency.

4. COMMENTS FROM GEFSEC IN REVIEW SHEET OF JULY 22, 2009

► **Removal of PPG and associated agency fee in the table B of the CEO endorsement request, as well as the table of UNDP PPG expenditure breakdown in Annex D**

Revisions have been made accordingly.

ANNEX C: CONSULTANTS TO BE HIRED FOR THE PROJECT- WORLD BANK

Position Titles	*$/ person week*	*Estimated person weeks*	*Tasks to be performed*
For Technical Assistance			
Local			
Climate risk profiling and capacity building specialists	1,200	17	Train meteorological services and other stakeholders Train national team on climate risk profiling
Climate risk specialist	1,200	83	Assess current and future climate related risks to ALRMP micro-project activities, develop climate risk screening tools for ALRMP investments and micro-projects and assess the existing adaptation mechanisms
Evaluation specialist	1,200	67	Conduct independent evaluation
M&E specialist	1,200	8	Support M&E and MIS
International			
Climate risk/Data Collection/Meteorological services Specialists	3,500	43	Design climate risk profiles, support data collection and transfer to digital format and assess capacity of meteorological services and other stakeholders
Capacity building and climate risk profiling specialists	3,500	11	Train meteorological services and other stakeholders Train national team on climate risk profiling
Climate change scenario and capacity building specialists	3,500	71	Downscale climate information and format of climate change scenarios and provide training to use the improved resolution and format of climate change scenario
Climate risk specialist	3,500	29	Assess current and future climate related risks to ALRMP micro-project activities, develop climate risk screening tools for ALRMP investments and micro-projects and assess the existing adaptation mechanisms
Information system specialist	3,500	10	Review information system and determine how to integrate

CONSULTANTS TO BE HIRED FOR THE PROJECT - UNDP

Position Titles	*$/ person week*	*Estimated person weeks*	*Tasks to be performed*
For Project Management			
Local			
Project Manager	1250	41	Management of the project. This will include organizational duties, issuance of terms of reference and other administrative functions related to the effective implementation of the project.
For Technical Assistance			
Local			
Climate risk management specialists	1200	128	Developing tools and methodologies for integrating climate change risk reduction measures into community and national development plans including developing climate change resilient drought/flood mitigation and preparedness plans. Activities related to capacity building for incorporating CRM into local and regional planning activities.
Knowledge management	1200	40	Developing knowledge platforms, an advocacy and outreach plan and for developing and developing and implementing a monitoring and evaluation plan.
Environment/NRM Specialists	1200	80	Project manager and technical support staff for activities related to pilot measures for demonstrating climate risk management at the community level.
International			
Climate risk management specialists	2500	26	Developing tools and methodologies for integrating climate change risk reduction measures into community and national development plans, Establishment of integrated drought management system. Development of training materials and the roll-out of training events for capacity strengthening at district and local levels.
Knowledge management	2500	22	Developing and implementing knowledge platforms, an advocacy and outreach plan, and development and dissemination of adaptation learning.
Water/agricultural engineers/technical specialists	2500	24	Develop technical and financial feasibility assessments and technical guidance in support of demonstration projects.

ANNEX D: STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS

A. EXPLAIN IF THE PPG OBJECTIVE HAS BEEN ACHIEVED THROUGH THE PPG ACTIVITIES UNDERTAKEN.

The World Bank PPG objectives were met. A number of studies were conducted to inform project preparation including a review of institutional mechanism and gaps at the national and district level and an assessment and review of available climate variability and change information. Feasibility and technical studies were carried out as well as bio-physical and socio-economic baselines for developing a decision support toolkit were established. Please refer to the PPG completion report, which is enclosed with the CEO package.

UNDP

Preparatory activities were completed successfully, including stakeholder analysis, and baseline analysis in terms of drought risk, site selection, coping strategies, and food security situation at the pilot site.

B. DESCRIBE IF ANY FINDINGS THAT MIGHT AFFECT THE PROJECT DESIGN OR ANY CONCERNS ON PROJECT IMPLEMENTATION.

No

C. PROVIDE DETAILED FUNDING AMOUNT OF THE PPG ACTIVITIES AND THEIR IMPLEMTATION STATUS IN THE TABLE BELOW:

World Bank - A total amount of USD 290,000 was approved in the PPG and was executed under two grants – one Bank executed in the amount of USD 190,000 and a recipient executed trust fund in the amount of USD 100,000. Due to problems associated with the Treasury in Kenya (and subsequently the post election crisis), the recipient executed grant was not disbursed.

The Bank executed grant was used to support a number of preparation activities at the request of GoK and details are below:

Project Preparation Activities Approved	***Implementation Status***	***LDCF/SCCF Amount ($)***				***Co-financing ($)***
		Amount Approved	***Amount Spent To-date***	***Amount Committed***	***Uncommitted Amount****	
Project Brief and Project Management	Completed	20,000	12,018	0	7,982	30,000
Establishment of project management arrangements	Completed	0	0	0	0	30,000
Technical and institutional reviews on climate risk management in the key participating departments and for the four districts	Completed	60,000	27,600	0	32,400	10,000
Review of ALRMP social assessment and stakeholder consultation mechanisms	Completed	40,000	7,784	0	32,216	30,000
Institutional review	Completed	30,000	15,002	0	14,998	10,000

of the overall coordination of adaptation to climate change, food security and disaster management in Kenya,						
Technical study of capacity building needs in the Kenya Meteorological Department	Completed	10,000	0	0	10,000	10,000
Analysis of Community Driven Development mechanisms used by ALRMP	Completed	80,000	68,708	0	11,292	10,000
Environmental and social assessments	Completed	20,000	0	0	20,000	10,000
Design of M&E system	Completed	30,000	14,863	0	15,137	10,000
Multi-agency workshops	Completed	0		0	0	30,000
Total		**290,000**	**137,473**	**8,502**	**144,025**	**180,000**

Document of
The World Bank

Report No. 39058

GEF/SCCF PROJECT DOCUMET

ON A

PROPOSED GRANT FROM THE
SPECIAL CLIMATE CHANGE FUND

IN THE AMOUNT OF USD 5.5 MILLION

TO THE

GOVERNMENT OF KENYA

FOR A

KENYA: ADAPTATION TO CLIMATE CHANGE IN ARID AND SEMI-ARID LANDS (KACCAL)

PROJECT

May 7, 2009

Agriculture and Rural Development
Country Department 2
Africa Region

CURRENCY EQUIVALENTS
(Exchange Rate Effective February 1, 2009)

Currency Unit	=	Kenya Shillings (KShs.)
79 Kshs.	=	US$1
US$ 1.58	=	SDR 1

FISCAL YEAR
July 1 – June 30

ABBREVIATIONS AND ACRONYMS

ALRMP	Arid Lands Resource Management Program
ASAL	Arid and Semi Arid Lands
ASALs	The Arid and Semi-Arid Lands
CAPs	Community Action Plans
CAS	Country Assistance Strategy
CBS	Central Bureau of Statistic
CDD	Community Driven Development
CDO	Community Development Officer
CFIA	Country Integrated Fiduciary Assessment
CRM	Climate Risk Management
DCU	District Coordination Units
DMO	Drought Management Officer
DRSRS	Ministry of Agriculture, Department of Resource Survey and Remote Sensing
DSG	District Steering Group
EMF	Environmental Management Framework
EWS	Early Warning System
FEWS-NET	Famine Early Warning System-Network
GEF	Global Environmental Facility
IAD	Internal Audit Department
IDA	International Development Association
IFR	Interim Financial Report
ICPAC	IGAD Climate Prediction and Application Centre
ILRI	International Livestock Research Institute
IRMPF	Institutional Risk Management Policy Framework
ISA	International Standards on Auditing
KAPP	Kenya Agricultural Productivity Project
KAP-SLM	Kenya Agricultural Productivity Sustainable Land Management
KACCAL	Kenya Climate Change Adaptation in the Arid and Semi Arid Lands
KFSM	Kenya Food Security Meeting
KMD	Kenya Meteorological Department
MENR	The Ministry of Environment and Natural Resources
METs	Mobile Extension Teams
MIS	Management Information System
NCCK	National Christian Council of Kenya
NCPB	National Cereals and Produce Board
NEMA	National Environmental Management Agency
NRM	Natural Resource Management
PCU	Project Coordination Unit

PRA	Participatory Rural Appraisal
PRSP	Poverty Reduction Strategy Paper
SA	Social Analysis
SCCF	Special Climate Change Fund
UNDP	United Nations Development Program
UNFCCC	United Nations Framework Convention on Climate Change
SLM	Sustainable Land Management
VARG	Vulnerability and Adaptation Resource Group
WKCDD&FM	Western Kenya Community Driven Development and Flood Mitigation

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KENYA
Kenya: Adaptation to Climate Change in Arid and Semi-Arid Lands (KACCAL)

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I. STRATEGIC CONTEXT AND RATIONALE

A. Country and sector issues

1. **The Arid and Semi-Arid Lands (ASALs) need special attention in order to achieve sustainable economic development in Kenya.** The ASALs cover more than 80 percent of the country's land mass and cut across 39 districts, mainly in the Rift Valley, Eastern, Northeastern and Coast Provinces. The ASALs account for almost 30 percent of Kenya's population. The population in the arid districts is predominantly pastoral, but the characteristics of livestock ownership and movement vary significantly across different ethnic groups and food economy zones. The semi-arid districts are characterized by marginal dryland agriculture, complemented by pockets of agro-pastoral livelihoods and some pastoral livelihoods in the Masai area. The ASALs hosts about 70 percent of the national livestock population with an estimated value of Kshs 70 billion. The ASALs are also home to over 90 percent of wild game which supports the tourist industry and has earned Kenya in excess of Kshs 50 billion annually. Although there is great potential for ASAL development, the areas have been historically marginalized, both economically and politically.

2. **Kenya's GDP growth picked up recently after stagnating for many years, but poverty and inequity remain major challenges.** The Kenyan economy grew at 6.1 percent in 2006, up from 5.8 percent in 2005. This recovery has been mainly due to improved macroeconomic management and progress of some structural reforms. National absolute poverty declined from 52 percent in 1997 to 47 percent in 2006. Despite the impressive recent gains in economic growth and poverty reduction, Kenya continues to face significant development challenges, especially in sustaining growth, addressing inequalities, and improving governance. Economic performance over the past two decades has not matched the annual population growth rate of 2.3 percent. The post election crisis witnessed in early 2008, where over 350,000 people were internally displaced, not only brought into limelight the importance of urgently addressing these challenges but also highlighted the centrality of land issues in the country. The global food crisis has also brought into focus the centrality of enhancing land productivity as a key developmental challenge.

3. **The striking spatial variation in incomes, poverty and human development in Kenya indicate the severe under-development and marginalization of the ASALs.** In particular, the ASALs face the challenge of chronic underdevelopment. This under-development arises for a range of reasons, including climatic and agro-ecological factors and socio-economic conditions, such as low levels of access to markets and services. Most Districts in the ASALs have very high poverty rates of more than 70 percent, which is well above the national average. Unemployment is particularly high in Northeastern Province, reaching 40 percent in 2006. Due to its relatively isolated location and dispersed population, the ASALs have long been disadvantaged in public service and infrastructure provision. In Northeastern Province, only 4 percent of the population use electricity and less than one third has access to safe water. A massive 88 percent of adults have not completed primary education.

4. **Climate variability and change threaten to undermine poverty reduction and economic growth in the ASALs by exacerbating existing vulnerabilities**. Kenya has been identified as being among the countries at highest climate-related risks, particularly through the impacts of droughts and increasingly floods. Droughts between 1998 and 2002 caused a decline in GDP by 16 percent for the following two years and damages from floods during the 1997-98 El Nino are estimated at around 11 percent of annual GDP. Repeated rain failures and the severe droughts of 2001/2001 and 2006 could be seen as an early signal of climate change. These extreme climatic events have affected agricultural performance and food security and have resulted in frequent diversions from development planning to emergency response. The population in the ASALs is already highly vulnerable due to the ASALs' unfavorable agro-ecological and socio-economic conditions. 35 percent of the land is subject to land degradation and desertification. Water

availability and accessibility is highly variable. Rainfall is low and erratic with annual rainfall in the arid districts ranging from 150-450 mm per year, and in the semi-arid from 500-850 mm per year. Unfavorable socio-economic conditions in the ASALs include low access to services and infrastructure, including water and sanitation, electricity, financial services and roads. The combination of harsh agro-ecological and socio-economic conditions leads to high vulnerability to shocks, including climate variability and change. In the Northeastern and Eastern Provinces 43 percent and 42 percent of the households have been affected by droughts and floods respectively and 39 percent and 29 percent by high food prices between 2000 and 2005. In addition to the direct impacts of climate variability and change, there are a number of indirect impacts, such as the increased spread of human and livestock diseases (epidemics such as the rift valley fever), increase in unsustainable natural resource extraction (such as soil nutrient depletion and deforestation), increased conflicts and insecurity, and break-down of various services.

5. **The lack of climate risk adapted investments further reduces the impact of development activities.** Observations and projections predict increased climate variability and exposure to extremes, and hence increase the risk to natural resource based livelihoods, the mainstay of the ASALs. Global general climate models indicate a warming trend (with an increase of up to 2 degrees Celsius in the annual average temperature by 2030) in the region with likely more intense rainfall in Northeastern Kenya and decreased rainfall in the rest of the country. The length of the growing season is likely to shorten in some parts of the country and its onset to be more variable. Since frequency and intensity of these events are expected to increase, traditional and autonomous adaptation is not likely to be sufficient in the future.[1]

6. **The Government of Kenya has increased its attention to the development of the ASALs to unleash its full economic and livelihoods potential.** Kenya's Vision 2030, which follows the Economic Recovery Strategy for Wealth and Employment Creation, includes enhanced equity and wealth creation opportunities for the poor as one of its main pillars. This pillar explicitly states that special attention has to be given to investments in the ASALs. The Vision 2030 also emphasizes the importance of sound management of the ASALs' natural resource base on which many economic sectors depend on, including agriculture and livestock, water, tourism, health, and education. The Vision 2030 also highlights that Kenya will enhance disaster preparedness in all disaster-prone areas and improve the capacity to adapt to climate variability and change.

7. **The Government prepared the National Policy for the Sustainable Development of Arid and Semi Arid Lands**. The policy is awaiting cabinet approval. It aims at enhancing the role of communities in the ASALs' development with a focus on longer-term planning. Its main objective is to enhance food security, increase living standards and reduce dependency on food aid. It envisages a reduction in the vulnerability of the population and an increase in capacities to adapt to climate variability and change. Its priorities include support to: sound natural resource and environmental management; agro-pastoral livelihood systems; mixed farming, water resource management, and diversification in livestock; and active adaptation to short- to longer-term climate risks. The policy highlights a number of capacity related constraints such as inadequate development of local human resources, poor livestock marketing, limited health and movement control systems, and inadequate provision of basic services. It also emphasizes the importance of complementing the disaster management outlook which is focused on provision of food aid and emergency responses rather than on establishing long term solutions for sustainable livelihoods in a situation of heightened climate risk.

[1] See also Annex 1 for further detail.

8. **The Arid Lands Resource Management Project (ALRMP II) has been highly successful in enhancing food security in drought-prone and marginalized communities.** Now in its second phase, ALRMP, as part of a long standing Government program for rural development in the ASALs, has been very successful in reaching marginalized communities and in establishing sound implementation systems. ALRMP originally started as an emergency drought recovery operation in 1994 (Emergency Drought Recovery Project, Cr. 2460). It was realized that a longer term program aimed at building a drought management system as well as community capacity to cope with drought was needed. Two phases of this program have been supported so far - ALRMP I (Credit 2797) with US$ 21m in 1996 and ALRMP II (Credit 3795) with US$ 60m in 2003. A supplemental credit for US$ 60m in 2006 expanded the scale and scope of operations, and replenished its depleted drought contingency fund. The project was also extended to June 2010. ALRMP now covers a total of 28 arid and semiarid districts[2] and has strengthened its focus on natural resource management, now a distinct component. ALRMP's strengths include a sound decentralized institutional structure, and effective coordination mechanisms at the national, district and community level which have resulted in an effective multi-sectoral approach to development. Short response times to drought stress, reduced distances to key social services, as well as diversification of livelihoods have been some of the key results of the program.

9. **The Independent Evaluation Group (IEG) rated the overall outcome of ALRMP I as satisfactory[3].** In particular the institutional development impact was rated as high because, "beyond developing the District Steering Groups (DSGs) as focal points in organizing the response to drought, the project empowered both Government staff at the district level and the local communities, and increased their capacity to tackle emergencies and development problems." The drought management system in Kenya has been cited as best practice and is being emulated in other countries, including Ethiopia. The proposed Kenya Adaptation to Climate Change in the Arid and Semi-arid Lands (KACCAL) will provide an overlay to ALRMP to strengthen its adaptive response to risks associated with climate variability and change. It will help strengthening the systems put in place by ALRMP by developing forward looking, multi-hazard risk response capacity as well as through adaptive investments particularly in land and water management.

10. **The four KACCAL pilot districts, Garissa, Turkana, Marsabit and Malindi, cover a wide range of conditions relevant for adaptation**. The selection is seeking to include a combination of districts that (i) cover arid and semi arid areas; (ii) are exposed to multi-hazard climate risks (e.g. droughts and floods) and will likely experience continuing climate variability; (iii) include a range of livelihood types (pastoral, agro-pastoral, agricultural, natural resource based); (iv) have variation in implementation capacity; and (iv) are among the poorest, most-vulnerable areas.

11. **Malindi** is a coastal semi-arid district with mixed livelihoods. Agriculture accounts for half the land use, with both cash and food crops being grown. Lowland livestock and ranching are also important land use types. Malindi is affected by seasonal flooding from the Sabaki River. Turkana**,** Garissa, and Marsabit are mainly arid districts. **Turkana** is located in the northwestern corner of Kenya. It consists largely of low lying plains, with a few isolated hilly areas, drained by seasonal rivers which flow into Lake Turkana. The dominantly dry district has erratic, unimodal rainfall patterns. According to climate change projections, this area is likely to get wetter. The main source of livelihoods is livestock based with some marginal cultivation. **Garissa** is in Northeastern province and is a large arid district covering 7.5 percent of the country's land mass. It is low lying and abuts the Tana River. Frequent droughts and unreliable rains make it difficult to manage pastures for livestock rearing. Irrigation is practiced along the river, which has recently been subject to severe seasonal flooding. **Marsabit,** bordering Ethiopia in northern

[2] GOK subdivided districts in 2007, however ALRMP operates within the original, larger administrative areas. In this document, reference to districts refers to the original, longstanding districts of Kenya.
[3] Report Number 34052, October 2005

Kenya, is the largest district in Kenya covering about 11.2 percent of the country's total area. It includes both arid and some semi-arid areas around Mt. Marsabit. The population is nomadic in general with a few sparsely populated settlements. The predominant land use is rangelands for livestock, with cultivation around Mt. Marsabit. Dryland forests on Mt Marsabit and Mt. Kulal are threatened by severe degradation.

B. Rationale for Bank and SCCF/GEF involvement

12. **The World Bank is accumulating substantial experience in addressing climate change as part of its development and poverty reduction efforts.** The World Bank Group (WBG) is implementing several projects, many of which are funded by the Global Environment Facility (GEF), mitigating climate change risk, strengthening adaptation and integrating climate risk in development planning in several regions. Further, it has, together with other Multilateral Development Institutions (MDIs), achieved significant progress in the preparation of the Climate Investment Funds (CIF), consisting of the Strategic Climate Fund and the Clean Technology Fund. The Bank is also in the process of preparing its Strategic Framework on Climate Change and Development (SFCCD). The SFCCD intends to guide the scaling-up of WBG actions integrating planning for climate change within development, while sustaining growth and poverty reduction efforts. The Africa Region of the World Bank recently completed a climate change strategy which highlights the need for supporting capacity building to mainstream climate change considerations into development planning. The WB has also emphasized the need for scaling up action on climate change for development as part of the fifteenth replenishment of the International Development Association (IDA 15). Given IDA's strengths in directly supporting countries – its lending and non-lending instruments, its multi-sectoral perspective, and its role as a platform for provision of assistance by various donors – it is uniquely positioned to mainstream climate actions in countries most at risk from climate change, such as Kenya. This is typified by KACCAL which will support mainstreaming of adaptation into a key rural development program in collaboration with other MDI's, including UNDP.

13. **The World Bank has a significant portfolio of activities aimed at "climate-smart" development in Kenya.** In addition to the ALRMP there are several other relevant operations. These include the Western Kenya Community Driven Development and Flood Mitigation (WKCDD) Project and the Natural Resource Management Project (NRM) covering the humid and semi-humid areas of Kenya. The BioCarbon Fund of the World Bank also supports three carbon finance operations in Kenya, one on reforestation and two on agricultural land management. Also, in the pipeline is the GEF supported project on Agricultural Productivity and Sustainable Land Management (KAPSLMP), which is expected to build the capacity of major stakeholders with regard to SLM, including the important role SLM has to play in the context of climate change. Further, the proposed project will benefit from two technical assistance activities – support to the proposed land use policy, and establishing a sound diagnostic on resource degradation and improving access to sustainable natural resources.

14. **ALRMP provides a clear opportunity for strengthening adaptation.** The strengths of the ALRMP in implementing multi-sectoral and demand-driven investments provide a unique opportunity to address the obvious adaptation deficit in the region. The ALRMP project area is clearly affected by the rising risks of climate variability and change, and the program provides a very effective delivery mechanism for increasing the adaptive capacity of the most vulnerable segments of the population. KACCAL is consistent with the guidelines of the Special Climate Change Fund (SCCF) addressing several of its priority areas, including: water resource management, land management, agriculture, and fragile ecosystems. Through KACCAL, SCCF/GEF incremental support would enhance the climate information base, strengthen the adaptive capacity of relevant stakeholders and mainstream climate risk management into its development plans and investment programs. This mainstreaming approach fits into the Bank's strategy and with its global commitment to scale-up efforts to address the risks posed by climate change following the G8 Gleneagles Action plan.

15. **KACCAL will particularly contribute to climate change adaptation through sustainable land management in Kenya.** The proposed project is embedded within the country's programmatic framework for sustainable land management (Kenya Sustainable Land Management Investment Framework, KSIF), which is under development by the Government of Kenya with support from the TerrAfrica partnership. It will enhance the dialogue in the country on the intertwining land and climate change agendas and help develop knowledge and methodologies for scaling-up community based climate risk management. It is consistent with priorities of the Comprehensive Africa Agriculture Development Program (CAADP) of the New Partnership for Africa's Development (NEPAD), in particular with its pillars on land and water management, food supply and hunger, and agricultural research.

C. Higher level objectives to which the project contributes

16. **KACCAL is consistent with the Government's and Development Partners' strategies.** The Government acknowledges in its Investment Program for Economic Recovery Strategy (IP-ERS) 2003-2007 and its successor the Vision 2030, the special attention the ASALs need in order to achieve sustainable poverty reduction and economic growth. Both documents highlight the need to address problems of insecurity, degradation of rangelands and poor access to water in these areas. They identify agriculture as a prime driver of development and poverty reduction. They further place special emphasis on targeted programs aimed at reducing poverty among particularly disadvantaged communities, such as the pastoralists. A key motivation of supporting adaptation to climate change in Kenya includes assisting adaptation to short to longer-term climate risks among the most vulnerable and disadvantaged groups. The project is guided by the Poverty Reduction Strategy Paper (PRSP) (2004) and the Kenya Strategy for Revitalizing Agriculture (2005), which emphasizes the importance of reducing risk and vulnerability for groups that rely on natural resource based livelihoods. The project also contributes to the objectives of the draft land policy, the draft ASAL policy and the draft disaster management policy.

17. **The project is consistent with the Country Assistance Strategy (CAS) for Kenya and the CAS Progress Report (2004-2008)**. The project contributes directly to the CAS priorities of addressing equity and poverty reduction. The CAS specifically emphasizes the importance of community-driven development in ASALs, an approach applied by the ALRMP and to be used by the KACCAL. The Kenya Joint Assistance Strategy 2007-2012 also addresses the need for Kenya to invest in adaptation to climate change. The project is in line with the objectives of the Africa Action Plan (AAP) including supporting decentralized institutional capacity and various investments that reduce the risk from extreme climate events.

18. **Finally, KACCAL contributes to the country's global environmental commitments.** Kenya has signed and ratified the United Nations Framework Convention on Climate Change (UNFCCC) in 1994 and the UN Convention to Combat Desertification (UNCCD) in 1997. The national communications to the Conference of the Parties (COP) of the UNFCCC, the GoK's key document on climate change, identifies as priority actions to reduce vulnerability in the ASALs, including options for adaptation in agriculture, water and rangeland management. The proposed project fits well with the GEF-4 long-term objective of supporting pilot and demonstration projects for adaptation to climate change

II. PROJECT DESCRIPTION

A. Lending instrument

19. **The proposed lending instrument is a SCCF grant in the amount of USD 5.5 million.** The project will be implemented through the mechanisms and processes of the ongoing IDA supported Arid Lands Resource Management Program (ALRMP II) over a period of four years. Project activities will be

piloted in four ASAL districts, Garissa, Turkana, Marsabit and Malindi, with the intention of scaling-up KACCAL climate change adaptation work in other districts of the baseline project. Related activities in a fifth district, Mwingi, will be supported by the proposed United Nations Development Program (UNDP) implemented SCCF grant.

B. Project development objective and key indicators

20. The *goal* of the overall WB-UNDP project is to enhance the resilience of communities and the sustainability of rural livelihoods threatened by climate change in the arid and semi-arid lands of Kenya. As a contribution to the achievement of this goal, **KACCAL's *development objective* is to improve the ability of selected districts and communities of the ASALs to plan and manage climate change adaptation measures.** This will be done through: (i) strengthening climate risk management and natural resource base related knowledge; (ii) building institutional and technical capacity for improved planning and coordination to manage current and future climate risks at the district and national levels; and (iii) investing in communities' priorities in sustainable land and water management and alternative livelihoods that helps them adapt to climate risk.

21. **KACCAL will build on the outcomes of the baseline project with a focus on strengthening adaptation in the targeted areas.** Key indicators include:

(i) Number of district management plans with concrete climate risk management activities reflected in the budget;

(ii) Percent of community adaptation projects rated satisfactory or better by participating communities;

(iii) Percent of ALRMP projects screened for improving response to climate risk.

C. Project components

22. **The project has three components:** (i) climate information products, policy and advocacy; (ii) climate risk management at district and local levels; and (iii) community driven initiatives for climate resilience. The latter two components will be implemented in four ASAL districts, with similar activities implemented in a fifth district with funding from an UNDP SCCF grant. All three components are contributing directly to the integration of climate actions into development processes in the ASALs, in particular through the ALRMP. The components complement each other by focusing on knowledge generation and dissemination and capacity building at national, district and community level.

Component 1: Climate information products, policy and advocacy (SCCF Increment US$ 1.46million).

23. **This component will strengthen capacities among national level institutions to better assess and respond to current and future climate risks.** It will generate and disseminate climate-related knowledge and strengthen institutional coordination among currently fragmented agencies managing disaster and climate risk. National stakeholders will be trained to further disseminate the generated knowledge to the district and community levels.

24. ***Sub-component 1.1: Development of climate-related knowledge products to inform climate risk management (CRM) strategies in ASALs.*** This sub-component will help generating and increasing access to tailored climate information for strategic adaptation planning. Knowledge products will include: (i) district climate risk profiles focusing on enhanced vulnerability assessments (e.g. by integrating climate information with available natural resource and socioeconomic information); (ii) downscaled

climate change scenarios for Kenya (based on past and current observations and global and regional climate models); (iii) methodologies and approaches for assessing climate-related risks in ALRMP investments and climate risk screening of CDD micro-projects; and (iv) improvements of the existing drought early warning system (EWS) by more systematically including climate information. These products will be tested and refined in the pilot districts and made available more widely through the TerrAfrica regional knowledge base. **This sub-component will finance:** (i) international and local technical assistance; (ii) training; (iii) procurement of required equipment; (iv) services (software development, data digitizing etc); (v) workshops, study tours and exchange visits between relevant national and international institutions and programs; and (vi) climate risk knowledge and advisory service partnerships with local and international institutions, as needed.

25. ***Sub-component 1.2.: Integration of climate action into national ASAL development plans and programs.*** This sub-component will support coordination and capacity building for integrating climate risk management within policies, strategies and institutions**.** National stakeholders will be trained to disseminate the generated knowledge in a user-friendly format to districts and communities. The sub-component will inform the implementation of the Climate Change Strategy spearheaded by the Ministry of Environment and Natural Resources (MENR) with particular emphasis on land management and community based adaptation. It will support the ongoing institutional efforts to strengthen a national Sustainable Land and Natural Resources Management Platform (SLNRM Technical working group within the framework of the multi-sector Agriculture Sector Coordination Unit, ASCU). The subcomponent will also support the development of periodic policy notes and targeted capacity building of the ALRMP Team, the Kenya Food Security Meeting (KSFM) and its multisectoral working groups, the ASCU, and other entities based on the knowledge and advisory services supported by this project. This will facilitate mainstreaming adaptation within sectoral and disaster management policies and plans. Further, the subcomponent will provide support for project management and monitoring and evaluation (M&E). **This sub-component will finance**: (i) salaries for technical staff recruited for KACCAL implementation; (ii) training and workshops for ALRMP staff, members of the KFSM, district officers, and other relevant stakeholders; (iii) technical study tours and exchange visits, including south-south learning events; (iv) independent evaluation consultancies and technical assistance; and (v) operational support and equipment/material for the ALRMP/KACCAL Secretariat.

Component 2: Climate risk management at district and local levels (SCCF Increment US$1.37 million)

26. **This component will promote the integration of a climate risk management (CRM) perspective into district and local planning processes and programs**. The component will build climate change-related capacity of major stakeholders at the district level and local level and support public and private "climate-smart" investments.

27. ***Sub-component 2.1: Capacity building to integrate CRM into local and district planning processes.*** This sub-component will strengthen the capacity of district and local level officials and other stakeholders to access and use relevant climate information and knowledge products. The target groups, including the District Coordination Unit (DCU), the District Steering Group (DSG) and other stakeholders, will be enabled to assess climate risks and strengthen the climate-resilience of plans, programs, and investments. The sub-component will also implement methodologies for assessing ALRMP investments and provide recommendations for risk-proofing.

28. **The ALRMP structure provides communities with technical support and backstopping through Mobile Extension Teams (METs).** The additional SCCF funding will be focused on enhancing technical capacity of these teams in accessing and utilizing the climate-related information and knowledge (noted in component 1), in information gathering and analysis and in providing advisory

services in the context of climate variability and change. Emphasis will be placed on training METs in understanding and interpreting the generated climate information, and communicating this information in user-friendly and practical terms to the end-user, i.e. the communities and resource users in the ASALs. Thereby, the METs will be enabled to provide guidance on adaptation measures in a format that is relevant, timely, accessible and comprehensible to their clients. Management responses by communities will be monitored and the usefulness of the provided knowledge products and information for the end-user will be assessed through a combination of qualitative and quantitative approaches, including Participatory Rural Appraisal (PRA) used by ALRMP. **This sub-component will finance**: (i) training and workshops for district and local level officials, (ii) technical assistance and consultancies for scrutinizing risk in ALRMP investments; (iii) specific equipment and software to use climate knowledge products; and (iv) operational costs (including costs of PRAs and monitoring).

29. ***Sub-component 2.2: Support for "climate smart" public and private investments.*** This sub-component will support the implementation of selected public and private sector interventions identified in the adaptation enhanced district plans. These investments will typically be at the scale above the community level (micro-watershed/inter-community level) and will complement community efforts for enhanced climate resilience. These activities will be largely based on public-community-private sector partnerships. Investment areas include but are not limited to: improving early warning systems and infrastructure to manage floods (including small check dams, water pans etc.); improving livestock monitoring and response systems (e.g. conditions and risk factors for livestock diseases, such as rift valley fever; support for livestock off-take management; diversification of stocks etc.); natural resource management investments (e.g. water source rehabilitation and agro-forestry); and training in business/enterprise skills and value addition of ASAL products. These investments will be coordinated by the District Steering Group.

30. **This sub-component will finance**: (i) feasibility studies for public and private investments; (ii) matching grants for approved private investments; (iii) preparation and implementation costs for approved public investments (incl. material, services and operational); (iv) training for community/private investors; and (v) TA for complex public investments.

Component 3: Community driven initiatives for climate resilience (SCCF Increment US$2.67million).

31. **This component will help communities to adopt "climate smart" strategies and investments.** It will complement ALRMP's activities in reducing vulnerability among the ASAL population by strengthening their climate risk related resilience directly.

32. ***Sub-component 3.1: Support for community capacity building.*** This sub-component will support awareness building and capacity building at community level to enhance local climate risk assessments and climate resilient planning and investments. Multiple events and severity of droughts and floods have sapped the communities' ability to adapt autonomously and solely based on indigenous knowledge. While they are increasingly noting anomalies in climatic conditions and impacts on their environment, there is limited understanding about the scale and scope of causes and impacts as well as potential opportunities to reduce their vulnerability. Where opportunities are known, communities are constrained in the adoption of adaptation measures. The sub-component will support capacity building on: (i) strengthening awareness of climate risks faced by specific groups and their ability to interpret and respond to forecasts and related information; (ii) developing "climate resilient" community action plans (CAPs); and (iii) planning and implementing "climate smart" investments at community level. **This sub-component will finance**: (i) training and workshops for communities (including community based monitoring costs); and (ii) technical assistance for development of the enhanced CAPs.

33. ***Sub-component 3.2: Support for community based micro-projects.*** This sub-component will support community based micro-projects, identified in the "climate-resilient" CAPs. This adaptation related investment funding will be channeled primarily through the Natural Resource Management and the Community Driven Development (CDD) windows of the ALRMP. **This sub-component will finance:** matching grants to communities to implement micro-projects, with communities providing at least 10 percent of the total micro-project cost. At least 50 communities in the pilot districts will be targeted. Potential areas of support include**:**

(i) *Structural interventions for land and water management*: In helping communities manage land and water resources across the entire spectrum of climate conditions in the ASALs, investments in a variety of land management and erosion control, small-scale water harvesting, storage and water management measures will be supported.

(ii) *Sustainable agricultural land and livestock management*: Micro-projects would help enhancing the resilience of agricultural practices to climate risks, through promotion of sustainable land management methods and technologies (e.g. inter-cropping, integrated nutrient management, moisture and soil conservation techniques, agroforestry, drought resistant crops) and rangeland/livestock management (e.g. silvopastoralism and drought-tolerant pasture species).

(iii) *Opportunities to enhance carbon sequestration*: Grants will facilitate the technical and financial feasibility assessment for potential ecosystem services micro-projects; in particular the opportunities for carbon finance will be explored.

(iv) *Livelihood enhancement and diversification*: Support will be provided for the increased adoption of livelihood diversification projects. Areas of interest might include: promotion of sustainable production, value addition and marketing of ASAL products such as dates, gum, aloe, jatropha, sisal; and promotion of sustainable production, value addition and marketing of indigenous crops and vegetables.

(v) *Credit and micro-insurance*: The feasibility of innovative credit and micro-insurance schemes for ASAL communities will be explored. If considered financially viable and technically sound, grants will support up-scaling of successful mechanisms for community based credit and insurance to facilitate the adoption of improved agro-pastoral practices and other livelihood strategies to reduce vulnerability and risks.

(vi) *Human and Livestock Health*: Support for investments to reduce human exposure to vector and water-borne diseases and improving livestock health will be provided as appropriate.

D. Lessons learned and reflected in the project design

34. **Key lessons are reflected in the proposed project's scope and activities**. A number of lessons have been learned from the implementation of the ALRMP in the last 13 years. In addition, valuable lessons are also provided from other regions, such as South Asia and Latin America, where the World Bank has supported innovative programs for integrating CRM into local level planning and development activities. Key guiding elements include:

(i) *Participation is the key to project impact and sustainability.* When information and knowledge on climate risk is seen as irrelevant or not accessible by key stakeholders, necessary conditions for successful adaptation are not met. KACCAL will apply a participatory approach for developing and implementing knowledge products and investments;

(ii) *Operational information of the ASALs natural resource base is essential for successful and sustainable project interventions.* Managing the resource base is crucial for sustaining livelihoods. The project will enhance community based monitoring of the resource base and strategic planning of resource management;

(iii) *Climate Risk Management in ASALs needs to be multi-hazard oriented.* It has been recognized that the early warning systems developed by ALRMP need to be broadened in scope to encompass both droughts and floods. El Nino and other events have made recurrent floods an additional threat to livelihoods in ASALs. In addition to managing flood risk, water management and storage to smooth the cycles of droughts and floods are important areas for support in this project;

(iv) *Climate risk management needs to be mainstreamed into development processes:* The proposed project also reflects the UNFCCC and GEF focus on mainstreaming of climate risk management into development processes. Key lessons from other climate risk management projects include:

- Climate change is more than an environmental problem, but fundamentally a major economic and social risk;
- Preparing for longer term impacts begins with addressing short-term vulnerabilities. Thus, disaster risk reduction goes hand in hand with climate change adaptation;
- Actions for adaptation to climate change encompass the local, district and national levels. Their scope and time-horizon is dependent on the capacity of the target group;
- Adaptation planning it is best situated where the key decision makers in the Government are, such as the Office of President or the Prime Minister's Office, and needs to be integrated into budgetary plans;

(v) *Identifying specific drivers of diversification and risk management is key.* The reasons and strategies for diversification differ significantly among various groups and between male and female resource users. This project will apply a demand-driven approach to ensure that group-specific adaptation needs are considered.

E. Alternatives considered and reasons for rejection

35. **Blending KACCAL with other operations**: KACCAL could have been overlaid with other investment programs, such as the Natural Resource Management Project or the Western Kenya CDD and Flood Mitigation Project. The key reasons to blend with ALRMP follow from the latter's core features: (i) its multi-sector development program providing for a broad-based adaptation approach to be piloted; (ii) its institutional home which ensures the necessary political will and leverage important for implementing a cross-sectoral operation; (iii) its focus on the most vulnerable groups – the poor communities in the ASALs; and (iv) its proven implementation structure covering national, regional, district and local levels.

36. **Higher investment volume and broader geographical scope**: It was explored whether the project should commence as a project with a larger operational and geographical scope. It was considered, however, that greater efficiency lay in piloting these specialized activities and up-scaling proven actions into a broad-based rural development program. ALRMP is present in all semi-arid and arid districts and its institutional set-up and thematic focus allows for relatively straightforward adoption of adaptation activities.

37. **Limit scope to either improved knowledge base at the national level or to limited district activities**: Another alternative would have been to reduce the thematic focus of the project by supporting either only the generation of climate-related knowledge and climate information products at national level

or by only supporting limited district level activities. Given the knowledge-intensity of climate change related issues and the fact that this is a rapidly evolving field, the generation of national and local knowledge was considered as a necessary condition for a successful operation. At the same time the knowledge must be generated to benefit the most vulnerable sections of the population, i.e. the stakeholders at district and community level. Hence, a consistent approach which informs district and community planning and investments by generating relevant and user-friendly knowledge has been selected.

III. IMPLEMENTATION

A. Partnership arrangements

38. **The SCCF/GEF approved into its work-program two proposals**, a full sized project, KACCAL, submitted by the World Bank, and a medium sized project submitted by UNDP, with guidance for close collaboration. Given the similar thematic scope of the proposals (albeit with different scales of areas of intervention), considerable effort and joint dialogue resulted between the WB and the UNDP to bring these two proposals together into a common framework. Both activities will use the ALRMP structure and mechanisms. The UNDP supported activities will concentrate on Mwingi and on regional knowledge building, complementing the activities under this project.

39. **Partnerships will also be established with other stakeholders and agencies** for implementation of project activities and sharing of knowledge. South-South learning relationships, for example with the adaptation operation in the drylands of India and other countries, will be important. In addition, the project will be embedded within the planned Kenya SLM investment framework (KSIF). The Ministry of State for the Development of Northern Kenya and Other Arid Lands will be represented in its thematic working group. The KSIF will be a vehicle to further the land management and climate adaptation agendas, providing a link with the TerrAfrica partnership, a vehicle with reach across the region and with a variety of development partners.

B. Institutional and implementation arrangements

40. **The project will be implemented through the ALRMP institutional structure,** complemented through additional technical capacity for climate risk management and project management to implement KACCAL activities. The existing ALRMP project implementation plan is being modified to reflect KACCAL implementation modalities. One of the success factors of the ALRMP is its institutional location. KACCAL will be managed by the ALRMP PCU reporting to the Permanent Secretary (PS), Ministry of State for the Development of Northern Kenya and Other Arid Lands in the Prime Minister's Office[4]. Within the PCU, the NRM coordinator of the ALRMP will be responsible for the overall implementation of KACCAL. He is reporting directly to the national ALRMP coordinator. The PCU will hire a technical expert on climate change issues to support KACCAL implementation.

41. **ALRMP is the focal point of disaster management planning and early warning information** and is in an effective position for the coordination of adaptation activities. ALRMP supported the establishment of the Kenya Food Security Meeting (KFSM), an effective mechanism for inter-government and donor-Government coordination on drought and food security at the national level. The

[4] The project changed its location from the State Ministry of Special Programmes, Office of the President, when government ministries were split when the grand coalition government was created in May 2008. The program continues to straddle the two ministries to support various activities and functions managed by both entities.

KFSM is co-chaired by the ALRMP on behalf of Government and the World Food Program (WFP) and consists of key sectoral ministries and external partners. The KFSM continues to play a key role in overall drought management and is formally linked with Government's drought and disaster coordination mechanisms. Through KACCAL, the KFSM will expand its focus to more explicitly include CRM issues. The KFSM is informed by the Kenya Food Security Steering Group (KFSSG), which includes a broad range of agencies working on Early Warning Systems and vulnerabilities, such as WFP, Famine Early Warning System-Network (FEWSNET), FAO, sectoral ministries, ALRMP and others.

42. **At the district level, KACCAL will build on ALRMP's strong multisectoral and inter-agency coordination.** At the district level, the KACCAL project will be coordinated through the ALRMP District Coordination Unit (DCU). The DCU is headed by the Drought Management Officer (DMO), who also acts as the district ALRMP Coordinator. The DMO is supported by administrative staff including a data analyst and a finance and procurement officer. In arid districts, there are also a Community Development Officer (CDO) and mobile extension team (MET) leaders. KACCAL will supplement the existing technical and management capacities established through ALRMP.

43. **The District Steering Group (DSG) is responsible for planning, approval and coordination of all district and community level interventions.** The DSG is a sub-committee of the District Development Committee (DDC), the main administrative body of the district Government. The DSG is composed of local leaders, technical staff of the district and partner agencies. It seeks to coordinate financial resources and activities in the district and provide a forum for participation of various stakeholders. The main delivery mechanism for project financing will be through the DCU, based on a work-plan developed and agreed by the DSG. KACCAL will rely on the same mechanism for the planning and budgeting of its activities and will further seek to mainstream CRM into overall district plans.

44. **Communities bear responsibility of managing KACCAL community interventions**. ALRMP has strengthened community institutions which have taken on decision-making and fund-managing responsibilities. The process ensures that they are representative of the populace and have the appropriate management capacity. A Community Participatory Rapid Appraisal (PRA) process is conducted and priorities for funding are defined in Community Action Plans (CAPs). The CAPs are updated regularly and will provide the basis for interventions for integrating adaptation into community decision-making. These 'adaptation enhanced CAPs' will identify specific community based micro-projects for financing. Trained Mobile Extension Teams (METs) will support communities in identifying, preparing and implementing these micro-projects.

45. **Flow of funds.** All project funds will be handled and accounted by the Ministry of State for the Development of Northern Kenya and Other Arid Lands through the PCU. For the Community Driven Development (CDD) Component, funds will be channeled to community groups under arrangements similar to those of ALRMP, following the CDD Manual developed and improved under the second phase of ALRMP. Under this Manual, the project will sign a Memorandum of Understanding (MOU) with each community group which would provide for the basic financial management and accountability arrangements.

C. Monitoring and Evaluation (M&E) of Outcomes/Results

46. **The M&E system of KACCAL will be fully integrated in the already established and functioning M&E system of ALRMP.** The existing M&E system focuses on both project implementation aspects, i.e. delivery and quality of inputs, activities and outputs through a Management Information System (MIS) database, and on outcomes through an ongoing independent impact evaluation process. Data and information collected will be used to continuously measure the status of agreed

outcome indicators. Evaluation will be contracted to independent consultants, including the evaluation for Implementation Completion Report. The M&E system will enable project management and other stakeholders to: (i) review efficiency, effectiveness, and timeliness of project implementation; (ii) identify issues requiring decisions and corrective action; (iii) identify lessons learned about project design and implementation; and (iv) whether the project is on track delivering the expected results. The findings of this continuous monitoring process will be communicated through quarterly implementation reviews, semi-annual progress reports, and other technical reports (see Annex 3 for details).

47. **The institutional set-up of the M&E system will rely on the existing ALRMP structure and institutions.** The overall responsibility of coordinating M&E activities will be with the M&E specialist in the ALRMP PCU. He reports directly to the National Project Coordinator and interacts closely with his counterparts in the District Coordination Units (DCU) to ensure timely delivery of data, information, and reports from pilot districts to national level. Due to the participatory nature of KACCAL and the baseline project, the District Steering Groups (DSGs) and the communities are of particular importance in this process. As with ALRMP, community-based M&E will regularly track the performance of the micro-projects and the beneficiaries' feedback will be used to continuously improve relevance and quality of all activities.

48. **A results framework with outcome indicators and target values has been prepared which will help track performance towards the PDO**. It will also help to inform management whether changes are required to the design or implementation of the project. A variety of sources will be used to determine the status of performance indicators, such as technical and financial reports, qualitative and quantitative community and household surveys, and existing and newly generated geo-referenced data. The recently implemented ALRMP Management Information System (MIS) is designed to integrate KACCAL. It will be used to guide project implementation and inform the results chain, covering inputs, activities, outputs and outcomes. The MIS is expected to improve the capacity of the project team to more effectively use the wealth of data and information created and to design efficient work plans that translate project resources into results. Project mid-term and terminal evaluation will be carried out jointly with the UNDP-supported component.

D. Sustainability and Replicability

49. ***Institutional Sustainability.*** The core activities of the project will be fully integrated into the baseline program. The activities in the four pilot districts will result in an increased capacity of local institutions and stakeholders for adaptive planning. This should increase the sustainability of development investments. The experience in the four pilot districts will provide products and mechanisms for enhancing climate risk management that could be replicated in other districts supported by ALRMP. The policy and advocacy work to be carried out under KACCAL will increase the exposure of national policy and decision makers to climate change adaptation issues. Furthermore, technical assistance will strengthen the overall coordination mechanisms for climate risk management with leadership from ALRMP and the Prime Minister's Office.

50. ***Social Sustainability.*** Participation is the key to project impact and sustainability. ALRMP has already developed and introduced an effective participatory approach to service delivery based on a good understanding of pastoral and agro-pastoralist communities. The design of KACCAL's participatory approach will benefit from the extensive experience of the baseline project. The project is structured through processes of consultation and collaboration at national, district and community levels, and will build on the partnerships and linkages that have already been established by ALRMP.

51. ***Financial Sustainability.*** Adaptation is a long-term process, and the activities initiated under the proposed project will require sustained efforts and resources. The key is to build institutional capacity for

adaptive planning, to put in place systems and networks of information that can be used to improve development outcomes under conditions of climate risk and to build experience among communities for such micro-investments. Regardless of subsequent external financing for adaptation, the tools for systematic problem diagnosis and options analysis would autonomously result in sustained enhancements in climate risk management, within the framework of development planning.

52. ***Replicability.*** The lessons learned under the current project, whether in terms of planning enhancements, specific community responses to climate risk, or improvements in institutional coordination, would support the development of a broader program of climate risk management. The immediate opportunity for replicability lies within the ALRMP itself where KACCAL activities can be up-scaled into all 28 arid and semiarid districts. Beyond this, there are two main mechanisms to develop outreach on knowledge created through this project. One is the TerrAfrica partnership platform with its emphasis on the adaptation and land use agenda, and the other through the regional networks on drought management, supported by the GEF and led by the UNDP Drylands Development Center (DDC). While there is considerable scope for replication, explicit attention to documentation of lessons is vital.

E. Critical risks and possible controversial aspects

Risk	Risk Rating	Mitigation Measures
Sustaining coordination with KSFM and other disaster management platforms due to change in institutional home	M	Under the Coalition Government, with reorganized/divided ministries, ALRMP was moved to the newly established Ministry of State for Development of Northern Kenya and Other Arid Lands reporting to the Prime Minister's Office. This could potentially affect the leverage and coordination power of ALRMP which it had in its previous location (Office of the President). However, the ALRMP and the Bank have discussed this with the highest level of the GOK and been assured that the change will not negatively affect the implementation of ALRMP and KACCAL. The implementation of ALRMP II has not been negatively affected by the restructuring so far.
Alternative sustainable livelihood strategies to pastoralism are not taken up in the arid lands	H	Diversification in the arid lands has been limited, hampered by lack of market access, credit availability and linkages to the rest of the economy. This project alone cannot change these fundamental constraints. However, the project will provide support for creating a more conducive environment for diversified sustainable livelihoods, particularly in increasing the sustainable extraction/production and value addition of dryland products. The project will provide technical assistance and facilitate public-private-community partnerships towards this objective.
Continued and growing conflict, specially in the arid districts	M	Conflict management has been an integral part of ALRMP implementation, in recognition of the severe competition for resources in the Arid Lands and spillover from conflict in neighboring countries. The potential for conflict still exists and could increase as the pressure over resources intensifies. By helping to reduce the vulnerability of communities in face of resource scarcity, the project is contributing to reducing the sources of conflict.
Technical capacity and services available are inadequate to support local development	M	Capacity constraints in the arid lands are prevalent in many sectors. The project alone will not be able to address general capacity constraints but the project includes a substantial focus on capacity strengthening – both in technical issues of climate risk management for service providers, policy makers as well as in community capacity to integrate climate risk in their development plans and in monitoring. The project will use the same

		mechanism as the ALRMP, i.e. mobile extension teams for this purpose.
Recurrent droughts during the implementation period of the project keep diverting attention away from long-term planning	M	This risk is being mitigated partly by the fact that the baseline project has already created substantial capacity to effectively respond to these short-term emergencies, and partly by building capacity among the key agencies to be improve the response to immediate catastrophes. In addition, it should be noted that recurrent extremes can also provide an additional motivation to address the underlying long-term vulnerabilities that might have remained hidden or tolerable under normal climate conditions.

53. **The table below shows the critical financial management risks that the project management may face in achieving project objectives** and provides a basis for determining how management should address these risks:

Type of Risk	Residual Risk Rating	Brief Explanation	Risk mitigating measures incorporated into project design	FM Condition (Y/N)?
INHERENT RISKS				
Country Level	S	Takes into account overall country governance environment, weak judiciary and corruption concerns and the post election crisis in early 2008. The CPIA ratings also show Kenya rated as having a Substantial FM Country Risk based on the assessment of CPIA Q.13 and Q.16 ratings	Issues are being addressed at the country level through the country's governance action plan, and strengthening of the public financial management system (supported by the Bank through the Institutional Reform and Capacity Building Project).	No
CONTROL RISKS				
Internal Controls	S	Audit department are adequately staffed and audit committee is functioning. However, corruption allegations were made in some ALRMP II districts.	IRMPF is being implemented nationwide. Corruption allegations have been investigated and appropriate action has been taken.	No
Auditing	S	ALRMP II has had delays in finalizing audits in the past due to accounting weaknesses with IFMIS.	Commitment by the Ministry to a clear timetable of actions to ensure timely audit reports. Bank has initiated reforms for adoption of IPSAS, audit TOR and capacity building of KENAO and project auditors to submit management letter w.ef June 2009.	No

F. Loan/credit conditions and covenants

54. **Financial covenants:** The Project Coordination Unit shall maintain the existing management information system acceptable to the Bank as a supplement to the Government's accounting system. The project financial statements shall be audited by auditors acceptable to the Bank and on terms of reference

acceptable to the Bank. The audits shall be conducted in accordance with International Standards on Auditing (ISA) as issued by the International Federation of Accountants and on terms of reference acceptable to the Bank. The annual audited statements and audit report shall be provided to the Bank within six months of the end of each fiscal year and at the closing of the grant. Financial covenants are standard ones as stated in the Financing Agreement Schedule 2, Section II (B) on Financial Management, Financial Reports and Audits and Section 4.09 of the General Conditions

55. **Other covenants:** Prepare and submit a report of the monitoring and evaluation results at mid-term. Take all measures necessary to ensure that the Project is implemented in full compliance with the provisions of the Strategic Environmental Assessment and the Project Implementation Plan in a timely manner. Increase the technical capacity of the PCU and districts with required staffing, and procure appropriate technical consultant services in a timely manner. Community Action Plans revised to include climate risk management and adaptation issues.

56. **Negotiation Conditions**

	FM Actions at Negotiation	Responsible
1.	Agree on formats for Project Financial Statements and quarterly interim un-audited reports (IFR) template	PCU/ PS

57. **Effectiveness Conditions**. Amended ALRMP PIP to reflect KACCAL activities, acceptable to the Bank. Adoption of IRMPF.

(This section will be synchronized with the covenants agreed upon in the financing agreement.)

IV. APPRAISAL SUMMARY

A. Economic and financial analyses

58. **The economic and financial analysis of the KACCAL project is structured as follows**: (a) overview of the socio-economic importance of the ASALs; (b) summary of general issues for economic analysis of climate change adaptation projects; (c) summary of literature review on the economic impacts of climate change; (d) calculation of IRR/NPV of potential CDD micro-projects; and (e) conclusions and recommendations (for details see Annex 9).

59. **The development of the ASALs is important for sustainable economic growth and poverty reduction in Kenya.** The ASALs are home to about 30 percent of Kenya's population and 80 percent of the land mass. Pastoralism makes a significant contribution to the GDP, even without achieving its full potential. The ASAL support 75 percent of the country's total livestock production. While agriculture contributes almost 30 percent to the national GDP, a quarter of the agricultural GDP comes from the livestock sector. In addition, over 90 percent of wild game which supports the tourist industry can be found in the ASALs. Wildlife coupled with the rich cultural heritage of pastoral and agro-pastoral communities, is a major tourist attraction which has earned Kenya in excess of Kshs 50 billion annually.

60. **The ASALs face the challenge of chronic underdevelopment for a range of reasons, including climatic and agro-ecological factors, and low market access and low level of services.** Most districts have poverty rates of 70 percent and unemployment is reaching 40 percent in the Northeastern Province.

The isolated location has manifested itself in a very low endowment and asset base. In the Northeastern Province, only 4 percent of the population has access to electricity, 88 percent of adults have not completed primary education. The risk of infant death in Nyanza and North Eastern Provinces are over six times greater than in Central Province.

61. **Special challenges and issues need to be considered when conducting economic analysis of climate change adaptation projects.** The Draft Guidance Note "Carrying Out Economic Analysis for Adaptation Projects" (2008) points out that methodological issues are mainly due to uncertainties related to: (i) benefits of adaptation interventions, (ii) optimal timing of the intervention, (iii) probability functions of climate variables, and (iv) and discount rates.

62. **Deciding whether to adapt now or to wait in order to gain more information on the impacts of climate change is not an easy decision**, given the uncertainties mentioned before. In the case of KACCAL the major part of financial resources will be allocated to "no regret investments" or investments that integrate adaptation in their original design. An example for the former would be CDD investments which help communities to increase their welfare independent from changes in climatic conditions. An example for the latter would be the upgrade of the Early Warning System developed under ALRMP which would integrate more explicitly climate-related information. For these types of investments the timing is not an issue per se.

63. **Another issue to be considered with regard to the economic analysis of KACCAL is the fact that a substantial proportion of the resources are allocated for capacity building and institutional strengthening.** All three components focus on capacity building at national, regional and local level based on generation of knowledge products, improved coordination, training, and mainstreaming of climate change adaptation into development planning. Better climate information and climate proofing of investments will reduce the risks of losses to livelihoods, reduced livestock losses, and improved income security. Ex-ante quantification of the economic benefits of these investments is difficult, if not impossible. This is mainly due to the long-run nature of these activities and the difficulties in linking causes and effects.

64. **Due to these conceptual issues, the quantification of economic benefits for the project as a whole was deemed not to be meaningful and to add significant value to project design.** The economic impacts of climate change are discussed based on literature review. Economic analyses of the impacts of climate change have been conducted at a fairly aggregated level, i.e. global, regional and country level. All major studies agree on the significant impacts climate variability and change will have, in particular on the agricultural sector and the arid lands in SSA. According to the Stern Review (2006) 250-550 million additional people may be at risk of hunger with a temperature increase of 3 Degrees Celsius, with more than half of these people concentrated in Africa and West Asia. The IPCC (2007) states that by 2020, between 75 million and 250 million people in Africa are projected to be exposed to increased water stress from climate change. Cline (2007) estimates that agricultural output would be reduced by 28 percent by 2080 in SSA (without carbon fertilization). A World Bank study (2006) estimated that the La Nina drought in Kenya caused damages to the country amounting to 16 percent of GDP in each of 1998/99 and 1999/2000 financial years.

65. **It is recommended that economic analysis is mainstreamed into a process of evaluating cost effectiveness and sustainability of planned project activities.** This process has proven to be useful under ALRMP, which also includes criteria for risk analysis, mitigation and sustainability. For some relevant activities, KACCAL will use this as an entry point for the analysis of climate risk and assess the cost-effectiveness of mitigation measures as investments are planned. The described approach will be particular relevant for some of the investments under the components 1 and 2.

66. **Despite the issues and challenges discussed above, preliminary economic analysis of some potential CDD micro-projects was conducted mainly for capacity building purposes.** This analysis indicates promising IRRs for the selected micro-projects. The exact CDD interventions are difficult to be known ex-ante, since they are demand-driven and will be defined in the course of the project. The potential micro-projects have been identified in consultation with the KACCAL project team, technical experts and communities in the project area (particularly Marsabit and Garissa). The IRRs for the selected microprojects small-scale irrigation, woodlots, beekeeping and sustainable land management are estimated to be between 13 percent and 30 percent. However, in the context of this project it is considered much more important that the economic and financial analysis informs the selection process and specific design of community projects once the communities have drafted lists of potential interventions. In addition, on-going complementary analytical work – both included in the KACCAL project but also in addition – aims at reducing the uncertainties regarding the costs and benefits of adaptation action. Hence, it was deemed to be inappropriate to allocate additional to resources for more in-depth quantitative assessments with limited use for the project.

B. Technical

67. **The technical choices and recommendations underlying project design are based on various studies, analyses of sector issues, and lessons learned from the baseline project.** Among others, they include an assessment of climate risk in Kenya, an assessment of institutional options and an assessment of community vulnerability and coping strategies. Some of the key issues that arose were:

(i) *Climate information needs to be prepared and communicated in a user-friendly format.* In many cases the coordination between the forecasters and the end-users is inadequate. Top-down information flow tends to preclude input and feedback from intended beneficiaries as how forecasts can be best translated to address local needs. Communities and households can best use climate forecast information if (i) it is interpreted at local scale; (ii) includes information about timing (e.g. rainy season onsets); (iii) expresses accuracy in transparent, probabilistic terms; and (iv) can be interpreted in terms of resource management implications. The communication of climate information in simple terms and local languages is key. The probabilistic nature of forecasting must be explained explicitly to avoid misunderstanding and mistrust. These challenges will need to be addressed through participatory and demand-driven approaches, concepts which have been successfully implemented by the baseline project.

(ii) *Financially attractive sustainable land and water management is a key pillar for successfully promoting adaptation.* Whether in the arid areas, where traditional natural resource management regimes are often no longer in use, or in semi-arid areas where increasing degradation is putting both agriculture and pastoral livelihoods at risk, or in watershed areas where flooding and droughts reflect the diminishing ecosystem services, the need for greater attention to sustainable land and water management is well recognized by communities. The issues of commons, lack of access to funding and capacity in improved management are barriers to addressing this issue. The project will help to: (i) improve community monitoring of the resource base; (ii) develop participatory sustainable resource management community and district plans; and (iii) strengthen local institutions to raise awareness for NRM by-laws and regulations and improve their enforcement. Key to adoption of sustainable NRM practices is the financial attractiveness from the community and household perspective. The project will therefore strengthen income-generating activities that are linked to sustainable management of resources. The project will also: (i) promote wider adoption of sustainable watershed management practices to reduce land degradation and improve soil fertility and moisture management; (ii) contribute to increased agricultural productivity and incomes (e.g. through drought-resistant crops, improving timing of farm operations); (iv) promote improved soil fertility and moisture management on croplands; (v)

support development of water harvesting structures; and (vi) support rangeland mapping and rehabilitation (e.g. based on drought resistant pasture species).

(iii) *There is considerable attention to improving availability and access to water resources, but these investments need to be better planned.* Permanent water sources, such as boreholes, have led to increased degradation in wide areas around the water point. Poorly planned dams and pans have been susceptible to high silting rates and have often not been maintained appropriately. The project will improve the planning of water investments and provide support to water harvesting and management by the communities. Irrigation water is most needed during the dry season, i.e. when river discharge is lowest and the water demand from other competing resource users upstream and downstream is greatest (incl. livestock and domestic use). This highlights the need for: (i) accelerated multipurpose water storage development, at various sizes and scales; and (ii) exploration of shallow groundwater adjacent to rivers wherever possible. Kenya has one of the lowest per capita water storage volumes in the world: <5 m^3, which is a major cause for the vulnerability to both floods and droughts. The Environmental Management Framework defines appropriate criteria and methodologies for environmental impact assessments of water and other investments. Project interventions will strengthen the capacity of technical partners to ensure that technical interventions are of high quality and are climate proofed.

C. Fiduciary

68. **Governance and results in Bank-financed ASAL Activities.** Previous and ongoing Bank-supported ASAL activities have not been included in any INT forensic reviews partly because of their good track record of governance and measurable results and existing arrangements for community monitoring. During the approval of the additional financing in 2006, relevant key recommendations have been explicitly reflected in project design, implementation and supervision, for example measures for ensuring sensitivity to fraud and measures addressing fraud risks were taken on board. An institutional risk management function was applied, comprising the following institutions: (i) an independent audit committee at the project steering committee level; the mandate of this committee will include the development and maintenance of an institutional risk management policy framework, oversight of internal and external audit functions and monitoring implementation of internal control recommendations; (ii) a finance committee responsible for overseeing the effective use and safe custody of project resources; (iii) an internal audit function responsible for oversight of the activities of the project's accounting and internal control functions at both national and district levels. There are explicit arrangements for public disclosure and access to information that facilitate managerial accountability. Monitoring at the community, district and national levels were scaled up. A localized accountability issue discovered in 2007 in Tana River district involving collusion between community members and district staff was dealt with effectively through existing government mechanisms. District staff were dismissed and criminal investigations of civil servants and community leaders is ongoing.

69. **For the past two years, the project put extra emphasis on strengthening governance and accountability at various levels**. At the trainers' level, all METs (from NGOs and line Ministries) participated in a 21 day accountability and governance training. They conduct frequent visits to CDCs to check their financial records. At the community level, trainings in financial management, procurement and accountability were strengthened. Communities are more empowered to hold CDCs accountable. It has become mandatory for CDCs to report to communities regarding financial matters. In Tana River district the financial and procurement manuals have been translated in Kiswahili. There are also no more direct transfers of funds to the CDCs bank accounts. To increase transparency, the communities are witnessing the transfer of checks to the CDC.

70. **Financial Management.** FM arrangements are already in place under ALRMP, which was rated satisfactory in the latest ISR. Robust project FM arrangements have been designed. Detailed project cost estimates/ budgets have been prepared, and arrangements agreed for regular monitoring. The Ministry of State for Development of Northern Kenya and Other Arid Lands has professionally qualified accountants (CPAs) and qualified staff to fulfill key financial management and internal audit functions. IDA disbursements would be based on quarterly unaudited Interim Financial Reports (IFRs). Project financial statements would be prepared in accordance with the Cash Basis Accounting of International Public Sector Accounting Standards (IPSAS).

71. **The Ministry will open a Designated Account denominated in US$ where the GEF Grant proceeds will be deposited.** The Ministry will also open a Project Account in local currency from which the project payments will be made. The Project Account will receive IDA funds from the Designated Account and Government Counterpart funds. Both accounts will be opened in local commercial banks acceptable to IDA. The Grants proceeds from the Designated Account and any Government counterpart funds will be channeled to Project Account through the Paymaster General (PMG) and Exchequer Accounts in Treasury as required by Government existing procedures.

72. **In addition to the measures to strengthen institutional FM systems outlined above, enhanced fiduciary safeguards have been put in place to respond to identified country-level corruption and weak governance risks**. The proposals take account of increased fiduciary safeguards recommendations of a recent Government-commissioned forensic audit and a detailed implementation review of selected projects in the Kenya portfolio by the Bank's Integrity Department. This includes the development and implementation of an institutional risk management policy framework (IRMPF). The Bank has moved to strengthen the implementation of the IRMPF by: (a) main-streaming the IRMPF at portfolio-level under the Internal Audit Department (IAD). Effective December 2008, the IAD will conduct risk-based half-yearly fiduciary reviews of all Bank-funded projects. The reports will be submitted to the Bank within two months and will include comments/action by the Accounting Officers and Audit Committees. From the reports, the Bank will be able to assess the effectiveness of management oversight, including audit committees and the status of implementation of the IRMPF; (b) agreeing on the TOR for implementation of IRMPF with Treasury and conducting the necessary capacity building training. These TOR include risk identification, profiling and mitigation, measures for strengthening management oversight, strengthening internal audit function, developing and implementing social accountability structures (including public reporting of financial management information and complaints handling), conducting value for money audits, procurement audits and corruption prevention measures.

73. **Main-streaming corruption prevention as part of Portfolio-level IRMPF**: The Bank has reached an agreement with the Kenya Anti-Corruption Commission (KACC) and Treasury on harmonization of corruption prevention in fiduciary activities of implementing agencies of all Bank projects as part of the IRMPF. This includes conducting corruption risk assessment, developing corruption prevention policies and plans, setting up corruption reporting structures, increasing corruption prevention awareness, and reporting to the Bank any allegations of corruption in projects. It also includes the development and implementation of an institutional risk management policy framework (IRMPF). Comprehensive risk assessments of the implementing entity will be carried out under the on-going project, and mitigating action plans will be developed. The IRMPF will be completed by April 30, 2009.

74. **In view of the fact that the Project will be implemented by an existing implementing agency with adequate FM capacity, and in districts already under ALRMP, there are no FM conditions.** However, the FM arrangements will be monitored throughout implementation and appropriate capacity building measures will be taken. Financial management risk is rated moderate**.** This takes into account the overall country governance and public financial management environment, as well as the current satisfactory performance by the project.

75. **Procurement.** Consultancy and technical assistance services, and contracts for goods under International Competitive Bidding and National Competitive Bidding procedures will be procured centrally by the Project Coordination Unit (PCU). DCUs are responsible for the procurement of district level and intercommunity procurement and overseeing the smooth implementation of community procurement. Procurement of goods works and services for community-related activities and micro-projects are carried out by beneficiary communities under the guidance and supervision of the respective DCU, using the Bank guidelines for community procurement. Procurement management to date under ALRMP has been rated satisfactory by the Bank, and capacities at district and community levels are judged as sufficient to carry out efficient and transparent procurement of project financed assets. Procurement of goods and services under the additional credit will follow the same procedures used under the ongoing operation. Other than vehicles and computers, and cross cutting studies and consultancies (for which a procurement plan has been developed), all procurement of goods, equipment, works and training that will take place at district and community level, will not lend itself to international or national procurement procedures. Government district procurement thresholds are in place. Procurement decisions will be disclosed by the project on a quarterly basis, in publicly accessible ways that facilitate timely and effective monitoring and accountability at the community, district and national levels.

D. Social

76. **Social analysis and participation:** A number of stakeholders were involved in the preparation of the KACCAL through workshops, PRAs, and community outreach. This process was built on the participatory processes of the ALRMP, which included a thorough social analysis (SA). This analysis along with the project's participatory plan has described the various entry points for stakeholders at all levels. The baseline project ALRMP has already developed and introduced an effective participatory approach to service delivery**.** Community targeting through PRAs enables communities to articulate their problems, needs, priorities and help in mapping the necessary course of action. The PRAs have also been an effective tool for community empowerment. The project will implement a differentiated PRA, targeting vulnerable communities and enable the development of "Climate-Resilient Community Action Plans".

77. **Key social issues identified in the Social Analysis are**: livelihood and coping strategies, the social inclusion of vulnerable and marginalized groups and gender mainstreaming inside the communities in ASAL districts. While the social analysis (and the key issues discussed below) cover the broader ALRMP intervention area, these issues are pertinent although not always applicable in their entirety to the KACCAL districts. Thus, the Social Analysis (SA) is used as a guiding document in developing the specific community interventions for the KACCAL districts.

78. **Livelihood and coping strategies*:*** Most ALRMP districts are predominantly pastoral, with varying levels of farming and other diversification strategies in each district. Clanism is a major social factor, particularly in the Somali communities of *Garissa* and Wajir (plus Ijara and Mandera, although these were not among the study districts). In Tana River, Isiolo, *Marsabit* and Baringo, ethnicity is a major factor. Religion is another factor that characterizes social organization in these areas, which influence the targeting and the eventual success of project implementation. These factors are key to the definition of the term "community" and how interventions are targeted.

79. **Social inclusion of vulnerable and marginalized groups:** The SA sought to understand which groups are likely to be excluded and what barriers exist that the project can address that will mitigate and also encourage participation of all communities, and most importantly, the vulnerable in these communities. The SA found several groups of people that have been isolated and to some extent excluded in past project efforts. These range from women who are widows and divorcees, the urban poor, street

children, and marginalized groups. In the study districts, the marginalization of whole communities or groups within a community is due to a combination of factors including historical influences, ethno-cultural factors, livelihood strategies, population numbers, and socio-political and developmental issues.

80. **Gender mainstreaming**: Lack of gender mainstreaming is a constraint to effective delivery of services to communities in ASAL districts. The SA shows that traditionally, there were very distinct roles of men and women in most of the communities visited in Arid Lands, but, with time, these as well as the division of labor has changed. Both men and women are assuming different roles depending on the social economic realities on the ground. The burden on women may increase through the micro-projects while not specifically changing their economic situation. Women-headed households are on the increase due to divorce, death of spouses through conflicts and other calamities. Food insecurity is a factor that forces men and women to move from rural to urban areas where social support structures are non existent and difficult to maintain, thus increasing the vulnerability of the affected population.

81. **The project will promote social inclusion** at all levels and give the gender issue a special focus, supporting efforts that will enable both men and women to be well represented in decision making at all areas pertaining to the project.

E. Environment

82. **The proposed project will assist Kenya in adapting to expected changes in climactic conditions that threaten the sustainability livelihoods in its arid and semi-arid lands.** The project will focus on opportunities for economic diversification to initiate a process of providing Kenya's rural population with alternative livelihood perspectives. The project is designed to have mainly positive environmental and social impacts. Expected positive environmental impacts include: (i) reduced soil erosion on agricultural and rangelands; (ii) reduced soil nutrient depletion on all dominant land uses; (iii) increased biodiversity through improved rangeland management; and (iv) reduced siltation of water reservoirs.

83. **The project could result in some adverse environmental impacts that are site-specific and temporary in nature.** However the micro-projects will be small in scale, and any potential negative impacts can be avoided or mitigated through the application of the Environmental Management Framework (EMF). Some negative impacts could include: (i) threats of contamination and disease around water points, hand pumps, etc; (ii) unsustainable bush clearance for agricultural activities resulting in land degradation and potential impact to local ecosystem; and (iii) risks of overgrazing in close proximity to water-pans causing soil erosion. The EMP has recommended mitigation measures of these and other potential negative impacts such as perimeter fencing, stabilization of walls around the embankments, and other soil conservation measures. Local availability of surface water especially during dry seasons could be improved by constructing water pans that arrest and detain surface runoff. Micro-project activities will result in significant positive environmental impacts on natural resource management, for example tree seedling propagation and sale by the communities; establishment of green belts around settlements to prevent degradation due to livestock and collection of fuel wood.

84. **Additionally, the training plan recommended by the EMP includes some very specific training topics** such as: (i) water borne diseases - awareness and sensitization on mitigation and protective measures (including water disinfection; boiling before use; introduction of mosquito larvae eating fish; preventing water stagnation around water points); (ii) awareness and sensitization to relevant communities on basic surveillance procedures to identify potential problems with boreholes, earth dams, water pans, sand dams (including silting, signs of potential collapsing, etc.) at early stages; as well as management, handling and operation of any resources/funds obtained during operation of these structures. These and other training modules will be delivered by the project to a variety of beneficiaries and stakeholders during the life of the project.

85. **KACCAL will build on the outcomes of the baseline project**. ALRMP has a CDD financing mechanism for an 'open menu' of community based micro-projects which are developed from the PRA-based Community Action Plans (CAP). KACCAL, with the SCCF financing, will facilitate additional community based micro-projects by creating a special CDD window with a 'restricted menu', specifically targeted at activities with a direct impact on preventing and mitigating the consequences of climate variability and change in the selected four districts. Micro-projects will also support diversification of livelihoods that could be both non-pastoral on-farm and/or non-farm enterprises or involve educational and vocational opportunities that may help smooth out-migration over time from truly marginal areas.

86. **The project was reviewed and screened at concept stage and designated as Category B** which is appropriate and consistent with the provisions of the Bank's Safeguards Policy on EA OP 4.01. KACCAL has triggered the Bank's safeguard policies on Environmental Assessment (OP4.01) and Natural Habitats (OP4.04).

F. Safeguard policies

87. **Environmental Assessment (OP 4.01):** The project is rated environmental Category B. The borrower has prepared an Environmental Assessment and Management Framework (EMF) for the ALRMP II, which also covers KACCAL districts. As found necessary during KACCAL project preparation, an addendum to the ALRMP II EMF has now been included and the enhanced EMF will be used during KACCAL implementation. The EMF has determined that there will not be any potential large-scale, significant or irreversible environmental impacts associated with potential micro-projects. The main objectives under the EMF are to: (i) establish procedures for micro-project design, review, approval, and implementation and monitoring; (ii) identify potential policy issues and propose resolution mechanisms; and (iii) develop a capacity building program for stakeholders to carry out Environmental Impact Assessments (EIA) and mitigation throughout the project. The EMF will help identify potential environmental issues and proposes mitigation measures, including training and monitoring measures. In some cases, implementation of the EMF will result in the preparation of an Environmental Management Plan (EMP) or Pest Management Plan (PMP). In some cases, it might result in the preparation of an EIA report, before the micro-project is considered for approval. A sample EIA format has been included in the EMF. All such EIA reports will be disclosed to the pubic prior to approval and implementation. The EMF will be re-disclosed at the Infoshop and in-country with a separate cover letter from the borrower, to satisfy the disclosure requirements.

88. **Natural Habitats (OP 4.04):** This policy has been triggered due to the potential nature of activities to border or operate in natural habitats or protected areas. The EMF will address these concerns through an environmental screening which will be applied to all micro-projects before approval. The EMF will help identify any potential impacts on natural habitats and proposes mitigation measures. It has provided adequate management measures to mitigate adverse impact of any activities in the project intervention areas. Additionally, ALRMP II has prepared a baseline NRM and ecological survey of the area as well as a national ASAL NRM strategy which covers the KACCAL districts. The results from these studies are incorporated in the project design for implementation.

89. **Pest Management (OP 4.09)**: Pesticide use among beneficiary communities of the project is currently very low to non-existent. It is likely that the project is not providing support to the purchase or use of pesticides. However the requirement to screen for pesticide use is included in the processes set out in the EMF. If the project proposes the use of herbicides for bush clearance or specialized irrigation systems (rain-fed or irrigated farming) which could result in intensification of agriculture and the increase in pesticide use, such micro-projects will prepare a brief pest management plan (PMP) before approval. Such plans will be disclosed before micro-project implementation. The policy is not triggered.

90. **Forests (OP 4.36):** Forest operations such as forest restoration or plantation development will not be carried out under this project. Small-scale infrastructure may be financed under the project which may induce pressure on forest resources (wood for construction). However, the EMF provides the necessary measures in the screening process to identify impacts on forests and forest resources. Good practice measures are provided in the EMF to address these concerns. Moreover, through highly participatory mechanisms built into the CDD design, the project will raise awareness and empower communities to increase protection of forests and other resources. The policy is not triggered.

91. **Involuntary Resettlement:** The project will not support any activities that trigger OP 4.12. Screening of micro-projects will ensure that the project does not finance activities involving the involuntary taking of land or the involuntary restriction of access to legally designated parks and protected areas.

92. **Indigenous Peoples**: Following the precedent of the ALRMP Project, the present project will not trigger OP 4.10. While there are several marginalized ethnic groups in the project area, they do not identify themselves as indigenous peoples nor are they identified as such by the national or regional governments. Nevertheless, the project will have specific activities targeted and tailored to vulnerable and marginalized social groups.

Other safeguard policies that are not triggered by the project are: Physical Cultural Resources (OP 4.11); Projects on International Waterways (OP 7.50); and Safety of Dams (OP 4.37).

Safeguard Policies Triggered by the Project	Yes	No
Environmental Assessment (OP/BP 4.01)	[X]	[ ]
Natural Habitats (OP/BP 4.04)	[X]	[ ]
Pest Management (OP 4.09)	[ ]	[X]
Physical Cultural Resources (OP/BP 4.11)	[ ]	[X]
Involuntary Resettlement (OP/BP 4.12)	[ ]	[X]
Indigenous Peoples (OP/BP 4.10)	[ ]	[X]
Forests (OP/BP 4.36)	[ ]	[X]
Safety of Dams (OP/BP 4.37)	[ ]	[X]
Projects in Disputed Areas (OP/BP 7.60)*	[ ]	[X]
Projects on International Waterways (OP/BP 7.50)	[ ]	[X]

G. Policy Exceptions and Readiness

93. **The project will comply with all applicable Bank policies**. The preparation process has been supported by a PDF B grant in the amount of USD 290,000, which supported the preparation of several technical studies. The procurement documents for the first year activities will be completed as part of the revision of the existing ALRMP Project Implementation Plan (PIP), which will be reviewed by the Bank during negotiations and finalized before as a condition of effectiveness.

94. **The EMF and IPPF have been disclosed under the ALRMP project**. The revised EMF has been re-disclosed for the KACCAL project in October 2007 in Kenya and in December 2007 in the Infoshop.

* *By supporting the proposed project, the Bank does not intend to prejudice the final determination of the parties' claims on the disputed areas*

Annex 1: Country and Sector or Program Background

Kenya: Adaptation to Climate Change in Arid and Semi-Arid Lands (KACCAL)

I. Climate change and development challenges in the ASALs

1. **Revitalization of the ASALs is key for sustainable economic development in Kenya.** The ASALs cover about 467,200 square kilometers or about 80 percent of the country's land mass. Annual rainfall ranges between 150 and 450 mm in the arid districts, and between 500 and 850 mm in the semi-arid districts. 35 percent of the ASALs are extremely vulnerable to land degradation and desertification processes[5]. The ASALs account for almost 30 percent of Kenya's population. The livestock sector is central to livelihoods and food security accounting for 90 percent of employment and 95 percent of household income. Pastoralism and agro-pastoralism constitute the major forms of livelihoods in the arid districts, while rainfed agriculture is an additional important economic activity in the semi-arid areas. It is estimated that 70% of the livestock population is located in the ASALs with an estimated value of Kshs 70 billion. Pastoralists are also the custodians of the dryland environments inhabited by Kenya's wildlife, which contribute to a tourist trade worth more than Kshs 50 billion each year.

2. **Economic and political marginalization led to severe under-development of the ASALs which is reflected by high poverty levels and low human development.** After stagnating for many years, Kenyan GDP picked up recently, growing 5.8 percent and 6.1 percent in 2005 and 2006 respectively. National absolute poverty declined from 52 percent in 1997 to 47 percent in 2006. Despite these recent gains in economic growth and poverty reduction, poverty and inequity are still major challenges for Kenya. These challenges are particularly severe in the ASALs, where most districts have poverty rates of more than 70 percent. This under-development arises for a range of reasons, including climatic and agro-ecological factors and low levels of access to services and markets. Unemployment is particularly high in Northeastern Province, reaching 40 percent in 2006. Due to its relatively isolated location and dispersed population, ASALs have long been disadvantaged in public service and infrastructure provision. This has manifested in a very low asset and endowment base. In the Northeastern Province, only 4 percent of the population use electricity, less than one third has access to safe water. A massive 88 percent of adults have not completed primary education.

3. **Extreme climatic events and climate variability exacerbate the already high vulnerability of the ASAL population.** Unfavorable agro-ecological and socio-economic conditions severely affect the livelihoods of the population in the ASALs. The land is highly susceptible to land degradation and desertification and annual rainfall is low. Unfavorable socio-economic conditions include low access to markets, services and infrastructure, including water and sanitation, electricity, financial services, and roads. This high vulnerability is aggravated by climate-related shocks, climate variability and livestock-related shocks. In the Northeastern and Eastern Provinces 43 percent and 42 percent of the households have been affected by droughts and floods respectively, 45 percent and 19 percent by stolen or died livestock, and 39 percent and 29 percent by high food prices between 2000 and 2005.

4. **Climatic events have severe socio-economic impacts**. The World Bank identified Kenya as being among the countries at highest climate-related risks, particularly through the impacts of droughts. In the ASALs, about 2 million people are permanently on famine relief and the number sometimes rises close to 5 million during severe droughts. The drought from 1998 to 2000 associated with La Nina conditions

[5]e.g. National Environment Management Authority, 2003; National Environment Secretariat, 2002; Government of Kenya, February 2005

caused damages estimated at 16 percent of GDP in each of the following two years[6]. Impacts were felt in a broad range of sectors as the drought led to loss of hydropower and industrial production, crop and livestock loss, and health impacts. Aside from droughts, floods have to be recognized as major constraint to development in Kenya. The costs of the floods associated with the 1997-1998 El Nino were estimated at 11 percent of annual GDP and hence were of comparable magnitude in economic terms as the subsequent drought event.

II. Climate variability and change in the ASAL – perceptions, observations, and projections

5. **Kenya's climate is defined by its equatorial location, its varied topography and vicinity to the Indian Ocean.** Along the coast a humid tropical climate predominates. By contrast, inland areas are largely arid with two thirds of the country receiving less than 500 mm of rainfall per year. The short rainy season lasts from October to December and the long rainy season from March to May. While the largest proportion of annual precipitation falls during the long rains, the short rains are critical for crop development in many districts.

6. **The arid and semi-arid areas of Kenya experience a high degree of inter-annual climate variability** (Figure 1.1), which is predominantly driven by the El Nino Southern Oscillation (ENSO) and the Indian Ocean Zonal Temperature Gradient (or Indian Ocean Dipole Mode, (IOD)). Hence, variations in the global sea surface temperature, especially over the equatorial and Indian Ocean basin, have a strong effect on the weather and climate of Kenya. The warm phase of ENSO (El Nino) and the Indian Ocean Dipole are associated with above normal rainfall and flooding. During El Nino years the entire country tends to experiences in increases in rainfall. The change is particularly pronounced in the arid districts and associated with significant flood risk. By contrast, during the cold phase of ENSO (La Nina) Kenya frequently experiences extreme drought conditions.

7. **The increased rainfall during El Nino years also yields positive effects, such as improved revitalized vegetation and improved pastures for livestock.** However, often these positive effects are underutilized as livelihoods are not equipped to cope with the preceding floods or increased spread of water and vector borne diseases. Instead of improving their assets by using the positive effects of El Nino, assets are often depleted by the negative effects. This has further ramifications for the livelihoods as El Nino events are often followed La Nina events, as was the case in 1998.

[6] World Bank, 2004

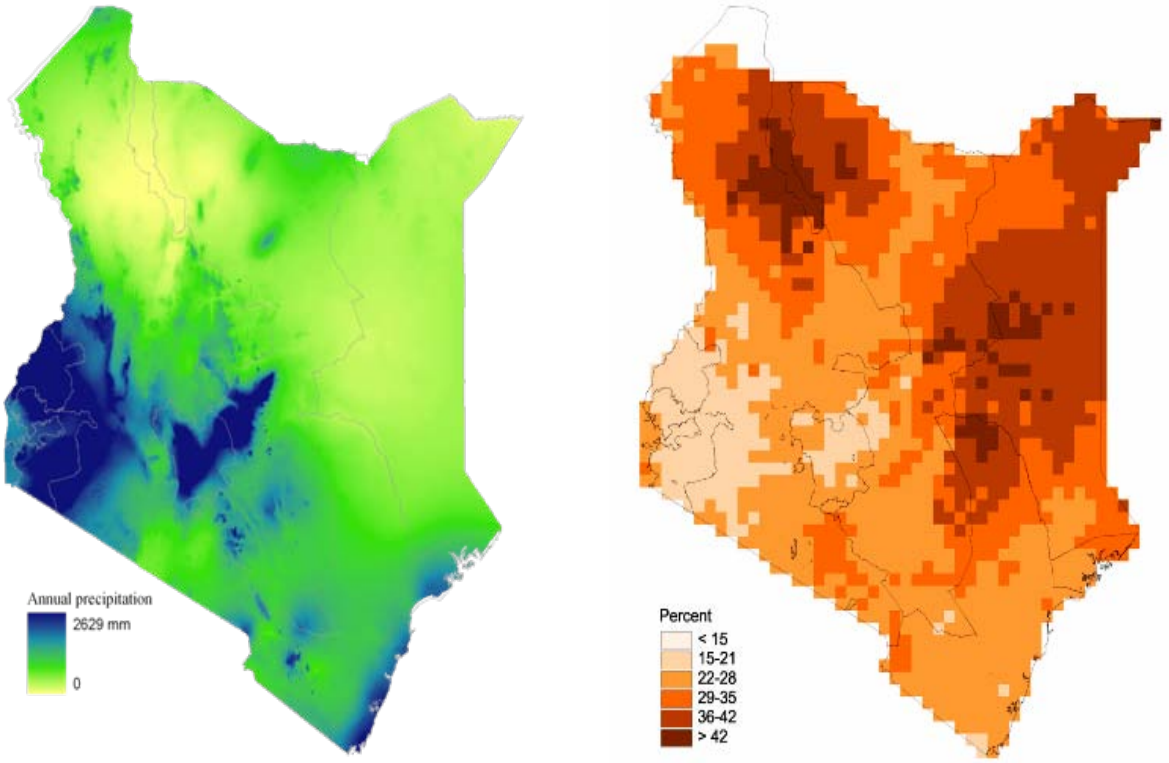

Figure 1.1 Total annual rainfall and coefficient of variation in 2000 (Source: Thornton et al. 2006)

8. **Climate-related risks are perceived as the biggest challenge by communities in the ASALs**. Communities are the most vulnerable stakeholders in the ASALs. Consultations with communities concerning risk perceptions, coping and adaptation strategies were carried out in four ALRMP districts: Turkana, Marsabit, Garissa and Malindi. These districts cover a range of environmental characteristics and livelihood activities. Turkana, Marsabit and Garissa are arid districts, while Malindi is semi-arid to sub-humid. Livelihood activities covered in the community assessments include: pastoral (Turkana, Garissa, Marsabit), agropastoral (Garissa, Marsabit), fisheries (Turkana: freshwater, Malindi), and mixed farming (Malindi). The results show that the risks ranked by the communities are either directly or indirectly linked to climate (Figure 1.2). Droughts (ranked second for present and future) and floods represent slow and fast onset climatic extreme events. Food insecurity, water scarcity are basically outcomes of these events, but may be exacerbated by other factors. Many human and livestock diseases (ranked third and fourth) are also triggered by climatic events. For example, Malaria and rift valley fever outbreaks are closely linked to ENSO events. This may also apply to crop pests and diseases. Finally, insecurity may be indirectly triggered by adverse climate conditions, which may promote cattle poaching and robbery as coping strategies.

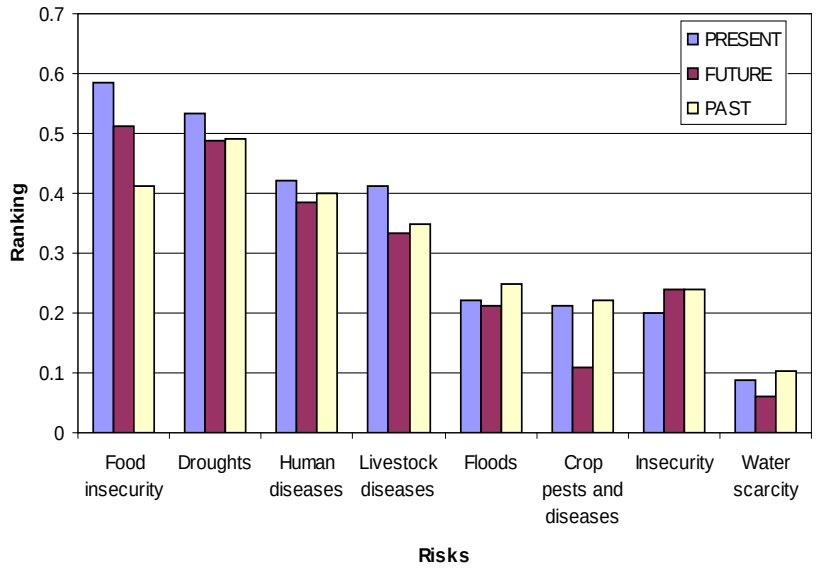

Figure 1.2. Evolution of risk concerns based on community responses, summarized from community assessments in Turkana, Marsabit, Garissa and Malindi..

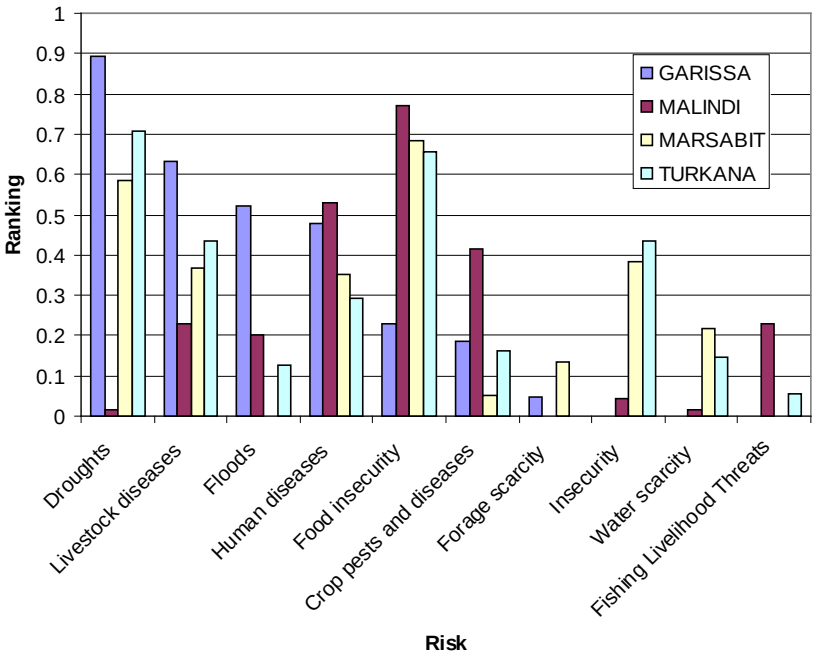

Figure 1.3. Current dominant risk concerns as expressed by communities in Garissa, Malindi, Marsabit and Turkana.

9. **There are considerable differences in the risk perceptions by communities across districts** (Figure 1.3). In the arid district of Garissa, floods are a major concern aside from drought conditions. The high ranking of livestock diseases may also be explained by the recent outbreak of rift valley fever after the floods in 2006. In comparison to Garissa, food security in Turkana and Marsabit is a greater concern, which may be explained by the comparatively weaker road infrastructure and less reliable access to food

aid. Despite more favorable climate conditions, food insecurity in Malindi is ranked highest. This may be explained by the small fractions of land that are usually cultivated by communities, making them vulnerable to crop failures.

10. **Changes in climatic conditions in Kenya can already be detected through analysis of observational data.** Northwestern Kenya, particularly the arid district of Turkana, is experiencing increases in rainfall, while minor to large decreases of precipitation are being observed over most other areas of Kenya (Figure 1.4). In addition to changes in total precipitation, changes in the characteristics of the rainy seasons can be observed. There are significant differences across the regions in Kenya. In the Northeastern parts of Kenya, the mean variance of the rainfall duration is about 26 days for the short rains. The length of the short rains has been increasing over the period of the analysis (approximately 30 years) by about 2 weeks. Although this could be perceived as a positive development, the year-to-year fluctuations in the duration of the short rains appears to be also increasing suggesting further exacerbating planning insecurity. The increase in the length of the short rains seem to be mainly dictated by later withdraw than early start of the rains.

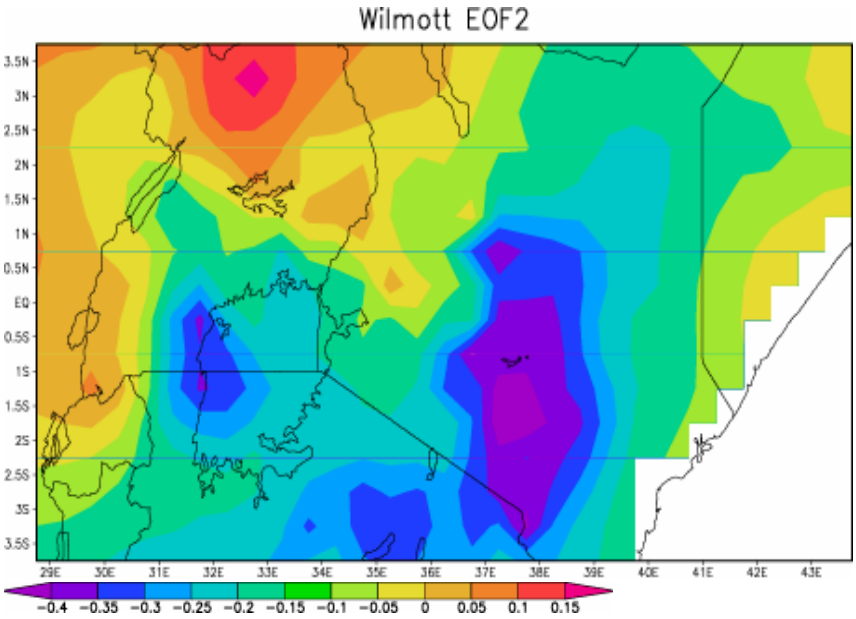

Figure 1.4. Observed changes in precipitation over Kenya. The positive (negative) loadings depict increased (decreased) rainfall within the recent decades. (Source: Semazzi et al, 2007)

11. **In contrast to the Northern region, the length of the short rains has been decreasing in the eastern and southern Districts** by about two weeks over the period of analysis. This decrease is consistent with the dipole mode where northeastern part of Kenya has been increasingly showing signs of becoming wetter and the eastern/southern part of drying up. The year-to-year fluctuations are beginning to show larger swings thus potentially putting an increasing burden on the climate-sensitive sectors of this region. The decrease in the length of the short rains appears to be mainly dictated by later start of the rains rather than early withdraw of the rains. Over the past decade the droughts seem to be occurring with greater intensity than previous decades. The droughts of 1998/99 and 2005 are recent examples of devastating consequences and potentially crippling impacts on climate-sensitive economic sectors of the districts. Similar to the short rains, changes in the characteristics of the long-rains are also becoming visible. For the Northern parts of Kenya, similar changes as in the short rains can be detected although

less pronounced. For the Southern part of Kenya, a drying trend seems to also manifest itself in the long-rains.

12. **Projections based on Global Climate Models (GCM) indicate that temperatures in Kenya will further increase due to global warming.** A recent analysis of climate models[7] suggests that the average annual temperature is likely to increase by 2.5-3 ˚C, but there is also the possibility that warming could be as high as 5 ˚C. In addition, other recent analytical work[8] indicates an increase in precipitation for Kenya at an aggregate level. However, considerable uncertainty and inconsistency persists between models and scenarios selected. It is possible that the drying trend currently observed in some parts of the country may give way to an increase in average rainfall over time. However, this does not mean that arid and semi-arid districts will no longer experience failure in the rainy season. Rather more erratic rainfall characteristics should be expected with dry and wet spells.

13. **Even if there would be an increase in rainfall observed over the whole of Kenya, this does not necessarily translate into an improved water balance.** Gains in precipitation may be offset by increases in evaporation rates due to the concomitant rise in temperature. It will be also important how the rain will fall, i.e. as intense erratic downpours or more equally distributed across the seasons.

14. **These results underscore the importance of managing across the entire spectrum of climate conditions in the ASALs.** Climate change is already leading to more erratic and variable rainy seasons. Livelihoods need to be better protected against intense rainfall events, and better equipped to seize the positive effects from above normal rainfall episodes in order to better manage the continuous high drought risk in the region. Managing dry and wet extremes will become more important with climate change.

III. Relevant policies and strategies for ASAL development and disaster management

15. **The Government of Kenya has increased its attention to the development of the ASALs to unleash its full economic and livelihoods potential.** Kenya's Vision 2030, which follows the Economic Recovery Strategy for Wealth and Employment Creation, includes enhanced equity and wealth creation opportunities for the poor as one of its main pillars. This pillar explicitly states that special attention has to be given to investments in the ASALs. The Vision 2030 also emphasizes managing the resource base of the ASALs as it crucially underpins many sectoral aspects of development, including agriculture and livestock, water, tourism, health, and education. The Vision 2030 also highlights that Kenya will enhance disaster preparedness in all disaster-prone areas and improve the capacity for adaptation to climate change.

16. **The Government prepared the National Policy for the Sustainable Development of Arid and Semi Arid Lands**. The policy is awaiting cabinet approval. It enhances the role of communities in the ASAL development with a focus on longer-term planning. Its main objective is to enhance food security, increase living standards and reduce dependency on food aid by the ASAL population. It envisages a reduction in the vulnerability of the population and an increase in capacities to adapt to climate change. Its priorities include: natural resource and environmental management, integration of agro-pastoralism, support to mixed farming, water resource management, diversification in livestock, promoting sustainable land and natural resource management and use, and active adaptation to longer-term climate risks. The policy highlights a number of capacity related constraints such as inadequate development of local human resources, poor livestock marketing, limited health and movement control systems, and inadequate provision of basic services. In addition, the disaster management outlook is focused on provision of food

[7] Osbahr and Viner, 2005
[8] Washington, Pers. Comm. 2007

aid and emergency responses rather than on establishing long term solutions for sustainable livelihoods in a situation of heightened climate risk.

17. **KACCAL is guided by the Poverty Reduction Strategy Paper (PRSP) (2004) and the Kenya Strategy for Revitalizing Agriculture (2005)**, which emphasizes the importance of reducing risk and vulnerability for groups that rely on natural resource based livelihoods. The project also contributes to the objectives of the draft land policy, the draft ASAL policy and the draft disaster management policy.

Annex 2: Major Related Projects Financed by the Bank and/or other Agencies

Kenya: Adaptation to Climate Change in Arid and Semi-Arid Lands (KACCAL)

1. **The World Bank supports several projects that in different ways contribute to increasing the country's capacity to adapt to the impacts of climate variability and change**. These projects focus on various sectors, such as agriculture, environment and natural resource management. Some of the climate related activities provide synergies between mitigation and adaptation, in particular the carbon finance operations. All these projects will provide useful lessons for the proposed project.

2. ***Natural Resource Management Project (NRM)****:* This project aims to enhance the institutional capacity to manage water and forest resources in a sustainable and participatory way. It involves water resource management and irrigation, management of forest resources and livelihood investment in the upper Tana catchment. Most of the project activities contribute to increased climate resilience through capacity building and sound management of natural resources.

3. ***Western Kenya Community Driven Development and Flood Mitigation Project (WKCDD)****:* The objective of this project is to empower local communities to engage in sustainable and wealth creating livelihood activities and reduce their vulnerability to flooding. With regard to reducing communities' vulnerability to flooding the project supports an early warning system for flood mitigation as well as an improved flood plain management for major rivers in Western Kenya. In addition, detailed planning and preparation for longer term investments to provide greater protection against flooding, such as a multipurpose dam, will be undertaken, but not financed by the actual investment.

4. ***Kenya Agricultural Productivity Project (KAPP)****:* The project's development objective is to improve the overall research and advisory system by supporting generation, dissemination, and adoption of agricultural technology through: (i) reforms in extension to increase pluralism, responsiveness to clients, and participation by private providers; (ii) an evolutionary change in the existing system of agricultural research to improve accountability and impact; and (iii) increased empowerment of producer organizations to influence the planning, design, implementation, funding and monitoring and evaluation of research, extension, training and capacity building activities. An accountable, demand-driven and pluralistic innovation system is essential to generate and deliver user-friendly and relevant climate-change related knowledge products, technologies and management practices.

5. ***Kenya Agricultural Productivity and Sustainable Land Management (KAPSLM)****:* This project aims at assisting agricultural producers to adopt environmentally-sound land management practices without sacrificing their economic welfare. It particularly focuses on strengthening the capacity of agricultural producers to adopt sustainable land management (SLM) practices and technologies to mitigate land degradation and achieve greater productivity of crops, trees and livestock. It also includes assisting agricultural producers to adopt alternative livelihood options where non-degrading production methods are not feasible to reduce the pressure on the natural resources. By addressing land degradation this project also deals with the vulnerability to future climatic shocks.

6. ***Western Kenya Integrated Ecosystem Management (WKIEMP)****:* The project seeks to improve the productivity and sustainability of land use system in selected watersheds in the Nzoia, Yala and Nyando river basins through adoption of an integrated ecosystem management approach. It supports on- and off-farm conservation strategies and the development of capacity of local communities and institutions to identify, formulate and implement integrated ecosystem management activities (including both on-and off-farm land use planning) capturing local and global environmental benefits.

Table 2.1: World Bank Financed Projects

Sector Issues	Projects	Latest Supervision PSR ratings* (Bank financed projects only)	
		Implementation Progress (IP)	Development Objective (DO)
Sustainable land and water management	Natural Resource Management Project	MU	MS
Sustainable land and water/flood management, and CDD	Western Kenya Community Driven Development and Flood Mitigation Project	S	S
Agricultural Policy and Institutional Reforms	Kenya Agricultural Productivity Project	MS	MS
Sustainable land and water	Western Kenya Integrated Ecosystem Management	S	S
Sustainable land and water	Kenya Agricultural Productivity and Sustainable Land Management (under preparation)	NA	NA
Agriculture and Greenhouse Gas Mitigation	Agricultural Carbon Project (under preparation)	NA	NA
Forestry and Greenhouse Gas Mitigation	BioCF Greenbelt Movement Project	NA	NA

*IP/DO Ratings: HS (highly Satisfactory), S (Satisfactory), U (Unsatisfactory), HU (Highly Unsatisfactory)

7. **Practical working linkages will and are being sought with other GEF projects in Kenya that address land degradation and agricultural biodiversity**. The project is closely linked to the UNDP implemented SCCF grant, which will implement similar activities as KACCAL in Mwingi district. Links with other initiatives are also sought. The GEF-UNDP Project on Indigenous Vegetation Project has developed useful site-based participatory planning methods in Arid Districts – using indigenous technologies for rangeland management. GEF-UNEP is undertaking ASAL-relevanr work through two targeted research initiatives (Land Use Change Analysis as an Approach for Investigating Biodiversity Loss and Land Degradation (LUCID) which includes southern Kenya, and the global program Land Degradation Assessment in the Drylands (LADA). Experiences from these projects will provide useful lessons. UNEP's support to the GoK for National Capacity Self Assessment (NCSA) processes will lay a foundation for synergies through NEMA. UNEP's Desert Margins Program again offers useful lessons**.**

8. **Other development partners support a range of projects, which are either directly or indirectly increasing the adaptative capacity of several stakeholders.** A detailed list of these projects is provided below. They cover a range of projects in various sector, including livestock, agriculture, natural resources management. Some projects explicitly address climate change capacity building, drought management, and the specific challenges in the (semi)arid lands and climate change mitigation. There is a continous dialogue on these activities with the development partners and the GoK through a climate change thematic group.

Table 2.2: Projects Financed by Other Development Agencies

Development Agencies	Projects
UNDP/GEF/SCCF	Coping with drought and Climate Change – GEF Regional (Ethiopia, Kenya, Mozambique, Zimbabwe) preparatory project
UNDP/GEF	Pilot Project: Kenya Reducing Vulnerability to Drought
UNDP (RETAP)	Market transformation for highly efficient biomass stoves for institutions and medium scale enterprises in Kenya.
UNDP supported by Finland, Spain, Sweden	Regional CDM capacity building project for sub-Saharan Africa (Democratic Republic of Congo, Ethiopia, Kenya, Mauritius, Mozambique, Tanzania, Zambia)
SIDA/Swedish Energy Agency	National Agricultural and Livestock Extension Project (NAPEL)
	Program on Capacity Building for CDM (East Africa)
EU	Kenya Arid and Semi-Arid Lands Program (KASAL)
IFAD	Horticulture and Traditional Crops Project
	Central Kenya Dry Area Smallholder
FAO	Special Program for Food Security (SPFS)
	Environment & Natural Resource Management
USAID	Kenya Dairy Project
	Climate Change Vulnerability & Adaptation Mitigation, adaptation and C-financing
DFID	North Eastern Pastoral Development Program
DFID, IDRC Canada	Regional projects: Vulnerability and Risk Management in Agricultural Systems - Lack of resilience in African smallholder farming: Enhancing adaptive capacity of local communities to pressures of climate change
DFID, IDRC Canada	Regional projects: Managing risk, reducing vulnerability and enhancing productivity under a changing climate
GTZ	Smallholder Dairy Development
DANIDA	Agricultural Sector Support Project (ongoing and planned)
JICA	Community Agricultural Development Project in Semi Arid Lands (CADSAL)
	Project for Sustainable Smallholder Irrigation Development and Management in Central and Southern Kenya (SIDEMAN)
	Intensified Social Forestry Project in Semi-arid areas (ISFP)
Agence Française de Développement	Reforestation of the Aberdares Forest

Annex 3: Results Framework and Monitoring

Kenya: Adaptation to Climate Change in Arid and Semi-Arid Lands (KACCAL)

Monitoring and Evaluation

1. **The M&E system of KACCAL will be fully integrated in the already established and functioning M&E system of the ALRMP**. The baseline project set up an M&E unit to assist project management in: (i) establishing a system of routine records and periodic monitoring reports at community, district and national level; and (ii) to support and undertake a program of periodic evaluations, including the final evaluation. The first component focuses mainly on project implementation aspects, i.e. the delivery of inputs, activties and outputs. It would be a continuous process, which will collect information about actual implementation of project activities compared to those scheduled in the annual work plans. This will include monitoring the delivery of quality outputs in a timely manner, identifying problems and constraints (e.g., technical, human resource, and financial), making clear recommendations for corrective actions, and identifying and sharing lessons-learned and best practices. This kind of information will be summarized in project implementation quarterly reports by ALRMP and DSGs in the pilot districts.

2. **Based on the first component, the evaluation component of the M&E system will focus on outcomes and impacts**. Data and information collected will be used to measure the status of the agreed outcome indicators. Independent consultants will be contracted by ALRMP to prepare the project's ICR evaluation report. The MTR will determine progress being made towards achievement of outcomes and will suggest corrective actions if necessary. It will, *inter alia*: (i) review the efficiency, effectiveness, and timeliness of project implementation; (ii) analyze effectiveness of implementation and partnership arrangements; (iii) identify issues requiring decisions and remedial actions; (iv) identify lessons-learned about project design, implementation, and management; (v) highlight technical achievements for knowledge sharing; (vi) analyze whether the project is on track with respect to achieving the expected results; and (vii) propose any mid-term adjustments to the project design, if necessary. The findings of this continuous process will be communicated through quarterly implementation reviews, semi-annual progress reports, and other technical reports.

3. **The institutional set-up of the M&E system will rely, as much as possible, on the existing structure and institutions involved in the baseline project**. The M&E specialist in the PCU of the ALRMP will have overall responsibility of coordinating all M&E activities conducted as part of KACCAL. He will report directly to the National Project Coordinator. He will compile information, data, and reports from different levels. The M&E specialist will conduct quality checks, provide feedback to his decentralized counterparts, and analze data to compute the status of the selected indicators. Based on specific project needs, project staff will carry out internal M&E work, as well as entrust different partner agencies and external consultancies to conduct their respective M&E work.

4. **ALRMP strengthened and institutionalized M&E capacity at distrcit and community levels on which KACCAL will build on**. The PCU M&E specialist will interact directly with his counterparts in the DCU to ensure timely delivery and exchange of data, information, and reports of high quality from the pilot districts to national level. Given its participatory nature, of particular importance for the KACCAL/ALRMP M&E system are the District Sterring Groups (DSGs) and the communities. The DSGs are composed of local leaders, and technical staff of district and partner agencies. These memebers are receiving M&E training and are responsible to conduct data collection, quantitative and qualitative assessments, and prepare M&E reports at the district and community level. The DSGs will interact directly with the DCUs on all relevant M&E issues. Each district is encouraged to identify and undertake

evaluation studies of a diagnostic and troubleshooting nature in response to information emerging from monitoring activities. These would be technically supported by the national M&E unit.

5. **Communities participating in implementing and benefiting from the project will also be involved in project monitoring and evaluation**. Community-based M&E will regularly track the performance of the sub-projects. Their work will be enhanced through integration of social accountability mechanisms, such as the community scorecard and report card systems, social audits, participatory budgeting and expenditure reviews, as well as conducting participatory poverty assessments. These will be linked closely with the public awareness and communication initiatives of the project. The community-based M&E will provide a continuing source of qualitative information on the performance of services, and enhance stakeholders' engagement for a continuous review of progress, as well as avail the opportunity to take action on non performing areas.

6. **A Results Framework has been prepared which summarizes the Project Development Objective (PDO) to be achieved**, project outcomes indicators, intermediate outcomes indicators, and the use of project outcome and intermediate outcome information. This information will be used to track progress towards the PDO and make changes in project design if necessary. Sources to assess the status of key performance indicators will include: (i) data collected through the project Management Information System (MIS), such as progress, technical and financial reports (ii) geo-reference ecological data/natural resource mapping information; (ii) and participatory surveys and evaluations.

7. **ALRMP recently finished the implementation of a Mnanagement Information Systems (MIS)**. The customized MIS is designed for managing all the operations under the KACCAL. It will be used to guide project implementation and elaborate on the results chain. Thus, it will not only perform the function of managing project data, but will equally enable the project management teams to monitor and evaluate the performance of individual project components and sub-components. In addition, it will also improve the capacity of the project management teams to design efficient work plans that translates project resources into results, and ultimately achievement of the project development objective.

Table 3.1 Results Framework

PDO	Project Outcome Indicators	Use of Project Outcome Information
The PDO is to improve the ability of selected districts and communities of the ASALs to plan and manage climate change adaptation measures	District management plans with concrete climate risk management activities reflected in the budget (number) Community adaptation projects rated satisfactory or better by participating communities (%) (communities assess whether outcomes have been achieved)	The project outcome indicators will test the effectiveness of the adaptation interventions promoted by KACCAL and will help guide future adaptation efforts in the ASALs.
Intermediate Outcomes	**Intermediate Outcome Indicators**	**Use of Intermediate Outcome Monitoring**
Component 1. Climate information products, policy and advocacy		
Increased understanding among national and regional stakeholders of climate change related issues Improved availability of climate risk information at national and regional level	Climate risk profiles developed and used for district management plans (number) Climate scenarios developed and adjusted to regional and provincial levels (number)	To assess whether a critical stakeholders have the capacity to implement climate-related policies and strategies
Component 2. Climate risk management at district and local levels		
Increased understanding among local stakeholders of climate related issues Improved availability of climate risk information at district and local level	Mobile extension teams trained/accredited in community climate risk management (number) ALRMP investments screened for improving response to climate risk (%) Public and private sector investments rated satisfactory or better by beneficiaries (%) (beneficiaries assess whether outcomes have been achieved)	To evaluate whether a critical number of extension staff have acquired knowledge to advice communities on climate risk management To assess whether generated climate information products are accessible to end users To determine whether public and private investments are contributing to increased adaptive capacity

Component 3: Community driven initiatives for climate resilience		
Enhanced communities' ability to plan, manage and implement climate-related activities	Community Action Plans with concrete climate risk management activities reflected in the budget (number)	To evaluate whether communities acquiring knowledge and interest in implementing climate change adaptation activities supported by the project
	Community adaptation projects developed and implemented (number)	To determine how microprojects are contributing to adaptive capacity

Table 3.2 Arrangements for results monitoring

		Target Values (cumulative)				Data Collection and Reporting		
Project Outcome Indicators	**Baseline**	**YR1**	**YR2**	**YR3**	**YR4**	**Frequency and Reports**	**Data Collection Instruments**	**Responsibility for Data Collection**
District management plans with concrete climate risk management activities reflected in the budget (number)	0	0	2	4	4	Annually from district and community reports	Records and reports	DCU and DSG
Community adaptation projects rated satisfactory or better by participating communities (%)	0	0	0	60	80	Annually from community reports	Participatory evaluation	DCU and DSG (including METs)
Intermediate Outcomes								
Component 1								
Climate risk profiles developed and used for district management plans (number)	0	0	2	4	4	Annually from project progress reports	Records and reports	PCU (M&E Unit)
Climate scenarios developed and adjusted to regional and provincial levels (number)	0	0	1	1	1	Annually from project progress reports	Records and reports	PCU (M&E Unit)
Component 2								
Mobile extension teams trained/accredited in community climate risk management (number)	0	0	4	4	4	Annually from project progress reports	Records reported from training activities	DCU and DSG
ALRMP investments screened for improving response to climate risk.	0	0	10	15	20	Annually from district reports	Reports and records	DCU and DSG (incl. METs)

Public and private sector investments rated satisfactory or better by beneficiaries (%)	0	0	0	60	80	Annually from evaluation reports	Participatory evaluation	PCU / DCU and DSG
Component 3								
Community Action Plans with concrete climate risk management activities reflected in the budget (number)	0	0	16	32	50	Annually from project progress reports	Review of Community Action Plans	DCU and DSG (incl. METs)
Community adaptation projects developed and implemented (number)	0	0	16	32	50	Annually from project progress reports	Review of Community Action Plans	DCU and DSG (incl. METs)

Annex 4: Detailed Project Description

Kenya: Adaptation to Climate Change in Arid and Semi-Arid Lands (KACCAL)

1. **The project has three components:** (i) climate information products, policy and advocacy; (ii) climate risk management at district and local levels; and (iii) community driven initiatives for climate resilience. The latter two components will be implemented in four ASAL districts, with similar activities implemented in a fifth district with funding from an UNDP SCCF grant. All three components are contributing directly to the integration of climate actions into development processes in the ASALs, in particular through the ALRMP.

2. **The four pilot districts, Garissa, Turkana, Marsabit and Malindi, cover a wide range of ecological and socio-economic conditions relevant for adaptation in Kenya**. The selection is seeking to include a combination of districts that (i) include arid and semi arid areas; (ii) are exposed to multi-hazard (droughts and floods) climate risk and will likely experience continuing climate variability; (iii) include a range of livelihood types (pastoral, agro-pastoral, agricultural, natural resource based) (iv) have variation in implementation capacity; and (iv) are among the poorest, most-vulnerable districts.

3. **Malindi** is a coastal semi-arid district with mixed livelihoods. Agriculture accounts for half the land use, with both cash and food crops being grown. Lowland livestock and ranching are also important land uses. Malindi is affected seasonally by flooding from the Sabaki River. Turkana**,** Garissa and Marsabit are arid districts. **Turkana** lies in the northwestern corner of Kenya. It consists largely of low lying plains, with a few isolated hilly areas, drained by seasonal rivers which flow into Lake Turkana. This largely dry district has erratic, unimodal rainfall patterns. According to projections, this area is likely to get wetter in the future. The main source of livelihoods is livestock based with some marginal cultivation. **Garissa** is in Northeastern province and is a large arid district covering 7.45 % of the country. It is low lying and abuts the Tana River. Frequent droughts and unreliable rains make it difficult to manage pastures for livestock rearing. Irrigation is practiced along the river, which has recently been subject to severe seasonal flooding. **Marsabit,** bordering Ethiopia in northern Kenya, is the largest district in Kenya covering about 11.2% of the country's total area. It includes both arid and some semi-arid areas around Mt. Marsabit. The population is nomadic in general with a few sparsely populated settlements. The predominant land use is rangelands for livestock, with cultivation around Mt. Marsabit. Dryland forests on Mt Marsabit and Mt. Kulal are threatened by severe degradation.

Component 1: **Climate information products, policy and advocacy**

4. **National institutions need to systematically integrate climate change aspects into development plans and programs.** This will require a culture of climate awareness, enhanced capacity for effective climate risk management (CRM) at various levels and improved coordination and knowledge sharing among the relevant institutions. Effective CRM involves managing the full range of variability and balances hazard management with efforts to capitalize on opportunities. It combines systematic use of climate information and technologies that reduces vulnerability of the most vulnerable segments of the population. There is a need for strengthening capacities to better understand and respond to current and future climate risks. This component aims at increasing the capacity of relevant national institutions to generate and disseminate knowledge on climate impacts and risks and identify adequate adaptation options that are tailored to the specific needs of ASALs.

5. **Institutional efforts focused on disaster risk management and climate change need enhanced coordination**. Programs and activities in this field have been largely fragmented which has led to inefficiencies and duplication. This component will help address this challenge through providing support for improved coordination and knowledge and information sharing among the relevant institutions. The institutional set-up and leverage of the ALRMP will be used to bring crucial stakeholders together, create awareness of the challenges of climate variability and change and coordinate activities.

Subcomponent 1.1: Development of climate-related knowledge products to inform CRM strategies in ASALs

6. **Strategic planning of climate change adaptation programs needs to be informed by relevant and tailored climate information products.** This was a critical need identified by the review of available climate information and stakeholder consultations in order to better guide adaptive measures in the ASALs. Several different knowledge products are envisaged including:

(i) Climate risk profiling**:** This activity will help to strengthen the monitoring processes and capacity for climate risk management at the national level and in selected districts. The first step will be to assess the potential of 'rescuing' historical climate data and convert these into workable (digital) formats. The data collection capacity of meteorological services and other stakeholders will be assessed. Data to be collected include monthly, seasonal and annual climate characteristics (averages, variability), and characterization of extremes and return periods with trend analysis. To the extent possible raw climate information (observations and predictions) will be combined with relevant natural resources and socioeconomic conditions (e.g. soil water status, pest or disease risk, vegetation condition, crop yields) to assess climate risks in agricultural, livestock, and NRM-related production and explore interventions to reduce those risks. These generated information and profiles will be fed into enhanced ALRMP bulletins and the early warning system.

(ii) Refined and downscaled climate scenarios**:** The emphasis of this activity line would be on improving the resolution and format of climate change scenarios currently only available at global or regional levels. These scenarios would help to assess the implications for livelihood sustainability in ASALs. This will be done through linking climate scenarios with socioeconomic and environmental data (e.g. the ILRI data sets on ecosystem, water resources and development indicators). The generated information would guide dialogues on ASAL strategies at the national and district level.

(iii) Assessment of adaptive measures**:** This activity line will focus on climate proofing and assessing adaptation strategies and investments in the selected districts. The suitability of current and traditional risk mitigating measures will be assessed and benefits and shortcomings will be identified to inform the design of new strategies. Approaches will be developed which allow decision-makers at various levels, including METs, to identify promising adaptation activities and screen proposed activities for climate resilience. Such approaches would also be used at the screening of community investments. Data and information directly relevant to climate proofing ALRMP investments and activities will be made publicly available to stimulate external research and knowledge development and scaling-up.

(iv) Integration of climate change information into early warning and information systems: Emphasis will be placed on improving the integration of climate change information into existing bottom-up and top-down early warning systems (e.g. ALRMP, FEWSNET, LINKS, LEWS, ICPAC and FAO forecasts), and refining information formats and dissemination structures. Under KACCAL, the EWS will broaden its focus to enhance its capacity to detect early signs of stresses to the agricultural and natural ecosystems based on the integration of climate information.

(v) Knowledge and advisory service partnerships**:** The project will develop targeted knowledge partnerships between ALRMP and various key national and international institutions and programs (such as Kenya Meteorological Department (MET), the IGAD Climate Predictions and Applications Center (ICPAC), Kenya Agricultural Research Institute (KARI), International Livestock Research Institute (ILRI) and other CGIAR centers, including south-south learning partnerships). Information products will be informed and tested by ALRMP district officers and the District Steering Committees. The information products will be tested based on community feedback and refined accordingly. Partnerships, study tours and knowledge exchanges are critical in a rapidly evolving field, such as climate change. Given the fact that many countries in SSA and other regions face similar challenges, efficient and effective responses to climate change require transfer and sharing of experience, knowledge, technologies and lessons learned acquired by other programs, researchers and communities.

7. **This sub-component will finance** (i) international and local technical assistance to develop these information and knowledge products; (ii) training in application and maintenance of these products; (iii) software development and procurement of required equipment; (iv) services for collecting and digitizing relevant climate, socio-economic and agro-ecological data; (v) workshops, study tours and exchange visits between relevant national and international institutions and programs; and (vi) climate risk knowledge and advisory service partnerships with local and international institutions, as needed.

Subcomponent 1.2.: Integration of climate action into ASAL development strategies and programs

8. **The integration of climate change into development strategies requires a comprehensive approach, including capacity building, policy dialogue and sound communication.** The knowledge products developed need to be complemented with capacity building to ensure their practical use and maintenance. They can also be used as part of the policy dialogue and awareness raising.

9. **The following coordination and capacity building activities will be supported**:

(i) Strengthening of technical capacities of ALRMP and other institutions on climate change: This will be achieved through a combination of additional technical staffing and capacity development initiatives. The objective is to assist ALRMP in advancing the integration of climate risks management perspective into national (e.g. KFSM, sectoral strategies through the KFSSG) as well as district level (i.e. DSG) planning frameworks and strengthening information flow between these entities and levels. While TA will be used to develop some of the knowledge products listed in the first sub-component, it is important that in-country expertise is being built to use and maintain these products. Of particular importance is here that all relevant stakeholders across (and beyond) the ALRMP institutional set-up are being trained.

(ii) Project implementation support to the ALRMP Secretariat, including monitoring and evaluation of project processes and performance: The ALRMP-KACCAL secretariat will be responsible for ensuring appropriate documentation and reporting of lessons learned to facilitate replicability and scaling-up, within the ASALs as well as in other climate-affected areas in the region and beyond. This will require additional resources which will be made available under this project. The integration of climate change aspects into the ALRMP M&E system (including the newly established MIS), requires special attention. Given the innovative character of KACCAL, it is important that issues and challenges are early detected and addressed.

(iii) Policy dialogue and awareness raising through targeted consultations and advisory products: The knowledge and advisory services supported by this project will build capacity on CRM through existing coordination mechanisms such as the KFSM and KFSG. This will be achieved through a variety of mechanisms, including periodic policy notes and targeted training. The newly established Ministry of State for the Development of Northern Kenya and Other Arid Lands in the Office of the Prime Minister and its close coordination with Special Programs under the Office of the President is well placed to facilitate this capacity building effort.

10. **Project funds will be used for**: (i) salaries for technical staff recruited for KACCAL implementation; (ii) training and workshops for ALRMP staff, members of the KFSM, district officers, and other relevant stakeholders; (iii) technical study tours and exchange visits, including south-south learning events; (iv) independent evaluation consultancies and technical assistance; and (v) operational support and equipment/material for the ALRMP/KACCAL Secretariat.

Component 2: Climate risk management at district and local levels

11. **This component aims to strengthen climate resilient planning at district and local levels** by integrating a CRM perspective in district planning processes; identifying opportunities for public and private sector investments; and assessing opportunities for economic diversification to reduce vulnerabilities to climate risks over time.

12. **Climate change, combined with current land use patterns, is likely to lead to further marginalization of some areas and activities**. Communities affected will need opportunities to diversify their income sources and find new ones less vulnerable to the expected directions of climate change. The subcomponent will give specific attention to identifying livelihoods at risk, assessing opportunities, and identifying ways to bring in the private sector into constructive responses. It will be assessed on how best to adapt livelihood systems, including agricultural and livestock management, without compromising on productivity objectives. All major stakeholders at the district and local levels would need to be engaged in capacity building and planning processes, in particular the ALRMP District Coordination Units (DCUs), District Steering Groups (DSGs), Mobile Extension Teams (METs), Local Government, Civil Society Organizations (CSOs), and Non-Governmental Organizations (NGOs).

Subcomponent 2.1: Capacity building to integrate CRM into local and district planning processes

13. **District and local level officials and actors need to acquire the capacity to use relevant climate information and knowledge products from all levels.** Thereby, district and local officials (including the DCUs, the DSGs, local leaders and other stakeholders) will be enabled to assess risks posed by climate variability and change and to adapt their development planning and actions accordingly. These actors will have increased capacity to identify and support adaptation opportunities, whether through improved planning of current investments or "climate-proofing" of new investments.

14. **The Mobile Extension Teams (METs) will play a key role in providing technical advice on climate change adaptation at community and household level.** In ALRMP, the METs have proven to be particular useful in providing advisory services in the socio-economic and agro-ecological setting of the (semi)arid lands. They are successfully assisting communities throughout the CDD process. The METs received already substantial training under the baseline project, but KACCAL will aim at strengthening their technical capacity with regard to climate change adaptation. METs will be enabled to access and utilize the knowledge products generated as part of

this project. They constitute a crucial link between knowledge generation and practical application and – through feedback from communities – they ensure the usefulness and relevance of these products. METs need to understand and interpret generated climate information and they are expected to communicate this information in a user-friendly way to the end-user. Thereby, the METs will be enabled to provide guidance on adaptation measures in a format that is relevant, timely, accessible and comprehensible to their clients. Management responses by communities will be monitored and the usefulness of the provided knowledge products and information for the end-user will be assessed through a combination of qualitative and quantitative approaches, including Participatory Rural Appraisal (PRA) used by ALRMP.

15. **District Coordination Units, District Steering Groups and other district and local stakeholders need to integrate climate change adaptation into district plans and programs.** The process of the development district and local level plans has been strengthened under ALRMP. KACCAL will ensure that this plans explicitly consider the challenges of climate change and that these plans contribute to enhanced climate resilient. This will require awareness raising and capacity building for a range of stakeholders. District level institutions will also be trained in using the climate information products generated as part of the first project component. METs and District teams will also be trained in collecting local and traditional information from communities to monitor conditions of vulnerability and to use this information for the design of adaptation and coping strategies.

16. **SCCF funding will be used for**: (i) training and workshops for district and local level officials, (ii) technical assistance and consultancies for scrutinizing risk in ALRMP investments; (iii) specific equipment and software to use climate knowledge products; and (iv) operational costs (including costs of PRAs and monitoring).

Subcomponent 2.2: Support for "climate smart" public and private investments

17. This sub-component will support the implementation of selected public and private sector interventions identified in the adaptation enhanced district plans. These investments will typically be at the scale above the community level (micro-watershed/inter-community level) and will complement community efforts for greater climate related resilience. These activities will be largely based on public-community-private sector partnerships. Investment areas include but are not limited to: improving early warning systems and infrastructure to manage floods (including small check dams, water pans etc.); improving livestock monitoring and response systems (e.g. conditions and risk factors for livestock diseases, such as rift valley fever; support for livestock off-take management; diversification of stocks etc.); natural resource management investments (water source rehabilitation and agro-forestry); training in business/enterprise skills and value addition of ASAL products.

18. The **subcomponent will also facilitate private sector-community partnerships to link communities to markets.** The subcomponent will support feasibility studies and pilot measures where appropriate. Areas of interest include: promotion of sustainable production, value addition and marketing of ASAL products such as dates, gum, aloe, jatropha, sisal; promotion of sustainable production, value addition and marketing of indigenous crops and vegetables; provision of livestock market information (through FM radio and mobile phones); pro-poor and environmentally sound biofuel production. The modalities of these incremental investments will follow the ALRMP implementation structures as closely as possible. The project will work with industry groups and entities such as the Network of Gums and Resins in Africa (NGARA) to support their engagement with communities in sustainably extracting and marketing ASAL products.

19. **This sub-component will finance**: (i) feasibility studies for public and private investments; (ii) matching grants for approved private investments; (iii) preparation and implementation costs for approved public investments (incl. material, services and operational); (iv) training for community/private investors; and (v) TA for complex public investments.

Component 3: Community driven initiatives for climate resilience

20. **KACCAL will enhance ALRMP's community driven development (CDD) approach to foster appropriate CRM strategies and investments at the community level.** Vulnerability of livelihood systems of the ASALs often results from the convergence of multiple climate and non-climate risk factors and constraints. The non-climatic factors include physical, human, technological, socio-economic, and institutional constraints. While the ALRMP enables communities to address many of the non-climatic factors, the KACCAL project will strengthen the communities' capacity to address the challenge posed by climatic factors more directly and explicitly.

Subcomponent 3.1: Support for community capacity building

21. **Increasing frequency and severity of climatic events constraint the ability of communities to adapt autonomously and solely based on indigenous knowledge**. While the communities are increasingly noting anomalies in climatic conditions and impact on their environment, there is limited understanding about the scale and scope of causes and impacts as well as potential opportunities to reduce their vulnerability. Also if opportunities are known, communities are not able to overcome constraints prohibiting the adoption of adaptation measures in addition to traditional coping measures. While ALRMP includes a substantial training program designed to increase the ability of communities in identifying, implementing and monitoring priority community investments, CRM related investments are not prioritized reflecting the lack in community awareness of and capacity to undertake CRM related activities.

22. **This subcomponent will support awareness building, advocacy and community capacity building integrated into ALRMP processes**. Communities will be enabled to cope with this additional risk and uncertainty and to integrate them in their planning of livelihood activities. Capacity building efforts will be focused on (i) strengthening awareness of the type of climate risks faced by specific communities; (ii) strengthening their ability to interpret, evaluate and respond to climate forecasts and related information; (iii) improving awareness of the links between environmental degradation and climate related vulnerabilities; and (iv) aiding communities to explore, both individual and group based, decision-making that incorporates climate related risk factors in their planning and options to increase their resilience to climatic shocks. The component will help strengthening of community action plans ('climate resilient CAPs') by integrating local risk factors and proposing measures for adaptation. Financing will be provided for: (i) training and workshops for communities; and (ii) technical assistance.

Subcomponent 3.2: Support for community based micro-projects

23. **This sub-component will support community based micro-projects, identified in the 'climate-resilient CAPs'**. This adaptation related investment funding will be channeled primarily through the Natural Resource Management and the Community Driven Development (CDD) windows of the ALRMP. **This sub-component will finance:** matching grants to communities to implement micro-projects, with communities providing at least 10 percent of the total micro-project

cost. At least 50 communities in the pilot districts will be targeted. Potential areas of support include**:**

24. **Potential areas for support include**:

(i) *Structural interventions for land and water management*: In helping communities manage land and water resources across the entire spectrum of climate conditions in the ASALs, investments in a variety of land management and erosion control, small-scale water harvesting, storage and water management measures will be supported.

(ii) *Sustainable agricultural land and livestock management*: Micro-projects would help enhancing the resilience of agricultural practices to climate risks, through promotion of sustainable land management methods and technologies (e.g. inter-cropping, integrated nutrient management, moisture and soil conservation techniques, agroforestry, drought resistant crops) and rangeland/livestock management (e.g. silvopastoralism and drought-tolerant pasture species).

(iii) *Opportunities to enhance carbon sequestration*: Grants will facilitate the technical and financial feasibility assessment for potential ecosystem services micro-projects; in particular the opportunities for carbon finance will be explored.

(iv) *Livelihood enhancement and diversification*: Support will be provided for the increased adoption of livelihood diversification projects. Examples include piloting tree species plantations such as Jathropha Curcus, Acacia Senegal or Acacia seyal, which are suited to semi-arid or arid climatic conditions, have economic value and provide important ecosystem services.

(v) *Credit and micro-insurance*: The feasibility of innovative credit and micro-insurance schemes for ASAL communities will be explored. If considered financially viable and technically sound, grants will support up-scaling of successful mechanisms for community based credit and insurance to facilitate the adoption of improved agro-pastoral practices and other livelihood strategies to reduce vulnerability and risks.

(vi) *Human and Livestock Health*: Support for investments to reduce human exposure to vector and water-borne diseases and improving livestock health will be provided as appropriate.

Annex 5: Project Costs

Kenya: Adaptation to Climate Change in Arid and Semi-Arid Lands (KACCAL)

1. The second phase of ALRMP totaled to US$ 60 million and covered 21 districts. Additional financing of the same amount led to up-scaling of the project to 28 districts. The ALRMP emphasizes decentralized and community oriented rural development and service delivery in the ASALs. It has been focused on addressing the severe repercussions of the recent extended drought, and has targeted emergency rehabilitation and immediate drought recovery priorities. For the remaining project period, an estimated USD 40 million is expected to strengthen national institutions, district level capacities, support CDD micro-projects for service delivery and drought rehabilitation, addressing immediate needs and providing the baseline for the KACCAL project. Incremental resources will support the integration of a longer-term perspective in national and district level planning and a variety of local interventions to adapt to climate variability and change.

Table 5.1. Project Costs by Components

Project Cost By Component or Activity	Local US$ million	Foreign US$ million	Total US$ million
Climate information products, policy and advocacy	0.92	0.62	1.54
Climate risk management at district and local levels	1.56	0.00	1.56
Community driven initiatives for climate resilience	2.63	0.00	2.63
Total Baseline Cost	5.11	0.62	5.73
Price Contingencies	0.53	0.06	0.59
Total Project Costs	5.64	0.68	6.32

2. The project will be financed from 3 sources: (a) GEF (US$5.5 million); (b) government (US$0.69 million); and (c) beneficiary communities (US$0.13 million). The government contributions will cover all taxes and duties. The project will build on ALRMP's support of government structures, and ALRMP contribution will cover staff and other operational costs.

Table 5.2. Project Costs by source

Component (US$ Million)	IDA	WB SCCF	Government	Communities	Total
Climate information products, policy and advocacy	5	1.46	0.24		**6.70**
Climate risk management at district and local levels	5	1.37	0.34		**6.71**
Community driven initiatives for climate resilience	30	2.67	0.11	0.13	**32.91**
Total	**40**	**5.5**	**0.69**	**0.13**	**46.32**

Annex 6: Implementation Arrangements

Kenya: Adaptation to Climate Change in Arid and Semi-Arid Lands (KACCAL)

1. **KACCAL is building on substantial management and institutional capacity developed during the first and second phase of ALRMP.** The management structure will be slightly modified to account for the integration of climate change aspects. The ALRMP project implementation plan will be modified to reflect these changes. KACCAL will be implemented over a period of 4 years and will be managed by the ALRMP Project Coordination Unit (PCU). One of the success factors of the ALRMP is its institutional location. Being a multi-sectoral, decentralized project, the location of the PCU in the Prime Minister's Office is an effective position for the coordination of climate change programs and activities. The PCU will report directly to the Ministry of State for the Development of Northern Kenya and Other Arid Lands, Prime Minister's Office. It has to be noted that these arrangements constitute a shift from the previous arrangements of ALRMP due to the division of Ministries under the Coalition Government, 2008. Before the elections the PCU was located in the Ministry of State for Special Programs in the Office of the President, which has the mandate for food security and drought management. Project implementation in regions and districts were facilitated through the Ministry of State for Provincial Administration and Internal Security, Office of the President. The PCU has ensured that the project retains its coordination function, liaising between the Prime Minister's Office and the Office of the President, to ensure that the institutional changes do not negatively affect the leverage of ALRMP. Strong ties to the Ministry of State for Provincial Administration and the Ministry of State for Special Programs are ensured through the KFSM and through the management of the early warning and drought management systems.

2. **Under ALRMP, the Kenya Food Security Meeting (KFSM) emerged as an effective mechanism for inter-government and development partner-government coordination for drought and food security.** The KFSM consists of key sectoral ministries concerned and external partners. The KFSM is the main coordinating body that brings together food security actors in a forum where information is exchanged, options debated and decisions on activities formulated for referral to the Government of Kenya and donors. It is an open forum of high level representation of a broad grouping of organizations at the national level with interest in food security. It will continue to play a key role in overall drought management and has been formally linked with government drought and disaster coordination mechanisms. However, given its closely related mandate, the KFSM will expand its focus under KACCAL and will also assume the responsibility of more explicitly coordinating programs and activities addressing the challenge of climate change.

3. **The PCU has been strengthened throughout the implementation of ALRMP I and II.** Within the PCU, the project coordinator is assisted by the deputy project coordinator, as well as four component coordinators. The PCU has been strengthened to reflect wider geographical coverage and increased level of activity. This included, for example, strengthening of the analytical capacity for improving drought management. In order to adequately manage and implement KACCAL, the PCU will hire a technical expert on climate change issues. This expert is expected to combine a sound background on the scientific basics of climate change with practical experience on designing and implementing cross-sectoral climate change adaptation activities, in particular in agriculture, livestock and natural resource management. In addition, other core PCU staff will be trained in climate change aspects to ensure a broad integration into project implementation. The M&E team will be trained to expand their system and account for the inclusion of KACCAL.

4. **At the district level, ALRMP/KACCAL will continue to be coordinated by the District Coordination Unit (DCU),** situated within the district level Provincial Administration. The multi-sectoral and inter-agency coordination at the district level has been one of the strengths of the

baseline project. The DCU is headed by a Drought Management Officer (DMO), who will act as the district ALRMP/KACCAL coordinator. He/she is supported by a Community Development Officer (CDO) to manage the CDD component, a training officer, a data analyst, and three Mobile Extension Team (MET) team leaders. In the semiarid districts where only the natural resources and drought management is being implemented, the DMO works with a data analyst and a finance and supplies and procurement officer. As described in detail in the project description (Annex 4), the district team will be trained to ensure a sound implementation of climate change-related activities under KACCAL.

5. **The District Steering Group (DSG) is responsible for planning, approval, and coordination of all district and community level interventions.** The DSG is a subcommittee of the District Development Committee (DDC) and is composed of local leaders, and technical staff of the district and partner agencies. Under ALRMP, the DSGs expanded traditional membership from GoK line ministry teams to non-governmental actors, such as NGOs, CBOs and the private sector. This arrangement has fostered collaboration between agencies and helped to reduce duplication. The DSG is the key coordinating body for natural resources and drought management in the district and – under KACCAL – will also assume the responsibility for coordinating climate change adaptation activities. KACCAL will enhance the capacity of the DSGs in decision making processes and planning related to adaptation.

6. **At the district level, guidelines and rules will be developed for the "adaptation to climate change" funding mechanism.** The baseline project provides various windows of support through which districts and communities can decide their priority activities, including drought contingency fund, funding for drought preparedness, for various CDD activities, and for enhanced local service delivery through the use of the district services allocation. Under KACCAL a special window for "adaptation to climate change" will be opened. As for each of the other funding mechanisms, guidelines and rules will also be developed for the climate change window. This process will lead to improved planning and implementation of development activities at the district and community level.

7. **Communities bear responsibility of managing KACCAL community level interventions**. Communities are defined loosely to allow a variety of community groups in different socio-cultural settings to participate in the CDD process. Thus far, communities have defined themselves as groups sharing common resources. Implementation of the recommendations of the social assessment should provide good targeting of marginalized communities which are most vulnerable to climate change. Community institutions taking on decision-making and fund-managing responsibilities are strengthened to ensure that they represent the community, and have the appropriate management capacity. Community PRA processes result in CAPs, which are updated on a regular basis, and provide the basis for interventions in CDD. The Mobile Extension Teams (METs) concept will be continued and strengthened under KACCAL. METs will work with community members to equip them with skills for prioritizing designing projects geared to meeting their needs. The METs are key in the process of supporting communities to identify, prepare and implement their plans. Procurement for items required for the implementation of specific community micro-projects are the responsibility of the communities in KACCAL pilot areas. Communities will receive procurement and financial management training, using the WB guidelines for community procurement.

8. **The institutional structures, especially those that are anchored in government, will be subject to revision** throughout the implementation phase in view of potential institutional changes proposed by the new government in line with the constitutional review process.

Annex 7: Financial Management and Disbursement Arrangements

Kenya: Adaptation to Climate Change in Arid and Semi-Arid Lands (KACCAL)

INTRODUCTION

1. **The FM assessment covers the financial management functions of the project implementing entity,** which is the ALRMP PCU reporting to the Permanent Secretary, Ministry of State for Development of Northern Kenya and Other Arid Lands in the Prime Minister's Office. The Ministry is also implementing the Arid Lands Resource Management Project (ALRMP) II and the same project team will be in charge of managing KACCAL. The assessment was based on (i) information obtained from the implementing entity; (ii) review of documents such as auditor's reports and management letters; (iii) discussion with government and the implementing entity; and (iv) review of the on-going ALRMP II's performance.

COUNTRY FINANCIAL MANAGEMENT ISSUES

2. **The most recent piece of diagnostic work that provides up to date information on the country's public financial management (PFM) system is the Country Integrated Fiduciary Assessment** (CIFA, draft September 2006). The assessment, together with the current Country Assistance Strategy (CAS) that was effective in May 2004, reviews Government's performance since the last Country Financial Accountability Assessment (in 2001) and CAS (in 1998). The CIFA adopted the Public Expenditure and Financial Accountability (PEFA) performance measure framework as a guiding reference to diagnose the key challenges facing policymakers, report on recent progress, and outline priority areas for attention.

3. **The CIFA highlighted that government has been putting in place a new set of laws and regulations to strengthen the PFM system.** The government enacted in 2005 the Public Procurement and Disposal Act, which provides for an independent public procurement oversight authority. Parliament also passed legislation establishing an independent Auditor General's Office and was expected to debate new legislation which will give the body a stronger role in the preparation of the budget. Capacity of the government to manage public finances has also been strengthened. Over the past two years the budget preparation process has been substantially reformed. This has led to a reorientation of budgetary allocations towards investment in infrastructure and delivery of services to the poor. It has also led to the more direct participation of stakeholders in reviewing policy choices prior to finalization of the budget. Budget reporting has also improved both through technical changes in the way the budget is presented and through a dramatic reduction in the audit backlog for central government operations. It is expected that these reforms will enable the parliament's public accounts committee to play a more effective role in reviewing government expenditures and the concerns raised by these audits, thereby increasing the strength of parliamentary oversight.

4. **However, significant challenges remain**. Substantial areas of government spending are not properly scrutinized. A number of ministries returned funds to the treasury, underscoring weaknesses in budget implementation and procurement across the public sector. And while good progress has been made in addressing the backlog of audits of central government operations, local authorities have yet to produce audited accounts, raising concerns that corruption at this level remains unchecked.

5. **Through its Public Financial Management Reform Strategy, Government remains committed to strengthening fiduciary safeguards** with a view to achieving efficiency and

effectiveness in the use of public funds. With the support of a number of development partner-assisted initiatives, including the IDA-funded Institutional Reform & Capacity Building Project (IRCBP), Government is seeking to rapidly enhance the financial accountability framework, particularly through strengthening legislation related to public financial accounting and audit.

6. **Other country-level FM risks arise from the country's overall governance environment**, a weak judiciary and corruption concerns. The Government has prepared a governance action plan that has been implemented and is being monitored. The Government has also mandated the setting up of independent oversight committees especially the audit and finance sub-committees for public bodies.

7. **On the Bank-financed portfolio, project implementation has generally been slowed down by constraints in the flow of resources and limited absorptive capacity arising from bureaucratic processes**. Government is committed to improving portfolio performance. In the last couple of years, agreements have been reached on several key issues in the context of Country Portfolio Performance Reviews and other discussions. These include actions to improve audit compliance, closer monitoring of project performance by Ministry of Finance and improvements in the flow of project resources, although significant improvements still need to done.

8. **The findings of Government commissioned forensic audits of selected projects in the country portfolio (November 2004 and June 2005) include the following financial management related issues**: (a) projects were generally not controlled using a balancing general ledger system that was fully integrated and regularly reconciled with the rest of the government's central accounting system; (b) project designs did not identify fraud risks and fraud risk management was not an integral part of each project; (c) senior government oversight of the projects was weak; (d) management accounts and project quarterly reports reflect levels of activity but do not necessarily identify major issues; and (e) lessons learned and best practices are not shared among similar projects or passed into the wider government structure.

PROJECT FINANCIAL MANAGEMENT SYSTEM

9. **The project's FM system will fully use the existing Central Government FM systems**. It will be anchored in the ongoing Bank funded ALMP II Project.

Budgeting

10. **Budgeting for the project has been undertaken by the implementing Ministry**. Detailed cost tables for the project have been prepared and agreed. The budget process is participatory and has a high level of community participation. The work plans are prepared at the district level and passed to the Ministry headquarters for checking and onward transmission to Ministry of Finance (MOF).

11. **The project's budgeting system will be consistent with Government's budget system** and will be integrated in the annual budget cycle of the Ministry. Existing budgeting systems are considered sufficient for this purpose. The Ministry would, however, have to include the project activities in its Chart of Accounts ahead of Effectiveness but this is unlikely to be difficult as the activities for KACCAL are similar to those of ALRMP II.

12. **Budget implementation will be monitored using the Ministry's financial reporting systems**. As discussed later in this Annex, proposed periodic reporting includes quarterly reports on project finances, cash flow projection, and variance analysis, and review on an ongoing basis.

Accounting

13. **General Project Accounting:** Project activities will be integrated into and accounted for under the Ministry's existing accounting systems which are well established. The codes relating to the project will be integrated in the Chart of Accounts that match the classification used in respective periodic financial statements. The Ministry's existing accounting and reporting systems that include General Ledger systems will be used to account for project resources and activities. System standards will include (i) monthly balancing of accounts and reconciliation with the ministry's general ledger; (ii) arrangements for safe custody and sequential filing of accounting documents; (iii) timely and accurate production of periodic reports; (iv) reconciliation of subsidiary accounts; and (v) effective internal control arrangements.

14. **Computerized Accounting System:** The Ministry is using the Integrated Financial Management Information System (IFMIS) software which is being rolled out for Central Government Accounting by the World Bank under the Institutional Reform and Capacity Building Project (IRCBP) as part of the PFM reforms. The IFMIS system is still in its infant stages and has been experiencing some 'teething' problems. The system has not been rolled out to the district level where the bulk of the accounting work for the project occurs. Even at the Ministry headquarters, the IFMIS Program is currently moving slowly. Only one module (the general ledger) has been installed. The IFMIS system is therefore not currently adequate for purposes of project financial reporting. The Ministry has therefore been running a parallel system using stand alone computers in order to meet the financial reporting requirements of the Project.

15. **Community Driven Development Component accounting:** All project funds will be handled and accounted by the Ministry through the PCU. The Project has a Community Driven Development (CDD) Component through which funds are channeled to community groups under arrangements similar to those of ALRMP II. Under ALRMP II, all districts have opened bank accounts to which the funds from the Project Account are channeled. A CDD Manual has already been developed and implemented under ALRMP II. Under this Manual, the Project will sign a Memorandum of Understanding (MOU) with each community group which would provide for the basic financial management and accountability arrangements. The beneficiary communities are required to prepare simplified cash books and to submit basic quarterly financial reports using formats already agreed upon by the Project. Funds are disbursed to communities based on submission of satisfactory financial reports on a quarterly basis. The Project's district finance officers and finance clerks have been involved in capacity training to the communities in order to improve the quality of financial reports. KACCAL would benefit from these already existing CDD arrangements under ALRMP II.

Staffing

16. **Staffing at Project Headquarters Level:** At the headquarters, the Financial Management and Accounting (F&A) Manager is assisted by an Assistant Finance Officer (FO), in respect of accounting functions. Under the Assistant FO, there is an Accountant and 4 accounts clerks. The F&A Manager, her assistant and the accountant are professionally qualified accountants. The total number of staff in the FM Department, including the F&A Manager, is 7. The F&A Manager has assured the Bank that this level of staffing is sufficient to support both ALRMP II and KACCAL Projects. Apart from the accounting staff, the Internal Auditor General in the Ministry of Finance has seconded 3 properly qualified internal auditors to the Ministry, and this is deemed adequate for purposes of the two Projects (ALRMP II and KACCAL).

17. **Staffing at District Level:** At the district level, there is one finance officer and a finance clerk. The accounting process is done through the district accountant at the District Treasury as required by Government procedures. An additional financial clerk will be provided for each of the four KACCAL districts. The FM arrangements and the staffing at both the national and community level will continue to be monitored throughout project implementation and any appropriate measures made.

Internal Controls

18. **Fraud and Corruption Reports in some districts under ALRMP II:** Cases of fraud and corruption were reported in some of the districts (in Nyeri and Tana River) of ALRMP II during the year 2006. This was referred to the Bank's INT Unit and based on INT's advice, the Borrower was requested to investigate the matter. Preliminary investigations were conducted by the PCU but the matter was later referred by the Ministry to the Internal Auditor General for thorough investigations. The audit was completed and discussed by the Ministerial Audit Committee. A copy of the report was shared with the Bank in confidence. The Ministry has substantially implemented the recommendations of the report. For instance, the district project team – consisting of the Drought Management Officer (DMO), Community Development Officer (CDO) and the District Finance Officer (DFO) – were dismissed, and a criminal investigation is underway. The project also reviewed its CDD training program, and training was carried out for all CDCs using an improved training program to enhance management and accountability of funds which go to the communities. Matching grants mechanisms were also improved. The measures taken by the Ministry in this regard are deemed to be adequate.

19. **At the time ALRMP II applied to the Bank for additional financing in 2006, one of the required actions was the development and adoption of an Institutional Risk Management Policy Framework,** by preparing a Risk Management Policy (RMP) Manual. The Manual will be updated as needed, typically under the leadership of Internal Audit.

20. **Main-streaming corruption prevention as part of portfolio-level institutional risk management policy framework (IRMPF)**: The Bank has reached an agreement with the Kenya Anti-Corruption Commission (KACC) and Treasury on harmonization of corruption prevention in fiduciary activities of implementing agencies of all Bank projects as part of the IRMPF. This includes conducting corruption risk assessment, developing corruption prevention policies and plans, setting-up corruption reporting structures, increasing corruption prevention awareness, and reporting to the Bank any allegations of corruption in projects. Comprehensive risk assessments of the implementing entity will be carried out under the on-going project, and mitigating action plans will be developed. The IRMPF will be completed by April 30, 2009.

21. **In view of the fact that the Project will be implemented by an existing implementing agency with adequate FM capacity, and in districts already under ALRMP, there are no FM conditions:** However, the FM arrangements will be monitored throughout implementation and appropriate capacity building measures will be taken. Financial management risk is rated moderate. This takes into account the overall country governance and public financial management environment, as well as the current satisfactory performance by the project. The Ministry is in the process of developing the Manual, and the procurement of consultants is underway. The submission of the approved Risk Management Policy (RMP) Manual by ALRMP II, acceptable to the Bank, will be a condition of effectiveness.

22. **Financial Management Manuals:** The accounting, internal control processes, policies and procedures for the Ministry have been captured in the Government's Financial Management Procedures Manuals which have been developed by the Ministry of Finance (MOF). The community financial management component has been captured in the CDD Manual. ALRMP II has developed a Project Implementation Plan (PIP) which has a financial management section. The two Manuals and the PIP would be updated based on the recommendations of the ongoing Institutional Risk Management Policy Framework. These Manuals have been reviewed by the Bank and found to be satisfactory for both ALRMP II and KACCAL.

23. **Internal Audit:** The internal audit function for the Central Government is conducted by the Internal Auditor General's Department under the MOF. Three Internal Auditors from this Department have been posted to the Ministry. The internal auditors are used to a risk-based audit approach that is designed to identify, assess and respond to operational risks on an ongoing basis. However, the Bank is providing capacity building for the Internal Audit Department to ensure that they are capable of conducting half-yearly risk-based internal audits of the implementing agencies for all Bank-funded projects starting from December 2008. The Ministry has set up a functioning Audit committee in line with Government Policy. The recommendations of the IRMPF will assist the Ministry in enhancing the effectiveness of these oversight arrangements.

24. **Accountability and anti-corruption mechanisms:** The Ministry has constituted Corruption Prevention Committees (CPC) and trained Integrity Assurance Officers (IAO) as a corruption prevention measure in line with the Government's Public Service Integrity Program (PSIP). It has also set up corruption reporting boxes and is in the process of setting up a website and installing a hotline as a public reporting and complaints receiving mechanism as part of the IRMPF. In addition to the above, measures to strengthen public disclosure of information and complaint handling mechanisms are being developed as part of the institutional risk management framework. These include:

> (i) Public disclosure of information regarding (a) activities funded under the project; (b) periodic resource appropriation and accountability; (c) project implementation progress and operational results; and (d) sharing of best practice experiences amongst beneficiary entities. These are expected to be prominently disclosed including through the media.
>
> (ii) Complaint handling mechanisms: Anti-corruption hotlines including toll free communication lines and other complain handling mechanisms are expected to be established/strengthened with explicit arrangements for collation of information, follow-up action and public reporting. It is proposed that collation and follow-up responsibilities are vested in Internal Audit and overseen by Ministry Audit Committee.

Major oversight mechanisms include:

- **(i)** The MOF **External Resources Department** carries out regular project monitoring.
- **(ii)** The Ministry will oversee the utilization of funds to meet the eligible expenditure based on approved budgets and work plans, following the procedures as set out in respective Financial Management Guidelines and Manuals.
- **(iii)** **Audit Committee.** The Audits have been constituted and is operational in the Ministry. Measures to strengthen these committees and their mandate/TOR are being developed as part of the Institutional Risk Management Policy Manual.

Financial Reporting

25. **The Ministry operates a ledger management system** and has been generating quarterly and annual financial reports by use of spreadsheets.

26. **Un-audited Quarterly Interim Financial Reporting (IFR)**: The ALRMP II is on report-based method of disbursement and the PCU has been producing and submitting timely FMR to the Bank on a quarterly basis. The PCU has been preparing and submitting Financial Management Reports (FMRs) to the Bank on time, in form and content acceptable to the Bank. KACCAL will adopt the same report-based method of disbursement. The Ministry through the PCU would submit quarterly IFRs for the project within 45 days after the end of the quarter to which they relate. The formats of the IFRs have been discussed and will be finalized and agreed at negotiations *[to be updated after negotiations]*. The IFRs will consist of a statement of sources and uses of funds (by main expenditure classifications); opening and closing balances of the funds from the Bank; and actual and budgeted expenditures by component and/or activity within component and explanations of any variances, for the quarter and cumulatively for the project. It will also contain forecasts for the next 6 months.

27. **Annual Audited Financial Statements:** The annual audited financial statements for KACCAL together with the auditor's report and the management letter would be submitted to the Bank within 6 months after the end of the financial year to which they relate. The financial statements would be prepared in accordance with the Cash Basis of Accounting of the International Public Sector Accounting Standards (IPSAS) as per Treasury Directive of September 1, 2008 (Ref. No. MF/AG. 3/088 Vol.5 (84).

28. **Flow of funds and disbursement arrangements**:

(i) **Designated and Project Accounts**. The Ministry will open a Designated Account denominated in US$ where the IDA Grant proceeds will be deposited. The Ministry will also open a Project Account in local currency from which the project payments will be made. The Project Account will receive IDA funds from the Designated Account as well as the Government Counterpart funds. Both accounts will be opened in local commercial banks acceptable to IDA. The Grants proceeds from the Designated Account and any Government counterpart funds will be channeled to Project Account through the Paymaster General (PMG) and Exchequer Accounts in Treasury as required by Government existing procedures.

(ii) **District Bank Accounts**: These will be segregated bank accounts which will be opened in all districts where the KACCAL will be operating. The purpose of these accounts is to channel funds from the Project Account to the various beneficiary communities on the basis of an approved work plan.

29. **Bank Signatories:** The Designated Account and the Project Account will be operated under the existing Government Financial Procedures and Regulations issued by Treasury which provides for 2 mandatory signatories. The categories of signatories are as follows: **(i) Accounting Officer**: The Permanent Secretary (PS), of the implementing Ministry as the Ministry's Accounting Officer; and/or **(ii) Accounts Department Staff**: The Principal Accounts Controller (PAC); and four Ministry Accountants appropriately authorized as account signatories. Any 2 signatories can sign a cheque for making payments for the Project.

30. **The district bank account on the other hand is operated by the district Drought Management Officer (DMO) and the District Accountant under the District Treasury**. Funds will pass through the Paymaster General (PMG) and Exchequer Accounts in the Ministry of Finance. These banking arrangement are satisfactory and would also apply for new KACCAL Project.

31. **Flow of Funds**: The funds flow procedures for KACCAL are relatively simple: (i) IDA will make initial advance disbursements from the proceeds of the Grant by depositing into Borrower-operated Designated Account through the PMG and Exchequer accounts in MOF; (ii) thereafter IDA will replenish the Designated Account based on cash forecasts given in the interim financial reports (IFR); (iii) funds from the Designated Account and any Government counterpart funds will be channeled through the Project Account (denominated in Kenya shillings and opened in a local commercial bank acceptable to IDA) in accordance with Government exchequer control and funding arrangements.

32. **Counterpart funds:** Government will ensure advance availability of counterpart funding contribution by depositing amounts equivalent to estimated quarterly cash requirements into the Project Account. Counterpart funds will be allocated through the normal Government budgetary process.

IDA Disbursements method

33. **Report- based Disbursements**: IDA disbursements will be made into the respective Designated Account based on quarterly IFRs which would provide actual expenditure and cash flow projections for the next 2 quarters. **Initial cash flow forecasts upon which the advance disbursement will be made from the IDA Grant should be prepared within 2 months after Project effectiveness.** A duly authorized withdrawal application for the additional cash replenishment required into the Project Account will be provided along with the IFRs. The IFR together with the withdrawal application (WA) will be reviewed by the Bank's Financial Management Specialist (FMS) and approved by the Task Team Leader (TTL) before the request for disbursement is processed.

34. **Other Methods:** In addition, whenever needed the direct payment method of disbursement, involving direct payments to suppliers for works, goods and services upon the borrower's request, may also be used. Payments may also be made to a commercial bank for expenditures against pre-agreed special commitments. These payments will also be reported in quarterly IFRs. The IDA Disbursement Letter will stipulate the minimum application value for direct payment and special commitment procedures as well as detailed procedures to be complied with under these disbursement arrangements.

35. **Remedies for non compliance:** If ineligible expenditures are found to have been made from Project Account, the borrower will be obligated to refund the same. If the Project Account remains inactive for more than 6 months, IDA may reduce the amount advanced. IDA will have the right, as to be reflected in the terms of funding agreement, to suspend disbursement of the funds if significant conditions, including reporting requirements, are not complied with.

External Auditing

36. **The external audit for the Ministry is conducted by the Kenya National Audit Office (KENAO)**. Under Kenyan legislation, the responsibility to audit all Government funds and activities is vested in KENAO, which is mandated to subcontract such services in the event of capacity or other constraints. The KENAO is considered to be sufficiently independent, applies internationally

acceptable auditing guidelines and therefore, acceptable to IDA. There have been significant improvements in the KENAO's ability to ensure timely auditing and reporting, although timeliness across the Bank-financed portfolio still needs improvement. This is being addressed through proactive and early dialogue and follow-up.

37. **ALRMP II has been submitting its Project financial statements to the Bank, in accordance with the terms of the Development Credit Agreement (DCA)**. ALRMP II has been submitting the project audit reports to the Bank quite late. The latest audited financial statements for the Project for the financial years ended June 30, 2005, 2006 and 2007 were submitted to the Bank well after the expiry of the stipulated 6 months period after the end of the financial year (December 31). Management letters were not provided to the Bank for the two years' audits. However, this is a portfolio-wide issue. In addition, the auditors' reports for both years have received qualified audit opinions. The year 2005 audit qualifications were on non-compliance with procurement procedures, payments for ineligible expenditure, failure to account for imprest advances within the required period and undue delays in project implementation for certain components even after procurement of materials. The qualification for the year 2006 is not considered material and is on the basis of non-compliance with International Accounting Standards (IAS) to the extent that the accounting policies used in the preparation of the financial statements were not disclosed. The year 2007 audit reports were qualified on the basis of material variances between the project accounts and the Ministry ledgers. The Ministry has addressed and resolved these issues. The Bank has also addressed the portfolio-level issues of lack of management letters and noncompliance with International Accounting Standards. The Government has issued a Treasury Circular adopting the Cash Basis of Accounting IPSAS and the Bank has issued developed new audit TOR and conducted capacity building for KENAO for submission of management letters. These changes take effect for the financial year ended June 30, 2008. The audit TOR provides for the project financial statements to be audited, including examination by the auditors of the IFRs used as the basis for IDA disbursements and the activities.

38. **The audited financial statements, Auditor's Report and Management Letter for the Project will be submitted to the Bank within 6 months of the end of the financial year to which they relate**. Audit reports to be submitted are the Project Financial Statements (Special Account Opinion) by December 31 each year (starting 2009).

To meet the above deadline, the Ministry has committed to the following timetable:

No.	Activity	Date
1.	Completion of Project Financial Statements	July 31
2.	Invitation of Auditors	1st Week of August
3.	Audit exercise	August to September
4.	Issuance of Management Letter	September 30
5.	Management response to management letter	By mid October
6.	Issuance of Draft Audit Certificate	By end of October
7.	Issuance of Final Audit Certificate	November 30

SUMMARY OF STRENGTHS AND WEAKNESSES

39. **The major strengths of the project financial management system are**:

- The Project team has past experience in implementing a World Bank-financed project namely ALRMP I and II;
- Oversight mechanisms are strong with relatively independent Audit Committee;
- The Ministry has well qualified professionals in the financial management and internal audit functions;
- Project FM arrangements are well integrated into the existing Central Government FM systems;
- Strong audit arrangements are in place, including audit by the KENAO;
- Funds flow arrangements are simple and straightforward.

40. **Areas of weaknesses that need to be addressed and monitored are**:

- Reports of fraud/ corruption in some of the district point at material weaknesses in internal control systems. This has already been addressed by the Ministry by taking action against the employees suspected of involvement. The Ministry is also developing the IRMPF which will identify other material risk and propose appropriate remedial measures;
- The IFMIS computerized accounting system in the Ministry has not been fully implemented, and hence the system does not provide reliable reports. The Ministry operates a non-integrated ledger management system and project accounts are prepared on by use of spreadsheets and this is deemed to be adequate. Treasury through the Bank funded PFM Project is in the process of rolling out IFMIS as required;
- Lack of adequate accounting capacity at the community level which could compromise the quality of the financial reports. The PCU has been conducting adequate capacity building training at the community level;
- Audit reporting challenges of late and qualified audit reports and lack of management letters. The Ministry has committed to a clear audit reporting timetable. The issue of audit report qualification and lack of management letters has been addressed at portfolio-level with the adoption of IPSAS and capacity building of KENAO and project accountants.

41. **Actions to address risks and weaknesses have been discussed in preceding paragraphs and are summarized in the 'FM Risk Assessment' and the 'FM Action Plan'.**

FM RISK ASSESSMENT

Type of Risk	Residual Risk Rating	Brief Explanation	Risk mitigating measures incorporated into project design	FM Condition (Y/N)?
INHERENT RISKS				
Country Level	S	Takes into account overall country governance environment, weak judiciary and corruption concerns the post election crisis in early 2008. The CPIA ratings also show Kenya rated as having a Substantial FM Country Risk based on the assessment of CPIA Q.13 and Q.16 ratings	Issues are being addressed at the country level through the country's governance action plan, strengthening of the public financial management system (supported by the Bank through the Institutional Reform and Capacity Building Project).	No
Entity Level	M	The implementing Ministry has adequate past experience in managing two World Bank projects, ALRMP I and II		No
Project Level	M	Project design is not complex as the Grant amount is relatively small and the target districts are few	Clearly defined activities and funds flow mechanisms from OP to the districts.	No
OVERALL INHERENT RISK	S			
CONTROL RISKS				
Budgeting	L	Project relies on the Government's budgetary process which is satisfactory.	• Detailed project budgets have been prepared and agreed. • Regular reporting including variance analysis.	No
Accounting	M	Adequate appropriately qualified staff. FM and CDD Manuals developed. Limited accounting capacity at community level	PCU capacity building communities by training	No
Internal Controls	S	Audit department adequately staffed and functioning audit committee. However, corruption allegations made in some ALMP-II districts	IRMPF being developed for ALMP-II. Corruption allegations investigated and appropriate action taken	No
Funds Flow	M	Funds flow mechanisms for the project are simple and straight forward.	Opening of in-shore Designated Account will avoid the delays of offshore Special Accounts	No

Type of Risk	Residual Risk Rating	Brief Explanation	Risk mitigating measures incorporated into project design	FM Condition (Y/N)?
Financial Reporting	M	ALMP –II has adequate capacity to prepare and submit timely FMR and audit reports		No
Auditing	S	ALRMP II has had delays in finalizing audits in the past due to accounting weaknesses with IFMIS.	Commitment by the Ministry to a clear timetable of actions to ensure timely audit reports. Bank has initiated reforms for adoption of IPSAS, audit TOR and capacity building of KENAO and project auditors to submit management letter w.ef June 2009	No
OVERALL CONTROL RISK	M			
OVERALL RISK	M			

H = High; S = Substantial; M = Moderate; L = Low.

FINANCIAL MANAGEMENT (FM) ACTION PLAN

	Action	Date due by	Responsible
	FM Action to be agreed at Project negotiation		
1.	Agreeing on the format of IFR and financial statements as well as the TOR for external auditors	During negotiation	OP/PCU
	Other FM Actions		
2.	Development of Institutional Risk Management Policy Manuals and adoption of action plan by the Ministry of the parent project	December 31, 2009	OP/PCU
3.	Opening of the Designated and Project Accounts in local commercial bank acceptable to IDA and District Bank Accounts	Within 3 months after Project effectiveness	OP/PCU
4.	Preparation of the initial cash flow forecasts upon which the advance disbursement will be made from the IDA Grant	Within 3 months after Project effectiveness	OP/PCU
5.	Issuing TOR to external auditors	Within six months after Project effectiveness	OP/PCU
6.	Implementation of recommendations of the Institutional Risk Management Policy Framework	During project implementation	OP/PCU
7.	Submitting quarterly IFR in form and content satisfactory to IDA	Within 45 days after the end of the relevant calendar quarter	PCU/OP

CONDITIONALITY AND FINANCIAL COVENANTS

42. **FM Conditions:** The Project has no FM conditions as a result of the satisfactory FM arrangements under ALRMP II. Other FM related conditions include:

(i) Financial Management Arrangements: The Ministry is required to ensure the continuing adequacy of financial management arrangements over all aspects of the project until the project is completed. In this regard, the PS shall ensure that a financial management system is maintained in accordance with the provisions of Section 2.07 of the Standard Conditions.

(ii) Interim Financial Reports (IFR): The PCU shall ensure that quarterly un-audited Interim Financial Reports (IFR) are prepared and furnished to the World Bank not later than 45 days after the end of each calendar quarter, covering that quarter, in form and substance satisfactory to the World Bank.

(iii) Financial Statements and Audit Report: The Ministry shall prepare Financial Statements for the project, starting from the year ending June 30, 2009 and thereafter for every financial year, in form and substance acceptable to the World Bank. The Ministry shall have these Financial Statements audited in accordance with the provisions of Section 2.07 (b) of the Standard Conditions. The audited financial statements, the auditor's report and the management letter shall be submitted to the Bank within 6 months after the financial year end to which they relate.

(iv) Institutional Risk Management Policy Framework: Institutional Risk Management Policy (RMP) Manuals, for ALRMP II satisfactory to the Association, have been developed, and submitted to the Bank by April 30, 2009.

IMPLEMENTATION SUPPORT PLAN

43. **This Project will be supervised jointly with ALMP II**. Based on the outcome of the financial management risk assessment, the following implementation support plan is proposed:

FM Activity	Frequency
Desk reviews	
Interim financial reports review	Quarterly
Half-yearly risk-based internal audit reports	Half-yearly
Project audit report review	Annually
Review of other relevant information such as systems audit reports	As these become available
On site visits	
Review of overall operation of the FM system	once a year (Implementation Support Mission)
Monitoring of actions taken on issues highlighted in audit reports, auditors' management letters, systems audit report and other reviews	As needed
Transaction reviews (if needed)	As needed
Capacity building support	
FM training sessions	Before project start and thereafter as needed

The objectives will include that of ensuring that satisfactory financial management systems are maintained for the project throughout its life.

Annex 8: Procurement Arrangements

Kenya: Adaptation to Climate Change in Arid and Semi-Arid Lands (KACCAL)

1. **The last Kenya Country Procurement Assessment Review (CPAR) was conducted in 1997.** Following the findings and recommendations of the CPAR, the Government of Kenya (GOK) applied for the Bank's support to implement the recommendations of the CPAR, and subsequently received from the Bank an IDF grant which was approved in 1998. Using the proceeds of the grant, GOK started a procurement reform program. One of the main outcomes of the reform program was the establishment and gazettment in March 2001 of National Public Procurement Regulations, which govern all public procuring entities, and production of standard bidding documents for works and goods. The Public Procurement Regulations allow the Bank procedures to take precedence over any contrary provisions in the national regulations. The Government's standard bidding documents and procedures for National Competitive Bidding (NCB) have been reviewed by the Bank and found to be acceptable.

2. **Procurement of goods and works for all IDA financed components will be carried out in accordance with the Bank's *Guidelines for Procurement under IBRD Loans and IDA Credits*** *(January 1995 and revised in January and August 1996, September 1997 and January 1999).* Consulting services by firm or individuals financed by IDA will be awarded in accordance with the Bank's *Guidelines: Selection and Employment of Consultants by World Bank Borrowers (January 1997, revised in September 1977 and January 1999, and May 2002).* The appropriate World Bank standard bidding documents will be used for all International Competitive Bidding (ICB), and the World Bank's standard Request for Proposals (RFP) for the selection of consultants.

Procurement Plan

3. **A procurement plan covering the goods, works, and consultancy service contracts for the first year of project implementation has been prepared.** The plan includes relevant information on consulting services under the Project as well as the timing of each milestone in the procurement process. The procurement schedule will be updated once every 6 months and reviewed by IDA during supervision missions. As community demand-driven investments cannot be identified up-front, an operational manual that provides all the guidelines that will be used in preparing, screening, and implementing sub-projects is under preparation and will be finalized before project effectiveness.

Advertising

4. **Two General Procurement Notices (GPN), one for consulting services and the other for goods will be prepared for the Project and published in the United Nations Development Business (UNDB).** GPNs will describe all ICB for goods, as well as consulting assignments costing US $200,000 equivalent or more per contract.

Procurement Implementation

5. **Consultancy services and technical assistance, ICB and NCB contracts for goods will be procured centrally by PCU**. However, procurement of goods, works, and services for community-related activities will be carried out by beneficiary communities under the guidance and supervision of the respective District Coordination Units (DCUs). Procurement of community-based requirements could be classified into two categories. Simple procurements which communities can carry out themselves with minimum external assistance, and relatively complex procurements for which communities would need technical expertise or suitable local contractors may not exist. For the latter category of procurement, communities will seek assistance from the relevant district Government departments or PCU through their DCUs. DCUs will be responsible for the procurement of their unit-specific needs, but will also be overseeing the smooth implementation of community procurements and

preparing periodical reports on the procurement status of their respective communities, and submitting such reports to PCU.

Goods

6. **The total cost of goods under the GEF grant is estimated at US$ 290,000**. Vehicles and office equipment including computers, copiers, etc., costing US $200,000 or more per contract will be procured centrally by PCU under ICB contracts. CDD procurement will be carried out by beneficiary communities in separate small contracts. Goods estimated to cost US $200,000 equivalent or less per contract may be procured through NCB procedures. Goods that are estimated to cost less than US $50,000 equivalent per contract may be procured through Shopping procedures in accordance with the procedures set forth in the Operational Manual. The request for quotations will be made in writing to at least three qualified suppliers. Procuring directly from the supplier without getting other quotations may be allowed, upon prior clearance with the Bank, when there is only one supplier and/or the amount is small as prescribed in the Operational Manual.

Contracts for small works

7. **The project will finance community-based works contracts with an estimated GEF contribution of US$ 700,000.** Contracts for small works estimated to cost less than US $50,000 equivalent per contract may be procured under lump-sum, fixed-price contracts awarded on the basis of quotations obtaining in writing from at least three local contractors. The request for quotations will include description of the works, including plans and technical specifications as appropriate, required completion time, and a standard form of contract acceptable to IDA.

8. **Direct Contracting**. Direct contracting of one contractor without getting other quotations may be allowed, upon prior clearance of the Community Project Committee, when there is only one qualified contractor and/or the amount is small as prescribed in the Operational Manual.

Community Procurement

9. Communities will implement subprojects with a GEF contribution of US$ 2.7 million. Using their own resources (skilled/unskilled labor, materials, equipment), or hiring labor and purchasing materials themselves and subcontracting the rest of the work to petty contractors by obtaining three quotations.

Consultant services

10. **The total cost of GEF-financed consultant services and technical assistance, including consultants' services for training, is estimated at US$ 765,000 million equivalent**. Except as detailed below, consulting services will be selected through competition among qualified short-listed firms based on *Quality- and Cost-Based Selection (QCBS).* Consultants for financial audits and other repetitive services estimated to cost less than US$ 50,000 equivalent per contract, up to an aggregate of US$ 200,000 equivalent, will be selected through *Least Cost Selection (LCS)* method. Consultants' services for training estimated to cost more than US$15,000 equivalent per contract will be procured through the *Selection Based on Consultants' Qualifications (CQ)* method. In exceptional cases when selection of consultants through competitive process is not practicable, the borrower may, upon prior clearance with the Bank, hire consultants through the *single-source selection* method stipulated in paragraphs 3.8-3.11 of the Guidelines.

11. **Consultants for services meeting the requirements of Section V of the Consultant Guidelines will be selected under the provisions for the *Selection of Individual Consultants (IC)* method**. Individual Consultants will be selected through comparison of job description requirements against the qualifications of those expressing interest in the assignment or those approached directly. Communities

which may not be capable of implementing their sub-projects may procure the assistance of NGOs and other consultants to provide technical assistance and help them manage the community sub-projects. PCU or DCUs will assist such communities in the selection of NGOs following the procedure prescribed in paragraph 3.14 of the Consultants' Guidelines.

Bank Reviews

12. **Procurement of IDA-financed civil works and goods contracts estimated to cost US$ 100,000 equivalent or more as well as consulting contracts of US$ 100,000 equivalent or more for firms and US$ 50,000 equivalent or more for individual consultants will be subject to prior review by IDA**. Post reviews of contracts awarded below the above threshold levels will be carried out selectively by IDA during supervision missions and/or by an independent procurement auditor. Terms of Reference (TOR) for all consultancy contracts as well as all single source selections, irrespective of the contract value, will be subject to prior review.

13. **PCU will prepare and submit to the Bank for its review an annual training program, as part of the project annual work plan**. The training will, inter alia, identify: (a) the training envisaged; (b) the personnel to be trained; (c) the selection methods of institutions or individuals conducting such training; (d) the institutions which will conduct training, if already selected; (e) the duration of proposed training; and (f) the cost estimate of the training.

Table A: Project Costs by Procurement Arrangements
(US$ million equivalent)

Expenditure Category	Procurement Method			Total Cost
	ICB	NCB	Other*	
1. **Works**	0.00 (0.00)	0.00 (0.00)	0.60 (0.60)	0.60 (0.60)
2. **Goods**	0.00 (0.00)	0.29 (0.29)	0.00 (0.00)	0.29 (0.29)
3. **Consultant Services and Training**	0.57 (0.57)	0.21 (0.21)	0.00 (0.00)	0.78 (0.78)
4. **Community Microprojects**	0.00 (0.00)	0.00 (0.00)	2.83 (2.70)	2.83 (2.70)
5. **Operating Costs**	0.00 (0.00)	1.81 (1.14)	0.00 (0.00)	1.80 (1.13)
Total	0.57 (0.57)	2.31 (1.64)	3.43 (3.30)	6.30 (5.50)

Note: Figures in parentheses are the amounts to be financed by the GEF Grant. All costs include contingencies.

* Includes civil works and goods to be procured through national shopping, consulting services, services of contracted staff of the project management office, training, technical assistance services, and incremental operating costs related to (i) managing the project, and (ii) re-lending project funds to local government units.

Prior review thresholds (Table B)
Table B: Thresholds for Procurement Methods and Prior Review'

Expenditure Category	Contract Value Threshold (US$ thousands)	Procurement Method	Contracts Subject to Prior Review (US$ millions)
1. **Works**	> 50,000	NCB	>100,000
2. **Goods**	>=200,000 > 50,000<200,000	ICB NCB	>100,000
3. **Services(Firms)**	=<50,000 =50,000	QCBS LCS CO	>100,000
3.(a) **Individual consultants**		IC	>50,000

Total value of contracts subject to prior review:
Overall Procurement Risk Assessment: Average
Frequency of procurement supervision missions proposed: One every six months
(includes special procurement supervision for post-review/audits)

Procurement situation and proposed course of action

14. **The same institutional arrangement, both at the national and district levels, which was constituted for the implementation of Phase I of the project will be retained to continue managing the second phase (ALRMP II) and KACCAL**. The KACCAL districts are included in the ALRMP districts. The national Project Coordination Unit (PCU), and each of the District Coordination Units (DCUs) in the ALRMP II districts have procurement officers who are conversant with the Bank procurement procedures and Government procurement regulations.

15. **Consultant services and technical assistance that may be required to undertake services on cross-cutting project issues will be procured centrally by PCU**. A Procurement Post Review (PPR) conducted on ALRMP I in five project units (PCU plus four of the 11 project districts) in 2002 rated the project as one of the Bank-funded projects in the Kenya portfolio with the best filing system of procurement documentation. In addition, the PPR did not detect any irregularities in the documentation of the sample contracts of the covered by the review.

16. **However, unlike the procurement implementation arrangement under ALRMP I, community sub-project activities, including procurement of goods and services for the sub-projects under ALRMP II and KACCAL, will be carried out by the beneficiary communities themselves** (instead of DCUs), under the close supervision and guidance of DCUs. Because of lack of basic knowledge and experience of the beneficiary communities in public procurement procedures coupled with high illiteracy rate in arid areas, it is prudent that before the project becomes effective, necessary measures be taken in educating beneficiary communities (that may not have adequate capacity) in the institutional and procedural arrangements that are fundamental to timely and proper implementation of their respective sub-projects. The areas that may need strengthening, recommended actions, appropriate institution(s) for the implementation of each action, and recommended completion time of the actions are presented in the following matrix.

1\ Thresholds generally differ by country and project. Consult "Assessment of Agency's Capacity to Implement Procurement" and contact the Regional Procurement Adviser for guidance.

Annex 9: Economic and Financial Analysis

Kenya: Adaptation to Climate Change in Arid and Semi-Arid Lands (KACCAL)

1. **The economic and financial analysis of the KACCAL project is structured as follows**: (a) an overview of the socio-economic importance of the ASALs; (b) summary of general issues for economic analysis of climate change adaptation projects; (c) summary of literature review on the economic impacts of climate change; (d) review of economic analysis for CDD projects in Kenya; and (e) conclusions and recommendations.

I. Summary of socio-economic importance and characteristics of the ASALs

2. **The development of the ASALs is important for sustainable economic growth and poverty reduction in Kenya.** The Government of Kenya states in the "National Policy for the Development of the Arid and Semi-Arid Lands of Kenya" *that "Kenya will not achieve sustained growth in the national economy as long as the ASALs and their enormous resources are not factored into effective national planning and development*." The ASALs are home to about 30 percent of Kenya's population and 80 percent of the land mass. Pastoralism makes a significant contribution to the GDP, even without achieving its full potential. The ASAL support 75 percent of the country's total livestock production. While agriculture contributes almost 30 percent to the national GDP, a quarter of the agricultural GDP comes from the livestock sector. In addition, over 90 percent of wild game which supports the tourist industry can be found in the ASALs. Wildlife coupled with the rich cultural heritage of pastoral and agro-pastoral communities, is a major tourist attraction which has earned Kenya in excess of Kshs 50 billion annually.

3. **Pastoralism, agro-pastoralism and rainfed agriculture are the dominant forms of livelihoods in the ASALs**. The population in the arid districts is predominantly pastoral, but the characteristics of livestock ownership and movement vary significantly across different ethnic groups and food economy zone. Pastoral lifestyles range from fully nomadic patterns in the arid parts of Marsabit, to nomadic patterns which are closely linked through family ties and (semi) sedentarized communities relying predominantly on crops. The semi-arid districts are predominantly characterized by marginal dryland agriculture, complemented by pockets of agro-pastoral livelihoods and some pastoral livelihoods.

4. **The ASALs face the challenge of chronic underdevelopment for a range of reasons, including climatic and agro-ecological factors, and low market access and low level of services.** Most districts have poverty rates of 70 percent and unemployment is reaching 40 percent in the Northeastern Province. The isolated location has manifested itself in a very low endowment and asset base. In the Northeastern Province, only 4 percent of the population has access to electricity, 88 percent of adults have not completed primary education. The risk of infant death in Nyanza and North Eastern Provinces are over six times greater than in Central Province.

II. General issues for economic analysis of climate change adaptation projects

5. **Special issues need to be considered for economic analyses of climate change projects.** The Draft Guidance Note "Carrying Out Economic Analysis for Adaptation Projects" (2008) review challenges and issues to be considered for economic analyses of climate change adaptation projects. The methodological issues are mainly due to uncertainties related to (i) benefits of adaptation interventions, (ii) optimal timing of the intervention, (iii) probability functions of climate variables, and (iv) and discount rates. Uncertainties related to benefits of adaptation interventions are due to underlying physical or ecological processes. The relationships between greenhouse gas concentrations, temperatures (regional or global), and climate patterns are very complex and partly random (Pindyck 2007)**.** Hence, even if it would be known what the GHG concentrations will be in the next 20-50 years, estimating the expected impacts on precipitation, biodiversity, agricultural yields, etc. in the absence of adaptation would not be

straightforward. In addition, many expected (avoided) damages from climate change, such as loss of human life, loss of biodiversity, and loss of environmental services, are difficult to quantify.

6. **Deciding whether to adapt now or to wait in order to gain more information on the impacts of climate change is not an easy decision**, given the uncertainties discussed before. If the decision is to adapt now, costs to be incurred are certain, while the benefits of the interventions may or may not materialize, and may be more or less distant from the educated ex-ante guesses. However, in the case of KACCAL the major part of financial resources will be allocated to "no regret investments" or investments that integrate adaptation in their original design. An example for the former would be CDD investments which help communities to increase their welfare independent from changes in climatic conditions. An example for the latter would be the upgrade of the Early Warning System developed under ALRMP which would integrate more explicitly climate-related information. For these types of investments the timing is not an issue per se.

7. **The determination of discount rates in the context of climate change has been subject to fierce debates.** In ex-ante economic analyses for investment projects, future costs and benefits are discounted to a common base year. In the context of climate change mitigation and adaptation, where costs are incurred early and benefits may only materialize after a lengthy period, the practice of discounting future benefits has led to fierce debates on the moral and economic justifications of using specific discounting rates and on the practice of discounting itself. However, in the case of no-regret adaptation and investments integrating adaptation (such as the KACCAL project), discount rates should not be controversial, as the costs and benefits of adaptation measures are usually less far apart in time, and ancillary benefits of investments make projects similar to other public investments.

8. **Another issue to be considered with regard to the economic analysis of KACCAL is the fact that a substantial proportion of the resources are allocated for capacity building and institutional strengthening.** All three components focus on capacity building at national, regional and local level based on generation of knowledge products, improved coordination, training, and mainstreaming of climate change adaptation into development planning. Ex-ante quantification of the economic benefits of these investments is difficult, if not impossible. This is mainly due to the long-run nature of these activities and the difficulties in linking causes and effects.

9. **For the agricultural sector a range of approaches and methodologies to quantify economic costs and benefits of adaptation are available**, in particular crop models and Ricardian models. However, both model types have some significant constraints and require intensive data collection. Due to this model complexity, the uncertainty of the results and the fact that investments which target directly agricultural land management are relatively small, quantification of economic benefits was not deemed to add significant value for making investment decisions or for informing project design.

III. Literature review on the economic impacts of climate change

10. **Economic analyses of the impacts of climate change have been conducted mainly at a fairly aggregated level, i.e. global, regional and country level.** The Stern Review (2006) provides an overall evaluation of the prospective damages of global warming and costs of limiting climate change through abatement of GHG emissions. The review notes that SSA will be under severe pressure from climate change, in particular the arid-semiarid rangeland systems of Eastern Africa. According to the report 25-550 million additional people may be at risk of hunger with a temperature increase of 3 Degrees Celsius, with more than halve of these people concentrated in Africa and West Asia. Climate change is also predicted to decrease the area of suitable climate for 81 to 97 percent of Africa's plant species. Tens of millions of people could be at risk of malaria.

11. **The Intergovernmental Panel on Climate Change (2007) notes that warmer and drier conditions have already led to reduced length of growing season with detrimental effects on crops.**

Further the report states that by 2020, between 75 million and 250 million people in Africa are projected to be exposed to increased water stress from climate change. The area suitable for agriculture, the length of the growing seasons and yield potential, particularly at the margins of semi-arid and arid areas, are expected to decrease. This would further adversely affect food security and exacerbate malnutrition in the continent. In some countries, yields from rain-fed agriculture could be reduced by up to 50 percent. At the national level, a World Bank study (2006) estimated that the La Nina drought in Kenya caused damages to the country amounting to 16 percent of GDP in each of 1998/99 and 1999/2000 financial years. Cline (2007) estimates that agricultural output would be reduced by 28 percent by 2080 in SSA (without carbon fertilization).

III Calculation of IRR and NPV for CDD Microprojects

12. **Potential CDD microprojects have been selected and evaluated as part of the economic analysis.** The KACCAL Project would support the preparation and implementation of CDD Micro-Projects to reduce the vulnerability of communities and individuals to climate variability and change. The investment component of the CDD interventions are difficult be known ex-ante, since it is demand-driven and will be defined in the course of the project, complicating any attempt to undertake a rigorous financial and economic analysis of all these investments. As mentioned above, in the context of this project it is considered much more important that the economic and financial analysis informs the selection process and specific design of community projects once the communities have drafted lists of potential interventions. In addition, on-going complementary analytical work – both included in the KACCAL project but also in addition – aims at reducing the uncertainties regarding the costs and benefits of adaptation action. Hence, it was deemed to be inappropriate to allocate additional to resources for more in-depth quantitative assessments with limited use for the project.

13. **Simple cost-benefit analysis of a limited number of potential CDD activities has been conducted, mainly to start capacity building on the basic concepts of economic analysis.** These activities have been selected based on discussions with communities in the project area (particularly Marsabit and Garissa) and on evaluations of ALRMP I and II. Data have been collected during field visits and evaluations of the baseline project. The analysis assumes a discount rate of 10 percent. For the following identified potential activities a simple calculation of IRR and NPV has been conducted: (i) small-scale irrigation; (ii) woodlots; and (iii) beekeeping. In addition, results of a SLM cost-benefit analysis carried out as part of the KAPSLMP in Kenya are discussed.

14. **Irrigated agriculture is likely to be one micro-project as part of KACCAL**. The CBA is based on crop budgets collected during field visits in Marsabit. It is assumed that a farmer would have to invest about KES 150,000 for the construction of small water storage (water tanks) and pipes. The opportunity costs would be the foregone benefits for rainfed agriculture. The crops under consideration are tomato and Kale. The financial IRR (NPV) from the farmers' perspective would be 13 percent (KES 14,150 per ha).

15. **Woodlots on private, community, or public land is potentially another type of micro-project which will be selected by communities.** Woodlots could be established for example with pine for sawtimber or pulpwood. For this analysis the first option was selected. Data for the CBA analysis are taken from *Sedjo* (2004). For the pine sawtimber woodlot a rotation of 26 years was assumed. The wood volume would expected to be 285 m3 and the price Ksh 1400/m3. The opportunity costs of land are based on the forgone benefit for grazing and maize. The analysis considers two scenarios: the first one would include the benefit from fuelwood collection, the second would not include other benefits than timber. For the former scenario, the IRR was estimated to be 19% (NPV of US$ 818/ha). Without fuelwood benefits, the IRR was estimated to be 10% (NPV of US$ 13/ha). Assuming benefits from maize production as the forgone benefit changed the IRR and NPV only slightly.

16. **Communities identified beekeeping on forest land or woodlots are considered as another option.** Benefits from both honey production and fuelwood collection could be realized. Assuming 6 beehives per

ha a benefit of US$ 246 could be realized. In addition, the benefit of fuelwood collection is estimated to be about US$ 39 per ha. The analysis does not include the benefits of wax – a by-product of honey production. If the forgone benefit of grazing constitutes the opportunity cost for land, the private IRR from the community's perspective would be 19% (NPV US$ 64/ha). For the scenario with maize production determining the opportunity costs for land, the private IRR would be 9% (with a negative NPV of US$ 103/ha). The profitability can be further improved through more intensive beekeeping, i.e. through increasing the number of beehives per ha. If a woodlot with 10 beehives per ha can be established, the IRR including the overhead costs and assuming maize production determines the opportunity costs for land, would increase to 14% (as compared to 4% with 6 beehives/ha) and the NPV to US$ 476/ha (as compared to a negative NPV of US$ -579 per ha). Hence, it would be important to determine upfront how many beehives could be realistically implemented and whether the market demand is sufficient for increased honey production.

17. **Sustainable land management (SLM) practices are another potential micro-project.** The adoption of SLM is expected to lead to reduced soil nutrient losses and soil erosion and thereby increase yields and farmers' income. Off-site effects would include (i) reduced sedimentation and thereby reduce siltation of reservoirs and pipes; (ii) regulated water flows and improved water quality; and (iii) reduced greenhouse gas emissions and carbon sequestration. As part of the CBA, financial returns of SLM practices from farmers' perspective are assessed over a period of 50 years, using a discount rate of 10 percent. KARI has identified integrated soil fertility management, agroforestry and soil and water conservation structures as interventions suitable for a wide range of agro-ecological conditions in Kenya. The analysis uses mainly data from long-term experiments conducted by KARI. The IRR of selected SLM interventions can be expected to be around 30 percent, excluding off-site benefits. However, it is important to note that these results have to be interpreted carefully since the experimental data have been collected in environmental conditions not equivalent to those in the project area.

IV. Conclusions and recommendations

18. **Quantification of economic benefits for a climate change adaptation projects as whole is not necessarily warranted.** Due to (i) methodological issues; (ii) the fact that a significant part of the resources is allocated for capacity building, institutional strengthening and knowledge management; (iii) and uncertainties related to climate change, it was decided not to quantify the impacts of climate change or the costs and benefits of all planned interventions based on a single summary measure. Such a quantification would have limited usefulness for project planning and implementation and would have to be based on a wide range of assumptions. It is actually one of the objectives of KACCAL to reduce these uncertainties related to climate change to allow for better planning and implementation of adaptation activities. In addition, complementary analytical work is expected to provide some more in-depth quantitative assessment on the impact of climate change in Kenya. Instead it seemed more appropriate to conduct a literature review to provide best available estimates on the economic impacts of climate change on agriculture in SSA, particularly in Kenya. Further, some potential CDD micro-projects have been identified and their IRR and NPV have been estimated.

19. **Rather than conducting an in-depth ex-ante quantitative assessment, it is recommended that economic analysis is mainstreamed into a process of evaluating cost effectiveness and sustainability of planned project activities**. This process has proven to be useful under ALRMP, which also includes criteria for risk analysis, mitigation and sustainability. For some relevant activities, ACCAL will use this as an entry point for the analysis of climate risk and assess the cost-effectiveness of mitigation measures as investments are planned. The described approach will be particular relevant for some of the investments under the components 1 and 2.

20. **Further it is recommended that investments at the community level should focus on "no regret" investments** that increase their welfare independent from the severity of climate variability and change. This option should be preferred to "ad hoc" adaptation investments that are designed exclusively in

response to expected changes in climatic conditions. Given the uncertainty remaining at this point, the former approach would more reliably increase the adaptive capacity and welfare of communities. Once KACCAL is beginning to contribute to reducing the uncertainties related to climate change impacts and the capacity of all stakeholders has been approved "integrated" and "ad hoc" adaptation measures can be explored. However, it remains crucial that a systematic screening of the financial benefits of communities and individuals is introduced and maintained. KACCAL will contribute to respective capacity building.

It is important to note that the financial analysis of these potential micro-projects have been conducted based on case studies and experimental data which cannot reflect all the diverse agro-ecological and socio-economic conditions in the ASALs. This implies that the selection of micro-projects should be informed based on an analysis reflecting the local conditions. In addition, the impact of climate variability on productivity is not included due to the lack of reliable data. However, for most of the selected micro-projects it can be assumed that their financial attractiveness would increase further since the "with project" scenario would make the communities less vulnerable to climate change in comparison to the "without project" scenario.

Annex 10: Safeguard Policy Issues

Kenya: Adaptation to Climate Change in Arid and Semi-Arid Lands (KACCAL)

Environment

1. **Environmental impacts of project activities are expected to be positive and the project has therefore been classified as a Category B project.** The proposed project aims to further strengthen positive environmental impacts through new concepts of risk management activities and with local community participation, to moderate extreme weather conditions.

2. **Based on review of proposed activities, the safeguard policies triggered by the project include Environmental Assessment (OP4.01) and Natural Habitats (OP4.04)** (see table below).

Safeguard Policies Triggered by the Project	Yes	No
Environmental Assessment (OP/BP 4.01)	[X]	[ ]
Natural Habitats (OP/BP 4.04)	[X]	[ ]
Pest Management (OP 4.09)	[ ]	[ ]
Physical Cultural Resources (OP/BP 4.11)	[ ]	[ ]
Involuntary Resettlement (OP/BP 4.12)	[ ]	[ ]
Indigenous Peoples (OP/BP 4.10)	[ ]	[ ]
Forests (OP/BP 4.36)	[ ]	[ ]
Safety of Dams (OP/BP 4.37)	[ ]	[ ]
Projects in Disputed Areas (OP/BP 7.60)*	[ ]	[ ]
Projects on International Waterways (OP/BP 7.50)	[ ]	[ ]

Environmental Assessment (OP 4.01)

3. **This is an environmental project and there are no major adverse or irreversible environmental impacts expected as a result of project activities.** The project is designed to be entirely positive from an environmental and social point of view, by assisting Kenya in adapting to expected changes in climactic conditions that otherwise threaten the sustainability of rural livelihoods in its arid and semi-arid lands. To be in compliance with the safeguard policies, and to ensure that implementation of project activities will be carried out in an environmentally sustainable manner, an EA/EMF that was carried out by Government of Kenya during 2003 for the ALRMP II, will be used during implementation of the KACCAL project. However, as found necessary during KACCAL project preparation, an addendum to the ALRMP II EMF has now been included and the enhanced EMF will be used during KACCAL implementation. Subsequently, an Environmental Audit was carried out by an independent consulting firm during 2006 for ALRMP II. The audit also shows that most issues and risks related to environmental and natural resources management has been identified and corrective measures have been agreed upon with the borrower. The audit report contains some comprehensive Best Practice Guidelines that can be used by district staff when developing and implementing micro-projects. Additionally at mid-term review of ALRMP II, the project team reviewed environmental and social safeguard issues along with the EA/EMF, which showed implementation as being mostly consistent with project design, and this is documented in the environmental audit. The EMF will be re-disclosed at the Infoshop and in-country with a separate cover letter from the borrower, to satisfy the disclosure requirements for the KACCAL project.

4. **The EA/EMF that will be used during KACCAL implementation will help identify any potential environmental impacts related to project activities.** The EA study was conducted in a participatory manner and included (i) public consultation with stakeholders, NGOs, and communities; (ii)

* *By supporting the proposed project, the Bank does not intend to prejudice the final determination of the parties' claims on the disputed areas*

a review of selected documentation from the ALRMP I and II, relevant World Bank and Kenyan guidelines and policies on environment, and other documents relevant to environmental issues in the ASAL areas of Kenya; and (iii) site visits to a number of pilot communities under ALRMP. The main findings of the EA suggest that overall, at a strategic level, ALRMP II has the potential to make a significant positive contribution to environmental sustainability and specifically pastoral sustainability. The EA has identified impacts and proposed mitigation measures to appropriately address potential localized negative environmental impacts in line with the project's sustainable development objectives.

5. **The Environmental Management Framework includes**:

- Relevant Kenyan and World Bank Safeguard Procedures (Chapter 3);
- Guidance on potential impacts (Chapter 5);
- Reporting systems and responsibilities of officers in implementing the EMF (Chapter 6);
- Policy issues to be addressed to remove constraints to environmental sustainability in Kenya's Arid and Semi-arid lands (Chapter 7);
- Capacity-building and training requirements (Chapter 8); and
- Costs to be mainstreamed into project design (Chapter 9).

6. **The details of the EMF will continue to be integrated into the micro-project cycle for the KACCAL project.** The EMF also sets out the reporting systems and responsibilities of officers in implementing it. Specifically, it details specific steps which will be taken to put the EMF into practice, including:

- Flowchart for reporting and advice;
- Screening form for community projects;
- Triggers for EIA for projects under the support to local development and the natural resource and drought management components;
- Annual report forms for district officers, and PSU officer;
- Descriptions of roles and responsibilities.

7. **The independent environmental audit report that was carried out in 2006 has also several recommendations that will be implemented during the KACCAL project.** Some of these recommendations include:

- Increase in provision of targeted training to District Steering Groups (DSG) and Project Coordination Unit in several areas which will help in satisfactory implementation of EMF (EIA for CDD projects; environmental monitoring and evaluation for CDD projects; environmental screening);
- Appropriate targeted training for local communities implementing micro-projects;
- Appointment of environmental mitigation officer as indicated in PIP for ALRMP;
- Revision of screening checklist based on Best Practice Guidelines.

8. **Once ALRMP II is closed, funds for EMF implementation will come from KACCAL.** Currently, capacity building and training measures required for implementation of the EMF are currently being funded by ALRMP II (Costs as outlined in Chapter 9, Table 9.1 of the EMF report).

9. **The EMF provides a specific tool to mainstream environmental concerns into the project design, appraisal and implementation process.** As implementation of the EMF is crucial for sustainable project management and implementation, the project will follow the already successful institutional and management structure that was put in place for ALRMP II. To ensure smooth implementation, KACCAL will continue working with the implementing agencies to make certain that competent authorities are assigned the responsibility of carrying out appropriate actions.

10. **At the national level, a staff member has been appointed within ALRMP PCU with a specific responsibility for addressing environmental issues.** They will be supported by an EIA expert, who will provide technical advice, review and backstopping. This will stimulate District Environmental Committees (DEC) and DSGs to develop strategic approaches to environmental sustainability in their districts, and ensure that the EMF is integrated into the project cycle. The Community Development Officers (CDOs) will be responsible for ensuring that the environmental screening and review system included in the EMF is integrated into the micro-project cycle, and is used. Sensitization of DSGs to environmental issues will be a significant part of ensuring this, as will partnerships with governmental and NGOs officers on the DSG. The environmental officers may need to draw on the technical advice of their governmental colleagues in other departments, or indeed upon traditional technical knowledge. Each District Officer will compile a brief annual report for delivery to DECs and to the ALRMP PCU NRM Officer. The NRM Officer in the PCU would provide guidance to the District Environmental Officer (as well as stimulating DECs), and provide the key link between districts and NEMA and the Prime Minister's Office. ALRMP will provide training for DSGs, DEOs, METs, and Community Workers on specific environmental issues.

11. **Specific training for national, district and local levels will be carried out in** (i) operation of the EMF, (ii) environmental impact assessment techniques and Kenyan policies on EIA, (iii) issues related to the cumulative and strategic environmental impact of the project. Different levels of training will be provided: (i) in-depth training to a level that allows trainees to go on to train others, including technical procedures where relevant; (ii) sensitization, 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.

12. **Monitoring has been built into the EMF screening and review procedures at district and national levels**, and includes an annual independent environmental audit. The monitoring is being carried out for ALRMP II with specific criteria and indicators (to be reviewed during appraisal mission). Monitoring indicators will be very much dependent on specific micro-project contexts.

Natural Habitats (OP 4.04)

13. **This policy has been triggered due to the potential nature of activities to border or operate in natural habitats or protected areas.** The EMF will address these concerns through an environmental screening which will be applied to all micro-projects before approval. The EMF will help identify any potential impacts on natural habitats and proposes mitigation measures. It has provided adequate management measures to mitigate adverse impact of any activities in the project intervention areas. Additionally, ALRMP II has prepared a baseline NRM and ecological survey of the area as well as a national ASAL NRM strategy which covers the KACCAL districts. The results from these studies will be considered during micro-project screening and approval.

Pest Management (OP 4.09)

14. **Pesticide use among beneficiary communities of the project is currently very low to non-existent.** It is likely that the project is not providing support to the purchase or use of pesticides. However the requirement to screen for pesticide use is included in the processes set out in the EMF. If the project proposes the use of herbicides for bush clearance or irrigation systems (rain-fed or irrigated farming) which could result in intensification of agriculture and the increase in pesticide use, such micro-projects will prepare a brief pest management plan (PMP) before approval. Such plans will be disclosed before micro-project implementation. The policy is not triggered.

Forests (OP 4.36)

15. Forest operations such as forest restoration or plantation development will not be carried out under this project. Small-scale infrastructure may be financed under the project which may induce pressure on forest resources (wood for construction). However, the EMF provides the necessary measures in the screening process to identify impacts on forests and forest resources. Good practice measures are provided in the EMF to address these concerns. Moreover, through highly participatory mechanisms built into the CDD design, the project will raise awareness and empower communities to increase protection of forests and other resources. The policy is not triggered.

16. **Other safeguard policies that are not triggered by the project are**: Physical Cultural Resources (OP 4.11); Indigenous Peoples (OP 4.10); Involuntary Resettlement (OP 4.12); Projects on International Waterways (OP 7.50); and Safety of Dams (OP 4.37).

Training and Capacity Building

17. **After closure of ALRMP II, potential areas which will require KACCAL funding are**:

- Annual Environmental Performance Audit;
- Provision for EA studies for specific micro-projects;
- Specific training related to implementation of EMF to the various groups, at various levels as outlined in Table 8.1 of EMF report;
- Additionally, targeted training and capacity building as a result of KACCAL components in the following areas (list is not exhaustive):
    - Training of relevant staff in the line ministries to function as translators of scientific concepts on climate variability and change into operational activities.
    - Training of mobile extension teams to provide guidance to communities regarding climate risk in relation to land-use and natural resource management issues in ASALs. They will help communities formulate specific activities in the CAPs, and ensure that appropriate training and awareness raising is received on climate change related risks and impacts. They will also be trained to receive feedback from communities on local climate indicators and environmental change and forward this information to specified scientific institutions.
    - Training communities on opportunities for diversification of income sources (alternative livelihoods in ASALs) that will facilitate a shift from unsustainable activities to those that are economically viable and less vulnerable to climate risks.
    - Training communities (farmers, pastoralists and other stakeholders) on peace building, conflict resolution, constitution-writing, group dynamics and leadership skills.
    - Continue activities relating to inter-district learning and knowledge sharing on environmental and social issues.

Training modules

18. **A Training Needs Assessment has been conducted, including training on environmental and social issues.** The Environmental Audit that was conducted for ALRMP II recommended that the project prepares a comprehensive and well designed Training Program which is outsourced to competent institution for implementation during the life of the project. In line with this recommendation, ALRMP II contracted a training, management and research consulting firm, “Professional Training Consultants” (PTC), who drafted a Training Needs Assessment (TNA) dated October 15, 2007. The modules encompass components of both ALRMP II and KACCAL and have been implemented by PTC in a

participatory manner, for various categories of stakeholders covering all project districts. The modules included topics that covered both environmental and social issues. The training was completed in 2008.

19. **In addition to the topics suggested in the Training Needs Assessment, it is recommended that the following modules are included**:

(i) Boreholes, rock catchments, earth dams, water pans and sand dams that were constructed under ALRMP II – Periodic training to relevant communities on basic surveillance procedures so that they become knowledgeable in identifying potential problems (silting, signs of potential collapsing, etc.) at early stages, as well as management, handling and operation of any resources/funds obtained during operation of these structures. Resource person for the training should ideally be the engineer who oversaw construction from the Ministry of Water.

(ii) Integrated Pest Management (IPM): Stressing the importance of reducing reliance on synthetic chemical pesticides, and promoting the use of organic, biological or environmental pest control methods such as IPM; based on prevention, surveillance and monitoring, and ultimately intervention using multiple tactics in a compatible manner. This module should also include: (i) agroforestry; (ii) preparation of a mini pest management plan (PMP); (iii) organic farming; (iv) safe storage and handling of pesticides; and (iv) sensitization to integrated crop management. Resource person for the training could be the Ministry of Agriculture representative on the DSG or a relevant staff from KARI.

(iii) Cumulative impacts of micro-projects: The compilation of screening forms will enable the approving authority to decide on whether additional cumulative impact assessments are required to assess the impacts of micro-projects (e.g. groundwater resources; surface water resources; attraction of immigrant populations to communities that have improved production systems and social infrastructure, etc.). This training module should also guide stakeholders of instances where there could be cumulative impacts, and when cumulative impact assessment should be carried out before micro-project implementation.

(iv). Water borne diseases: Awareness and sensitization on mitigation and protective measures (water disinfection/boiling before use; introduction of mosquito larvae eating fish; preventing water stagnation around water points/hand pumps). Resource person should be the District Health Officer.

20. **An indicative list of Potential Micro-Projects**

- Tree seedling propagation, possibly including sale
- Establishment of ‘green-belts’ around settlements to prevent degradation due to livestock and collection of fuelwood
- Soil erosion control structures - Live fencing around boreholes, earth dams and water pans
- Tree planting and live fencing around schools and dispensaries
- Rehabilitation of water pans and earth dams
- Roof catchment water harvesting
- Maintenance of rock catchments
- Gully prevention
- Water harvesting and storage structures (shallow wells)
- Tapping and protection of springs
- Small-scale irrigation (provision of hand pumps)
- Small-scale agricultural projects (tree/bush crops, re-seeding, and tree planting)
- Rehabilitation of denuded sites – promotion of reseeding; filling up gullies
- Agricultural advisory services
- Education and health advisory services

- Income generating activities (small-scale: apiculture, tanning of hides, quarrying, milk processing, and collection of herbs)
- Commercialization of dryland products (aloe, sisal)
- Small-scale fishing (alternative sources of food for pastoralists)
- Protection of natural resource base (planting, tree nurseries)
- Fish farming (to feed on mosquito larvae)
- Organic farming (spray made from concoction of herbs; promotion of farm manure)

Monitoring and Supervision of Safeguards Performance

21. **Successful implementation of the project safeguard requirements and performance measurement requires regular monitoring and evaluation** of activities undertaken by the project to comply with national and World Bank safeguard policies. This will also help ensure that implementation of project safeguard measures are systematically carried throughout the project lifespan.

22. **Possible indicators for environmental monitoring are included in the EMF**, which will be included in the M&E system of the project, as appropriate. In addition, independent Annual Environmental and Social Performance Audit will be carried out by the project, which will be reviewed by the Bank.

Social

23. **The project will not support any activities that trigger OP 4.12 Involuntary Resettlement**. Screening of micro-projects will ensure that the project does not finance activities involving the involuntary taking of land or the involuntary restriction of access to legally designated parks and protected areas.

24. **Following the precedent of the ALRMP Project, the present project will not trigger OP 4.10 Indigenous People**. While there are several marginalized ethnic groups in the project area, they do not identify themselves as indigenous peoples nor are they identified as such by the national or regional governments. Nevertheless, the project will have specific activities targeted and tailored to vulnerable and marginalized social groups.

25. **Social analysis and participation:** During the preparation stage of ALRMP, a supplemental social analysis (SA) was carried out and various stakeholders have been involved in conceptualizing the objective of the second phase. Workshops at the national and local levels have been held where various stakeholders have participated. The SA provided a stakeholder analysis and the participatory plan has described the various entry points for stakeholders at all levels.

26. **The baseline project has already developed and introduced an effective participatory approach to service delivery based on a good understanding of pastoralist communities**. Community targeting through PRAs enables communities to articulate their problems, needs, priorities and help in mapping the necessary course of action has been effective. The PRAs have also been an effective tool for community empowerment. The PRA methodology used under the first phase has been examined further under the SA, in light of the new project as it extends to other areas, and the need to cover more communities within the existing project area. The project will implement a differentiated PRA, targeting different groups such as the youth, the women and vulnerable communities and enable the development of synchronized Community Action Plans.

27. **The SA confirmed that the key social issues are**: the livelihood and coping strategies, the social inclusion of vulnerable and marginalized groups and gender mainstreaming inside the communities in Arid Land districts. A summary of the SA report follows.

28. **Livelihood and coping strategies*:* Most of the study districts are predominantly pastoral, with varying levels of farming and other livelihood strategies in each district**. Clanism is a major social factor, particularly in the Somali communities of Garissa and Wajir (and Ijara and Mandera, although these were not among the study districts). In Tana River, Isiolo, Marsabit and Baringo, ethnicity is a major factor. Another factor that characterizes social set-ups in the study districts, and which has great influence on targeting and the eventual success of project implementation is religion, particularly Islam in the North Eastern Districts and parts of Tana River and traditional religion among various ethnic communities in Marsabit and Samburu. These factors are key to the definition of the term "community" and also to how interventions should be targeted.

29. **Three principal livelihood bases were found to exist in the study districts**, with some districts having all the three in varying degrees, while some have two and others only one. They include:

- Pastoralism is the principal livelihood base in Garissa, Wajir, Isiolo, Turkana, (and Moyale, Ijara and Mandera). It is also the principle livelihood base in the hinterland of Tana River and the low lands of Marsabit, Samburu and Baringo.
- Agro-pastoralism is the principal livelihood base of the communities in the highlands of Baringo, Samburu and Marsabit. Low scale farming is also found in some parts of the Baringo lowlands
- Farming is the principal livelihood base of the riverine communities of Tana River.

30. **The issue of coping strategies was analyzed in terms of "difficult times or times of hardships" resulting from natural phenomena such as drought and famine** which affect both farming and pastoral livelihood bases. In addition, livestock rustling, which is rampant in the North Rift districts was considered. There are various coping strategies, and these depend to a large extent on the livelihood base and the traditional socio-cultural set-ups (including religion, particularly among the Muslims).

31. **Among the pastoral communities, migration in search of pasture and water is the first and main coping mechanism**. If the drought/famine persists, pastoralists turn to the slaughter of animals and preservation of meat, milk and use/purchase of grains. In extreme cases, blood, and even skin are eaten to keep people alive. Most pastoral communities in the study districts have a tradition of lending milk animals to poor households to cushion the children and the aged from the adverse effects of famine.

32. **The farming and agro-pastoralist communities store grain (in underground storage facilities or above-the ground granaries) at harvest time, specifically for use in "difficult times"**. During such times, people of all livelihoods also expect relief from the government and other actors. In extreme cases, they turn to the use of forest resources where they source for wild fruits and honey, hunt for wild animals, burn and sell charcoal, firewood and toothbrushes. Another coping mechanism for both pastoralists and farmers is migration to urban areas to seek casual labor, live with relatives or just beg. Many times, these groups turn to burning and selling of charcoal and firewood.

33. **In most pastoralist communities, some coping mechanisms, such as lending milking animals to ensure food (or milk) for the household, also become a form of safety net** for such households, e.g. when the household is allowed by the lending community member to use (even sell) some male offspring of any type of livestock. The household can use the sale of such an offspring to start its own stock.

34. **The main safety net mechanism used by pastoralists at the individual level is diversification of herd**. At times, especially among the Turkana and Tugen, herds are split and grazed in different parts of the district as a precaution against droughts and raids. Camels and goats are known to be hardy and will resist harsh situations for long periods. At the community level, the traditional coping mechanisms include the Muslim Zakat[9], and the lending of milk animals to the poor. In Tana River, the safety net

[9] Zakat is an annual mandatory charity payable to the poor by all Muslims calculated on the basis of cash owned for the last 12 months, or the number of livestock owned for the last 12 months. Such contribution is meant to assist the

among the Pokomo farmers is the mango trees, while for the agro-pastoralists, it is the diversification of livelihood bases or the practice of both crop and livestock agriculture. Also, the agro-pastoralist and farming communities are increasingly requesting the introduction of drought resistant crops to cushion them against the effects of weather. There is also the lending of farmland to the poor for cultivation over a given period of time. Investment in education of children is increasingly being seen as a safety net, particularly by the pastoralists. According to the Gabra elders in Marsabit, "educated children are always assisting their fathers to restock animals".

35. **Social inclusion of vulnerable and marginalized groups**: The SA sought to understand which groups are likely to be excluded and what barriers exist that the project can address to encourage participation of all communities, including the most vulnerable. The SA found several groups of people that have been isolated and to some extent excluded in past project efforts. These range from women who are widows and divorcees, the urban poor, street children, and marginalized groups. In the study districts, the marginalization of whole communities or groups within a community is due to a combination of factors including historical influences, ethno-cultural factors, livelihood strategies, population numbers, and socio-political and developmental issues.

36. **A number of marginalized communities and groups were found in the study districts**. They include, the Watta of Tana River and the North Eastern districts covered by the study, the Munyo Yaya and Malakote of Tana River and Garissa, the Gagabey of Wajir, the Bantu or Nywele Ngumu ("hard or kinky hair") found in several North Eastern Districts, the Ndorois[10] and the Ogieks of Baringo. Other marginalized groups include the Rer-Bahars (blacksmiths) of Wajir town, and the Ngikebootoks (hunter/gatherers) of Turkana. The main needs of the marginalized communities are: identity and recognition, access to means of livelihood and shelter (this last request came specifically from the Gagabey community of Habsawen in Wajir).

37. **Continuous conflict in arid lands has been a major social obstacle to development**. This comes from animosity between various ethnic groups, most of which center on conflicting land use systems. Land tenure systems in pastoral areas are communal under the Trust Lands Act. The roots of these conflicts are many. There is inter-ethnic animosity between the Turkana and the Samburu, between Turkana and the Pokot and in Tana River between Pokomo and the Orma while in Garissa the Malakote and others fight over access to the river. Inter-community conflicts were also found, for example, in Turkana where settlements of agro-pastoralists particularly in Turkwell, Molem, Katilu and Lokori have caused hostility within the same community. Conflicts also exist between the communities in North and the North-Eastern with the neighboring countries of Somalia and Ethiopia as well as Northern Uganda.

38. **Conflict remains a major issue that affects not only economic activities, but also shapes social values and community dispositions**. Most conflicts revolve around livestock, divergent modes of livelihood and cultural identity. There has been conflict between the Pokomo and the Orma over pastoralist access to the Tana River, through cultivated farmland. In Baringo, there is perpetual conflict between the Pokot and the neighboring Marakwet, Turkana and Keiyo occasioned by competition over water and pasture and recently, cattle rustling driven by mischief and commercial imperatives.

39. **Lack of gender mainstreaming is a constraint to effective delivery of services to communities in ASAL districts.** The SA shows that traditionally, there were very distinct roles of men and women in most of the communities visited, but over time these as well as the division of labor has changed. Both men and women are assuming different roles depending on the social economic realities on the ground. Women headed households are on the increase due to divorce, death of spouses through conflicts and

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poor to start herds of their own. However, due to declining per capita household livestock and other resources, this restocking method is hardly effective these days.

[10] Information is taken from the Social Assessment document, as the study team did not get to meet the Ndorois and the Ogieks.

other calamities. Persistent famine is a factor that forces men and women to move from rural to urban areas where social support structures are non existent and difficult to maintain, thus increasing the vulnerability of the affected population.

40. **Most projects that have benefited women particularly in ALRMP are those that target women as groups**, with projects such as posho mills and start-up for petty trade. These activities, though beneficial, are seen not to change women conditions in a significant way. Agricultural activities, where they exist, have shown that women do the broadcasting, transplanting, weeding, chasing away birds and harvesting while men sell the produce and may or may not disclose the income to their wives. Such projects increase the burden of labor on women. The principal issue in the area of health is female genital mutilation, which as per the findings of the SA is commonly practiced in all Arid Districts except Turkana.

41. **There are cases where women and men, young boys and girls need to be targeted for reform and cultural re-engineering**. For instance where burden of care for the sick rests solely on women. In many cases boys are kept away from school to look after animals and girls are "whisked off" to early marriages at the expense of their education. In some of the communities, the girl child is not a priority for education. Their enrolment both in secondary and primary schools are far below that of boys. At the age of 15 years, a girl can be married off. It was observed that there are few girls' boarding schools in all the districts and even then, the enrollments are below the capacities of the schools. On the whole, the general attitude towards girl child education is negative.

42. **The SA shows that in Turkana district, many men and women no longer have livestock to herd owing to the effects of drought and increasing poverty**, which causes migration to larger towns in search of wage labor. Women in this situation have various income generating activities such as basket making, shop keeping, charcoal burning etc. Men are also involved in activities such as herding and bee keeping. However, the majority particularly the young with little education would want wage employment. Where wage labor is not forthcoming, they are at risk of becoming idle and engaging in anti-social activities. An enhanced role for women is seen in communities where they are involved in peace making. In Tana River, Pokomo women are involved in peace initiatives and so are the Turkana women.

43. **As a response to the above issues, the project will give the gender issue a special focus** through support to efforts that will enable both men and women to be well represented in decision making at all areas pertaining to the project. The project will invest in those activities that support women to have access and control of resources. A key area of concern will be to ensure there is sufficient gender disaggregated data and sufficient analysis of the situation of both men and women that can inform implementation of the various interventions. The key approach will be gender mainstreaming through all components of this project. Starting from the recruitment process in ALRMP, the project will ensure consistency in observing gender sensitivity. The other approach will be to support partners that will address issues raised at the community level and other forums.

44. **At the community level, representation and training for gender sensitivity and response will be the dominant approach.** Support to community action plans which focus on interventions that impact directly and equitably on both men and women will be the focus for screening projects proposals. These will show gender concerns in design, implementation strategies, and most importantly the relationship between proposed activities and empowerment of both men and women.

45. **Partnership with NGOs such as OXFAM and ACTION AID will be encouraged, particularly in addressing the issue of policy advocacy**. The DSGs, of which NGOs are members, will guide implementation and approve projects coming from the community. The gender focal point in the PCU will work with all components to ensure main-streaming and also with partners through stakeholder

consultations to ensure that sufficient training is conducted for staff and partners and that there is sufficient engagement and follow-up on issues at local and national levels.

Recommendations

46. **On livelihoods and coping strategies:**

(i) Continue to strengthen traditional re-stocking systems, but with special attention to the conditions leading to loss of livestock and the period between loss and the re-stocking. This is important in ensuring that the person/household being re-stocked is still capable of managing the intervention to the extent of earning a living out of it, including capacity to take care of the livestock in case of disease breakout and availability of labor.

(ii) Encourage the diversification of livelihood strategies by identifying and supporting appropriate income generating and farming activities that are at the same time friendly to pastoral livelihoods.

(iii) Organize and support the women milk traders with a view to adding value to the product, increasing its shelf life and improving the hygienic environment in which it is handled.

(iv) Support livestock marketing and trade, particularly by women and youth, through the provision of loan/credit to small-scale livestock traders and by addressing livestock marketing facilities and policies.

(v) Introduce modern bee keeping and handling techniques to encourage the adoption of non-traditional safety nets and honey harvesting.

(vi) Educate livestock farmers on the commercial/monetary value of livestock and facilitate the development of markets and the establishment of "marketing chains".

(vii) Target the poor with sensitization and capacity building activities aimed at initiating them into other forms of livelihood and educate them, particularly those who depend on natural resources for their survival on sustainable use of such resources. This is crucial since, without specifically targeting them, they will continue to place themselves and their fellow community members at the risk of food insecurity.

47. **On social inclusion of the vulnerable and marginalized groups:**

(i) Initiate preferential targeting of the vulnerable and marginalized groups.

(ii) Capitalize on the importance of the traditional social structures among the pastoralist communities and strengthen these to improve governance in the projects' activities. This can be achieved by engaging in dialogue and consultations with the traditional institutions (leadership) and facilitating them to be more inclusive and accommodative, particularly in terms of governance and also gender and age.

(iii) In addition to the procurement, financial management and leadership training, identify the other training needs of the community organizations and develop appropriate capacity building strategies to address them.

(iv) Develop and implement training programs that are aimed at building the capacity of community organizations, particularly in participatory planning and decision-making, monitoring of progress and accountability.

(v) Institute an elaborate sensitization and training program aimed at raising the level of awareness, particularly among the poor, the marginalized and other special-needs groups, about their rights to development, how to access these rights from the CDCs and from development actors and government departments.

(vi) At the project level, formulate and implement policies and strategies that are pro-marginalized and vulnerable groups to support their integration into mainstream development. Such policies and strategies should include "preferential" treatment or "affirmative action" in targeting and in establishing indicators for measuring implementation rates and impact, within a given time frame.

(vii) Institute advocacy measures (rights based empowerment) aimed at drawing attention to the integration needs of the marginalized communities, particularly the need for identity, recognition and voice, at the national (political and development) levels.

(viii) Train field staff to internalize and recognize the plight of the marginalized communities, and to appreciate the need for their special targeting.

48. **On gender mainstreaming:**

(i) Elaboration of a clear and simple "mission statement" on gender that expresses the project's commitment on gender and that is clearly understandable to all staff and partners at district levels. Ensure that the mission statement explains the benefits of "gender mainstreaming" for both men and women (e.g. it is about ensuring that women's and men's needs and interests are met and that women and men are able to participate actively and fully in project activities).

(ii) Examine the processes of decision-making, especially when financing decisions are made, and assess the extent to which gender issues are taken into account. If there is little or no attention to gender, include this in the decision-making criteria and processes, and ensure that people who are knowledgeable about gender are involved in the decisions.

(iii) Develop and disseminate (and ensure use of) some basic tools for integrating gender into project activities, including a basic method for gender analysis for planning project activities and some feasible monitoring indicators (e.g. for women's participation at different levels and in different types of activities). Establish a system for follow-up, monitoring and reporting.

(iv) At the district level, address the links between culture and gender. Explore how "traditions" and "culture" can be used positively to support women and men to participate equally – albeit in different ways that respond to women's and men's different roles and interests – in project activities.

(v) Formulate and deliver a carefully-planned program of training for staff, especially those at district level, solidly based on an understanding of gender issues in the ASAL lands and communities.

(vi) Link equal opportunities for women and men in the organization, especially at district levels, with gender mainstreaming in project activities. It is much easier to promote gender equality in project activities if equality and mutual respect amongst staff are also being encouraged and supported.

(vii) At the community/project level, identify the improvements wanted and needed by female and male beneficiaries, e.g. through PRA/PICD. On the basis of issues identified by the Social Analysis Study, five aspects would seem important for ALRMP to contribute to achieving (see box below) and these could be explored in more depth either through PRA/PICD or through specific gender analyses.

(viii) Build in to Community Action Plans and program activities components that address the specific constraints faced by women to participate in and benefit from project activities. The multiple roles and responsibilities of women, which are clearly far greater than those of men, must become a major concern of project staff, and must be taken into account in gender analysis and consultation/participation exercises at community level.

(ix) Involve men at all levels in gender-related work. Start from those men who are already supportive. Involve influential male community leaders, particularly the elders, traditional leaders and male youth.

(x) Give support also to women who are able to influence opinions at community level, and find out how to assist them in their efforts to strengthen the voices of women and women's participation at community level and in project activities.

(xi) Initiate a pilot project on mobile school services targeting the mobile pastoralist communities to enable their boys and girls to have access to basic education.

Annex 11: Project Preparation and Supervision

Kenya: Adaptation to Climate Change in Arid and Semi-Arid Lands (KACCAL)

	Planned	Actual
PCN review		October 23, 2006
Initial PID to Infoshop	July, 2007	October 2, 2007
Initial ISDS to Infoshop	July, 2007	October 2, 2007
Appraisal	March 2009	
Negotiations	March 2009	
Board/RVP approval	April 2009	
Planned date of effectiveness	June 2009	
Planned date of mid-term review	December 2011	
Planned closing date	December 2013	

Bank staff and consultants who worked on the project included:

Name	Title	Unit
Christine E. Cornelius	Lead Operations Officer (TTL)	AFTAR
Arati Belle	Environmental/Natural Resource Economist	AFTEN
Frank Sperling	Environment Specialist	AFTEN
Johannes Woelcke	Economist	AFTAR
Ingrid Mollard	Consultant	AFTAR
Banu Setlur	Operations Analyst (Environmental Safeguards)	MNSSD
Jorge Uquillas-Rodas	Consultant Senior Sociologist	AFTQK
Henry Amuguni	Financial Management Specialist	AFTFM
Efrem Fitwi	Procurement Specialist	AFTPC

Annex 12: Statement of Loans and Credits

Kenya: Adaptation to Climate Change in Arid and Semi-Arid Lands (KACCAL)

			Original Amount in US$ Millions						Difference between expected and actual disbursements	
Project ID	FY	Purpose	IBRD	IDA	SF	GEF	Cancel.	Undisb.	Orig.	Frm. Rev'd
P096367	2008	KE-Water & Sanitation Srv Impr (FY08)	0.00	150.00	0.00	0.00	0.00	124.01	-4.49	0.00
P081712	2007	KE-Total War Against HIV/AIDS-TOWA (FY07	0.00	80.00	0.00	0.00	0.00	66.77	13.41	0.00
P074106	2007	KE-W Kenya CDD/Flood Mitigation (FY07)	0.00	86.00	0.00	0.00	0.00	71.13	0.54	0.00
P085414	2007	KE-Natl STATCAP Dev	0.00	20.50	0.00	0.00	0.00	17.54	10.86	0.00
P087479	2007	KE-Edu Sec Sup Project (FY07)	0.00	80.00	0.00	0.00	0.00	35.19	13.23	0.00
P095050	2007	KE-NRM SIL (FY07)	0.00	68.50	0.00	0.00	0.00	70.61	5.84	9.00
P090567	2006	KE-Inst Reform & CB TA (FY06)	0.00	25.00	0.00	0.00	0.00	21.69	15.77	0.00
P085007	2005	MSME Competitiveness	0.00	22.00	0.00	0.00	0.00	15.88	13.72	0.00
P083250	2005	KE-Financial & Legal Sec TA (FY05)	0.00	18.00	0.00	0.00	0.00	14.77	11.22	10.16
P083131	2005	KE-Energy Sec Recovery Prj (FY05)	0.00	80.00	0.00	0.00	0.00	59.99	49.75	3.02
P078209	2004	KE-Dev Learning Centre LIL	0.00	2.70	0.00	0.00	0.00	1.03	0.54	0.00
P082615	2004	KE-Northern Corridor Trnsprt SIL (FY04)	0.00	207.00	0.00	0.00	0.00	107.94	91.16	0.00
P078058	2003	KE-Arid Lands 2 SIL (FY03)	0.00	120.00	0.00	0.00	0.00	29.42	-42.89	-10.64
P070718	2001	Regional Trade Fac. Proj. - Kenya	0.00	25.00	0.00	0.00	0.00	11.06	7.52	0.00
		Total:	0.00	984.70	0.00	0.00	0.00	647.03	186.18	11.54

KENYA
STATEMENT OF IFC's
Held and Disbursed Portfolio
In Millions of US Dollars

		Committed				Disbursed			
		IFC				IFC			
FY Approval	Company	Loan	Equity	Quasi	Partic.	Loan	Equity	Quasi	Partic.
2000	AEF AAA Growers	0.18	0.00	0.00	0.00	0.18	0.00	0.00	0.00
1997	AEF Ceres	0.93	0.00	0.00	0.00	0.93	0.00	0.00	0.00
1997	AEF Deras Ltd.	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
2000	AEF Lesiolo	2.50	0.00	0.00	0.00	2.50	0.00	0.00	0.00
1998	AEF Locland	0.08	0.00	0.00	0.00	0.08	0.00	0.00	0.00
2000	AEF Magana	0.60	0.00	0.00	0.00	0.60	0.00	0.00	0.00
1997	AEF Redhill Flrs	0.28	0.00	0.00	0.00	0.28	0.00	0.00	0.00
2005	BARCLAYS BK KEN	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1982	Diamond Trust	0.00	0.80	0.00	0.00	0.00	0.80	0.00	0.00
	GTFP Barclays Ke	14.31	0.00	0.00	0.00	14.31	0.00	0.00	0.00
	GTFP I & M BANK	2.71	0.00	0.00	0.00	2.71	0.00	0.00	0.00
2001	Gapco Kenya	12.78	0.00	0.00	0.00	7.78	0.00	0.00	0.00
2005	IM Bank	3.00	0.00	0.00	0.00	3.00	0.00	0.00	0.00
	IPS(K)-Allpack	0.00	0.36	0.00	0.00	0.00	0.36	0.00	0.00
	IPS(K)-Frigoken	0.00	0.06	0.00	0.00	0.00	0.06	0.00	0.00

	IPS(K)-Prem Food	0.00	0.11	0.00	0.00	0.00	0.11	0.00	0.00
1994	Intl Hotels-Ken	0.86	0.00	0.00	0.00	0.86	0.00	0.00	0.00
1996	K-Rep Bank	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
1999	K-Rep Bank	0.00	0.43	0.00	0.00	0.00	0.12	0.00	0.00
2006	Kingdom Hotel	20.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	Kongoni	1.96	0.00	0.00	0.00	1.96	0.00	0.00	0.00
2000	Mabati	2.50	0.00	4.50	0.00	2.50	0.00	4.50	0.00
2004	Magadi Soda Co.	22.00	0.00	4.00	0.00	18.90	0.00	4.00	0.00
2005	Magadi Soda Co.	2.50	0.00	0.00	0.00	0.57	0.00	0.00	0.00
1994	Panafrican	10.28	0.00	0.00	0.00	10.28	0.00	0.00	0.00
1996	Panafrican	15.55	0.00	0.00	0.00	15.55	0.00	0.00	0.00
2006	Panari Center	6.30	0.00	1.00	0.00	0.00	0.00	0.00	0.00
1972	TPS EA Ltd.	0.00	0.04	2.20	0.00	0.00	0.04	2.20	0.00
2000	Tsavo Power	9.91	0.83	0.85	13.91	9.91	0.83	0.85	13.91
	Total portfolio:	140.23	3.63	12.55	13.91	93.90	3.32	11.55	13.91

		Approvals Pending Commitment			
FY Approval	Company	Loan	Equity	Quasi	Partic.
2006	Greenlands	0.00	0.00	0.00	0.00
2005	Barclays-Kenya	0.01	0.00	0.00	0.00
2006	Adv Bio-Extracts	0.01	0.00	0.00	0.00
	Total pending commitment:	0.02	0.00	0.00	0.00

Annex 13: STAP Roster Review
Kenya: Adaptation to Climate Change in Arid and Semi-Arid Lands (KACCAL)

GEFSEC Project ID: 3249
Review by STAP Roster Member: Ian Burton

1. Overall Assessment of the Project.

This is a well and thoughtfully designed project which is also most timely. In principle the World Bank's approach to adaptation through "mainstreaming" of climate risks into development has now been widely accepted among the regional banks, the bilateral donors and the developing countries themselves. It is one thing to agree to a principle however and quite another to apply it. This is one of the early projects to attempt such an application, and there is little by way of past experience to draw upon. The project may be viewed therefore as something of an experiment. The hypothesis may be specified as follows: "It is possible to incorporate climate risks into major development programs and projects in such a way that practical and "no-regrets" measures are developed and applied, and make a real difference to the projects, and result in safer investments and better returns on investments than would otherwise have been realized".

This project is well designed to test this hypothesis. An important implication of this is that the project should be very carefully monitored and assessed, not simply in the usual post-audit fashion, but from start to finish and on a continuous basis. Such an ongoing assessment should be as arms-length and independent as possible. This would enhance the probability of its success by facilitating course corrections during the execution of the project, and also drawing systematic lessons that could be applied as the work is followed up and extended both in Kenya and elsewhere.

2. Scientific and Technical Soundness of the Project.

In conceptual terms the project is scientifically and technically sound. There is at least one big unknown that is likely to affect the outcome of the project. Will it be possible to design and specify adaptation measures and see them adopted at the local and community level, given the remaining large uncertainties about the magnitude and rate of warming, and the even greater uncertainties about future precipitation? To put the question another way – do the farmers and pastoralists in the arid and semi-arid lands of Kenya have the capacity to adopt adaptive measures, given their poverty, the likely costs of the measures, the uncertainty about future climate, and the multiple other stresses that are impacting on the system? The framers of this project are well aware of this concern but I wonder if enough attention has been given to it, and what strategies the project proponents have in mind to employ if they encounter difficulties in gaining the credibility and confidence and trust of the stakeholders and communities?

Another feature of the science of climate change which has to be recognized is that climate change is not a shift from one climate equilibrium to another. We are moving into a new situation in which the climate will continue to change into the indefinite future. Much of the past management of climate impacts such as drought, has been based on the idea that it is necessary to cope with the drought for a limited period of time until it is over and "normal" conditions return. Henceforth there will be no normal climate, only a continually changing climate. This is quite a different mind-set and while the experts can usually grasp it, the task of communication such an idea to the local communities and stakeholders will not be easy or straightforward. As the project develops more attention to this problem is likely to be required.

3. Integration between the KACCAL and the baseline ALRMP.

Integration between KACCAL and the existing ALRMP is crucial to the success of KACCAL. The whole raison d'etre of the KACCAL is to add climate change risks into the ALRMP. At the present time the Project Appraisal Document is a bit short on how the integration will in fact occur at the ground and local

operational levels. Presumably this and related issues can be sorted out in the PDF stage. At present however the PAD gives the impression of a rather "top-down" design, and not enough evidence to be completely reassuring that integration will be fully achieved. Component 1 refers to national coordination and the use of climate risk information. Component 2 refers to local/district planning, and Component 4 refers to program management and monitoring and evaluation. These words, "coordination", "planning", "program management" and "monitoring and evaluation" given the reader an impression of top-down thinking from the President's Office. The strongest bottom-up part of the project is Component 3 where some US. $2.3 million or over one third of the funds will be spent on community driven initiatives to enhance long-term livelihood strategies.

It seems likely from the PAD that all or most of this money will be spent in only 4 or the 28 districts in the ALRMP. A full integration between KACCAL and ALRMP would seem to be difficult if KACCAL works mainly in only 4 districts. Surely some aspects of the KACCAL should be carried out in all the ALRMP districts? Selection of 4 districts out of 28 for the most integrating and community driven part of the project seems a bit restrictive, especially if the selection is made in a top-down manner as seems inevitable.

4. Fit with the goals of the SCCF.

The KACCAL project seems to fit perfectly within the SCCF goals, and is an early and important test case of how to mainstream climate risks into other ongoing development projects.

5. Replicability of the project.

To the extent that the project is successful it should be capable of being replicated elsewhere. To begin with this might be in the ALRMP districts not included. It seems likely that there will be a demand for "scaling up investments" in those districts not included in the first stage.

The decision to focus the scaling up of investments in only four districts seems to offer a potential tool for assessing the value of the project. If the KACCAL investments are focused in about 4 districts out of 21 or 28 it should be possible to compare at a later date the success of the ALRMP program in those 4 districts with results in the non-scaled up districts! Presumably this was not the reason for limiting the KACCAL to 4 districts, but some explanation might be helpful.

If the project is successful in practical and methodological ways there are likely to be many demands for this sort "add-on" in other projects by no means limited to arid lands. A question that might arise in this context therefore is - will mainstreaming of climate risks always be regarded as an add-on? Or can a stage be reached where all ODA type investments automatically include climate risks? Will the incorporation of climate risks by Task Managers be limited to those projects where additional funds are available from the GEF?

6. Linkage to other focal areas.

The project is a multi-sectoral project and as such includes other focal areas in addition to its focus upon farming and pastoralism in arid and semi arid lands. How the project will actually link with other ongoing work in water management, health, and fragile ecosystems is not yet spelled out in detail. But the PAD gives every indication that the project will involve partners and stakeholders from other focal areas and that the multiple objectives of the project will serve their interests and not have any unintended impacts, and will contribute to global environmental benefits.

7. Linkage to other programs and action plans at the national or regional level.

The KACCAL is closely linked and integrated with the ALRMP and through it to other development activities in the arid lands of Kenya, and other ongoing initiatives.

8. Other beneficial or damaging environmental effects.

It is difficult without a full environmental impact assessment to be sure that there can be no adverse effects. It is clear that in taking pressure off land resources the project might have substantial environmental benefits including the improved management of water resources and the preservation or enhancement of ecosystems. On the other hand the project will explore the creation of alternative livelihoods through small scale investments and could also contribute to rural-urban migration. In advance of those choices it is impossible to state categorically that there could be no adverse environmental consequences. It is clear however from the PAD that the project is designed to the extent possible to avoid any such consequences and that in any case choices will be made on the basis of careful assessments of consequences including community led development.

9. Stakeholder involvement.

Stakeholder involvement is a key component of this project. At the moment the precise mechanisms of stakeholder involvement are not specified in the PAD, but it seems clear that they will follow the practices already well established in the baseline project – ALRMP. An important component of the project is work on the resolution of conflict among diverse stakeholders. This conflict resolution work will necessarily involve close cooperation with stakeholders and the development of trust.

10. Capacity Building.

A considerable part of the project is devoted to capacity building. As presently formulated the capacities to be strengthened are concentrated in the provision of services and the administration of advice and assistance from Government agencies to local communities. There is a certain flavour of “top-down” in the PAD. Perhaps this is because the project has been formulated as an integral part (or add-on) to a large and on-going successful project. The modalities of the ALRMP seem likely to be used as an approach to capacity building, although the capacities themselves (how to incorporate climate risks into arid land management) are different and additional.

It is difficult to know at this stage if there is sufficient human capacity to tackle the issues addressed in the project. The wide array of topics to be addressed in the project (including the operationalisation of scientific information related to climate risk, the promotion of public and private investments, community capacity building, facilitating community based micro-projects, and the examination of insurance possibilities), is truly formidable. It seems to this reviewer that the project might be in danger of promising too much.

11. Further Suggestions.

A number of other suggestions relating to the project will be sent separately. The suggestions are keyed in to specific points in the text.

Ian Burton.
October 2006.

Response to the STAP Review

The response (in italics) follows the structure of the STAP review:

1. Overall assessment.

Response: Overall the review of the project is positive. In order to evaluate the success of adaptation measures, the team agrees with the importance of monitoring and re-evaluating the effectiveness of adaptation measures over the project time-frame. For example, a continuous monitoring of assets on the household level over time is suggested in the project proposal. Given comparable exposure to risks over time, adaptation measures should contribute to the general ability to households to maintain or increase their asset base.

The project actually takes an experimental design approach by selecting 4-5 districts and by comparing them to 4-5 other districts included in the ALRMP (but not part of the KACCAL's focus) which will serve as control cases. At the end of the project, it will be possible to get an indication as to whether or not the additional "adaptation" activities have improved resilience, created more alternative livelihoods, increased incomes, helped responsiveness to climate fluctuations, and helped local communities respond in these beyond what happened in the control group. This information will help increase the overall understanding of adaptation and its needs.

One general problem of any climate change adaptation project is the discrepancy between the long-term dimension of climate change and relative short duration of the project (in this case 4 years). Hence, while a monitoring process can be started with this project it is important that the monitoring need to be continued beyond the life-time of the project. This implies also limitations in the ability of gauging the success within this short time-frame.

2. Scientific and Technical Soundness

Response: In the review it is questioned whether adaptation measures to climate change can be incorporated, given other immediate pressing development needs.

This dilemma is explicitly recognized in project design by taking a differentiated approach at various levels (national, district, local). At the local level, emphasis is placed first and foremost on addressing the vulnerability to present climatic risks and already visible changes. This represents the first step in preparing for the longer-term challenges of climate change.

By working across scales, the project, however, aims to ensure that current risks are addressed in policy frameworks and incentive structures in such a way that they do not lead to mal-adaptive development paths in the medium to long-term. Especially at the district and national governance level attention is paid to integrate awareness of climate change impacts into decision-making processes.

Furthermore, while the project recognizes that existing adaptation deficit to current climate variability and trends has to be addressed first at the local level, it is also fully acknowledge in the design of the project components that current livelihood practices may become unsustainable in the long-run. Hence, the identification of economic diversification and alternative livelihood options, which are less vulnerable to climatic changes, represent an important aspect of the project. At the local level, climate change will hence be addressed in a variety of ways:
- Near term: Improve access to climate information, improve land-use and natural resource management, strengthen extension systems.
- Near to medium term: Improve buffering against climatic shocks coupled with incentives for vulnerability reduction, e.g. insurance mechanisms are being investigated for this purpose.

Medium to long-term: Preparation begins now with the goal to identify and help initiate processes that lead to economic diversification and livelihood activities that are more resilient to climatic variability and change in the medium to long-term. Hence the project aims to identify market opportunities for more climate resilient produce, identify opportunities for private sector engagement etc.

Another important point in the review under section 2 is that climate is likely to continue to change. The project team is aware of this. This is part of the reason why extension systems should be strengthened with an increased emphasis on educating communities on understanding climate variability and change and also improving their capability of monitoring the climate and relating it to their livelihood activities. The Asian Disaster Preparedness Center (ADPC) has successfully carried out projects in Asia, where communities were trained to monitor climatic parameters over time and incorporate the additional knowledge into their planning processes. The project would aim to draw on such initiatives with the goal of adjusting it to the African context.

3. Integration between the KACCAL and the baseline ALRMP

Response: In conjunction with the above comments, it should be evident that the project is not top-down driven, but rather combines top-down and bottom-up approaches. Given that the project is closely linked to CDD activities and includes micro-projects that are identified by the communities themselves, this combined approach is further emphasized.

4. Fit with the goals of the SCCF

No response required.

5. Replicability

Response: The reviewer poses the question whether the activities conducted in the KACCAL should always be an add-on to project activities or whether this should become an integral part of ODA type investments. This is somewhat related to ongoing debate, which is beyond the scope of the project itself. However, it could be argued that under current circumstances and given that adaptation to climate change is a new concern, early project activities will require an add-on in order to address such concerns in project activities. And this is the mandate of the SCCF. Over time, as more knowledge and experience is available, it can be envisioned that the reduction of vulnerabilities to climate change should become a standard consideration of project planning and implementation. However, answering where the funding would come from and how this is being achieved are academic and political questions and cannot be answered here.

6. Linkage to other focal areas

Response: The project is multi-sectoral in its scope. As the reviewer points out himself the PAD recognizes that links need to be established with water management, health, fragile ecosystem management etc and this is indicated in the PAD. How this links will be addressed in detail and which stakeholders will be involved will be further described in project implementation manual. Component 1 and 2 will be instrumental to foster this integrated approach.

7. Linkage to other programs and action plans.

No response required.

8. Other beneficial or damaging environmental effects.

Response: It is a central objective of the project to improve land-use and natural resource management in ASAL areas to reduce the vulnerability to climatic impacts. The effect of the project on the environment has to be monitored. Reducing environmental degradation and other harmful local effects is however clearly central in reducing the vulnerability to climate change. In addition, and as indicated in the Project brief, a full environmental and social management framework will be finalized and disclosed by the time of appraisal.

9. Stakeholder involvement

Response: Stakeholder involvement is a key feature of this project and crucial to its success. As explained in the PAD (see for example sections on "lessons learned" and "sustainability"), the project builds on and expands on the detailed and proven mechanisms of the ALRMP which include a focus on gender, conflict resolution and involvement of disadvantage groups. This aspect will be further developed by the time of project appraisal.

10. Capacity building

Response: Capacity building at all levels is required to address climate change successfully. This is fully recognized in the project approach. Concerning the comments on top down approach, please refer to earlier feed-back under points two and three.

Regarding the breadth of the project activities, the reviewer wonders whether the project is trying to achieve too much. The project indeed has taken on a complex challenge. However, it should be noted that the SCCF support is in connection with substantial IDA funding and links to structures and activities with are already established under the ALRMP and proven to be successful. The project team therefore feels that the stated objectives can be achieved. The high vulnerability of the region to climatic changes requires a broad and integrative effort that links adaptation activities at different levels.

Annex 14: Additional Costs

Kenya: Adaptation to Climate Change in Arid and Semi-Arid Lands (KACCAL)

1. The project requests a total of US$5.5 million of SCCF funding (UNDP requested an additional US$1 million of SCCF funding, which is covered in their project document). Consistent with SCCF guidelines, the SCCF will finance less than one-third of the total costs of the project.

2. The US$40 million IDA for the Arid Land Resource Management Program meets the proportional scale financing requirements to be considered for funding under the Special Climate Change Fund. In addition, the GoK has made a very clear commitment to reducing climate risk vulnerability in the arid and semi arid lands of Kenya.

3. The World Bank has a well established dialogue with the Government of Kenya which assists to meet development priorities and responding to drought related emergency support in the ASALs through a key Government planning and investment program called the Arid Lands Resource Management Program (ALRMP). The ALRMP is highly successful and well embedded institutionally, with a home in the Office of the Prime Minister and effective linkages to the district and community level. However, climate change related risks will significantly impact activities in support of poverty reduction and development of the area. The ALRMP is, on the one hand clearly addressing short term impact of climate variability, and on the other hand provides a very effective delivery mechanism for mainstreaming additional longer term adaptation measures.

4. Adaptation activities are designed to strengthen local adaptive capacity, reduce risks and contribute to the adoption of more sustainable practices within current programs. SCCF additional financing under KACCAL targets actions that are clearly part of the priority areas for adaptation activities under the SCCF. They will operationalize and mainstream climate risk management through the ALRMP by embedding a longer-term perspective in planning and in on-the-ground interventions, improving the information chain between scientific climate related knowledge at one end and anticipatory responses at the local level at the other end, translating into a strategic adaptive response to climate change risk.

5. The objective of the KACCAL is to assist Kenya in adapting to expected changes in climatic conditions that otherwise threaten the sustainability of rural livelihoods in its arid and semi-arid lands. The project will focus on i) improving the ability to reduce the near-term vulnerability to current climate variability and trends in conjunction with the ALRMP; and on ii) strengthening the medium to long-term ability to address climate change impacts related to increased climatic variability and higher temperature, associated with changes of magnitude and frequency of extremes.

6. Climate change requires a broadening and strengthening of climate risk management efforts in ASALs. Increases in temperature are already evident and are expected to become more extreme over time for the entirety of Kenya. Trends in rainfall vary by region, while more intense precipitation events can generally be expected. These changes are superimposed on an already pronounced inter-annual climate variability associated with ENSO and fluctuations in the sea surface temperature of the Indian Ocean.

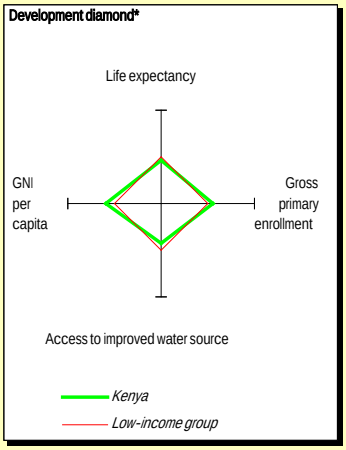
7. As a consequence of climate change, the capacity of ASALs to manage across the entire spectrum of climate risks needs to be strengthened. Drought risk management remains crucial. The ability to manage flood risks has to be improved and the benefit from sporadic precipitation events has to be improved. In addition, ASALs have to be equipped to cope with more erratic rainy seasons.

8. Investments of KACCAL are focused on strengthening the adaptive capacity to manage increased climate variability and change in the near, medium and long-term. By working through the well established structure of ALRMP the project is able to foster strong linkages between adaptation efforts at the national, district and local level.

9. At the local level emphasis will be placed on strengthening the capacity of communities to manage increased climate variability over the near-term through targeted capacity development and micro-investments. In addition to strengthening the enabling framework for near-term climate risk management through provision of knowledge, training and coordinated investments, the emphasis of activities at the national and district level will also include a longer-term perspective. Here, the focus on identifying the processes and strategies, which need to be initiated now to provide more climate resilient livelihood options in ASALs in the future.

Annex 15: Country at a Glance

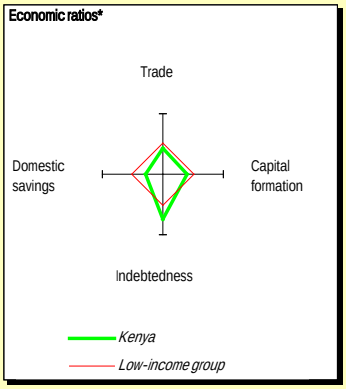
POVERTY and SOCIAL	Kenya	Sub-Saharan Africa	Low-income
2007			
Population, mid-year *(millions)*	37.5	800	1,296
GNI per capita *(Atlas method, US$)*	680	952	578
GNI *(Atlas method, US$ billions)*	25.6	762	749
Average annual growth, 2001-07			
Population *(%)*	2.6	2.5	2.2
Labor force *(%)*	2.9	2.6	2.7
Most recent estimate (latest year available, 2001-07)			
Poverty *(% of population below national poverty line)*	..	..	..
Urban population *(% of total population)*	21	36	32
Life expectancy at birth *(years)*	53	51	57
Infant mortality *(per 1,000 live births)*	79	94	85
Child malnutrition *(% of children under 5)*	17	27	29
Access to an improved water source *(% of population)*	57	58	68
Literacy *(% of population age 15+)*	..	59	61
Gross primary enrollment *(% of school-age population)*	106	94	94
Male	107	99	100
Female	104	88	89



KEY ECONOMIC RATIOS and LONG-TERM TRENDS

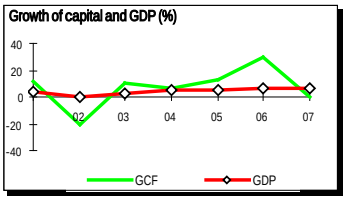
	1987	1997	2006	2007
GDP *(US$ billions)*	8.0	13.0	22.8	29.5
Gross capital formation/GDP	24.3	15.2	21.8	19.5
Exports of goods and services/GDP	21.3	22.8	25.1	22.8
Gross domestic savings/GDP	19.2	9.0	9.5	9.1
Gross national savings/GDP	16.6	11.7	12.5	11.4
Current account balance/GDP	-7.7	-3.5	-6.8	-10.3
Interest payments/GDP	2.8	1.4	0.3	..
Total debt/GDP	72.6	49.6	28.7	..
Total debt service/exports	40.4	21.8	7.1	..
Present value of debt/GDP	..	..	21.9	..
Present value of debt/exports	..	..	81.7	..

	1987-97	1997-07	2006	2007	2007-11
(average annual growth)					
GDP	2.4	3.5	6.1	6.9	6.1
GDP per capita	-0.8	0.8	3.3	4.1	5.5
Exports of goods and services	5.3	6.5	9.2	12.5	6.6

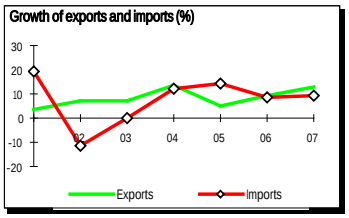


STRUCTURE of the ECONOMY

	1987	1997	2006	2007
(% of GDP)				
Agriculture	31.5	31.6	27.1	22.7
Industry	18.5	18.2	18.8	19.0
Manufacturing	11.6	12.7	11.5	11.8
Services	50.0	50.2	54.1	58.2
Household final consumption expenditure	62.2	74.9	74.3	74.8
General gov't final consumption expenditure	18.6	16.0	16.3	16.0
Imports of goods and services	26.4	29.0	37.5	33.2



	1987-97	1997-07	2006	2007
(average annual growth)				
Agriculture	1.2	3.5	5.4	7.6
Industry	2.5	3.0	5.4	8.7
Manufacturing	3.0	2.8	6.4	8.3
Services	3.8	3.5	6.3	5.8
Household final consumption expenditure	2.9	3.2	2.1	8.4
General gov't final consumption expenditure	8.7	1.0	-0.2	5.5
Gross capital formation	1.3	5.4	29.3	-0.3
Imports of goods and services	9.3	5.0	8.6	9.6



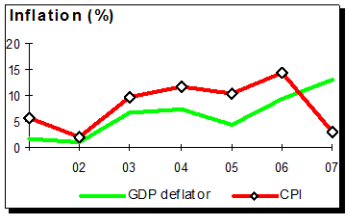
Note: 2007 data are preliminary estimates.

This table was produced from the Development Economics LDB database.

* The diamonds show four key indicators in the country (in bold) compared with its income-group average. If data are missing, the diamond will be incomplete.

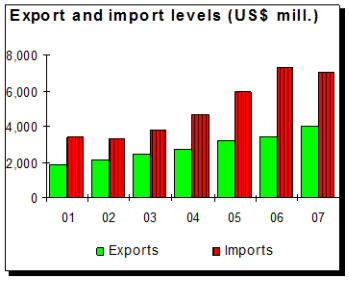
PRICES and GOVERNMENT FINANCE

	1987	1997	2006	2007
Domestic prices				
(% change)				
Consumer prices	8.6	11.4	14.5	2.8
Implicit GDP deflator	5.4	11.6	9.4	13.1
Government finance				
(% of GDP, includes current grants)				
Current revenue	24.9	20.1	20.9	20.9
Current budget balance	1.7	1.6	-1.8	-3.5
Overall surplus/deficit	-3.6	-1.8	-2.4	-7.7



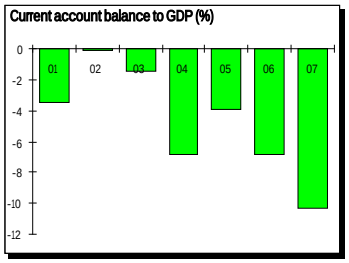
TRADE

	1987	1997	2006	2007
(US$ millions)				
Total exports (fob)	907	2,060	3,437	4,048
Petroleum	77	170	104	50
Coffee	236	296	138	164
Manufactures	134	458	422	337
Total imports (cif)	1,898	3,289	7,365	7,029
Food	130	158	287	224
Fuel and energy	348	519	1,745	1,946
Capital goods	433	844	2,252	2,276
Export price index *(2000=100)*	20	98	140	139
Import price index *(2000=100)*	20	81	164	127
Terms of trade *(2000=100)*	101	121	85	109



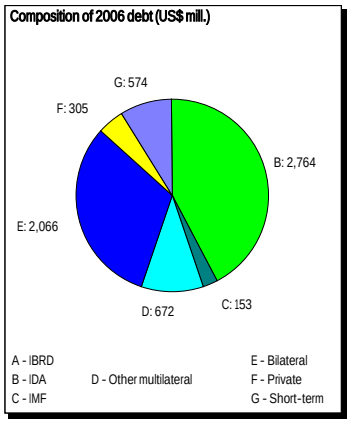
BALANCE of PAYMENTS

	1987	1997	2006	2007
(US$ millions)				
Exports of goods and services	1,698	2,975	5,963	5,854
Imports of goods and services	2,104	3,770	8,200	9,589
Resource balance	-406	-794	-2,237	-3,735
Net income	-280	-172	71	104
Net current transfers	72	516	616	579
Current account balance	-614	-450	-1,550	-3,051
Financing items (net)	1,049	451	1,776	3,297
Changes in net reserves	-435	-1	-226	-246
Memo:				
Reserves including gold *(US$ millions)*	294	811	2,654	3,015
Conversion rate *(DEC, local/US$)*	16.5	58.7	72.1	67.3



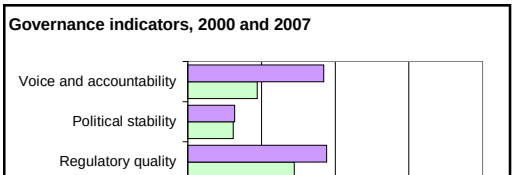
EXTERNAL DEBT and RESOURCE FLOWS

	1987	1997	2006	2007
(US$ millions)				
Total debt outstanding and disbursed	5,783	6,465	6,534	..
IBRD	1,128	213	0	0
IDA	553	2,032	2,764	2,968
Total debt service	691	657	433	..
IBRD	145	97	0	0
IDA	7	26	82	88
Composition of net resource flows				
Official grants	246	202	651	..
Official creditors	228	-69	-131	..
Private creditors	153	-121	-69	..
Foreign direct investment (net inflows)	39	20	51	..
Portfolio equity (net inflows)	0	27	2	..
World Bank program				
Commitments	128	94	286	369
Disbursements	113	84	41	159
Principal repayments	63	85	60	66
Net flows	50	-2	-18	93
Interest payments	89	38	22	22
Net transfers	-39	-39	-40	71



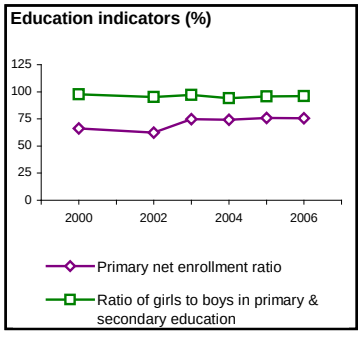
Note: This table was produced from the Development Economics LDB database. 9/24/08

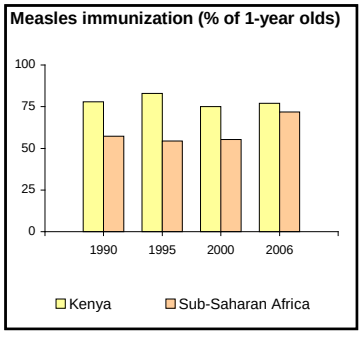
Balance of Payments and Trade	2000	2007
(US$ millions)		
Total merchandise exports (fob)	1,773	4,048
Total merchandise imports (cif)	3,306	7,029
Net trade in goods and services	-1,015	-3,735
Workers' remittances and compensation of employees (receipts)	538	1,300

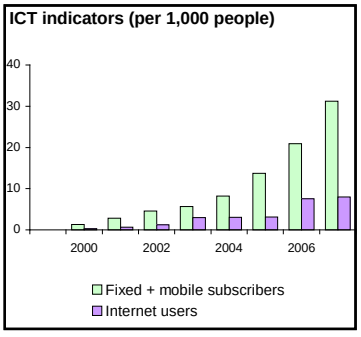


With selected targets to achieve between 1990 and 2015
(estimate closest to date shown, +/- 2 years)

	Kenya			
Goal 1: halve the rates for extreme poverty and malnutrition	**1990**	**1995**	**2000**	**2007**
Poverty headcount ratio at $1.25 a day (PPP, % of population)	..	..	..	..
Poverty headcount ratio at national poverty line (% of population)	..	*52.0*	..	..
Share of income or consumption to the poorest qunitile (%)	*3.4*	*5.1*	..	..
Prevalence of malnutrition (% of children under 5)	..	*20.1*	17.5	*16.5*
Goal 2: ensure that children are able to complete primary schooling				
Primary school enrollment (net, %)	*76*	..	66	*75*
Primary completion rate (% of relevant age group)	..	..	..	*93*
Secondary school enrollment (gross, %)	*28*	..	39	*50*
Youth literacy rate (% of people ages 15-24)	..	..	80	..
Goal 3: eliminate gender disparity in education and empower women				
Ratio of girls to boys in primary and secondary education (%)	*94*	..	98	*96*
Women employed in the nonagricultural sector (% of nonagricultural employment)	21	27	..	..
Proportion of seats held by women in national parliament (%)	1	*3*	4	7
Goal 4: reduce under-5 mortality by two-thirds				
Under-5 mortality rate (per 1,000)	97	111	117	*121*
Infant mortality rate (per 1,000 live births)	64	72	77	*79*
Measles immunization (proportion of one-year olds immunized, %)	78	83	75	*77*
Goal 5: reduce maternal mortality by three-fourths				
Maternal mortality ratio (modeled estimate, per 100,000 live births)	..	..	..	*560*
Births attended by skilled health staff (% of total)	*50*	*45*	*44*	*42*
Contraceptive prevalence (% of women ages 15-49)	*27*	*33*	*39*	*39*
Goal 6: halt and begin to reverse the spread of HIV/AIDS and other major diseases				
Prevalence of HIV (% of population ages 15-49)	..	..	..	7.8
Incidence of tuberculosis (per 100,000 people)	116	232	420	*384*
Tuberculosis cases detected under DOTS (%)	..	57	51	*70*
Goal 7: halve the proportion of people without sustainable access to basic needs				
Access to an improved water source (% of population)	41	46	51	*57*
Access to improved sanitation facilities (% of population)	39	40	41	*42*
Forest area (% of total land area)	6.5	..	6.3	*6.2*
Nationally protected areas (% of total land area)	..	..	..	*12.6*
CO2 emissions (metric tons per capita)	0.2	0.3	0.3	*0.3*
GDP per unit of energy use (constant 2005 PPP $ per kg of oil equivalent)	2.7	2.8	2.7	*2.8*
Goal 8: develop a global partnership for development				
Telephone mainlines (per 100 people)	0.7	0.9	0.9	0.7
Mobile phone subscribers (per 100 people)	0.0	0.0	0.4	30.5
Internet users (per 100 people)	0.0	0.0	0.3	8.0
Personal computers (per 100 people)	0.0	0.1	0.5	*1.4*







Note: Figures in italics are for years other than those specified. .. indicates data are not available. 9/16/08

Development Economics, Development Data Group (DECDG).

Annex 16: Map IBRD 35786

Kenya: Adaptation to Climate Change in Arid and Semi-Arid Lands (KACCAL)

UNDP Project Document

Government of Kenya

United Nations Development Programme
World Bank

PIMS 3792, Kenya: Adapting to Climate Change in Arid and Semi-Arid Lands (KACCAL)
Period covered: 2009-2013

Brief description

According to Kenya's First National Communication (2002), the incidence of droughts is anticipated to increase both in intensity and frequency as a result of climate change. In response, UNDP and the World Bank have initiated a joint project on Adaptation to Climate Change in Arid and Semi-Arid Lands (KACCAL) aimed at facilitating adaptation of the key stakeholders in arid and semi-arid lands to long-term climate change. The joint project seeks to develop and pilot a range of coping mechanisms for reducing the vulnerability of small-holder farmers and pastoralists in rural Kenya to long-term climate change, including variability. The project is funded through the Special Climate Change Fund, with the World Bank managing US$ 5.5 million and UNDP entrusted with overseeing US$ 1million.

This Project Document focuses on the UNDP-managed component of the joint UNDP-World Bank KACCAL project. Project activities are aligned with UNDP's comparative advantage in aspects of capacity building, and support for MDG-based planning, as well as experience in designing and implementing climate change adaptation and sustainable land management projects. The UNDP component focuses primarily on enhancing adaptive capacity of key stakeholders in the District of Mwingi, complementing the support given by the World Bank in four other districts: Garissa, Turkana, Marsabit and Malindi.

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Acronyms

AAK	Action Aid Kenya
AEZ	Agro-Ecological Zones
ALM	Adaptation Learning Mechanism
ALRMP	Arid Lands Resource Management Project
APF	Adaptation Policy Framework
APR	Annual Project Report
ASAL	Arid and Semi-Arid Lands
AWP	Annual Work Plan
CBO	Community Based Organization
CBS	Central Bureau of Statistics
DDC	Dryland Development Center
DMP	Desert Margins Programme
ERS	Economic Recovery Strategy for Wealth and Employment Creation
EW	Early Warning
FAO	Food and Agriculture Organization of the United Nations
FEWS-NET	Famine Early Warning System-Network
FFS	Farmer Field Schools
FNPP	FAO Netherlands Partnership Programme
GDP	Gross Development Product
GEF	Global Environment Facility
GoK	Government of Kenya
IA	Implementing Agency
ICPAC	IGAD Climate Prediction and Application Centre
IPM	Integrated Pest Management
IPPM	Integrated Production and Pest Management
ITCZ	Inter-Tropical Convergence Zone
KAPP	Kenya Agricultural Productivity Project
KARI	Kenya Agricultural Research Institution
KMD	Kenya Meteorological Department
MoA	Ministry of Agriculture
MoLF	Ministry of Livestock and Fisheries
NC	National Consultant
NCPB	National Cereals and Produce Board
LADA	Land Degradation Assessment (A GEF – UNEP project via FAO)
LUCID	Land Use Change in Development (A GEF – UNEP project)
NALEP	National Agriculture and Livestock Extension Programme
NAP	National Action Programme to Combat Desertification and Drought
NCSA	National Capacity Self Assessment
NEMA	National Environment Management Authority
NGO	Non-Governmental Organization
PDF B	Project Development Phase
PFI	Promoting Farmer Initiatives
PIR	Project Implementation Review
PRSP	Poverty Reduction Strategy Programme
RANET	Radio Network
RCU	Regional Coordinating Unit

SIDA	Swedish International Development Aid
SLM	Sustainable Land Management
SPFS	Special Programme for Food Security
SPA	Strategic Priority on Adaptation
SRA	Strategy for Revitalization of Agriculture
TPR	Tripartite Review
TTR	Terminal Tripartite Review
UN	United Nations
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
WB	World Bank

SECTION I: ELABORATION OF THE NARRATIVE

PART I: Situation Analysis

1. Kenya's geographic location makes it inherently prone to cyclical droughts and floods. However, according to the First National Communication (INC), such types of cyclical climate-driven events will increase in intensity and frequency due to global climate change. Serious repercussions are anticipated thereby not only on agricultural productivity but also the achievement of poverty reduction and other Millennium Development Goals. In response, UNDP and the World Bank, with funding from the Special Climate Change Fund through Global Environment Facility (GEF), have designed a four-year (2008-2012) project for implementation entitled "Adaptation to Climate Change in Arid and Semi-Arid Lands" (KACCAL). The project seeks to facilitate adaptation of key national and local level stakeholders to long-term climate change by developing capacity to manage climate risks, adjusting relevant national policies and programmes to better reflect impending concerns, and piloting a range of priority coping mechanisms for reducing vulnerability of small-holder farmers and pastoralists in rural Kenya. In November 2006, GEF Council subsequently approved US$ 6.5 million for the KACCAL project, with the World Bank entrusted to manage US$ 5.5 million and UNDP to oversee US$ 1 million. The project builds on an existing development baseline in Kenya (largely activities led by the Arid Lands Resource Management Programme and the Ministry of Agriculture), with SCCF resources earmarked for specific activities that increase adaptive capacity to cope with droughts and floods under changing long-term climate conditions.

2. This project document is for the UNDP managed activities of the KACCAL project. Activities focus primarily (although not exclusively) on interventions in the Mwingi[1] district. The district, which is in the semi-arid Ukambani region, has a 66% chance of climate induced-crop failure each year. The UNDP component is anchored around three global level outcomes which underpin the joint UNDP/World Bank KACCAL project:

(i) strengthened knowledge base, coordination and information sharing towards action on management of climatic risk at the National and Regional levels,
(ii) capacity developed and investments made to integrate CRM into local/district planning, and for engaging the private sector, and
(iii) Support for community driven initiatives to enhance the resilience of livelihoods and ecosystems to climatic risk.

3. UNDP-led activities will enhance adaptive capacity in this pilot area in terms of (a) strengthening drought mitigation skills of extension workers whose role is to support household and community based projects; (b) improve the flow and use of early warning information in drought/flood mitigation practices in community services and programmes; and (c) identify and remove barriers impeding adaptive capacity of community level stakeholders to overcome long-term climate change risks. The World Bank's activities will focus on interventions in another four districts within Kenya.

4. The design of UNDP's planned interventions within the KACCAL project has been guided by UNDP's Adaptation Policy Framework (APF) approach in that it took into consideration current vulnerabilities (to climate and non-climatic factors), future climate change and anticipated risks, and adaptive capacity requirements and barriers. The project design phase benefited from a participatory

[1] Mwingi has recently been subdivided into two districts, Mwingi and Kyuso districts. The project will cover activities in both districts.

approach where stakeholders from government, communities, donors and other interested parties were consulted and had the opportunity to contribute.

Context and Global Significance

National environmental context: Location

5. Kenya has a total area of approximately 82 400 km^2, and lies on the eastern coast of Africa with the equator bisecting the country. The altitude varies from sea level to about 5000 meters above sea level in the central highland regions. Lakes occupy about 2% of total area, 18% of the land area is considered high production agricultural land, and arid and semi-arid lands (ASALs) occupy the rest of the country.

Climate characteristics

6. Annual rainfall follows a strong bimodal seasonal pattern. Generally, the long rains occur in March - May, while the short rains occur in October – December, but with variations. Distribution of rainfall is influenced by topography. The country's climate is influenced by its equatorial location, topography, the Indian Ocean, and the inter-tropical convergence zone (ITCZ). The influence of the ITCZ is modified by the altitudinal differences, giving rise to varied climatic regimes. Kenya has seven agro-climatic zones (Figure 1.1 and Table 1.1). Rainfall varies from over 2000mm in the humid to less than 300mm annually in the very arid zones.

Figure 1.1 Agro-climatic Zones of Kenya

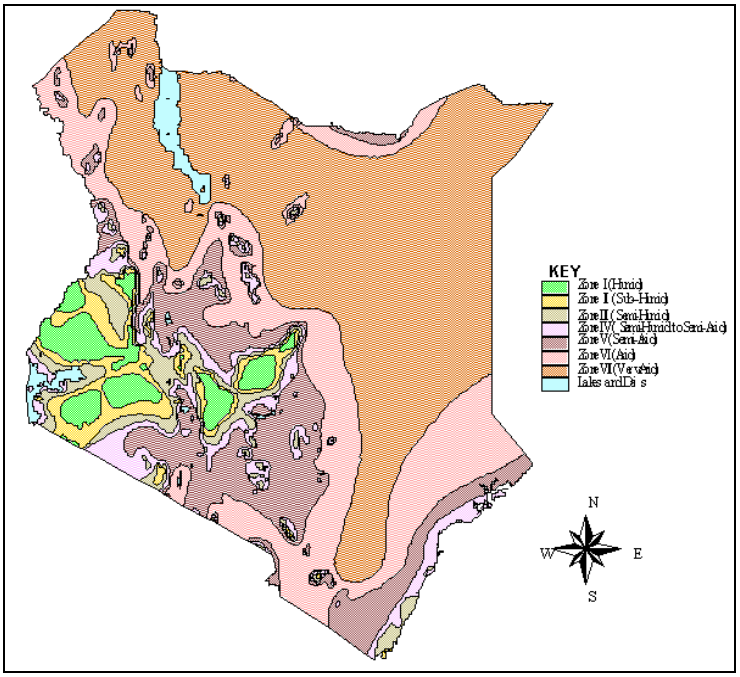


Table 1.1 Agro-climatic Zones of Kenya

	Climatic Zones	Mean Annual Rainfall	% Of Total Land Area
I	Humid	1,400 - 2,700	3
II	Sub – Humid	1,000 - 1,600	4
III	Semi – Humid	800 - 1,400	5
IV	Medium to Semi Arid	600 - 700	5
V	Semi Arid	500 - 600	15
VI	Arid	300 - 550	22
VII	Very Arid	< 300	46

Source: NEAP (1994)

Water

7. The major drainage systems in Kenya include the Lake Victoria, Rift Valley, Athi, Tana, Ewaso Nyiro, and North-Eastern basins. As drainage is influenced by the country's topography, the main rivers drain from the central highlands into the Rift Valley and eastwards into the Indian Ocean and westwards into Lake Victoria. Rivers in the north (including from Mount Elgon and from the highlands along the Sudan-Ethiopian border) drain mainly into Lake Turkana.

8. Although Kenya has numerous rivers, a comparatively small number are permanent. They include the Tana, Athi, Nzoia, Yala, Sondu, Nyando and Mara rivers. Several of the rivers have been dammed upstream to provide hydroelectric power, irrigation water, and water for domestic use.

Soils

9. Kenya is a country with varying climate, vegetation, topography, and underlying parent rock. Climate is the most important factor influencing soil formation. Climate affects the soil types directly through its weathering effects and indirectly as a result of its influence upon vegetation. In most parts of Kenya, soils are deficient in nitrogen (N), phosphorous (P), and occasionally potassium (K). In dry areas, the soils have low organic matter mainly because rainfall is low, variable, unreliable, and unevenly distributed.

Socio-economic conditions

10. Kenya has a population estimated at 32.4 million (2004), of which over 80% live in rural areas and significantly depend on the exploitation of land and its natural resources for their sustenance. The gains made in reducing population growth from over 3.0% in the 1970s and 1980s to around 1.8% in early 2000s, and improved life expectancy of 60 years due to improved medical infrastructure has been set back by the HIV/AIDS pandemic which has reduced life expectancy to only 45 years.

11. The ASAL areas cover 48 million hectares, of which 9.6 million hectares supports some type of agriculture, almost 15 million hectares are only suitable for largely sedentary livestock production and the remaining 24 million hectares are dry and only suitable for nomadic pastoralism (NEMA, 2003). ASAL areas in Kenya are home to about 30% (about 10 million) of human and 50% of livestock populations respectively, and are habitat to about 75% of wildlife, the backbone of Kenya's tourism sector. Population has also significantly increased in Kenya undermining the coping ability of most communities, particularly in the ASAL areas hence rendering people more vulnerable. The recurrence and intensity of droughts has increased in Kenya, particularly affecting ASAL areas, which now experience droughts almost on an annual basis.

Agriculture

12. Kenya's economy depends largely on its natural resources through agriculture, livestock production, fisheries, forestry, tourism and agro-based industries (UNEP & GoK, 2000). Agriculture is the main economic sector contributing 16.6% of the Gross Domestic Product (GDP). Of the 53% economically active population, approximately 74% is employed in agriculture. About 80% of all people working in agriculture are smallholders. The country often has food deficits as a result of periodic droughts and low access to production resources. In the ASALs, about 2 million people are permanently on famine relief and the number sometimes rises to 5 million during severe droughts. Despite 80% of the country being ASAL, agriculture in Kenya is predominantly rain-fed making it highly vulnerable to climate change. Livestock production plays a major role in food security and in the economy of the country since it sustains the livelihood of the population living in the ASALs.

Vulnerability to Climate Change

13. Kenya is prone to cyclical droughts with major ones occurring every ten years and minor ones every three to four years (UNEP and GoK, 2000, Downing, T., E. et al, 1989). It is expected that increase in intensity and frequency of droughts, that are projected with climate change will enhance the adverse impacts of droughts. The following section discusses results of climate change studies in Kenya and current and future impacts on some key sectors of the economy.

Climate change scenarios

14. In the Initial National Communication (INC) of Kenya, General Circulation Models (GCM) used to develop climate change scenarios indicated increasing temperature changes at all locations with doubling of carbon dioxide. Increases varied significantly not only from month to month, but also from location to location. The increases ranged from 0.5 to 3°C. Two GCMs namely, CCCM and GFDL3 were found to give reasonable results for the various locations in Kenya. Both models indicated increasing temperature trend with a maximum of about 3°C with the doubling of CO_2.

15. GCM-based future annual rainfall scenarios over Kenya for the year 2030 using the Canadian Climate Center Model (CCCM) is shown in figure 5.4(c). The GCM-based annual and seasonal rainfall scenarios seem to be controlled more strongly by large-scale mean earth-atmosphere-oceans causative factors.

16. The annual GCM rainfall projections show that the region extending from Lake Victoria to the central highlands east of the Rift Valley will experience mild increases in the annual rainfall. The remainder of the country is expected to receive reduced annual rainfall amounts.

17. The spatial distribution patterns of the relative adjustments of the mean annual rainfall indicate that only a few areas in the country will experience positive adjustments. Such areas are found in the vicinity of the City of Nairobi only. All other parts of the country will experience negative mean annual rainfall adjustments with the lowest relative adjustments found in central and northwestern parts of Kenya.

18. The following socio economic sectors were identified to be highly vulnerable in Kenya's Initial NC**:**

- Agricultural sector
- Water resources
- Aquatic and coastal resources: inland and marine water fisheries including the coastal zone related to level use
- Human health; malaria, African trypanosomiasis and cholera
- Terrestrial ecosystem; forestry and rangelands

Agriculture sector

19. The overall adverse impacts of the extreme weather and climate events that could occur because of the projected climate change in Kenya would be associated with mass migration, food shortages, water, energy, famine, shortage of essential basic commodities, loss of life and property together with many

other socio-economic disasters. It is therefore apparent that the space-time variability of rainfall could have far reaching socio-economic impacts in Kenya.

20. The two extreme climate events that would adversely impact on the agricultural sector are drought, which would result in crop water stress and hence yield reduction, and flooding resulting in water logging in both the ASALs and high potential areas. This will lead to reduction in crop yields and shortage of forage, increased disease incidences for both human and livestock, as well as breakdown of marketing infrastructure. Other more direct negative impacts include habitat modification, ecosystem degradation, losses in biodiversity, accelerated desertification, and increase in the occurrence of other related natural disasters.

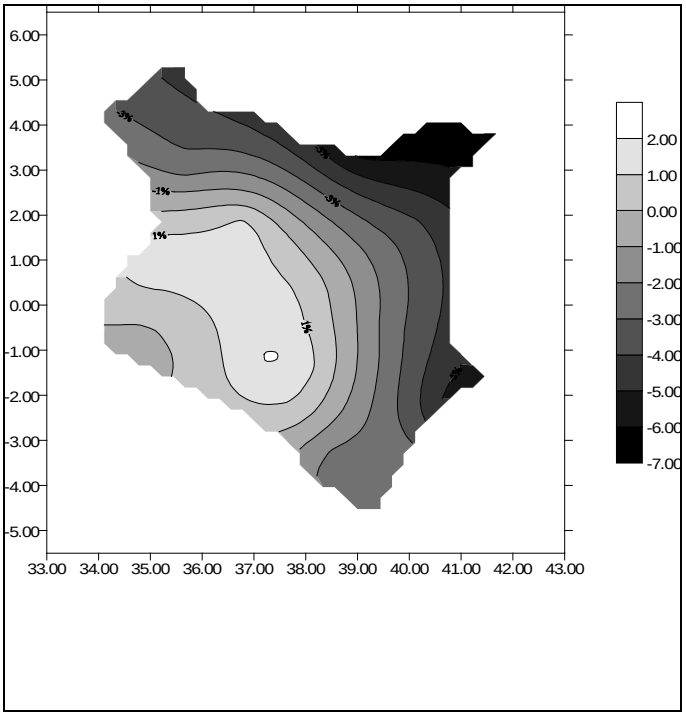


Figure 1.2: GCM-based annual rainfall scenarios for the year 2030, expressed as percent increment of the annual rainfall above/below the 1990 baseline values

Water resources

21. Kenya has a wide spectrum of the water resources base, which consists of both surface and groundwater resources (fossil and rechargeable). The terrestrial-surface-water resources systems are strongly influenced by rainfall. Most projections of future climate change in Kenya indicate that rainfall will either increase or remain unchanged in the humid areas, but will decrease in the arid and semi-arid areas. All these imply that, terrestrial surface water resources are very vulnerable to the impacts of climate change.

Policy, legislative and institutional context

22. Among the recent initiatives are the National Environment Action Plan of 1994; Session Paper no. 1 of 1994 on Recovery and Sustainable Development by the Year 2010; the National Poverty Eradication Plan (1999), and Poverty Reduction Strategy Paper (2001), while the latest initiative is the Economic Recovery Strategy for Wealth and Employment Creation (2003) that dedicated two of its chapters to ASALs. A common constraint faced by for many of these previous programmes and policies is the lack of commitment and coordination between line ministries.

23. The review of the ASAL Development Policy and Investment Plan (dating from 1992) is a recent activity, relying on participatory national and localized stakeholder discussions and drafting sessions. The draft revised policy documents indicate the past decades of gaps and political failures regarding the necessary attention to Kenyan ASALs, which is of key importance to understanding the situation and development state of Kenyan ASALs. The policy presents a new approach to development in the ASALs as it introduces an integrated cross-sectoral approach to sustainable development and links this to an investment plan for all relevant sectors. The investment plan was prepared by each of the line ministries and the two coordinating ministries.

24. In March 2004 the Ministry of Agriculture launched the Strategy for Revitalization of Agriculture (SRA), which gives special attention to the ASALs and agro-pastoralists. The SRA stresses the need for developing a participatory extension system that is responsive to the needs of the communities in the ASALs. The Economic Recovery Strategy for Wealth and Employment Creation (ERS) gives particular emphasis to agriculture as the engine for growth for the Kenyan economy (Ministry of Agriculture, March 2004). The overall goal is to achieve a progressive reduction in unemployment and reduce the level of poverty.

25. The Draft National Land Policy of May 2007 notes the need to ensure that land use and practices under pastoral tenure in ASALs conform to principles of sustainable resource management and that disaster management legal and policy frameworks for prevention and management of land related disasters will be ensured. The First Medium Term Plan (2008-212) of Vision 2030: Chapter 5 notes that climate change is a serious challenge to Kenya's economic development due to low adaptive capacity.

Stakeholder analysis

26. The design of this project relied on extensive stakeholder consultations during the design phase. Once pilot sites had been identified based on vulnerability assessments, stakeholder consultations were undertaken with the local communities to identify which adaptation measures are relevant in specific sites. Participatory Rural Appraisal approaches were used to validate the community's vulnerability profile and ascertain demand for specific interventions. Other secondary data sources, including consultations with local and international expertise on climate change risk management were used to validate the findings.

27. The National Communications provided a useful reference point for discussions on priority interventions at stakeholder consultations but the scale of analysis demanded that further work be done at a micro-scale level to better appreciate underlying barriers and opportunities. This was necessary given that local communities in the pilot region were not only the primary beneficiaries of the project, but also key partners.

28. During formulation of the UNDP component both informal and formal consultations were held with representatives from the Ministry of Agriculture, Ministry of Livestock and Fisheries Development, Ministry of Water Development, National Environment Management Authority and UNFCCC Focal Point, University of Nairobi, Kenyatta University, Kenya Forestry Research Institute, Arid Lands Resource Management Authority, FAO Kenya, Kenya Meteorological Department, ICPAC, and various NGOs and CBOs and also representatives of farmers and pastoralists in Mwingi District (Annex 6). Formal consultations were held through two national stakeholder meetings at the Ministry of Agriculture Headquarters and a stakeholder workshop held at Mwingi District Headquarters.

29. Key stakeholders in the implementation of this project are listed in Table below.

Table 1.2: Stakeholders and their Roles

Organization	*Role*	*Technical Input*
Ministry of Agriculture	Participation in the Project	Land use planning, soil and

	Board Provision of extension support to communities District level Agricultural Policy & Management	water conservation, agricultural training and extension Policy formulation
UNDP CO	Accountability to GEF for funds disbursement for overall delivery of project results; Member of Project Board	Ensure project implementation adheres to guidelines of the SPA and also alignment with UNDP's Adaptation Portfolio
Ministry of Environment and Natural resources	Environmental Policy	Policy formulation Integrating climate change risk management into Environment Policy Driving the integration of climate change risk management into operations of other line Ministries
National Environmental Management Authority	Environmental Impact assessment	Environmental management; Coordination with other national initiatives on climate change adaptation
Arid Lands Resource Management Programme (ALRMP)	Project Management Services	Vulnerability and Food security Assessments Coordination with World Bank Component
Ministry of Water Development	Technical support on water resources management	Catchment management
Kenya Meteorological Department	Provision of climatic information	Weather stations, climate monitoring and forecasting
IGAD Climate Prediction Application and Centre (ICPAC)	Provision of climate seasonal predictions and early warning	Climate modeling Training for local communities
Ministry of Livestock and Fisheries Development	Technical support for livestock development	Livestock production
Forestry Department	Information on land use planning	Land use planning Forest management
Mwingi District Development Committee	Facilitating involvement of community leadership	Coordination of socio-economic development
Development Partners	Co-financing	
NGOs and CBOs	Livelihoods training Community facilitation Co-financing	Resource mobilization Community facilitation
Local Communities	Community project implementation Input in adaptation project design	Monitoring of results
Universities	Livelihood research and training	Research and training

Baseline analysis

Drought impacts

30. Over 70% of the natural disasters in Kenya are related to extreme weather and climate events such as strong winds, droughts, and floods amongst others. Extreme weather and climate events influence the entire economy of the country with droughts and floods having the highest adverse effects on the economy. The majority of the major shortfalls in food supply recorded in 1928, 1933-34, 1937, 1939, 1942-44, 1947, 1951, 1952-55, 1957/58, 1984/85 and 1999-2000 could be easily associated with rainfall deficits experienced in the respective years. The timing, intensity, duration and total magnitude of the rains are the key factors in the maize harvest (which is the major food crop), with the long rains (March-May) playing the most important role. Some of the recent droughts include the 1983/84 and 1999/2000 and the current 2005/2006, which is ravaging the country, especially in the ASALs. The earlier two droughts had wide-spread social and economic impacts and the current one is proving no different. The 1999-2000 drought was amongst the longest and severest droughts on record in Kenya. Some recent floods include 1961/62 and 1997/98. The 1997/98 floods were amongst the most intense and widespread on record.

31. Droughts are the most common disasters affecting Kenya. Kenya has recorded 28 major droughts in the last 100 years, three of them occurring during ~~in~~ the last decade. The severity and frequency of droughts in the country seem to have increased over time. Some of the droughts that have occurred in Kenya include the 1952 – 1955, 1973 – 1974, 1983 – 1984, 1992 – 1993, and 1998 – 2000 droughts. Detailed analysis of these droughts is shown in Table 1 below. The 1999/2000 drought was widespread and affected northern, central, eastern, and coastal parts of Kenya while the Drought in 2003/2004 affected parts of northern, eastern, and coastal areas of Kenya. These droughts resulted in energy crisis, food, and water shortages with the pastoral communities in the ASALs being the hardest hit. One on the districts within the ASALs that has experienced severe drought impacts is Mwingi, in the Northeastern Province of Kenya. Table 1.3 shows the history of droughts occurrence in Kenya.

Table 1.3: History of drought occurrences in Kenya

Period	Areas affected	Remarks
1883	Coast	Worst famine in 30 years
1889 – 1890	Coast	One year of drought and famine
1894 – 1895	Coast	Information not available
1896 – 1900	Countrywide	Failure of three consecutive rainy seasons. Human deaths reported
1907 – 1911	Lake Victoria, Machakos, Kitui and Coastal	Minor food shortages
1913 – 1919	Eastern and Coastal Provinces	Impacts exacerbated by war
1921	Coastal	A record dry year at the coast
1925	Rift Valley, Central and Coastal Provinces	Local food shortages, crop and livestock losses
1938 – 1939	Northern, Rift Valley and Central Provinces	Heavy loss of livestock, Lorian Swamp dried up; deaths occurred
1942 – 1944	Countrywide	Food shortages, human deaths reported
1947 – 1950	Central and Coastal Provinces	Very severe drought in Coast Province
1952 – 1955	Eastern, Central, Coast, Nyanza, Western and Rift Valley Provinces	Water shortages
1960 – 1961	Eastern, South/North Rift Valley	High cattle mortality
1972	Widespread	Water shortages, wildlife deaths
1973 – 1974	Most of Kenya	Human and livestock deaths

1974 – 1976	Northern, Central and Eastern Provinces	Heavy livestock losses
1980	Central, Eastern, Western and Coast Provinces	Paralysed crop production, water shortages
1981	Eastern Province	Famine
1983	Countrywide	Water shortages, human and livestock migration
1984	Central, Rift Valley, Eastern, North Eastern	Large food deficits
1987	Eastern and Central	Severe food shortages
1992 – 1994	Northern, Central and Eastern Provinces	Moderate food shortages
1999 – 2000	Countrywide except west and coastal belt	Shortage of food supply, heavy reliance on relief food, shortages of supply, interruption of electricity supply

Source: UNEP & GoK: Devastating Drought in Kenya: Environmental Impacts and Responses

Early warning systems

32. The various organizations/institutions in Kenya that are involved in data collection for early warning systems include Kenya Meteorological Department (KMD), Ministry of Agriculture, Department of Resource Survey and Remote Sensing (DRSRS), IGAD Climate Prediction and Application Centre (ICPAC), Kenya National Bureau of Statistics (KNBS), National Cereals and Produce Board (NCPB), Famine Early Warning System-Network (FEWS-NET) and Arid Lands Resource Management Project (ALRMP), World Food Programme (Vulnerability assessment Mapping) Kenya Office, Livelihood Early Warning Systems (LEWIS), Livestock Network and Knowledge System (LINK), Regional Center for Mapping of Resources for Development (RCMRD).

33. The KMD provides climate monitoring and prediction services. It works in collaboration with the IGAD Climate Prediction and Application Centre and other International Climate Prediction Centers the Department issues probabilistic seasonal climate forecasts derived from a blend of statistical and global circulation models. Since 1997 climate experts and users have regularly convened twice per year at the IGAD Regional Climate Outlook Forum (COF) to produce a consensus forecast for the IGAD region, which in turn is downscaled by the respective National Meteorological Services for national consumption. The print and electronic media have been the main dissemination channels for seasonal climate forecast information.

34. Although climate and early warning information could be available at the district headquarters, there is inadequate extension service to disseminate this information to the end users. In most cases there is lack of competent personnel to interpret the information to a user-friendly format. The KMD whose mandate it is to provide free weather and climate information has also in the last decade commercialized some of its services. For example a ten-day agro meteorological bulletin, which used to be issued free to the farming community, is no longer available. Specialized agrometeorological analysis is now only available on demand and at a fee.

Food security situation

35. Food availability at household level in the ASAL districts, which include Mwingi, has been declining lately due to crop failure in the last four consecutive seasons. The main constraints to food insecurity in the district are lack of water for human consumption and agriculture, and lack of employment opportunities. Table 1.4 below shows seasonal yields of the main crops grown in the district.

Table 1.4: Five Year Seasonal Crop Yields (Tons/Ha) for Major Crops Grown in Mwingi District

Crop Type	Crop Yield (Tonnes/Ha)									
	1999		2000		2001		2002		2003	
	Long Rains	Short Rains	Long Rains	Short Rains	Long Rains	Short Rains	Long Rains	Short Rains	Long Rains	Short Rains
Beans	0.072	0.360	0.000	0.095	0.000	0.630	0.179	0.900	0.073	0.324
Sorghum	0.016	0.270	0.000	0.404	0.035	0.675	0.270	0.720	0.450	0.540
Millet	0.045	0.360	0.000	0.360	0.042	0.076	0.360	0.720	0.216	0.360
Cow peas	0.045	0.360	0.000	0.384	0.042	0.555	0.284	0.770	0.162	0.324
Cassava	5.000	8.000	2.000	2.000	4.623	5.000	5.994	3.955	1.000	8.000
Green grams	0.036	0.270	0.000	0.709	0.028	2.162	0.243	0.608	0.162	0.324
Pigeon Peas	0.045	0.044	0.018	0.360	0.106	0.670	0.076	0.779	0.041	0.486
Maize	0.027	0.324	0.000	0.360	0.017	0.540	0.000	0.000	0.090	0.674

Source: Ministry of Agriculture (GoK)

36. At District Level the Government of Kenya has an integrated extension programme in Mwingi that include the National Agriculture and Livestock Extension Programme (NALEP) that plans to expand into the semi-arid districts during its second phase (NALEP Phase II). NALEP is co-funded by the Swedish International Development Agency (SIDA) that has been involved in the Kenyan agricultural sector for several decades. The overall goal of NALEP is to enhance the contribution of agriculture and livestock to the social and economic development and poverty alleviation. This goal will be reached though a pluralistic, efficient, effective, and demand-driven professional national agricultural extension system. The Kenya Agricultural Productivity Project (KAPP), funded by the World Bank, also supports participatory extension mechanisms, and links this to applied research and technology adoption.

37. The Special Programme for Food Security (SPFS) first introduced the Farmer Field School (FFS) approach on a small-scale in Kenya in 1995 of which Kenya was one of 15 pilot countries, with an initial focus on Integrated Pest Management (IPM). Since 1995, the FFS approach has been tested and adapted for farmer driven learning for a range of crop and livestock enterprises and has increasingly been applied as a training tool for agricultural topics in general rather than just for IPM. In 1999, FAO's Global IPM Facility launched an East African pilot project for FFS on Integrated Production and Pest Management (IPPM) covering three districts in Western Kenya. With IPPM as the entry point, the FFSs have included other aspects that have a bearing on production and livelihoods in general. Improved resource management issues as well as financial management are recognized as important components for capacity-building.

Site selection

Process followed

38. Based on guidance provided by UNDP's Adaptation Policy Frameworks document, three broad based criteria were identified and used to constitute a basis for selection of pilot sites for the UNDP component of the joint project. The criteria include vulnerability to climate change, adaptive capacity, social acceptance, and food insecurity considerations.

39. In the inception meeting for the UNDP component of the joint project, which was held on 4th October 2005, and attended by representatives from various relevant Government Ministries, Mwingi and Makueni districts satisfied all the above criteria for selection. It was also noted that UNDP and the ALRMP has already on-going projects in both these districts. There is also existence of Farmer Field Schools (FFS), as well as activities led the Forest Department and ICIPE in their projects in Mwingi district. The selection of project sites in either of these two districts was therefore possible, and a final decision was reached after the completion of field surveys by the national project development team.

40. Together with the surveys in Mwingi District, extensive consultations and discussions were held with the District personnel of the Ministries of Agriculture and Livestock and Fisheries. Relevant reports were reviewed, including the Government of Kenya Annual District Agricultural Production Reports and District Livestock Production Reports. Consultations were held with officials from relevant organizations working in the area including the District Environment Officer from The National Environment Management Authority (NEMA), Drought Management Officers from the ALRMP of the OP. Other organizations consulted were Farm-Africa and community based organizations. During the field surveys the team visited a number of farms and farmer groups (e.g. Farmer Field Schools, (FFSs)) and held discussions with them.

Description of selected site: Mwingi District

41. Mwingi District is one of the thirteen districts in Eastern Province of Kenya. It borders Kitui District to the south, Machakos District to the west, Mbeere and Meru South Districts to the North and Tana River District to the East. The district lies between latitude 0º 03' and 1º 12' South and longitudes 37º 47' degrees 38º 57' East. The district covers an area of 10,030.30 km² of which about 18% is cultivated while the remaining (about 82%) is used for livestock production.

42. The district is divided into 9 divisions namely Central, Migwani, Kyuso, Mumoni, Nguni, Ngomeni, Nuu, Mui, and Tseikuru, 38 administrative locations and 127 sub locations. Figure 2(a) (Annex 4) shows the various administrative units in the district, by division.

43. The Agro-ecological Zones of Mwingi district (Figure 2(b), Annex 4) are shown on the basis of aerial coverage in Table 2.1.

Table 2.1: Distribution of agro-ecological Zones of Mwingi District by Area

Agro-ecological Zone	**Area (Sq. KM.)**
UM 3-4	19.8
UM 4	114.9
LM 4	952.6
LM 5	4,995
IL 5	531
IL 6	3,417
TOTAL	**10,030.3**

44. The climate of the district is hot and dry for the greater part of the year. The maximum mean annual temperature ranges between 26º C and 34º C. The minimum mean annual temperatures in the district vary between 14º C and 22º C. The district has two rainy seasons, i.e. March – May (long rains) and October – December (short rains). Generally, the rainfall is below 800 mm per annum for most parts of the district and is very unreliable. There are long stretches of dry, hot seasons between August and September (immediately after the cold July), and again in January and February. Most rivers are dry through most of the year and there is limited intensive land use. However, in Mwingi District, the short rains are more reliable than the long rains.

45. The district has a population of 303,828 (1999 population census) comprising 162050 females and 141778 males, and is projected to rise to 377,081 people in 2008 with a growth rate of 2.4 per cent (ALRMP, 2005). The area has a population density of between 18 and 66 persons/km², with an average population density of 30 persons per km². Poverty levels in Mwingi are high at over 60% of the population living below the poverty line of less than US$1 a day.

46. Water is the major limiting factor in the district and is perceived to be the most important affecting the ability of the people to have sustainable livelihoods. The district has only one permanent river, Tana River, with several seasonal rivers most of them draining in the Tana River (ALRMP, 2005).

47. Mwingi district is semi-arid with bimodal rainfall pattern. The annual average rainfall ranges between 500mm and 700mm. The district has been under Emergency operations (EMOP) since September 2004. It started with general food distribution. In January 2006, 85-90% of the households were mostly relying on local markets to purchase their foodstuffs and /or on the on going food interventions. The district has experienced poor rainfall for the last four consecutive seasons, from early 2004. There was total crop failure for the main crop of maize, sorghum, millet, beans and peas in the 2005/2006 short rains season. The ASAL region in Kenya covers more than 80% of the total land area. The choice of Mwingi district for this project was arrived at after consideration of all the criteria for selection. Mwingi district has the advantage of being relatively a new district and having a very united and responsive government district team. There are also many stakeholders including FFSs, NGOs, CBOs and international development partners, involved in various projects in the district, and which will play complementally roles to this project (see table on Stakeholders) and contribute to its success.

48. Two sites corresponding to two administrative divisions in Mwingi District of Eastern Province of Kenya were selected for piloting and subsequent implementation of the UNDP component of the joint project. These are Mumoni and Kyuso divisions.

Mumoni Division

49. Mumoni division falls within ecological zone V and is inhabited by 37,609 people (17,498 males and 20,109 females) and has a total of 6,991 households. The division is characterized by poor distribution of water sources. In general, distances to water points are 2 and 7 km for wet seasons and dry seasons respectively. Poverty levels are very high in the division at over 70% of the population living below the poverty line of less than US$1 a day (worldbank.org/research/povertymaps/Kenya/ch4.2.pdf). Poverty does increase vulnerability of the population because it erodes coping abilities.

50. Mumoni division is one of the divisions benefiting from the Promotion of Farmer Innovation/Farmer Field Schools (PFI/FFS) and FAO/Netherlands Partnership Programmes (FNPP). The activities involved in these programmes are water harvesting (FNPP) and promotion of farmer innovations through FFS (PFI/FFS). The projects engaged in by the FFS range from soil and water conservation, water harvesting, income generation through keeping goats and local poultry, seed bulking and operating crop trial plots.

Kyuso Division

51. Kyuso Division lies to the east of Muumoni division and like Muumoni also falls within agro-ecological Zone V. It is inhabited by a total population of 34,272 people (15,728 males and 18,544 females) with a total of 6,291 households. The distribution of water sources in the division can be described as fair to poor. It has 6 seasonal rivers, 60 water pans/earth dams, 14 dams, one sub-surface dam, 35 shallow wells and 6 boreholes. Distances to watering points in the division are 2 km and 8 km for wet seasons and dry seasons respectively.

52. The division is one of those in the district that is also benefiting from the PFI/FFS and FNPP programmes and the NALEP/GOK FFS programmes. The activities involved in these programmes are water harvesting (FNPP) and promotion of farmer innovations through FFS (PFI/FFS). The projects being undertaken by FFS in this division include keeping of goats, beef cattle and local poultry, and growing of green grams, maize, vegetables and operation of fruit tree nurseries.

53. Poverty levels in Kyuso are high about 50 – 60% of the population living below the poverty line. This, however, is better than in Mumoni where the proportion of people living below the poverty line is over 70%.

Results of Mwingi District Baseline survey

Process followed

54. Participatory Rural Appraisal (PRA) techniques and interviews with stakeholders at the sites for the UNDP component of the joint project were used to identify and prioritize various issues. Consultations through formal and informal discussions were carried out by the technical team with various heads of department and sections of government at the Mwingi District Headquarters. Field excursions in the company of senior district government officials were conducted in the two divisions. There were extensive formal and informal discussions with various farmer groups in the two selected divisions. A qualitative assessment in the field was carried out during which meetings with target groups were held. A questionnaire was administered and social groups identified as part of the adaptive capacity needs assessment. The major social groups included Community Based Organizations (CBOs), Churches, NGOs, etc. As part of the adaptive capacity needs assessment, a stakeholders' workshop was conducted at the Mwingi District Headquarters on 14th and 15th November 2005.

Drought impacts on Livelihoods

55. The impacts of droughts on crop production include reduced crop yields, total crop failures, influence on the choice of the types of crops grown, as well as crop diseases. The major crops grown include maize, beans, green grams, cow peas, sorghum, and millet. There has been a general shift from indigenous crops, which are highly drought tolerant, towards maize, and bean production, which are considered more modern and fashionable. Most droughts do result in near total crop failure.

56. Droughts have had numerous socio-economic impacts, which include reduced farm labor because some households engage in alternative means of livelihood such as working as farm laborers elsewhere and as casual employees in urban centers. Additional labor is also required because animals have to be moved to distant locations for grazing. A summary of these impacts is given in Table 2.2 below.

Table 2.2. A summary of impacts of droughts in Mwingi District

Impacts of droughts			
On crop production	*On the environment*	*On biodiversity*	*Socio-economically*
Reduced crop yields Total crop failures	Reduction of water supply Reduction of livestock	Extinction of some vegetation and animal species e.g. (*given in*	Food relief Rural-urban migration Poor household nutritional

Reduced variety of crops grown Land degradation Contributing to crop diseases	forage supply Biodiversity reduction (see adjacent column) loss of some highly palatable forage species	*Kikamba language*) *Mbeea* – grass type *Ngwai* – bird type *Ngunda Aithi* *Kithanze* *Kilili* *Kimuu* *Mbeetwa* *Kilia*	levels Sale of family livestock poor livestock health high livestock disease incidences high school drop-out rates Increased poverty levels Conflict in resource use Famines and starvation Increased food insecurity levels

57. The major environmental hazard in Mwingi district is drought (see Figure 2.1). Water supply has been identified as the major need in the district, particularly during the drought periods. There are no sufficient water sources, and water levels in the shallow wells dug near streams either gets significantly low or dry up during the dry periods. The population also has to walk long distances in search for water for both domestic use and livestock watering. Droughts usually increase food insecurity through frequent crop failures and decreased forage supply for livestock. Also identified is increased occurrence of diseases during periods of droughts, which is worsened by inadequate medical facilities in the study area.

58. The most recent report from the Kenya Food Security Steering Group (KFSSG, January 2006) shows four consecutive seasonal rainfall failures that have resulted in depletion of food at household level, and about 90% of the population relying on food purchased from other Districts. Major contributing factors to food insecurity in Mwingi District include lack of water for both human agriculture and livestock production, as well as lack of employment opportunities. Households reported increased sales of livestock, especially cattle and goats, so as to purchase food. This has depleted household resources and thereby increasing their vulnerability. The yields of various crops for Mwingi district for the two cropping seasons in a year are show in Table 2.3 below.

Figure 2.1 Major Environmental hazards in Mwingi District.

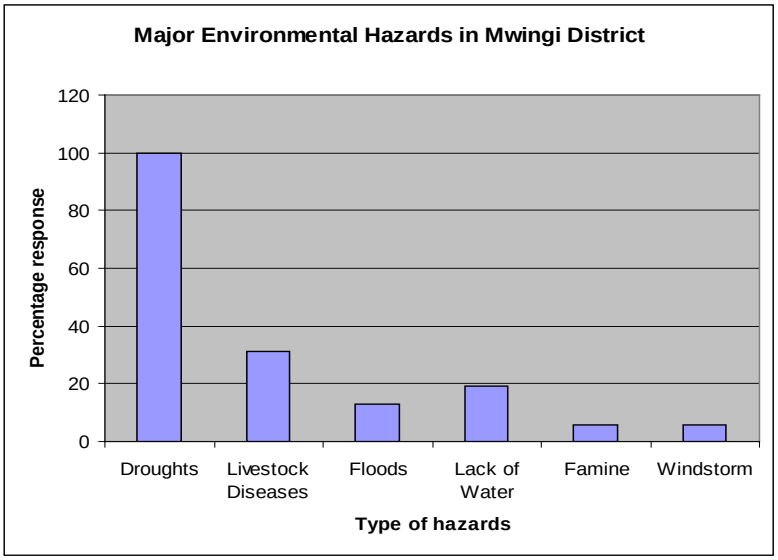


Table 2.3: Production achieved for main food crops in the last five seasons

Type of crop	*Yield(number of 90kg bags) -Long rains*			*Yield(number of 90kg bags) Short rains*		
	2003	2004	2005	2003/2004	2004/2005	2005/2006
Maize	9005	0	1129	184788	91945	0
Sorghum	9520	0	5364	80934	46935	Negligible
Millet	171160	0	8388	105280	68560	Negligible
Beans	4208	0	541	77523	40665	0

Cow/peas	14583	0	3504	131623	65660	Negligible
Pigeon/peas	2228	1557	13716	62288	-	-

Source: Mwingi District Short rains assessment Report (January, 2006)

Drought Coping strategies

59. The communities within the UNDP pilot sites have developed various drought coping strategies and adaptation mechanisms in order to counter their impacts. Table 2.4 gives a summary of these strategies and adaptation mechanisms.

Table 2.4. Summary of mechanisms for coping with drought

- Mixed cropping
- Digging of shallow wells
- Diversification of livelihoods e.g. bee keeping, venturing into small scale business
- Animal stock reduction to conserve forage
- Reliance on natural resources, e.g. charcoal burning
- Drought tolerant crops such as sorghum, cowpeas, millet, cassava
- Extensive soil and water conservation measures
- Stockpiling of food reserves from good harvest years
- Sale of livestock during period of scarcity
- Paddocking as part of forage conservation
- Use of organic manure to enhance productivity
- Famine relief (*mwolio*)
- Urban migration
- Revolving group loans

60. Drought coping strategies aim at increasing diversification of crops or mixed cropping, digging of shallow wells, and diversification of livelihoods e.g. Bee keeping, venturing into business. Other adaptation mechanisms include livestock "loaning", emergence of several self-help groups, diversification of livestock production or keeping of few and different animal types in order to conserve forage, hiring of pasture, charcoal burning, protection of water sources by use of by-laws, and growing of drought resistant crops such as sorghum, cowpeas, millet, cassava. Other coping strategies include extensive soil and water conservation measures, use of manure to increase yields, stockpiling of food reserves from good harvest years, sale of livestock during period of scarcity, "*paddocking*" as part of forage conservation, use of crop of residues to feed animals during droughts, use of manure to enhance productivity, sale of pasture for cash, hiring or leasing of grazing pastures, move animals to other areas (though not very common), and use of certain parts of plants such as acacia pods.

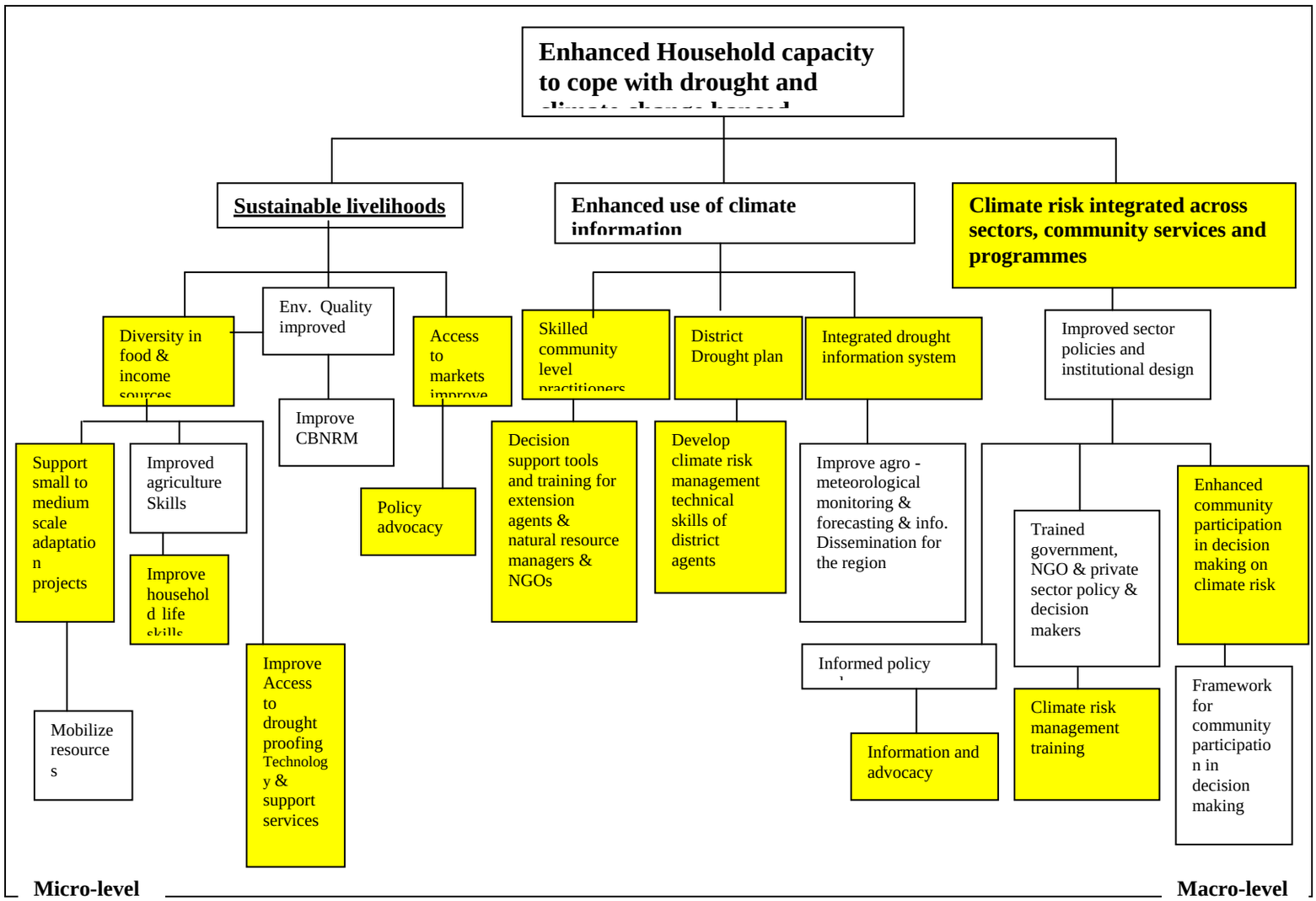
Challenges

61. The following are among the challenges that the UNDP component of the joint project will address during the implementation phase: lack of water which is the major limiting factor in the copping mechanisms of the people of Mwingi; encouraging farmers to resort back to the indigenous crops which they consider unfashionable, yet are highly drought tolerant and will help to improve food security situation; creating awareness and incorporating suitable agro-forestry practices in the farming system as part of environmental and soil conservation measures; educating farmers on water harvesting techniques as means of enhancing water supply for domestic use and crop production. Other challenges include identification of alternative sustainable livelihoods and adoption of the same by communities and reduction of destructive deforestation for charcoal burning and wood carving. Among the major challenges that this project will address is piloting and testing coping strategies and capacity development to confront and overcome climate risks and enhancing resilience through diversification of livelihood options.

Barriers to adaptive capacity to climate change

(a) *Household level Barriers*

62. Individual households rely mainly on single livelihood strategies and they are therefore vulnerable to the effects of climate change. Within a certain community, very little in terms of diversification of livelihoods are observed, making communities also vulnerable. Within a community, more than 90% of the households would be involved in only one or two livelihoods; either small scale farming or small scale agro-pastoralism. Barriers to more diversification arise from lack of investment financing and to markets, which limit opportunities for income generation.



Selected as possible priority intervention by communities and stakeholders

63. As the ecosystems in ASAL areas are fragile, dependence on natural resource based livelihoods are already unsustainable, especially with increasing population pressures. Climate change will make the situation much worse, thereby increasing the level of community vulnerability.

(b) Institutional

64. Institutions at national and local level have responsibilities in terms of economic planning and development. In some cases, the effectiveness of these responsibilities are constrained by capacity, unclear scope and alignment with other relevant initiatives and including limitations in enforcement methodologies for institutions to fulfill their mandates.

(c) Systemic

65. Barriers to incorporate policy on climate change issues emanate from widespread acceptance that drought and climate variability and change are acts of God and are inevitable. As such, there is some hesitation to integrate climate change risks into national economic planning and development. There is also the misconception that climate change is a future phenomenon which is very uncertain and therefore there is little economic justification to pay too much attention to it at present. At the community level, such barriers are compounded by the repeated failure of existing systems, such as forecasting systems, as useful tools for climate change risk management. In particular, there is reduced confidence in the usefulness of such tools, if properly used to assist decision-making capacities.

PART II: Strategy

Project Rationale and Policy Conformity

66. The joint UNDP-WB KACCAL project – including this UNDP-managed component– is submitted to the Special Climate Change Fund (SCCF). The project builds on the Arid Lands Resource Management Project (ALRMP II) project, a long standing Government program for rural development in the ASALs that has been successful in reaching marginalized communities and in establishing sound implementation systems for drought risk management. ALRMP originally started as an emergency drought recovery operation in 1994 (Emergency Drought Recovery Project, Cr. 2460). It was realized that a longer term program aimed at building a drought management system as well as community capacity to cope with drought was needed. Two phases of this program have been supported so far - ALRMP I (Credit 2797) with US$ 21m in 1996 and ALRMP II (Credit 3795) with US$ 60m in 2003. A supplemental credit for US$ 60m in 2006 expanded the scale and scope of operations, and replenished its depleted drought contingency fund. The project was also extended to June 2010. ALRMP now covers a total of 28 arid and semiarid districts[2] and has strengthened its focus on natural resource management, now a distinct component. ALRMP's strengths include a sound decentralized institutional structure, and effective coordination mechanisms at the national, district and community level which have resulted in an effective multi-sectoral approach to development. Short response times to drought stress, reduced distances to key social services, as well as diversification of livelihoods have been some of the key results of the program. ALRMP supported the establishment of the Kenya Food Security Meeting (KFSM), an effective mechanism for inter-government and donor-Government coordination on drought and food security at the national level. The KFSM is co-chaired by the ALRMP on behalf of Government and the World Food Program (WFP) and consists of key sectoral ministries and external partners. The KFSM continues to play a key role in overall drought management and is formally linked with Government's drought and disaster coordination mechanisms.

67. The ALRMP catchment area is clearly affected by the rising risks of climate variability and change, and the program provides a very effective delivery mechanism for increasing the adaptive capacity of the

[2] GOK subdivided districts in 2007; however ALRMP operates within the original, larger administrative areas. In this document, reference to districts refers to the original, longstanding districts of Kenya.

most vulnerable segments of the population. KACCAL is consistent with the guidelines of the Special Climate Change Fund (SCCF) addressing several of its priority areas, including: water resource management, land management, agriculture, and fragile ecosystems. Through KACCAL, SCCF/GEF incremental support would enhance the climate information base; strengthen the adaptive capacity of relevant stakeholders and mainstream climate risk management into its development plans and investment programs.

Project Rationale

68. The overall strategy of the UNDP-managed component of the KACCAL project is to enhance adaptive capacity to drought (and flood) in the pilot area. Consultations with key stakeholders during the preparatory phase indicated that the priority needs to enhance adaptive capacity by piloting risk management strategies including enhanced access to and management of water for irrigation, promotion of indigenous crops that more resilient to anticipated climate (and improved access to markets for these crops), promoting livestock varieties that are more suited to the climate, development and promotion of alternative livelihood opportunities (such as beekeeping activities), strengthening climate risks management skills of extension workers whose role is to support household and community based projects, improving the flow and use of early warning and seasonal forecast information in community practices. Training materials for climate risk management will be prepared and disseminated to other areas of the district as well as other parts of the country.

69. The strategy adopted in this the UNDP-managed component of the KACCAL project builds on the development baseline, and includes additional activities to increase adaptive capacity to cope with drought under changing climatic conditions.

Project Goal, Objective, Outcomes and Outputs/activities

70. The *goal* of the overall UNDP-WB project is t**o *enhance the resilience of communities and the sustainability of rural livelihoods threatened by climate change, in the arid and semi-arid lands of Kenya*** As a contribution to the achievement of this goal, the joint project *objective is* ***to increase the capacity of communities in the selected districts of the ASALs to adapt to climate variability and change.*** In order to achieve the overall project objective, the following three project level outcomes will be supported by the UNDP-managed component of the KACCAL project.

Component 1: Climate information products, policy and advocacy

Outcome 1: Enhanced capacity of national and regional stakeholders to plan, manage and implement climate change adaptation measures **(SCCF Increment US$ 0.33 million).**

Output 1.1: Targeted knowledge-based tools developed for effective climate risk management.

Activity 1.1.1 Efficient integrated drought information system

71. This output focuses on the establishment of an integrated drought/flood early warning system or alternatively, the harmonisation of the existing early warning initiatives currently in place to include climate change risks. A variety of measures will be tested in pilot sites (including Mwingi district) that increase the capacity of communities to reduce the likely impacts of anticipated drought/flood. In addition, UNDP will support the establishment of a district-based integrated socio-economic, climatic information and environmental database system to support vulnerability/risk mapping and the results of climate change impact assessments for use by all stakeholders. Information on forecasted stream-flow data, mid- to long-term weather forecasts, optimal crop, and livestock growing conditions, among other data that supports effective climate risk management. In order to achieve this, UNDP will ensure

collaboration with key stakeholders including the National Environment Management Authority, Kenya Meteorological Department, the United States Geological Survey (to obtain stream-flow data), FEWSNET, ICPAC, Ministry of Water Development, World Food Development Programme, FAO etc.

72. This following indicative activities are envisaged:

- Collaboration with other development agencies to generate drought and early warning information requirements for planning and decision-making
- Collaborate with other agencies to establish a system that will provide near real-time early warning information through the harmonization of the various early warning information generators
- Collect and establish a historical and current production database for purposes of validation of the early warning information
- Support the documentation of existing indigenous knowledge system already being done by ICPAC and have it incorporated in the modern early warning system.
- Design and implement a socially-relevant drought information system
- Incorporate or help enhance the participation of the private sector in support and provision of early warning information

Activity 1.1.2 A platform for exchange of knowledge.

73. The establishment and operation of a knowledge platform will improve the effectiveness and efficiency of the KACCAL project vis-à-vis the Coping with Drought and Climate Change projects in Ethiopia, Mozambique and Zimbabwe by exposing national teams to wider experiences than would otherwise have been possible. It also means that project results will be more widely applicable. The operation of the platform will involve several types of learning events, and indicative activities under this Output include:

- Documentation and reporting of good practices and success-stories. The local implementing agency will be responsible for developing a system of reporting aimed at domestic dissemination. In addition, however, the local implementing agency and UNDP Country Office will be responsible for regular reporting to the regional hub (The Drylands Development Centre), which will capture and disseminate lessons (see TORs in Annex 2).
- Learning tours. The project will support replication and learning opportunities. Farmers, and policy makers will have opportunities to visit pilot sites and other drought-affected sites in Kenya, to learn first-hand both of the impacts of drought and of measures that can increase adaptive capacity to deal with climate change. Lesson from other pilot sites in other countries will be disseminated in appropriate ways so that there is maximum opportunity to learn from experiences in differnt climatic and socio-economic conditions.

Output 1.2: National and regional coordination and information sharing improved, for effective climate risk management.

Activity 1.2.1 Interaction between stakeholders in the district enhanced.

74. At the district level, the UNDP-managed component of the KACCAL project will facilitate and foster the formation of networks as well as creating a forum for monthly interactions and information sharing and exchange among the stakeholders in the project area. In order to achieve this, the following activities will be carried out:

- Creating partnerships and networks among government departments, NGOs and CBOs working in Mwingi and other districts.

- Create awareness and interactions among the various stakeholders involved in environmental conservation and arid lands management in the project area.
- Formulate and support outreach programmes with sectoral government departments and other stakeholders

Activity 1.2.2 District drought preparedness plan implemented.

75. Collaboration with the National Disaster Coordination Center and ALRMP will take place to assist the District Development Committee and other stakeholders to prepare and implement a district drought/flood preparedness plan. Activities which may be undertaken to achieve this include:

- In collaboration with local stakeholders and development agencies, use drought information to identify priorities for district-level drought preparedness
- Formulate Drought/Flood Preparedness Plan
- Establish the technical capacity to implement plan.
- Support the National Disaster Coordination Center and ALRMP in implementing priority actions to increase drought preparedness at the district level.

Output 1.3: Advocacy and outreach programme prepared and conducted for replication of adaptation measures.

76. UNDP, in collaboration with other partners, will develop and implement an advocacy programme to have climate risk management incorporated into agricultural sector policies and national development plans. Use of policy briefs, posters, workshops and media campaigns will be adopted to facilitate this project.

- SCCF funds will support the preparation and distribution of policy information and materials. The information in the materials should be simple and illustrative in form.
- The project team will prepare and host empowerment workshops for government officials, officials from NGOs and CBOs and also for local farmers and pastoralists in order to enable experience sharing
- The project will collaborate and support NGOs, CBOs and other development partners in carrying out the empowerment of local farmers and pastoralists

Output 1.4: Adaptation learning disseminated through national, regional and international networks.

77. Adaptation learning will be an important outcome of the project. Lessons from these initiatives will be a valuable contribution to UNDP's Adaptation Learning Mechanism, an initiative that is designed to contribute to the integration of adaptation to climate change within development planning of non-Annex I countries, and within the GEF's portfolio as a whole. Some of the most salient learning points will be on the question of adaptation financing needs, and on efficient ways of allocating public financing to adaptation. The most pressing of these questions include: identifying feasible and replicable adaptation options, assessing the costs and benefits of adaptation, finding ways to ensure financial sustainability, sequencing of adaptation measures, exploring the catalytic role of public policy and financing. The project will contribute learning to the Adaptation Learning Mechanism.

Component 2: Supporting climate risk management at district and local levels

Outcome 2: Enhanced capacity of district and local level stakeholders to plan, manage and implement climate change adaptation measures **(**SCCF Increment US$ 0.2 million).

Output 2.1: Community-level capacity increased to undertake adaptation measures.

Activity 2.1.1 Increased awareness among relevant governmental departments, NGOs, and the private sector on integrating climate risks.

78. This will be achieved through the following indicative activities:

- Creating partnerships and networks among the various stakeholders in order to enhance collaboration.
- Designing and implementing awareness programmes tailored to the needs and capacities of different stakeholders.
- Conduct training workshops on integrating climate change risks into policy formulation.

Activity 2.1.2 Natural resource managers, extension staff, and local community members trained in proper use of climate information.

79. This activity, to be undertaken in collaboration with other partners, will target key natural resource managers, extension workers and others, will provide training on utilizing data on climate, socio-economic and ecosystem conditions for climate-sensitive decision making. This information will be used to assist communities to plan to respond to drought. It will lead to integrating climate information on the development processes and decision making mechanisms in the district. This output will be achieved through implementation of the following indicative activities:

- Prepare training materials on climate change risk management
- Organize and deliver training courses targeting different stakeholder groups.
- Develop the institutional capacity to integrate drought information in development planning at local and district levels.

Activity 2.1.3 Extension personnel trained in drought related participatory rural appraisal (PRA) and networking techniques

80. The project team, in collaboration with other partners will strengthen capacities in government, NGO and CBOs institutions in the district to provide ongoing drought and climate change related participatory rural network training for extension staff, who will in turn train communities in the use of participatory assessment methods for drought mitigation. The project will write and disseminate training mannuals for trainers. Activities to implement this output will be:

- Conduct a capacity needs assessment for enhancing application of climate and other information in decision support at community level.
- Facilitate extension staff and identified personnel from NGOs to undertake some short-term training course in drought early warning systems.
- Enhance an institutional integration and network system

Component 3: Community driven initiatives for climate resilience

Outcome 3: Enhanced communities' ability to plan, manage and implement climate-related activities **(SCCF Increment US$ 0.40 million).**

Output 3.1: Community based micro-projects supported

Activity 3.2.1 Community-identified interventions to increase capacity to cope with drought

81. The project team will provide financial and technical support to communities within the pilot sites to design and undertake a number of small-scale to medium size projects that help in increasing their

capacity to cope with drought. The projects will involve the implementation of locally-developed coping mechanisms such as livestock development, reduction in erosion of top soils, water harvesting techniques and promotion of indigenous cropping systems with the added extension that climate change risks are integrated into the design of these community-based activities. Activities include:

- In collaboration with local development agencies, and on the basis of capacity assessments undertaken during the preparatory phase, identify priority interventions to increase capacity to cope with drought, through a participatory process involving the targeted communities
- Undertake community workshops to scope priority actions and establish which will have positive impacts.
- Develop an overall plan for implementation of priority interventions,
- Mobilize technical support to implement priority interventions
- Support communities in implementing priority interventions
- Document experiences and lessons learnt

Project Indicators, Risks and Assumptions

82. Indicators for the UNDP-managed component of the KACCAL project were developed on the basis of the following criteria:

- Impact in terms of improving household food security and quality of local environment
- Sustainability of benefits in the long-term in social, environmental, technical, economic and financial terms.
- Institutional capacity development of all stakeholders, and
- Replicability from pilot site to other geographical areas and upward to national policy level.

83. *Indicators at the level of Objectives*

- By the end of the project, the level of community awareness of climate change risks within the pilot sites to have been raised by75%.
- By the end of the project, the level of climate risk management skills at the project sites will have increased by more than 50%.

84 Indicators at the level of Outcomes

Outcome 1:

- At the end of the project, mechanism for applying climate risk management information will be established and policy needs awareness created within the project sites.
- By the end of the project, community leaders in the project pilot sites are able to describe at least one lesson in coping with drought learnt from another site (not necessarily in Kenya)
- By the end of the project, senior officials in relevant sectoral ministries are able to describe strategies to increase adaptive capacity to cope with drought from both Kenya and neighboring countries.

Outcome 2:

- By the end of the project, more than 90% of extension staff and, NGOs and private organizations working with the communities have skills in effective climate risk management practices
- By the end of the project, more than 50% of the community, extension workers and development partners to be using climate information for decision making

Outcome 3:

- By the end of the project, at least 75% of the households are food secure within the UNDP-managed pilot sites

- By the end of the project, the yields among small-scale farmers will be increased by 10%, and livestock productivity increased by 10%.
- By the end of the project, at least 50% of the farmers and pastoralist at the UNDP-managed project sites will be aware of the relevant policies and institutions dealing with climate risk management
- Throughout the project, annual PIRs do not identify access to technical inputs as a constraint to implementation.

85. The project will contribute to adaptation learning in the wider KACCAL project described in the WB project document. Key indicators in the WB-supported project are as follows:

(i) Climate risk management mainstreamed into district management and community action plans in pilot areas;

(ii) Percent of community adaptation projects rated satisfactory or better by participating communities;

(iii) Percent of ALRMP projects screened for improving (adapted) response to climate risk;

(iv) Number of communities which consider the provided climate information services as relevant (i.e. whose decisions are affected by the capacity they receive).

Assumptions

86. The generation of Outcomes through the proposed Outputs for the UNDP-managed component of the KACCAL project is based on a number of assumptions, which are described in the logframe matrix in Section II. One key assumption is that drought is the only natural extreme event occurring in the target District during the project lifetime.

87. Most other assumptions relate to commitment of the stakeholder. This includes commitment from the Government of Kenya, the FFS and local government staff, extension workers and local beneficiaries. The participatory approach used in formulation of the project strategy revealed that such commitment does currently exist. The commitment of government agencies also assumes that broader political interference does not affect project implementation.

88. The dissemination process will be aided through community radio, and there is consequently an assumption made that KMD will commit to establishment of RANET community radio. Again, the participatory approach, which involved discussions with KMD, revealed that this assumption is currently valid.

Risks

Risk	Risk Rating	Mitigation Measures
Sustaining coordination with KSFM and other disaster management platforms due to change in institutional home	M	Under the Coalition Government, with reorganized/divided ministries, ALRMP was moved to the newly established State Ministry for Development of Northern Kenya and Other Arid Lands reporting to the Prime Minister's Office. This could potentially affect the leverage and coordination power of ALRMP which it had in its previous location (Office of the Prime Minister). However, the ALRMP and the Bank have discussed this with the highest level of the GOK and been assured that the change will not negatively affect the implementation of ALRMP and KACCAL. The program continues to straddle the two ministries to support various activities and functions managed by both entities

Alternative sustainable livelihood strategies to pastoralism are not taken up in the arid lands	H	Diversification in the arid lands has been limited, hampered by lack of market access, credit availability and linkages to the rest of the economy. This project cannot alone change these fundamental constraints. However, the project will provide support for creating a more conducive environment for diversified sustainable livelihoods, particularly in increasing the sustainable extraction/production and value addition of dryland products. The project will provide technical assistance and facilitate public-private-community partnerships towards this objective.
Continued and growing conflict, specially in the arid districts	M	Conflict management has been an integral part of ALRMP implementation, in recognition of the severe competition for resources in the Arid Lands and spillover from conflict in neighboring countries. The potential for conflict still exists and could increase as the pressure over resources intensifies. By helping reduce the vulnerability of communities in face of resource scarcity, the project is contributing to reducing the sources of conflict.
Technical capacity and services available are inadequate to support local development	M	Capacity constraints in the arid lands are prevalent in many sectors. The project alone will not be able to address general capacity constraints but the project includes a substantial focus on capacity strengthening – both in technical issues of climate risk management for service providers, policy makers as well as in community capacity to integrate climate risk in their development plans and in monitoring. The project will use the same mechanism as the ALRMP, i.e. mobile extension teams for this purpose.
Recurrent droughts during the implementation period of the project keep diverting attention away from long-term planning	M	This risk is being mitigated partly by the fact that the baseline project has already created substantial capacity to effectively respond to these short-term emergencies, and partly by building capacity among the key agencies to be improve the response to immediate catastrophes. In addition, it should be noted that recurrent extremes can also provide an additional motivation to address the underlying long-term vulnerabilities that might have remained hidden or tolerable under normal climate conditions.

Additionality

89. The joint UNDP-WB project seeks to enhance local capacities to address anticipated future impacts of long-term climate change. This requires developing the adaptive capacity of local and national stakeholders to cope with increased frequency and intensity of drought, which the INC has identified as a major consequence of climate change. This means that project stakeholders need to build their capacity to adapt to changing climatic conditions. Thus, for example in a scenario without climate change, diversification of agricultural systems as a means of promoting sustainable land management would constitute a sufficient intervention. However, the project strategy presented here also builds capacity to continually review the sustainability of such systems and adapt them as the impacts of climate change alter the underlying drivers of productivity. As such, the project meets the eligibility criteria of the SCCF.

90. Adaptation to climate change starts with an understanding of current coping strategies for dealing with droughts experienced under current climate variability. Under conditions of climate change, droughts in Kenya will become both more frequent and more intense. SCCF funding to this project will support the additional cost of the adaptation activities.

91. The baseline scenario for this project represents a "business-as-usual" wherein Kenya undertakes only those activities in its current baseline development planning. Rural communities will continue to rely on current coping strategies, without due consideration of the impending worsening risks. These strategies will therefore become inadequate as droughts (or floods) increases in frequency and intensity. SCCF funds will contribute towards enhancing resilience to impending climate change related risks, particularly at the community level. SCCF funding will cover the difference between relative costs associated with the baseline scenario and the alternative scenario of enduring climate change resilience.

Expected National and local benefits

92. The outputs from this UNDP component will assist communities at the local level to address climate change risks affecting food security and livelihoods. At the national level, the joint UNDP-World Bank project will contribute towards the formulation of suitable policies to support sustainable utilization of ASALs in the context of climate change. The other benefits include:

- Enhancing the resilience of agricultural land to climate risks;
- Empowering communities to overcome climate induced pressures through the development of sustainable forms of diversified agriculture (both crops and livestock);
- Enhancing food security amongst the communities and farm family income through the sustainable promotion of indigenous food crop production;
- Improved water tables that will sustain the shallow wells;
- Enhanced recharge groundwater due to the re-establishment of land cover through afforestation activities

Costs to be borne by the SCCF

93. The SCCF contribution to the project will be allocated for activities presented above following the principle of additional cost reasoning. That is, SCCF resources will complement ongoing activities that are to be funded as part of ongoing baseline development ("business-as-usual" scenario)[3]. SCCF resources will ensure that the alternative scenario, where specific development activities are resilient to long term climate change, is achieved.

94. The total cost of the alternative is estimated to be $2,000,000. Of this total, the costs of the baseline scenario are estimated to be $1,000,000, and the additional costs of the alternative are $1,000,000. Of this total, $1,000,000 will be contributed as co-financing from the government of Kenya. The contribution requested from the SCCF amounts to $1,000,000, which represents the costs associated with activities necessary to build capacity to adapt to long term climatic changes.

Country Ownership: Country Eligibility and Country Drivenness

95. Kenya ratified the UNFCCC on 30th August 1994 and is eligible for financial support under Annex 1 of the UNFCCC, and is also eligible for technical assistance from UNDP.

96. Kenya expressed interest in this work by participating in a farmer-focused survey on accessibility and use of contemporary and indigenous climate information conducted in 1999. Since then, through regular consultations between UNDP-DDC, UNDP, World Bank and the Government of Kenya, possible interventions on drought mitigation and climate adaptation have been identified. Kenya's Poverty Reduction Plan (PRSP) emphasizes the importance of drought management and food security.

97. The National Communication for Kenya formed an important starting point in project design and site selection. The information in the National Communication was used in identifying areas vulnerable to

[3] This will include complementing ongoing GEF funded initiatives such as the Agro-pastoralists Farmer Field School initiative (November 2006) that is also piloted in Mwingi and Kyuso Districts.

climate change, in terms of projected scenarios of rainfall and temperature changes. The APF provided guidelines on how to engage stakeholders, which was an important element of project design.

98. Existing adaptation and vulnerability impact assessments for Kenya cover impacts on six vulnerable sectors, which include agricultural products (such as maize, beans and livestock) and water resources (targeting storage, recharge, and quality). Other sectors include aquatic and coastal resources (influencing lake levels, fisheries, marine, and sea level rise), human health (such as malaria, cholera, trypanosomiasis, respiratory diseases etc.), terrestrial ecosystems (pastoral systems, changes in forest cover, etc.), human settlements, and socio-economic settings (such as population displacements, rural-urban migration, water pollution, etc). In order to reduce climate change impacts in important economic sectors such as agriculture and water resources, it is therefore necessary to identify relevant measures for adaptation.

Sustainability

99. Local stakeholders contributed to the development of each of the project components during the planning phase. Opportunities to take ownership of project activities, and direct the scope of the activities were facilitated through national stakeholder workshops (to identify priority needs); community-engagement through site visits and needs assessment surveys and individual consultations.

100. The project seeks to remove barriers to adaptive capacity that currently limit the ability of communities to cope with climate impacts, and sometimes leads to maladaptive coping strategies. For this reason, recurrent costs and dependency in the UNDP-managed pilot sites are likely to be negligible, if any. The proposed interventions will enhance capacities of communities in to implement strategies that reduce climate risks and therefore reduce the need for additional support. The assumption is that community support for the project, which currently exists, is not eroded due to reasons beyond the control of UNDP and its partners.

101. By integrating climate risk management into existing planning plans, policies and programmes (which in large part is achieved by including the Ministry of Agriculture and the Office of the Prime Minister (ALRMP) involved in the planning and implementation of this project), the financial cost of implementing measures will also be mainstreamed in the long-term. In such terms the project builds on existing programmes and plans that include the definition of financing strategies and mechanisms. It will also reinforce and enhance on going activities from diverse organizations – educational, environmental, etc., thus, increasing possibilities of long term financial sustainability. In addition, as the proposal targets key elements of rural development, it is expected that national and local institutions will not only provide support for the initial and implementation phases, but also for further actions on climate risk management in rural areas.

102. As climate change risk management needs to address socio–economic and political structures influencing/affecting rural development, efforts to achieve policy and programme transformations at sectoral, national, and local scale need to be well supported by an institutional network. The linkage of this project to a wider World Bank-UNDP initiative therefore ensures that institutional sustainability is promoted. Several governmental institutions have demonstrated their commitment to this adaptation initiative both as active counterparts and as co-financers of activities regarding the enhancement of ongoing actions on land management. Amongst those institutions involved in the process are the Ministry of Agriculture and the Office of Prime Minister.

103. A favorable political environment has led this process, from national government stakeholders to authorities at the local level at the district level, especially the ones from Mwingi, to national networks of environmental NGOs. As baseline organizations have taken part of the preparatory process and others are getting involved as well for the implementation phase, the project has the conditions to be supported not only by an institutional network but also by a social one, which is a key requirement if outcomes are

intended to last during and beyond the project time line itself. Various awareness raising initiatives, in both the UNDP and World Bank managed components of this joint project will ensure there is social sustainability.

Replicability

104. The approach of the joint UNDP-WB project (and the UNDP-managed component of the KACCAL project in particular), if successful, is replicable across different ASAL areas of Kenya that face climate induced drought problems. Two intertwined processes and structures are required: one for horizontal programming and another for collaborative government-community partnerships. This framework relies upon two parallel streams: one at the community level and the other at the government wide level. The community level process starts with the development of regional/local adaptation strategies, identifying sustainable adaptive capacity indicators; developing community operational plans; identifying and allocating adaptation plan resources; implementing these plans; and monitoring and evaluating the strategies. The need for a government level process stems from the recognition that such a process is needed to effect horizontal programming and integrated decision making. The project will build on existing structures and processes, rather than by-passing or creating new ones.

105. For the project to transition to a national programme and be of benefit to communities beyond the pilot sites, there needs to be demand for integrating climate change risks into drought (flood) management programmes. The role of the pilot sites, in this context, is to demonstrate the benefits and effectiveness of a range of climate risk management strategies and measures, awareness building, training of relevant policy makers and community development practioners as well as community members. SCCF resources will also facilitate the involvement of stakeholders from other geographical areas in capacity development initiatives, as well as the production and dissemination of lessons learned.

Cost Effectiveness

106. The selected project design was considered to be the most cost effective approach to adaptation in Kenya. The project will focus on the lower cost option of climate proofing land-use planning and management processes rather than on wide scale and high investments of hard-measures. Building adaptive capacity through incorporating climate change considerations and disaster risk management into on-going land use planning process is expected to increase resilience of rural development initiatives to climate change. Furthermore it will provide the information necessary to make decisions and trade-offs regarding alternative land-use options. It will also inform future decisions regarding other forms of protection such as high investment structures in very specific cases where climate change cannot be addressed through increasing the resilience of communities and where these measures may be valid in view of highly significant negative impacts on economic and or environmental attributes.

107. A number of alternatives were also considered to enhance cost effectiveness in terms of implementation costs. Selection of sites for pilot demonstrations and of implementing partners considered the need to reduce the costs of setting up and monitoring on the ground actions. Thus the project will maximize its cost effectiveness by building on existing initiatives and processes and by partnering with local institutions. For example the Office of the Prime Minister (ALRMP) will provide its institutional capacities and experience to implement the activities related to integrated land and water management. Together with the partnership with the Ministry of Agriculture, the project ensures and provides an economically effective way to work with municipal governments and institutions and actors on the ground. By working with existing risk management institutions, the project outcomes regarding the reduction of vulnerability to climate change will be enhanced P.

108. The project pilot demonstration activities will be implemented in a district that has already in place legislative frameworks and municipal capacities regarding land management. In this context, relatively small additional efforts in implementing climate change adaptation measures are expected to produce considerable results improving current management practices and the overall rural development and management.

109. Finally with regard to procurement of project inputs, standard procedures of the Government of Kenya and of UNDP will be carefully applied to ensure value for money in all purchases of goods and procurement of services for the project, and the project will use strict internal and external audit controls that meet international standards

PART III: Management Arrangements

110. This project document covers those activities under the KACCAL project which will be supervised by UNDP. Co-management arrangements with the WB-supported KACCAL project will be agreed in the project start-up phase.

111. In accordance with UNDP's Results Based Management Framework, the project will be overseen by a Project Board, comprising UNDP, the World Bank, the Office of the Prime Minister (the Implementing Partner), the Ministry of Agriculture and Ministry of Livestock and Fisheries. This Project Board, meeting on a quarterly basis, will advise the Implementing Partner during the execution phase and provide guidance on the complementary roles of UNDP and World Bank in this joint project.

112. The ALRMP (Office of Prime Minister-OP) will be the Implementing Partner. In consultation with the Ministry of Agriculture, the ALRMP/OP will oversee the implementation of the project. This includes being responsible for financial accounting, project's resources management and submission of

financial and progress reports of the project to UNDP. ALRMP/OP and MOA will provide technical support through co-financing and follow up on the project implementation in consultation with the PMU and UNDP CO. ALRMP/OP will work through regional offices of the Ministry of Agriculture to facilitate project implementation. It will ensure that the project is aligned with the work it is currently undertaking through agricultural extension services.

113. ALRMP/OP will integrate this project into an existing project management unit (PMU). Arrangements will be made to ensure that a project manager leads the project implementation. National consultants will also be contracted (as required) to provide services related to the project implementation. Procurement must follow established UNDP procedures.

114. ALRMP/OP will submit regular progress reports to UNDP and undertake annual progress reviews, and oversee project monitoring and evaluation. It will also be responsible to provide inputs necessary for successful project implementation (as in kind contributions) and host the project management unit.

115. A district implementation committee drawn from technical staff from Government (Ministry of Agriculture, NEMA etc), Non Governmental Organizations, and private sector institutions will meet on a monthly basis to give technical advice to the UNDP component of the joint project.

116. UNDP-CO will be responsible for the overall development and follow up program review, timely delivery, and leading and overseeing monitoring and evaluation. It will also be accountable for the disbursement of project fund. It will also establish and maintain financial accounts for the project as per established procedures. The UNDP RTA (based in Pretoria) will provide strategic guidance to the project during implementation including technical input on project specific outcomes.

117. In addition, collaboration with international organizations and private sector associations will be pursued to ensure a wide range of professional capabilities and functions in order to execute the project efficiently and effectively. For example, it is anticipated that the Drylands Development Centre (DDC) will play a role in providing technical support for the regional component of this and the other Coping with Drought projects in Mozambique, Zimbabwe and Ethiopia (in the delivery of some elements of activities 1.1.2 as per details in Annex 2). The roles of various partners will be clarified during the implementation phase by the Project Management Unit in consultation with the Implementing Partner, UNDP Regional Technical Advisor, and UNDP-CO.

118. In addition, in order to accord proper acknowledgement to GEF for providing funding, a GEF logo should appear on all relevant GEF project publications, including among others, project hardware and vehicles purchased with GEF funds. Any citation on publications regarding projects funded by GEF should also accord proper acknowledgment to GEF. The UNDP logo should be more prominent -- and separated from the GEF logo if possible, as UN visibility is important for security purposes.

PART IV: Monitoring and Evaluation Plan

MONITORING AND REPORTING

1.1. Project Inception Phase

119. A Project Inception Workshop will be conducted with the full project team, relevant government counterparts, co-financing partners, the UNDP-CO, and representation from the UNDP Regional Coordinating Unit, as well as UNDP (HQs) as appropriate.

120. A fundamental objective of this Inception Workshop will be to assist the project team to understand and take ownership of the joint project's goals and objectives, as well as finalize preparation of the project's first annual work plan on the basis of the Logframe matrix. This will include reviewing the Logframe (indicators, means of verification, assumptions), imparting additional detail as needed, and on the basis of this exercise finalize the Annual Work Plan (AWP) with precise and measurable performance indicators, and in a manner consistent with the expected outcomes for the UNDP component.

121. Additionally, the purpose and objective of the Inception Workshop (IW) will be to: (i) introduce staff with the UNDP *expanded team* which will support the project during its implementation, namely the CO and responsible Regional Coordinating Unit staff; (ii) detail the roles, support services and complementary responsibilities of UNDP-CO and RCU staff vis-à-vis the project team; (iii) provide a detailed overview of UNDP reporting and monitoring and evaluation (M&E) requirements, with particular emphasis on the Annual Project Implementation Reviews (PIRs) and related documentation, the Annual Project Report (APR), Tripartite Review Meetings, as well as mid-term and final evaluations. Equally, the IW will provide an opportunity to inform the project team on UNDP project related budgetary planning, budget reviews, and mandatory budget rephasings.

122. The IW will also provide an opportunity for all parties to understand their roles, functions, and responsibilities within the joint project's decision-making structures, including reporting and communication lines, and conflict resolution mechanisms. The Terms of Reference for project staff and decision-making structures will be discussed again as needed, in order to clarify for all, each party's responsibilities during the implementation phase for the project

1.2. Monitoring responsibilities and events

123. A detailed schedule of reviews meetings will be developed by the project management team, in consultation with project implementation partners and stakeholder representatives and incorporated in the Project Inception Report. Such a schedule will include: (i) tentative time frames for Tripartite Reviews, Steering Committee Meetings, (or relevant advisory and/or coordination mechanisms) and (ii) project related Monitoring and Evaluation activities.

124. *Day to day monitoring of implementation progress* will be the responsibility of the Project Coordinator, Director or CTA (depending on the established project structure) based on the project's Annual Work Plan and its indicators. The Project Team will inform the UNDP-CO of any delays or difficulties faced during implementation so that the appropriate support or corrective measures can be adopted in a timely and remedial fashion.

125. The Project Coordinator and the UNDP Technical Advisor will fine-tune the progress and performance/impact indicators of the project in consultation with the full project team at the Inception Workshop with support from UNDP-CO and assisted by the UNDP Regional Coordinating Unit. Specific targets for the first year implementation progress indicators together with their means of verification will be developed at this Workshop. These will be used to assess whether implementation is proceeding at the intended pace and in the right direction and will form part of the Annual Work Plan. The local implementing agencies will also take part in the Inception Workshop in which a common vision of overall project goals will be established. Targets and indicators for subsequent years would be defined annually as part of the internal evaluation and planning processes undertaken by the project team.

126. Measurement of impact indicators related to global benefits will occur according to the schedules defined in the Inception Workshop and tentatively outlined in the indicative Impact Measurement Template at the end of this Annex. The measurement, of these will be undertaken through subcontracts or retainers with relevant institutions (e.g. Vegetation cover via analysis of satellite imagery, or populations

of key species through inventories) or through specific studies that are to form part of the projects activities (e.g. Measurement of carbon benefits from improved efficiency of ovens or through surveys for capacity building efforts) or periodic sampling such as with sedimentation.

127. *Periodic monitoring of implementation progress* will be undertaken by the UNDP-CO through quarterly meetings with the project proponent, or more frequently as deemed necessary. This will allow parties to take stock and to troubleshoot any problems pertaining to the project in a timely fashion to ensure smooth implementation of project activities.

128. UNDP Country Offices and UNDP RCUs as appropriate, will conduct yearly visits to projects that have field sites, or more often based on an agreed upon scheduled to be detailed in the project's Inception Report / Annual Work Plan to assess first hand project progress. Any other member of the Steering Committee can also accompany, as decided by the SC. A Field Visit Report will be prepared by the CO and circulated no less than one month after the visit to the project team, all SC members, and UNDP.

129. *Annual Monitoring* will occur through the ***Tripartite Review (TPR).*** This is the highest policy-level meeting of the parties directly involved in the implementation of a project. The project will be subject to Tripartite Review (TPR) at least once every year. The first such meeting will be held within the first twelve months of the start of full implementation. The project proponent will prepare an Annual Project Report (APR) and submit it to UNDP-CO and the UNDP regional office at least two weeks prior to the TPR for review and comments.

130. The APR will be used as one of the basic documents for discussions in the TPR meeting. The project proponent will present the APR to the TPR, highlighting policy issues and recommendations for the decision of the TPR participants. The project proponent also informs the participants of any agreement reached by stakeholders during the APR preparation on how to resolve operational issues. Separate reviews of each project component may also be conducted if necessary.

Terminal Tripartite Review (TTR)

131. The terminal tripartite review is held in the last month of project operations. The project proponent is responsible for preparing the Terminal Report and submitting it to UNDP-CO and the Regional Coordinating Unit. It shall be prepared in draft at least two months in advance of the TTR in order to allow review, and will serve as the basis for discussions in the TTR. The terminal tripartite review considers the implementation of the project as a whole, paying particular attention to whether the project has achieved its stated objectives and contributed to the broader environmental objective. It decides whether any actions are still necessary, particularly in relation to sustainability of project results, and acts as a vehicle through which lessons learnt can be captured to feed into other projects under implementation of formulation.

131. The TPR has the authority to suspend disbursement if project performance benchmarks are not met. Benchmarks will be developed at the Inception Workshop, based on delivery rates, and qualitative assessments of achievements of outputs.

1.3. Project Monitoring Reporting

133. The Project Coordinator in conjunction with the UNDP extended team will be responsible for the preparation and submission of the following reports that form part of the monitoring process. Items (a) through (f) are mandatory and strictly related to monitoring, while (g) through (h) have a broader function and the frequency and nature is project specific to be defined throughout implementation.

(a) Inception Report (IR)

134. A Project Inception Report will be prepared immediately following the Inception Workshop. It will include a detailed Firs Year/ Annual Work Plan divided in quarterly time-frames detailing the activities and progress indicators that will guide implementation during the first year of the project. This Work Plan would include the dates of specific field visits, support missions from the UNDP-CO or the Regional Coordinating Unit (RCU) or consultants, as well as time-frames for meetings of the project's decision making structures. The Report will also include the detailed project budget for the first full year of implementation, prepared on the basis of the Annual Work Plan, and including any monitoring and evaluation requirements to effectively measure project performance during the targeted 12 months time-frame.

135. The Inception Report will include a more detailed narrative on the institutional roles, responsibilities, coordinating actions and feedback mechanisms of project related partners. In addition, a section will be included on progress to date on project establishment and start-up activities and an update of any changed external conditions that may effect project implementation.

136. When finalized the report will be circulated to project counterparts who will be given a period of one calendar month in which to respond with comments or queries. Prior to this circulation of the IR, the UNDP Country Office and UNDP's Regional Coordinating Unit will review the document.

(b) **Annual Project Report (APR)**

137. The APR is a UNDP requirement and part of UNDP's Country Office central oversight, monitoring, and project management. It is a self -assessment report by project management to the CO and provides input to the country office reporting process and the ROAR, as well as forming a key input to the Tripartite Project Review. An APR will be prepared on an annual basis prior to the Tripartite Project Review, to reflect progress achieved in meeting the project's Annual Work Plan and assess performance of the project in contributing to intended outcomes through outputs and partnership work.

138. The format of the APR is flexible but should include the following:

- An analysis of project performance over the reporting period, including outputs produced and, where possible, information on the status of the outcome
- The constraints experienced in the progress towards results and the reasons for these
- The three (at most) major constraints to achievement of results
- AWP, CAE and other expenditure reports (ERP generated)
- Lessons learned
- Clear recommendations for future orientation in addressing key problems in lack of progress

(c) Project Implementation Review (PIR)

139. The PIR is an annual monitoring process mandated by the GEF. It has become an essential management and monitoring tool for project managers and offers the main vehicle for extracting lessons from ongoing projects. Once the project has been under implementation for a year, a Project Implementation Report must be completed by the CO together with the project. The PIR can be prepared any time during the year (July-June) and ideally prior to the TPR. The PIR should then be discussed in the TPR so that the result would be a PIR that has been agreed upon by the project, the executing agency, UNDP CO and the concerned RC.

140. The individual PIRs are collected, reviewed, and analyzed by the RCs prior to sending them to the focal area clusters at the UNDP headquarters. The focal area clusters supported by the UNDP M&E Unit analyze the PIRs by focal area, theme and region for common issues/results and lessons. The TAs and PTAs play a key role in this consolidating analysis.

141. The focal area PIRs are then discussed in the GEF Interagency Focal Area Task Forces in or around November each year and consolidated reports by focal area are collated by the GEF Independent M&E Unit based on the Task Force findings.

142. The GEF M&E Unit provides the scope and content of the PIR. In light of the similarities of both APR and PIR, UNDP has prepared a harmonized format for reference.

(d) Quarterly Progress Reports

143. Short reports outlining main updates in project progress will be provided quarterly to the local UNDP Country Office and the UNDP regional office by the project team. See format attached.

(e) Periodic Thematic Reports

144. As and when called for by UNDP, UNDP or the Implementing Partner, the project team will prepare Specific Thematic Reports, focusing on specific issues or areas of activity. The request for a Thematic Report will be provided to the project team in written form by UNDP and will clearly state the issue or activities that need to be reported on. These reports can be used as a form of lessons learnt exercise, specific oversight in key areas, or as troubleshooting exercises to evaluate and overcome obstacles and difficulties encountered. UNDP is requested to minimize its requests for Thematic Reports, and when such are necessary will allow reasonable timeframes for their preparation by the project team.

(f) Project Terminal Report

145. During the last three months of the project the project team will prepare the Project Terminal Report. This comprehensive report will summarize all activities, achievements and outputs of the Project, lessons learnt, objectives met, or not achieved, structures and systems implemented, etc., and will be the definitive statement of the Project's activities during its lifetime. It will also lay out recommendations for any further steps that may need to be taken to ensure sustainability and replicability of the Project's activities.

(g) ***Technical Reports*** (project specific- optional)

146. Technical Reports are detailed documents covering specific areas of analysis or scientific specializations within the overall project. As part of the Inception Report, the project team will prepare a draft Reports List, detailing the technical reports that are expected to be prepared on key areas of activity during the course of the Project, and tentative due dates. Where necessary this Reports List will be revised and updated, and included in subsequent APRs. Technical Reports may also be prepared by external consultants and should be comprehensive, specialized analyses of clearly defined areas of research within the framework of the project and its sites. These technical reports will represent, as appropriate, the project's substantive contribution to specific areas, and will be used in efforts to disseminate relevant information and best practices at local, national, and international levels.

(h) ***Project Publications*** (project specific- optional)

147. Project Publications will form a key method of crystallizing and disseminating the results and achievements of the Project. These publications may be scientific or informational texts on the activities and achievements of the Project, in the form of journal articles, multimedia publications, etc. These publications can be based on Technical Reports, depending upon the relevance, scientific worth, etc., or may be summaries or compilations of a series of Technical Reports and other research. The project team will determine if any of the Technical Reports merit formal publication, and will also (in consultation with UNDP, the government and other relevant stakeholder groups) plan and produce these Publications in a consistent and recognizable format. Project resources will need to be defined and allocated for these activities as appropriate and in a manner commensurate with the project's budget.

2. Independent evaluation

148. The project will be subjected to at least two independent external evaluations as follows:-

(i) Mid-term Evaluation

149. An independent Mid-Term Evaluation will be undertaken at the end of the second year of implementation. The Mid-Term Evaluation will determine progress being made towards the achievement of outcomes and will identify course correction if needed. It will focus on the effectiveness, efficiency, and timeliness of project implementation; will highlight issues requiring decisions and actions; and will present initial lessons learned about project design, implementation, and management. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the project's term. The organization, terms of reference and timing of the mid-term evaluation will be decided after consultation between the parties to the project document. The Terms of Reference for this Mid-term evaluation will be prepared by the UNDP CO based on guidance from the Regional Coordinating Unit and UNDP.

(ii) Final Evaluation

150. An independent Final Evaluation will take place three months prior to the terminal tripartite review meeting, and will focus on the same issues as the mid-term evaluation. The final evaluation will also look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental goals. The Final Evaluation should also provide recommendations for follow-up activities. The Terms of Reference for this evaluation will be prepared by the UNDP CO based on guidance from the Regional Coordinating Unit and UNDP.

151. Project mid-term and terminal evaluation will be carried out jointly with the WB-supported KACCAL project.

Audit Clause

152.
The project will be audited on a yearly basis for financial year January to December as per UNDP audit policies on NEX projects and GEF requirements, based on certified financial statements provided by MADRRM. The audits will be conducted by an independent commercial auditor engaged by UNDP.

INDICATIVE MONITORING AND EVALUATION WORK PLAN AND CORRESPONDING BUDGET

Type of M&E activity	Responsible Parties	Budget US$ *Excluding project team Staff time*	Time frame
Inception Workshop	▪ Project Coordinator ▪ UNDP CO ▪ UNDP		Within first two months of project start up
Inception Report	▪ Project Team ▪ UNDP CO	None	Immediately following IW
Measurement of Means of Verification for Project Purpose Indicators	▪ Project Coordinator will oversee the hiring of specific studies and institutions, and delegate responsibilities to relevant team members	To be finalized in Inception Phase and Workshop. Indicative cost $10, 000	Start, mid and end of project
Measurement of Means of Verification for Project Progress and Performance (measured on an annual basis)	▪ Oversight by Project Technical Advisor and Project Coordinator ▪ Measurements by regional field officers and local IAs	To be determined as part of the Annual Work Plan's preparation. Indicative cost $10, 000	Annually prior to APR/PIR and to the definition of annual work plans
APR and PIR	▪ Project Team ▪ UNDP-CO ▪ UNDP	None	Annually
TPR and TPR report	▪ Government Counterparts ▪ UNDP CO ▪ Project team ▪ UNDP Regional Coordinating Unit	None	Every year, upon receipt of APR
Steering Committee Meetings	▪ Project Coordinator ▪ UNDP CO	None	Following Project IW and subsequently at least once a year
Periodic status reports	▪ Project team	5,000	To be determined by Project team and UNDP CO
Technical reports	▪ Project team ▪ Hired consultants as needed	10,000	To be determined by Project Team and UNDP-CO
Mid-term External Evaluation	▪ Project team ▪ UNDP- CO ▪ UNDP Regional Coordinating Unit ▪ External Consultants (i.e. evaluation team)	10,000	At the mid-point of project implementation.
Final External Evaluation	▪ Project team, ▪ UNDP-CO ▪ UNDP Regional Coordinating Unit ▪ External Consultants (i.e. evaluation team)	12,000	At the end of project implementation
Terminal Report	▪ Project team ▪ UNDP-CO ▪ External Consultant	None	At least one month before the end of the project
Lessons learned	▪ Project team ▪ UNDP Regional Coordinating	11,000	Yearly

	Unit (suggested formats for documenting best practices, etc)		
Audit	▪ UNDP-CO ▪ Project team	7,000	Yearly
Visits to field sites (UNDP staff travel costs to be charged to IA fees)	▪ UNDP Country Office ▪ UNDP Regional Coordinating Unit (as appropriate) ▪ Government representatives	5,000	Yearly
TOTAL INDICATIVE COST *Excluding project team staff time and UNDP staff and travel expenses*		US$ 80, 000[4]	

3. Learning and Knowledge Sharing

153. The GEF's Adaptation Learning Mechanism is designed to contribute to the integration of adaptation to climate change within development planning of non-Annex I countries, and within the GEF's portfolio as a whole. To support this goal, adaptation projects should generate knowledge that can help guide implementation of the GEF's adaptation to climate change initiatives. From the GEF family perspective, sharing knowledge among users will ensure that the GEF portfolio, as a whole, can benefit from the comparative strengths and experience of the various Agencies. Results from the project will be disseminated within and beyond the project intervention zone through a number of existing information sharing networks and fora. UNDP's Regional Technical Advisor (based in Pretoria) should be consulted for guidance on the learning elements of this project. A template for the learning element of this project, to be further refined by the Project Team, is attached in Annex 4.

154. The project will participate, as relevant and appropriate, in UNDP approved networks.

155. The project will identify and participate, as relevant and appropriate, in scientific, policy-based, and/or any other networks, which may be of benefit to project implementation though lessons learned.

PART V: Legal Context

156. This Project Document shall be the instrument referred to as such in Article I of the Standard Basic Assistance Agreement between the Government of Kenya and the United Nations Development Programme, signed by the parties on 17 January 199. The host country implementing agency shall, for the purpose of the Standard Basic Assistance Agreement, refer to the government co-operating agency described in that Agreement.

157. The UNDP Resident Representative in Kenya is authorized to effect in writing the following types of revision to this Project Document, provided that he/she has verified the agreement thereto by the UNDP Unit and is assured that the other signatories to the Project Document have no objection to the proposed changes:

a) Revision of, or addition to, any of the annexes to the Project Document;

b) Revisions which do not involve significant changes in the immediate objectives, outputs or activities of the project, but are caused by the rearrangement of the inputs already agreed to or by cost increases due to inflation;

c) Mandatory annual revisions which re-phase the delivery of agreed project inputs or increased expert or other costs due to inflation or take into account agency expenditure flexibility; and

d) Inclusion of additional annexes and attachments only as set out here in this Project Document

SECTION II: LOGFRAME

See next page

Result	Indicator	Baseline value	Target and benchmarks	Means of verification and frequency	Assumptions
Overall Goal: To enhance the resilience of the communities, to climate change impacts in agricultural and pastoral systems in arid and semi-arid lands in Kenya					
Project Objective: To *increase the capacity of communities in the selected districts of the ASALs to adapt to climate variability and change.*	1. By the end of the project, the level of climate risk management skills and natural resource conservation activities at the project sites will have increased by more than 50%.	**1.** Level of effective climate risk management skills and natural resource conservation activities within the communities	**1.** By the end of the project, the level of climate risk management skills and natural resource conservation activities at the project sites to have increased by more than 50%.	• Household surveys • Project reports • Workshop reports	• Limited level of awareness among the communities • There is adequate financial resources • Sustained Government support for the project
Outcome 1: Enhanced capacity of national and regional stakeholders to plan, manage and implement climate change adaptation measures	Percent change in stakeholders' use of climate risk assessment methods for design and/or decision-making on agriculture-related investments, assessed by survey. Establishment of District climate risk management institutional framework/process. Evaluation of the value of indigenous knowledge in climate risk management		By the end of the project, more than 50% of the community, extension workers, and development partners to be using climate information for decision making. Climate risk management framework/protocols/coordination mechanism in place. Dissemination of information on the adaptive value of indigenous knowledge and adaptation practices as well as adaptation innovations to	•	•

	relative to meteorological information, as well as good practice measures- both traditional and innovative that are adaptive.		networks and policy-makers.		
Outputs	**1**.1 Availability of skills and tools necessary to continue CC risk assessments after the conclusion of the project, assessed by survey. 1.2 Percent change in stakeholders' use of climate risk assessment methods for design and/or decision-making on agriculture-related investments, assessed by survey. 1.3 Evaluation of utility of meteorological information for agricultural decision-making. 1.4 Documentation and evaluation of indigenous knowledge system on climate risk	**1**.1Very little application of climate and early warning information by both farmers and extension personnel 1.2 No documentation of indigenous knowledge on climate risk management.	**1**.1 Climate risk management tools developed e.g., an integrated early warning database systems that support vulnerability/CC risk mapping. 1.2 By the end of the project, more than 50% of the community, extension workers, and development partners to be using climate information for decision making.	• Annual project field surveys • Evaluation of relevant policies • Official Government of Kenya reports • Interviews and Questionnaires • Project reports	• Sustained financial resources. • Sustained training of Ministry of Agriculture extension staff and effective and routine application of the acquired skill • Political will from the Government in reviewing policies and procedures • Institutional willingness to carry out policy reviews

	management. **1.5**Establishmentof District climate risk management institutional framework/process. 1.6 Development outreach programme and materials. **1.7**.Level of Community awareness on policies and institutions supporting drought preparedness 1.8Documentation of good practices and success stories that are adaptive.	 **1.3.** No institutional framework on climate risk management at district or community level 1.4.Supportive policies and institutions on climate risk management are non existent 1.5 No documented knowledge on the adaptive value of existing technologies/ management regimes.	 1.3 Climate risk management framework/protocols/coordination mechanism in place. 1.4. By the end of the project, at least 50% of the farmers and pastoralist will be aware of the relevant policies and institutions dealing with climate risk management 1.5 Evaluation reports on the adaptive value of indigenous knowledge and adaptation practices as well as innovations.		
Outcome 2: Enhanced capacity of district and local level stakeholders to plan, manage and implement climate change adaptation measures	Percent change in stakeholders' capacities to make agriculture/pastoralism decisions based on climate information, assessed by survey.		By the end of the project, more than 90% of extension staff and, NGOs and private organizations working with the communities have skills in effective climate risk management practices	•	•
Outputs	1. Trained extension officers in climate risk management	**1.** Extension officers have very limited knowledge of effective climate risk	1. By the end of the project, more than 90% of extension staff and, NGOs and private organizations working with the	• Training materials • Training event participation lists and evaluation	• Training in pitched at the right level and well attended.

	practices 2. Percent change in stakeholders' capacities to make agriculture/pastoralism decisions based on climate information, assessed by survey.	management practices	communities have skills in effective climate risk management practices	reports	
Outcome 3: Enhanced communities' ability to plan, manage and implement climate-related activities	Percent change in farmers/pastoralists use of climate-resilient methods for managing climate change risks, assessed via survey.			•	•
Outputs	3.1. Technical and financial feasibility assessments of proposed interventions **3.2** Percent change in farmers/pastoralists use of climate-resilient methods for managing climate change risks, assessed via survey. 3.3. Agricultural and pastoral productivity increased.	**3.1.** Less than 20% **of** households are food insecure in 2005 **3.2.** Poor agricultural yields	**3.1**. By the end of the project, at least 75% of the households are food secure within the pilot sites **3.2.** By the end of the project, the yields among small-scale farmers will be increased by 10%, and livestock productivity increased by 10%.	• Annual household surveys • Annual monitoring and evaluation reports • National Economic Surveys and other reports • Annual MoA and livestock production reports	• Sustained technical input from development partners • Droughts still recur

SECTION III: Total Budget and Workplan

Award ID:	00047603
Award Title:	PIMS 3792 Kenya: Adaptation to Climate Change in Arid and Semi-Arid Lands
Project ID:	00057371
Business Unit:	KEN10
Project Title:	PIMS 3792 Kenya: Adaptation to Climate Change in Arid and Semi-Arid Lands
Implementing Partner (Executing Agency)	NEX : Kenya UNDP-CO

GEF Outcome/Atlas Activity	Responsible Party/ Implementing Agent	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)		Total (USD)	Budget Notes
OUTCOME 1:	**GEF**	**62180**	**SCCF**	72100	Contractual Services	13,500					13,500	1
Enhanced capacity of national and regional stakeholders to plan, manage and implement climate change adaptation measures				71200	International Consultant	30,000	30,000	30,000			90,000	2
				71300	Local Consultant	30,000	30,000	30,000	54,000		144,000	3
				74500	Training		20,000	20,000	20,000		60,000	4
				71600	Travel	5,000	6,000	6,000	3,000		20,000	5
					sub-total GEF	**78,500**	**86,000**	**86,000**	**77,000**		**327,500**	

OUTCOME 2: Enhanced capacity of district and local level stakeholders to plan, manage and implement climate change adaptation measures	**GEF**	**62180**	**SCCF**	71200	International Consultants		15,000		15,000		30,000	6
				71300	Local Consultants		25,000	25,000	7,600		57,600	7
				72100	Contractual services		26,200	26,200			52,400	8
				71400	Travel		20,000	20,000	20,000		60,000	9
					sub-total GEF		**86,200**	**71,200**	**42,600**		**200,000**	
OUTCOME 3: Enhanced communities' ability to plan, manage and implement climate-related activities	**GEF**	**62180**	**SCCF**	71200	International Consultants		0	30,000	30,000		60,000	10
				71300	Local Consultants			48,000	48,000		96,000	11
				71600	Travel			20,000	20,000		40,000	12
				72100	Contractual Services			89,500	80,000		169,500	13
				72300	Materials and Goods			44,000			44,000	14
					sub-total GEF			**231,500**	**178,000**		**409,500**	
Project MANAGEMENT UNIT	**GEF**	**62180**	**SCCF**	71600	Project Secretariat	4,000	4,000	4,000	8,000		20,000	15
				71300	Local Consultants	5,000	5,000	5,000	10,000		25,000	16
				71600	Travel		5,000	8,000	5,000		18,000	17

					sub-total	**9,000**	**14,000**	**17,000**	**23,000**		**63,000**	
					Project Total	**87,500**	**186,200**	**405,700**	**320,600**		**1,000,000**	

Summary of Funds: [1]						**Year 1**	**Year 2**	**Year 3**	**Year 4**		**Total**
GEF						87,500	186,200	405,700	320,600		**1,000,000**
Office of the Prime Minister-Arid Land Resource Management Project						203,066	203,066	203,066	203,065		**812,263**
Government of Kenya - Ministry of Agriculture						75,000	75,000	75,000	75,000		**300,000**
Government of Kenya - Meteorological Department						61,170	61,170	61,170	61,171		**244,681**
TOTAL						426,736	525,436	744,936	659,836		**2,356,944**

Budget Notes

Budget Note 1: This estimate is for the contribution of the UNDP component to the wider KACCAL project of cost of conducting an inception meeting including covering miscellaneous organizational costs.

Budget Note 2: 60 days/annum over three years at a rate of $500 per day is estimated for an international consultant to develop tools and methodologies for integrating climate change risk reduction measures into community and national development plans, developing knowledge platforms, an advocacy and outreach plan, inputs into a drought preparedness plan and for developing the strategy for the adaptation learning component. Draft terms of reference are attached and will be refined by the project manager and approved by the Project Board prior to contracting.

Budget Note 3: The cost of national consultants to support the achievement of outcome 1 is estimated at 150 days/annum over four years at a rate of $240 per day. Key tasks include developing tools and methodologies for integrating climate change risk reduction measures into community and national development plans including developing climate change resilient drought/flood mitigation and preparedness plans, developing knowledge platforms, an advocacy and outreach plan and for developing and developing and implementing a monitoring and evaluation plan. Detailed terms of reference must be outlined by the project manager and approved by the Project Board prior to contracting.

Budget Note 4: This reflects the amount of money available each year to cover the costs of training (including organization costs for technical support) for the use of climate risk information for planning purposes at the national and regional level, for the implementation of an integrated drought management system and the implementation of an outreach programme and stakeholder coordination.

Budget Note 5: A rate of US$0.50 per kilometer for 22,000 km (in total) is used for all project related travel within the country in support of Outcome 1 (including learning tours of farmers and policy makers visiting pilot sites and other drought affected sites within Kenya, facilitation of collaborative working between stakeholders) as well as $9k for travel for the international consultants (1 trip per year for 3 years).

Budget Note 6. A rate of $500 per day for 30 days/annum over two years is estimated for support for activities related to capacity strengthening at district and local levels.

Budget Note 7: This is estimated at a rate of $240 for 80 days/annum over three years for local consultant(s) support over the project lifetime for the achievement of outcome 2: capacity strengthening at district and local levels. This amount includes the cost of preparing and publishing relevant materials in support of outcome 2.

Budget Note 8: This covers the cost of holding training events.

Budget Note 9: This covers the cost over four years of getting people to training events, consultations and meetings.

Budget Note 10: This estimate is based on a rate of $500 per day for 60 days/annum over two years to help develop technical and financial feasibility assessments and technical guidance in support of outcome 3: Community-Based Micro-Projects Supported.

Budget Note 11: This estimate is based on a rate of $240 per day for 200 days/annum over two years for a project manager and technical support staff to support the achievement of outcome 3: Community-Based Micro-Projects Supported.

Budget Note 12: This estimate is based on rate of US$0.50 per km for 50,000 km of all project related travel within the country related to outcome 3 e.g. getting people to consultation meetings and consultants to the project site, and $15K of travel expenses for the international consultants.

Budget Note 13: This estimate is made for community groups to carry out pilot demonstration activities as outlined in the approved project document.

Budget Note 14: This estimate is to account for materials that might be needed to implement the adaptation measures such as seeds, tools and construction materials.

Budget Note 15: This amount will support the marginal costs of UNDP's use of the project secretariat, which will be coordinated by **ALRMP (OP)** and shared by the joint WB-UNDP project.

Budget Note 16: At a rate of US$250 per day, this will cover the cost of 25 days/annum over four years of purely management related activities by a national consultant. This will include organizational duties, issuance of terms of reference and other administrative functions related to the effective implementation of the project.

Budget Note 17: This will cover the costs of travel within Kenya related to project management only. Costing is based on an estimate of US$0.5 per kilometer of travel.

SECTION IV: ADDITIONAL INFORMATION

PART I: Other agreements

Endorsement letters from the Government of Kenya are attached to this project document.

OFFICE OF THE PRIME MINISTER
MINISTRY OF STATE FOR THE DEVELOPMENT OF NORTHERN KENYA AND OTHER ARID LANDS
ARID LAND RESOURCE MANAGEMENT PROJECT

Telegraphic Address:
Telephone: Nairobi 227496
Fax: 254-20-227982
When replying please quote

P.O. Box 53547-00200
NAIROBI

Ref: ALRMPII 6/1/4 VOL.III

January 15, 2009

The Country Director
United Nations Development Program (UNDP)
Kenya Country Office
NAIROBI

RE: **UNDP COLLABORATION ON THE SCCF COMPONENT OF ARID LANDS RESOURCE MANAGEMENT PROJECT (ALRMP) IN MWINGI DISTRICT**

Further to our letter of December 11, 2008 on the above subject, we wish to provide you with further information on the monetary values of the structures and facilities in place and on the projected investments in Drought Management in Mwingi District for 4 years. In doing so we have used the budgetary provision we have made for Drought Management in the 2008/2009 financial year as the projected minimum provision for each of the 4 years of KACCAL implementation.

Herebelow is a summary of the monetary values of the facilities structures. Also included are the Natural Resources Management and the Drought Management Investments both of which are expected to continue even after the winding up of Arid Lands Management Project Phase (ALRMP II):

	Item	Value in KShs.	Value in US Dollars At the rate of Ksh. 76.9 per Dollar
1.	Natural Resource Management	12,264,400.00	159,485.00
2.	Drought Management	32,656,662.00	424,664.00
3.	Motor Vehicles and Motor Cycles	10,042,000.00	130,585.00
4.	Office Buildings, Furniture and Equipment (including Desktop computers and Laptops)	7,500,000.00	97,529.00
	Total	**62,463,025.00**	**812,263.00**

In addition to the above there is a team of qualified technical and support staff who have been trained to implement activities similar to those that SCCF component will be involved in.

We trust that with this additional information it should be possible to finalize the submission for KACCAL Project documents in time for the scheduled start- up date.

We thank you for your co-operation in this matter.

FATUMA S. ABDIKADIR, HSC
NATIONAL PROJECT COORDINATOR

REPUBLIC OF KENYA

MINISTRY OF AGRICULTURE
Office of the Permanent Secretary

E-mail: psagriculture@kilimo.go.ke
Telephone: 254 20 2718870/9
Fax:254 20 2711149
When replying please quote;

KILIMO HOUSE
CATHEDRAL ROAD
P.O. Box 30028
NAIROBI

Ref. No: MOA/DROUGHT/1 **Date: 15th January, 2009**

Mr. Tomoko Nashimoto
Country Director
United Nations Development Programme (UNDP), Kenya
NAIROBI.

Dear Mr. Nashimoto

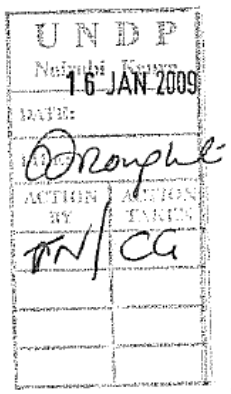
CO-FINANCING FOR COPING WITH DROUGHT PROJECT (CWD)

This is further to mine Ref. MOA/DROUGHT/1 dated 13th March, 2006 on the above subject of which I understand the project did not take off. I also note that this project is now scheduled for implementation soon.

This ministry is still committed to the implementation of the project and will make an updated contribution of US$300,000 in kind towards the project's activities.

Yours sincerely

Romano M. Kiome (PhD, CBS),
PERMANENT SECRETARY



PAR

REPUBLIC OF KENYA

MINISTRY OF ENVIRONMENT AND MINERAL RESOURCES

KENYA METEOROLOGICAL DEPARTMENT

Dagoretti Corner, Ngong Road, P. O. Box 30259-00100 GPO, Nairobi, Kenya,
Telephone: 254-20-3867880-5, Fax: 254-20-3876955/3877373
E-mail: director@meteo.go.ke, directormet@yahoo.com

When replying please quote *Please address all replies to the Director Kenya Meteorological Department*

REF: MET/14/29 Vol. II (2) **Date: Thursday, December 11, 2008**

Mr. Paul Andre de la Porte
Resident Representative
UNDP
P.O. BOX 30218
Nairobi, Kenya.

Dear Sir,

KENYA METEOROLOGICAL DEPARTMENT'S (KMD) CONTRIBUTION TOWARDS UNDP/GEF PROJECT-COPING WITH DROUGHT (CWD)

Reference is hereby made to the above project coordinated by Dr. F. K. Karanja of the University of Nairobi. This is to assure you that the Kenya Meteorological Department (KMD) will support the project by contributing Ksh. 17,617,038.00 (US$ 244,681.10) in kind towards the implementation of the Project.

The contribution will be in form of Personnel, Office, Accommodation, Meteorological Information and service, computing facilities, Stationary and other miscellaneous expenses.

Yours faithfully,

Dr. Joseph R. Mukabana
DIRECTOR KENYA METEOROLOGICAL SERVICES

PART II: Organigram of Project
Please refer to the text in the section on Management Arrangements

PART III: Terms of References for key project staff and main sub-contracts
See Annex 1

PART IV: Stakeholder Involvement Plan
See annex 3

PART V to X: Other additional information
(As required by the specific focal area, operational program, and strategic priority)

See Annex 4 for UNDP Template for Lessons Learned on Adaptation projects.

Annexes

Annex 1: Terms of Reference
Annex 2: Terms of Reference for the Regional Component of the UNDP Coping with Drought and Climate Change Project in Kenya, Ethiopia, Zimbabwe, and Mozambique
Annex 3: Stakeholder Involvement Plan
Annex 4: UNDP Template for lessons learned in adaptation projects
Annex 5: Minutes from CwD Project Stakeholders' Workshop
Annex 6: Maps
Annex 7: Photographs from Pilot sites

Annex 1: Terms of References (TORs)

To be finalized prior to the inception meeting of this project by the Implementing Partner in consultation with UNDP CO and RTA. [Co-management arrangements with the WB-supported KACCAL project will be explored during the project start-up phase].

Background

(*This background is common for all Terms of References but changes can be made according to specific goals for each TOR*)

The Initial National Communication (INC) indicates that impacts of climate change are particularly serious for Kenya, where the effects of the doubling of the current concentration of CO2 in the atmosphere is likely to increase the mean air temperature, reduce rainfall in ASALs, increase the solar radiation and increase the evapo-transpiration. Very recent and past droughts are known to have had devastating environmental and socio-economic impacts on the country, particularly in ASALs.

This UNDP-managed component of the joint UNDP-WB KACCAL project seeks to develop and pilot a range of coping mechanisms for reducing the vulnerability of small-holder farmers and pastoralists in pilot districts in Kenya to future climate shocks. Drought prone Mwingi District was selected as a pilot site for the UNDP-managed component of the joint UNDP-WB KACCAL project. The project is structured around three outcomes, as described in the logical framework matrix (Annex 1).

Objective

This assignment aims at ensuring effective and timely implementation of the project activities, provision of administrative and technical assistance required by the Reference Group and other parties involved in the project, and coordinate any activities taking place in the project site.

3.1 Terms of References for the National Project Manager (PM)

Tasks and Responsibilities

The National Project Manager (PM) will ensure effective and timely implementation of the UNDP-managed component of the joint UNDP-WB KACCAL project, provide administrative and technical assistance required by the project implanting partners and other parties involved in the project, and coordinate any activities taking place in the project site.

The PM will liaise with the project national steering committee (which includes all major national stakeholders), the Ministry of Agriculture (MoA)-led district steering committee, and the UNDP Country Office. The PM will work under the supervision and guidance of the UNDP-CO project representative and together with other PM forms part of a team. Frequent communication with the other team members is expected from the PM. The activities for which the PM is responsible include:

- Provide strategic guidance to the Project Steering Committees.
- Develop a collaborative planning framework for all phases of project management and delivery.
- Ensure effective project implementation in line with the Project Documents including the workplan.
- In coordination with UNDP country Office ensure delivery and disbursement of UNDP funds, in order to achieve the stated Projects' Outputs and Outcomes
- Develop project workplans for undertaking the KACCAL project activities.
- Ensure the timely implementation of planned activities as identified in the workplan.
- Develop Terms of Reference for procurement of technical services.

- Supervise and review the work done by indicated technicians and consultants.
- Define assessment methodologies according to the GEF guidelines for the planned capacity stocktaking work at the project site.
- Ensure UNDP manuals and procedures and financial rules and regulations are followed.
- In coordination with UNDP country Office, and in accordance with project document guidance's, ensure preparation and delivery of the following project reports:
    - Inception Report, Quarterly Financial Reports, Bi-annual Progress Reports, Annual Project Report, Project Implementation Review, Occasional Status Reports and Briefing Notes, Technical Reports, Project Publications, Project Terminal Report.
- Review existing capacity assessment literature compiled in preparation of CBD, UNFCCC and UNCCD national communication.
- Prepare briefing documents, develop and update information materials to ensure that stakeholders have a common understanding of the project.
- Monitor and evaluate the implementation of the project every six months, and report to the PM through the Reference Group.
- Organize meetings on behalf of the project team including stakeholder meetings.
- Organize meetings with the central, provincial and district project steering committees at regular basis to evaluate the project progress.
- Monitor other regional and national environmental projects (GEF or non-GEF), and streamline the UNDP Projects' activities with these initiatives.
- Perform any other duty relevant to the assignment

Output

- Project Document outcomes, work plan, budget and terms of reference of project staff and project management structures taking into account the prodoc logframe

Qualifications and Experience

A Bachelor's degree in a field related to environmental management, agricultural science, meteorology and other related sciences. Experience in drought management issues at the farm and policy level. Knowledge of climate change, drought preparedness and mitigation and biodiversity issues. Familiarity with GEF guidelines/procedures including logical framework, project development/management. A good understanding of development and environmental/agriculture or climate issues in Kenya. Familiarity with the UN Convention on Biological Diversity, the UN Convention to Combat drought and desertification, and the UN Framework Convention on Climate Change. ☐At least 5 years of work experience (including in project management).

Skills:

- Leadership skills;
- Team player;
- Diplomatic and negotiation skills;
- Sensitive to government and civil society interactions;
- Advanced reporting skills;
- Strong managerial and administrative background, especially in accounting, procurement, disbursement, monitoring & evaluation;
- Conversant and at pace with funding opportunities;
- Trouble shooter and problem solver;
- Pro-active, adaptive management skills;
- Strong economics / financial background;
- Project identification and development skills

- Ability to establish priorities and to plan and coordinate work;
- Ability to effectively coordinate a multi-stakeholder project;
- Excellent communication skills;
- Ability to lead, manage and motivate teams of international & local consultants and other stakeholders to achieve results;
- Committed to and diligently working towards achieving results for sustainable change;
- Fully Computer literate.

Duration of assignment
The total duration of this assignment is 5 (five) years during which the consultant will work 5 (five) working days over a period of one week. The PM will work under the guidance of the UNDP-CO project representative and report directly to the UNDP Country Office, Project focal point at the Government of Kenya and steering Committee.

3.2 Terms of reference of the District Project Steering Committee

Introduction
This steering committee is intended to serve the UNDP-managed component of the joint UNDP-WB KACCAL project, in the UNDP pilot site in the Mwingi district. To succeed in this project and especially to build a national consensus, a Climate Change Adaptation Road Map for the project area will be instrumental in identifying the social and technical systems needed and climate change related challenges that the agricultural sector, and rural agro-pastoralists in semi-arid regions will be facing in the next ten years. Government, Non-governmental, private and international development agencies have been recognized as vital key strategic partners for this project. It is the desire that these players unite their efforts in bringing fruition to this project. These core organizations shall work closely together as part of a steering committee responsible for providing overall guidance on this project.

The project proposal provides a detailed background to the Project, and a project plan has been developed to support implementation of the project.

Role of the Steering Committee
- Take responsibility for the achievement of outcomes for the UNDP-managed component of the joint UNDP-WB KACCAL project;
- Address any issue (s) that has major implications to the project;
- Provide overall direction and advice to the Project Manager;
- Sign off on relevant aspects of the project;
- Represent various interests of stakeholders and facilitate strategic alliances with these sections.

District Project Steering Committee Functions
The Project Steering Committee will:
- Provide input to the membership of any other Working Groups, as required;
- Guide the preparation of the final product prepared by the Project Manager;
- Approve the contents of the documents released to the public and Government authorities, as required;
- Provide input on a potential strategy for the implementation, as appropriate, of some or all recommendations generated by the UNDP-managed component of the joint UNDP-WB KACCAL project;
- Act as liaison between the Project Steering Committee and their own professional organization;

Composition

- Each partner organization will have the privilege of self-appointing one representative who will participate in all the activities of the Steering Committee.
- The Project Steering Committee will be comprised by representatives from the government, NGOs, International Development Partners, Private Sector, Project manager and the secretariat representative.
-

Membership Rotation

Appointments will be for the duration of the project. While it is not expected that rotation will be required, circumstances may arise when a member of the Steering Committee may need to be replaced. The represented organization will be responsible for the new appointment and will ensure continuity in the representation.

Communication with the Public

- All inquiries with respect to this project shall be channelled through the co-Chairs of the Project Steering Committee or through the Project Manager's Office.
- All correspondence with the public which could be interpreted as reflecting the views of the Committee shall be signed by the co-Chairs, the appointed Project Manager or other persons authorized by the co-Chairs.
- Only the co-Chairs and the Project Manager or other persons designated by the Chair, are authorized to speak on behalf of the Steering Committee.
- Requests from the public for general explanations of the project process/ documents will be responded to by the Project Manager's Office staff directly involved with the project. Such explanations shall be confined to information only.

Secretarial Support

- The Project Manager will provide secretarial support for the Project Steering Committee.
- The Project Manager, will act as Secretary to the Committee. Secretarial support will be provided for the organization of meetings, preparation of the agenda in co-operation with the Project Steering Committee co-Chairs, preparation of meeting minutes and informing the Project Steering Committee members of project developments through regular communications channels.
- The Project Manager will be responsible for reporting to the Project Steering Committee on all issues pertinent to the management of the project.

Travel Expenses

Each organization represented on the Steering Committee is responsible for the travel expenses of its representative, unless specifically requested in writing by the project, in which case the project travel guidelines will apply.

Attendance and Participation at Meetings

- Attendance and participation at meetings of the Committee by non-members shall be at the discretion of the co-Chairs.
- Members of the public intending to attend a committee meeting shall notify the Committee Chair of such intent.
- Participation in Committee discussions shall normally be limited to Committee members and assigned staff. Invited guests and other members of the public may participate with the approval of the co-Chairs.
- Committee members are not permitted to name alternates.

Communication guidelines
All formal communications between members of the Steering Committee will be copied to other members.
Project documents that will be supplied to members

- Project Proposal
- Steering Committee Terms of reference
- Communication strategy
- Project plan
- Status reports
- Agendas and minutes from meetings

3.3 Terms of Reference for National Consultants

This TORs is only indicative. Specific and more detailed TORs will be developed in the project inception workshop or during the project lifetime according to the requirements of each consultancy (contractual service).

The indicative tasks of the local consultants include:

- Establish an internet based information delivery system;
- Conduct training on forecasting climate change and climate variability;
- Develop educational materials for training;
- Assist in the establishment of an early warning system;
- Production of educational materials for training of project staff;
- Develop tools for mainstreaming of climate change into development plans and provide training on the method of preparation of mitigation plan;
- Undertake specific technical tasks to address project activities as per indication of the Project Management Unit.

3.4 Terms of Reference for the International consultant

This TORs is only indicative. Specific and more detailed TORs will be developed in the project inception workshop or during the project lifetime according to the requirements of each consultancy (contractual service).

The indicative tasks of the international consultants include:

- Establish drought information system and data base establishment in the pilot area;
- Organize training to build the capacity of relevant stakeholders to use climate change information;
- Design risk management system and prepare educational materials for risk management;
- Organize training on the promotion of integrated climate risk management;
- Assist in the preparation of community based drought mitigation plan;
- Conduct marketing survey to identify the potential to market dry land products from the pilot areas;
- Undertake specific technical tasks to address project activities as per indication of the Project Management Unit.

Annex 2: Terms of Reference for the Regional Component of the UNDP Coping with Drought and Climate Change Project in Kenya, Ethiopia, Zimbabwe and Mozambique

1. UNDP's Coping with Drought Project was initially pipelined at the GEF as a Full Size Regional Project for East and Southern Africa. The regional dimension of the project was motivated by a number of factors including:

   - The management of climate information in East and Southern Africa takes place in a regional manner. Regional climate outlook fora gather, analyze, forecast and disseminate climate information along a chain of regional, national and local users.
   - All four countries expressed their interest in this work by participating in a farmer-focused survey on accessibility and use of contemporary and indigenous climate information conducted in 1999. Since then through regular consultations between UNDP-DDC, UNDP and the countries possible interventions on drought mitigation and climate adaptation have been identified. In all four countries activities in the context of drought management have been initiated between UNDP and the respective governments.
   - Given the correlation between ENSO (El Nino/ Southern Oscillation), rainfall, drought, and food insecurity, ENSO based climate predictions are similar in general terms but different at specific sites for each of the four countries. The usefulness of ENSO predictions to reduce risks in agricultural production associated with rainfall variability can be tested across Eastern and Southern Africa. Furthermore, the regional approach allows comparing the effectiveness of different response measures.
   - Similarities with regard to drought vulnerabilities across all four countries, and to a certain extent similarities of response measures, allow sharing of knowledge and horizontal learning between countries. Knowledge sharing and learning will be facilitated by a regional approach and specific activities identified during the preparatory phase.
   - The need for technical input on a demand-driven basis from specialized agencies such as the Drylands Development Centre, and others including WMO, NOAA, IRI, and NDMC.

2. For a number of logistical and programming reasons, the regional project was subsequently submitted as four separate Medium Sized Projects to GEF Council. However, the regional dimension of the GEF pipelined project was retained through the specification of an outcome that focused on the regional dimension of the project in each of the separate MSPs.

3. Discussions during the preparatory phase converged to the identification of the Drylands Development Centre (DDC) as the lead for the regional component of the project. DDC is a centre of excellence dedicated to working with people to fight poverty in the drylands of the world. The Centre helps to influence policies through research and analysis of drylands policies, providing advice, and policy-making support to decision-makers, designing and managing capacity development programmes in drylands, and working towards ensuring that national policy and planning frameworks address the social and environmental concerns of dryland populations. DDC has expertise in building partnerships, generating knowledge and promote learning. DDC also promotes the strengthening of the capacities of individuals and institutions at the local level while working to ensure that national policy and legislation support local development.

4. These Terms of Reference outlines the regional component of the Coping with Drought initiative.

Outcome 1: Strengthened knowledge base, coordination, and information sharing towards action on management of climatic risk at the National and Regional levels.

Activities to achieve this outcome will be anchored on establishing regional applied knowledge exchange mechanism for climate change adaptation practices established. This will be achieved in synergy with the African Drought and Development practitioners' Network, for the benefit of project countries, as well as a basis for potential wider replication of successful approaches to building adaptive capacity.

(a) Key lessons, good practices and methodologies are supplied from projects and other sources (as inputs to Outcomes 1-3 in each national project) in a systematic manner, through applied knowledge products.

(b) Capacity building activities facilitated (related to Outcomes 1-3), including for methodology development for indicators of adaptive capacity, as a basis for identifying successful approaches

(c) Lessons, practices and methodologies applied, as inputs into Outcomes 1-3 at national level.

(d) Coordination functions maintained (a) between country projects and (b) between the set of country projects and external parties and potential partners, in part through development of a Coping with Drought 'brand'

Annex 3: Stakeholder Involvement Plan

Local and national stakeholders will be heavily involved in the UNDP component of the joint UNDP-WB KACCAL project, through community-based activities, national consultations, and co-management of project outcomes. Stakeholder involvement is crucial, in order to ensure buy-in and effective delivery of results of local, vulnerable populations. The will be ensured by engaging with community and with national government through a cross-scale approach, involving communities in activities and disseminating lessons and engaging in policy dialogue with government stakeholders. Stakeholders at all levels were also involved in the formulation of the UNDP component of the joint UNDP-WB KACCAL project during the project preparatory phase. A meeting was held during 2005, and the topics discussed, groups involved, and main messages are described below.

List of Stakeholders and Areas of Participation

Name of Stakeholder	**Area of Participation**
(a) Non-Governmental Organizations (NGOs) in Mwingi	
Mitamisyi Poverty Alleviation Programme (MPAP)	-acquisition of oxen and ploughs. -Support to groups to start incomes generating activities like vegetable Production and purchase of goats.
World Vision Kenya	-Support farmers training on food security -Support trainings for community resources (persons) like soil conservation Assistants. -Subsidizing farm inputs, e.g. Improved seedlings and livestock breeds.
Mwingi Farmers Field School Networks	-Marketing farm produce jointly for registered groups, with emphasis on green grams and sorghum collectively. -Experience sharing among themselves and with experts -Have collective bargaining for better prices and ensure farmer empowerment in decision making process on matters that affect them -Accessing information about their farming activities -Share costs while undertaking joint activities such as collective farm input procurement.
Kitui Ginneries Ltd	-Purchase of cotton -Availing cotton seed.
Catholic Diocese of Kitui (CDK)	-Capacity building for groups -Availing seeds at subsidized prices
KARI – Katumani	-Sorghum trials and fertility improvement trials -Tomato variety trials
Genesis	-Provision of seed -Capacity building for groups -Provision of pesticides to farmers on loan basis.
AAK Tharaka DI	-Capacity building groups -Provision of inputs to groups undertaking vegetable production (Drip kits, vegetable Seed)
Mwingi District Community Based Seed Bulking & Stockists Association	-Availing seed to seed bulking farmers.

(DISCOBSA)	
NGOCAP	Provision of ox-ploughs to farmers
Farm Africa	-Relief -environmental conservation
Action Aid	-Relief
Christian Children Fund	
Organization of Sustainable Capacity for Development (OSCAD)	-environmental conservation -food security
(b) Community Based Organizations (CBOs) in Mwingi District	
Mutanda Community Based Organization (MUCOBO)	Environmental Conservation
Mumoni- Kyuso community Based organization (MUKY)	-Environmental Conservation
(c) Farmer Organizations in Mwingi District	
Farmer Field schools (FFS) Soil Conservation assistants Farmer Innovation Networks Beekeepers Association Horticultural growers Ranches Para-Veterinary Assistants	
(d) Government Departments	
Arid Lands Resources Management Programme (ALRMP) National Environment Management Authority (NEMA) Kenya Meteorological Department (KMD) Department of Resource Survey and Remote Sensing (DRSRS) Forest Department Water Department Livestock Production Department Crop production Department Fisheries Department Culture and Social services Co-operative Development Department District Development Committee Veterinary Services Department	
(e) International Organizations	
United Nations development Programme (UNDP) Food and Agricultural Organization (FAO) Famine early warning system Network (FEWS-NET) IGAD Climate Prediction and Application Centre (ICPAC)	

Annex 4: UNDP Template for lessons learned in adaptation projects

(To be adapted under guidance by UNDP's Regional Technical Advisor on Adaptation)

Completed by: **Date:**

Project Data

Name of the project:

PIMS:

Motives – engaging stakeholders

1. What development challenge(s) motivated this project?

2. What climate-related challenge(s) motivated this project?

Baseline activities and additionality

3. What were the successes and challenges of building on baseline development to design the project? What makes the activities funded by the project "additional" (attributable to climate change)?

Inputs/Gaps in resources for project development

4. What were the most useful sources of climate change and other information utilized in project design? What information gaps arose?

5. How useful was Adaptation Programming Website in developing the project and how could it be improved?

Factors for success/failure

6. What key factors hindered timely progress in project development, and what key factors enabled success? (e.g. Methods, policies, capacities, etc.)

Methods: Project problem analysis

7. Describe the challenges and benefits of the methodologies used for problem analysis, e.g. For baseline assessment; APF approaches; use of GCMs or climate observations; outcomes or processes from assessments (NAPAs, NCs), etc.

Methods: Assessment of adaptation response

8. Describe the challenges and benefits of the methodology used for identification and selection of adaptation responses (e.g. Assessment of current coping/adaptation; assessment of maladaptation; cost-benefit analysis; multi-criteria analysis, etc.)

Other Adaptation priorities identified

9. What key systems or areas were identified as priorities for adaptation during project development that will **NOT** be addressed by the project?

Overall

10. Recommendations for future adaptation project developers.

1.

2.

3.

Annex 5: Minutes from CwD Project Stakeholders' Workshop

Mwingi Tourist Hotel, Mwingi Town, 14th – 15th November 2005.

Day one **14th November 2005**

Programme:

08.00 – 08.45 *Arrival and Registration of Participants – Mwingi Tourist* Hotel

Chair: *D.M. Kang'esa -DAO -Mwingi*
Rapporteurs: *C.Oludhe and A.Oroda*

08.45 – 09.00 *Prayer and Introductions*

09.00 – 09.30 ***Opening Remarks***

- UNDP CO Representative - Charles Nyandiga
- UNDP Regional Project Manager -Pradeep Kurukulasuriya
- MoA Project Coordinator -Isaiah Gitonga

09.30 **– 11.00** ***Session two –Presentations***

09.30 – 09.45 Project Overview and site selection - *Fred Karanja, NC*
09.45 – 10.00 District Resource Degradation - H.K. Kiema, DLPO, *Mwingi*
10.00 – 10.15 NEMA Activities in Mwingi - *P. Wambua, DEO, Mwingi*
10.15 – 11.00 Discussions

11.00 – 11.20 ***Coffee/Tea Break***

11.20 – 11.30 FFS Activities in the District - *Mr. Mwanga, DFFS Coordinator*
11.30 – 11.40 Farmer Presentation - *Kalamba Muyo FFS*
11.40 – 11.50 Farmer Presentation - *Kaghui FFS*
11.50 – 13.00 Discussions

13.00 – 14.00 **LUNCH** -Mwingi Tourist Hotel

14.00 - 15.40 **Group Discussions** **Chair: Isaiah Gitonga**

-Adaptive capacity assessment (challenges of coping with drought)
-Identification of potential coping mechanisms
-Assessment of existing early warning system (problems and ways to improve)

15.40 – 16.00 **Coffee/Tea Break**

16.00 – 17.00 Recommendations and way forward

Day two **15th November, 2005**

Field Trip

06.30 – 07.00 Assemble at MoA Offices, Mwingi
07.00 - 09.00 Traveling to Kamuwongo Farmer's Field School
09.00 – 12.00 Field visit and Discussions
12.00 Closing and traveling back to Mwingi Town

List of Participants

Serial No.	NAME	ORGANIZATION	ADDRESS
1	Mrs. Patricia M. Wambua	National Environment Management Authority (NEMA)	P.O. Box 30, Mwingi Tel: 0735-593702, 0723372468 patriciamukua@yahoo.com
2	Mrs. Janice M. Mwinzi	Mwingi District water Office	P.O. Box 19, Mwingi Tel: 0735-948791
3	Charlwes Mugo Njine	Ministry of Agriculture	P.O. Box 31, Mwingi. Tel: 0733360358
4	Mr. Symon C. J. Mburia	Ministry of Cooperative Development	P.O. Box 248, Mwingi Te: 044-822241, 0721743259
5	Mr. Julius Mutie Kivinduko	Ithingili Farmers field school	P.O. Box 34, Kamuwongo
6	Mr. John N.T. Miru	District Social Development office-Mwingi	P.O. Box 137, Mwingi Tel: 0735195081
7	Mr. Patrick Mutugi Kirimi	Ministry of Agriculture	P.O. Box 31, Mwingi Tel: o44-822378, 0734926532
8	Mr. Mutuku Ndunda	Ministry of Livestock & Fisheries Development	P.O. Box 31 Mwingi Tel: 0734553398
9	Mr. D.M. Kangesa	Ministry of Agriculture	P.O. Box 31, Mwingi Tel: 044-822378
10	Mr. Jacob Wambua Mwova	Kaghui Farmers Field School	P.O. Box 17, Kyuso, Mwingi
11	Mrs. Mawia Musyoka	Kaghui Farmers Field School	P.O. Box 17, Kyuso, Mwingi
12	Mr. Samwel Njenga	World Vision	P.O. Box 390, Mwingi Tel: 0723510935 samwelirari@yahoo.com
13	Mr. James Angwenyi Nyangaka	Ministry of livestock & Fisheries	P.O. Box 416, Mwingi Tel: 044-822139, 0735419779
14	Mr. Job M. Mwinzi	MUKY-ORDAP	P.O. Box 672, Mwingi Tel: 0724930198
15	Mrs. Ruth M. Samwel	MUCOBO Community Based Organization	P.O. Box Katse Tel: 0724930174
16	Mrs. Kasyoka Kimwele Nzuu	Kalamba Muyo Farmers Field School	P.O. Box Kamuwongo

17	Mrs. Stellah Syungu Kyalo	Kalamba Muyo Farmers Field School	P.O. Box Kamuwongo
18	Mr. Solomon Mutemi Mukiti	Kalamba Muyo Farmers Field School	P.O. Box Kamuwongo
19	Mrs. Mary M. Mwanzau	Ministry of Agriculture	P.O. Box 31, Mwingi Tel: 0733452341
20	Mr. Titus Muthini Utungu	Ministry of Agriculture	P.O. Box 31, Mwingi Tel: 044-822378, 0733413419
21	Mr. H. Kitonga Kiema	Ministry of Livestock & Fisheries	P.O. Box 31, Mwingi Tel: 0735648915, 0722694435
22	Mrs. Esther Muhanjya	Ithinguli Farmers Field School	P.O. Box 34, Kamuwongo, Mwingi
23	Mr. Daniel Kimanzi Mwanga	Ministry of Agriculture	P.O. Box 31, Mwingi Tel: 044-822378, 0735477425
24	Mr. Charles Nyandiga	UNDP CO	P.O Box 30218 (00100), NAIROBI Tel: 624447 charles.nyandiga@undp.org
25	Mrs. Joy Kagwira Ochieng	Ministry of Agriculture	P.O. Box 31, Mwingi Tel: 044-822378, 0733455674 joisom@yahoo.com
26	Mr. Arthur Njeru Maathai	Ministry of Agriculture	P.O. Box 31, Mwingi Tel: 044-822378, 8222049, 0723707663 amaathai@yahoo.com
27	Dr. F.K. Karanja	UNDP National Consultant, University of Nairobi	P.O. Box 30197, NAIROBI, 00100 Tel: 067-21241, 0733780038 fkaranja@swiftkenya.com
28	Dr. I.I. Gitonga	Ministry of Agriculture, Project Coordinator	P.O Box 34097, NAIROBI Tel: 020-2713901 iimaita@yahoo.com
29	Dr. Pradeep Kurukulasuriya	UNDP, Project Manager	P.O. Box 305 E45th ST, NEW YORK, NY 10017 Tel: 718938 9965 pradeep.kurukulasuriya@undp.org
30	Mr. Antony M. Kavisi	Ministry of Agriculture	P.O. Box 31, Mwingi Tel: 044-822378, 0725973792
31	Mr. Edward Njaramba Macharia	Ministry of Culture & Social Services	P.O. Box 317, Mwingi Tel: 0734588691
32	Mr. A. Oroda	Kenyatta University	P.O. Box 61361, NAIROBI, 00200 Tel: 0722254862 Ambrose_oroda@yahoo.com
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34	Mrs. Jacqueline Kiio	Ministry of Agriculture	P.O. Box 31, Mwingi Tel: 044-822378, 0720368148 jackiekiio@yahoo.com
35	Ms. Joyce Ruitiari	Ministry of Agriculture	P.O. Box 30028, NAIROBI Tel: 0722770383 Ruitiari@yahoo.com

36	Mr. C.B. Lukorito	University of Nairobi	P.O. Box 30197, NAIROBI, 00100 Tel: 020-4449005, 0734425294 cbusolo@uonbi.ac.ke

Session one - opening

Mr. D. Kang'esa, the Mwingi District Agricultural Officer (DAO), welcomed the participants to the workshop and said that due to the varied social backgrounds of the participants the workshop would be conducted in three languages – English, Kiswahili and Kikamba (for those not able to express themselves in English or Kiswahili, particularly the farmers). He then asked the participant to introduce themselves. After the introduction, the Chairman took the participants through the programme.

Summary of the DAO's remarks

- Mwingi District is generally a hardship area where only one season out of four seasons experience successful cropping the rest experiencing crop failure.
- Water is scarce hence people spend a lot of time looking for water.
- There are plenty of diseases for both humans and livestock.
- Waterborne disease are generally common due to scarcity of water hence people cannot have clean drinking water.

Despite the numerous problems, people still live in Mwingi. This is mainly because of the wealth of the indigenous knowledge that people have, particularly in:

- Soil conservation
- The use of drought tolerant crops
- Strict preservation of seeds
- Selection of indigenous crop seeds

It was noted that:

- Human and livestock diseases, including snake bites, are usually treated by use of herbs. The traditional medicines should, therefore, be enhanced.
- There is indigenous knowledge used in forecasting rainfall

In conclusion the participants were informed that the Project team was interested in documenting the local people's views on the proposed project. The team was in the process of carrying out an assessment that would enable the development of a project proposal to be funded by the UNDP, together with the GoK and other development partners. The project is aimed at enhancing the local people's ability to cope with droughts and the impacts of climate change.

Summary of Isaiah Gitonga's remarks said that:

- Since independence there had been a lot of projects implemented in Kenya by the Ministry of Agriculture, NGO's, International Organisations (such the Food and Agriculture Organisation of the United Nations), etc, particularly in the hardship areas but there was nothing to show for it.
- Why has there been no success in food self-sufficiency production?
- Farmers were challenged to give reasons, in their view, why this has been the case.
- Noted that top – down approach in project design and development is no longer being used, but bottom – up approach. There is need to have the local people projects thought through from the ground as part of enhancing the success of projects

- There was interest in finding solutions to the persistent problems or hardships.
- Any projects being implemented should show success
- He concluded by encouraging the farmers to speak out the problems they usually face that hinder their development.

Pradeep Kurukulasuriya, the Regional Project Manager was introduced to the participants by the NC.

Session two - Presentations

Summary of Fred Karanja's presentation

The presentation highlighted the following:

- The overview of the project
- Site selection (see Annex A)

Two sites corresponding to two administrative divisions in Mwingi District of Eastern Province of Kenya were selected for piloting and subsequent project implementation. These are Mumoni and Kyuso divisions.

- Stakeholders input in the design of the project

Key components of the project are:

- Piloting coping strategies
- Improving early warning systems
- Implementation of drought preparedness mechanisms

Principal or important issues of the project were

- To build on what was existing with focus on land degradation and food security
- Coordination to avoid duplication

Summary of Kitonga Kiema's presentation

Resource Degradation in Mwingi District

An overview of natural resource degradation in Mwingi District was presented.

i) Agro-ecological zones of Mwingi District and their land area coverage (Annex B)

Agro-ecological Zone	Extent
UM 3	19.8 km^2
UM 4	114.9 km^2
LM 4	952.6 km^2
LM 5	4995 km^2
IL 5	531 km^2
IL 6	3417 km^2
Total	10030 km^2

Mwingi District is an Arid and Semi-Arid Lands (ASALs) area with bimodal type of rainfall. Average rainfall ranges between 300 and 1000 mm per annum.

- Long Rains, March – May rainfall is unreliable
- Short Rains, October – December rainfall is the one farmers mostly rely on (see Annex C)

ii) Reasons/factors of land degradation in Mwingi

- Poor rainfall in terms of amounts, distribution
- High intensity rainfall that falls in thunderstorms destroying soils and vegetation
- Overstocking of livestock – major problem particularly around watering points.
- Poor farming practices – shifting cultivation
- Deforestation – charcoal burning, timber harvesting, herbalists harvesting medicinal plants, wood carvers
- High levels of poverty that encourages using environmentally unsustainable methods of livelihoods e.g. charcoal burning

iii) Indicators of land degradation (see Figures in Annex D)

- presence of denuded areas
- presence of gullies
- low crop yields
- loss of biodiversity – extinction of certain species
- low water table
- siltation of dams
- poor livestock body conditions

IV. Coping strategies against land degradation

1. Soil conservation measures – "fanya juu" etc.
2. National Soil and Water Conservation Project
3. Programmes such as Farmers' Field Schools (FFSs), NALEP, SIDA, AAK, Catholic Diocese of Kitui World Vision, World Food Programme
4. Water harvesting
5. "Fanya"/Irrigation digits
6. Water conservation
7. Farming systems such manure application, fertilizer use, early maturing crops, early planting, drought resistant crops such as cow peas, pigeon peas, sorghum, millet, etc.
8. Diversification of livelihoods e.g. bee keeping, small businesses

v. Challenges

The following are among the challenges of resource degradation within Mwingi District.

- Increasing crop yields
- Incorporating suitable agro-forestry trees in the farming system
- Identifying road run-off points for water harvesting
- Preventing cultivation on hilly areas

- Identifying alternative livelihoods
- How to stop deforestation

Summary of Presentation by the District Environment Officer – National Environment Management Authority (NEMA)

NEMA coordinates environmental matters. It does not implement any projects but works through other institutions. Its key areas include:

- Public awareness
- Education on various environmental rules such as EMCA
- Environmental Impact Assessments
- Conservation measures using advocacy and people

Summary of Presentation by Mr. Mwanga, the Deputy District Agricultural Officer (DDAO) on Farmers' Field Schools (FFSs)

FFS is a new concept in Kenya and is one of the extension approaches. It involves farmers in the extension work. The concept was started in South East Asian countries as part of pest control measures using indigenous knowledge system.

In Kenya FFS programme was stared in Western as an Integrated Production and Pest Management (IPPM) in 1996. In 2001 through funding by UNDP/FAO and GoK the IPPM was expanded to seven more districts including Mwingi. Phase II of FFS programme started in Mwingi in 2004 through funding from FAO and The Netherlands Government that included Partnership Programme in Water Harvesting in three divisions of Mwingi. The Government of Kenya has since expanded the programme to include the rest of the divisions.

Key area includes Participatory Extension Approach involving farmers in:

- Problem identification through ground work and public meetings
- Identification of enterprise areas
- Choice of place for regular meetings
- Encouraging growth of indigenous crops

Lessons learnt through FFSs

- Empowerment in knowledge
- Leadership empowerment
- Initiation of innovative programmes
- Technology development
- High rates of technology adoption
- An entry point of new technologies
- Cost-effective means of spreading new ideas
- Enhancement of professionalism
- Development of strong farmer organizations e.g. Mwingi District FFS Network
- Enhancement of Indigenous Knowledge Systems

Challenges

- Frequent crop failures hampering the learning process
- Low farmer participation
- Trials which address only a few problems leaving out a myriad other problems
- Low funding
- Low involvement of other departments due to lack or limited resources
- Limited staff trained in FFS methodology

Summary of presentations by representatives of FFSs participating in the workshop

There were two FFSs participating in the workshop. These were Kalamba Muyo FFS from Mumoni Division and Kaghui FFS from Kyuso Division.

1. Solomon Mutemi from Kalamba Muyo FFS

Kalamba Muyo FFS is three years old having started in 2003. The FFS has 39 farmer members, 26 of which are women and 13 men. They have a one acre field site that has been donated by the family of the FFS Chairlady.

i) Key areas of focus

- Farming
- Water harvesting
- Learning through experiments at the field site

In learning and farming, they carry out trials with different crops.

In water harvesting they use tight contours and holes they dig in the farm. The holes are also used for planting different plants as part of the trials.

ii) Challenges

- The area is dry and soil surface is hard and hence it is usually difficult to dig holes in the farm
- Frequent lack of food particularly during the period August – December. They are trying out various crops to see which of the crops can carry them through this period.
- There is plenty of water that runs off during the rainy period hence efforts and technologies are needed to harvest the water. Water harvesting will be one of the coping strategies.
- Resources are quite limited, particularly for water harvesting purposes.
- There is great need for water hence water provision using dams, wells, boreholes would be a very good way forward.

2. Jacob Muli Mwova from Kaghui Farmers' Field School

Kaghui FFS was started in 2001 with 32 members. Currently the membership is 25 other members having left. They went through training during the 2001 – 2002 period although learning still continues. They have one farm that is used for income generating activities and a second farm they use for trials.

The farm they have is leased for a ten year period until the year 2010. Since its inception Kaghui has created 6 other FFSs hence forming a zone.

Besides farming and trials, the FFS has goat rearing project. When the FFS started it received a loan of Kenya Shillings 23,000/= from FAO through the Ministry of Agriculture. Using the loan they bought 47 goats which were loaned to the members while the rest of the goats were managed by the group. The members have since repaid the goats at KSh. 100/- per oat. They received additional assistance which they have used to buy 50 goats of which each member is going to be give 2 goats and each member will refund two female goats and Kenya Shillings 100/=. The money raised will be used to start a cattle rearing programme while the goats will again be loaned to members. Generally, the farmers' income has significantly improved.

The farm is terraced to harvest water. Future plans include using the farm for demonstration for others to learn and improving the goats through cross-breeding.

The major challenge is lack of water. But the group reported that there is a seasonal river that passes nearby around which the water table is quite high at 28 – 40 feet deep. If a borehole was sunk around the stream and installed with a pump, it may provide plenty of water that can be used for irrigation. The Kaghui group is advocating for co-ownership and cost-sharing of all projects to ensure sustainability.

Other coping strategies in the area include formation of merry-go-rounds and practicing what they have learnt.

During brief discussions after the presentations it was reported that Muki, an NGO working in both Mumoni and Kyuso Divisions has carried out a Participatory Rural Appraisal (PRA) to seek a solution for the perpetual crop failures. It was reported that water is the main problem of the area and a lot of earth dams were constructed but have since been filled up or silted

Session three - Discussions and Recommendations

The after of the 14th November was dedicated to questions and discussions. The questions and discussions were centred on three areas – land degradation, early warning, and challenges. To spearhead the discussion the following challenges were posed: After 40 years of independence Ukambani remains food insecure, what is it that can be done? The Government of Kenya and several organizations, intergovernmental, non-governmental, and multi-nationals have implemented several projects in Ukambani, how come the problems are far from over?

The following is a summary of the discussions and outcomes from these discussions. The opinions of the farmers in the these discussions were given the highest priority in each of the outcomes.

Major problems facing the farmers and pastoralists

- Frequent droughts
- Lack of both domestic and irrigation water
- Famines
- High rates of poverty
- Diseases including HIV/AIDS and lack of medical facilities
- High rates of school drop-out

Challenges

- Provision of water
- Provision of medical facilities
- Insufficient extension services
- Limited initiative
- Limited resources
- Food insecurity

Actionable areas

1. Environmentally friendly alternative livelihoods such as bee keeping
2. Establishment of commercial woodlots as alternative livelihood
3. Increased or enhanced water provision through harvesting facilities such as dams which may be used for water harvesting and fish farming.
4. Conservation of water catchment areas
5. Establishment of market groups for various products
6. Establishment of tree nurseries
7. Provision of water through boreholes and shallow wells
8. Improvement of indigenous goat production through selection.
9. Need for localized weather information
10. Need for development of canals for water from River Tana for irrigation.
11. Need for a full fledged weather station in the district.
12. Value addition of existing agricultural and livestock products through processing.
13. Promotion of traditional crops.

Barriers

1. Lack of involvement of local stakeholders in the design and project development
2. The local stakeholders have limited knowledge of the project objectives due to lack of sensitization.
3. Negative Political interference among various local organizations and hence their objectives not always met.

Prioritization of the actionable areas

The actionable areas were prioritized in terms of those that should be given first preference. It is emphasized here that the local stakeholders' opinions, especially the farmers were given the most weight.

1. Promotion of traditional crops (13)
2. Provision of water through boreholes and shallow wells and increased or enhanced water provision through harvesting facilities such as dams which may be used for water harvesting and fish farming (7+3)
3. Establishment of tree nurseries (6)
4. Environmentally friendly alternative livelihoods such as bee keeping and the need for localized weather information (1+9)
5. Establishment of market groups for various products (5)
6. Improvement of indigenous goat production through selection (8)
7. Value addition of existing agricultural and livestock products through processing
8. Conservation of water catchment areas and establishment of commercial woodlots as alternative livelihood (4+2)

9. Need for a full fledged weather station in the district

Specific activity areas that the project can address

1. Promotion of indigenous crops
2. Provision of water
    - Construction of earth dams
    - Construction of earth pans
    - Construction of shallow wells
    - Sand storage
    - Water harvesting
    - Construction of boreholes
3. Establishment of tree nurseries
4. Bee keeping
5. Establishment of marketing groups e.g. green-grams, sunflower, cotton
6. Improvement of indigenous goats
7. Conservation of catchment areas – gazettement of catchment areas
8. Promotion of indigenous food crops such as millet, sorghum, cow peas, pigeon peas, etc.

Annex 6: Maps

Figure 1. Map of Kenya showing arid and semi-arid districts (ASALs)

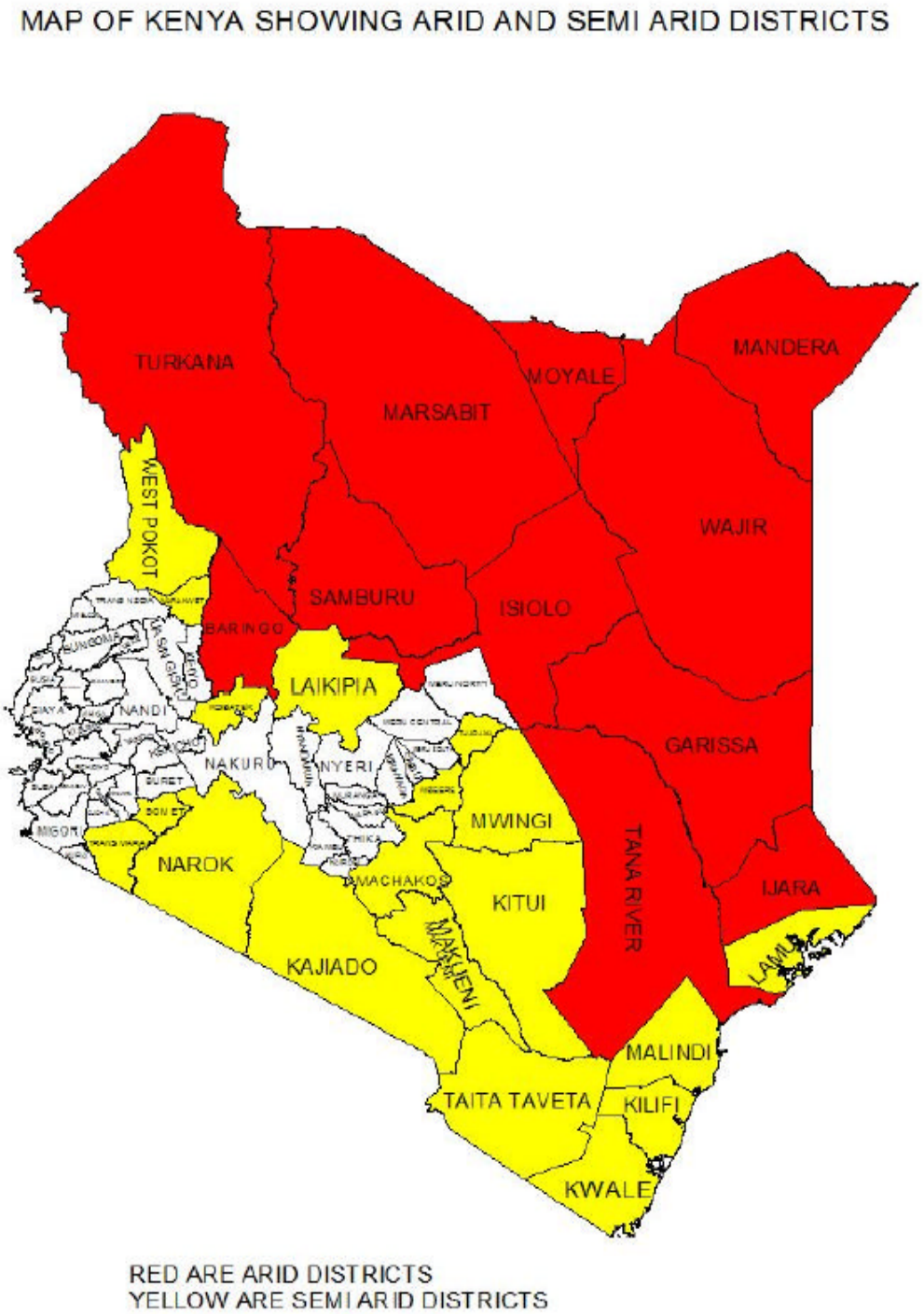
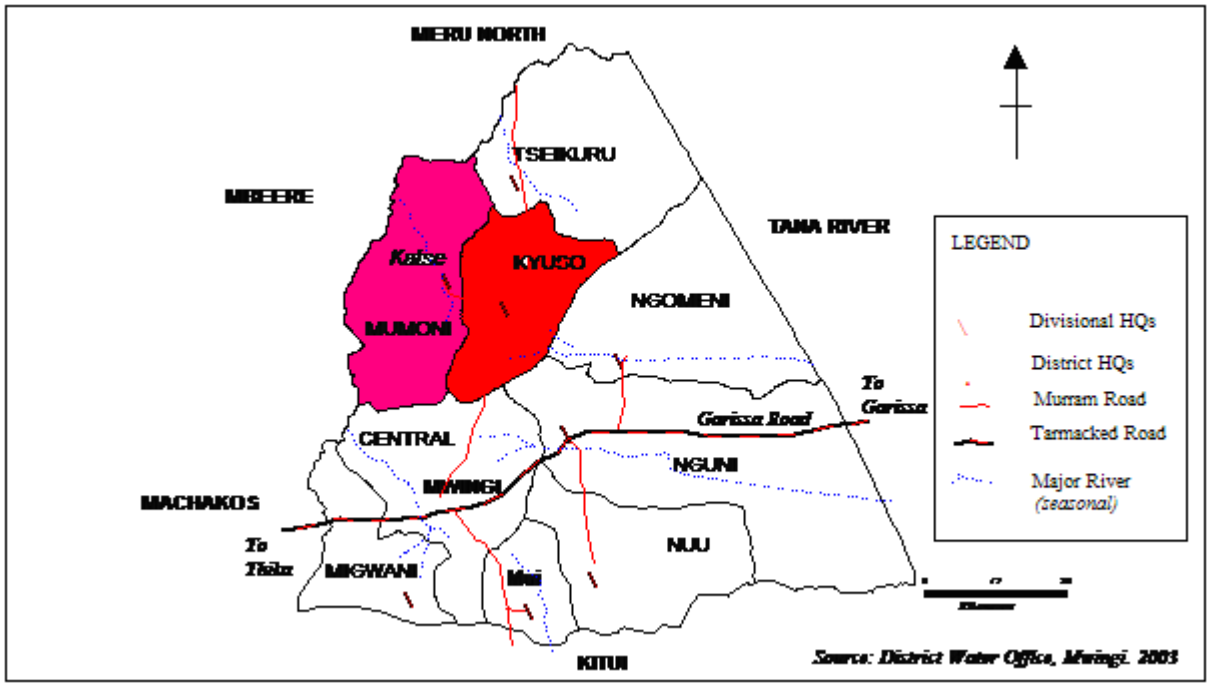
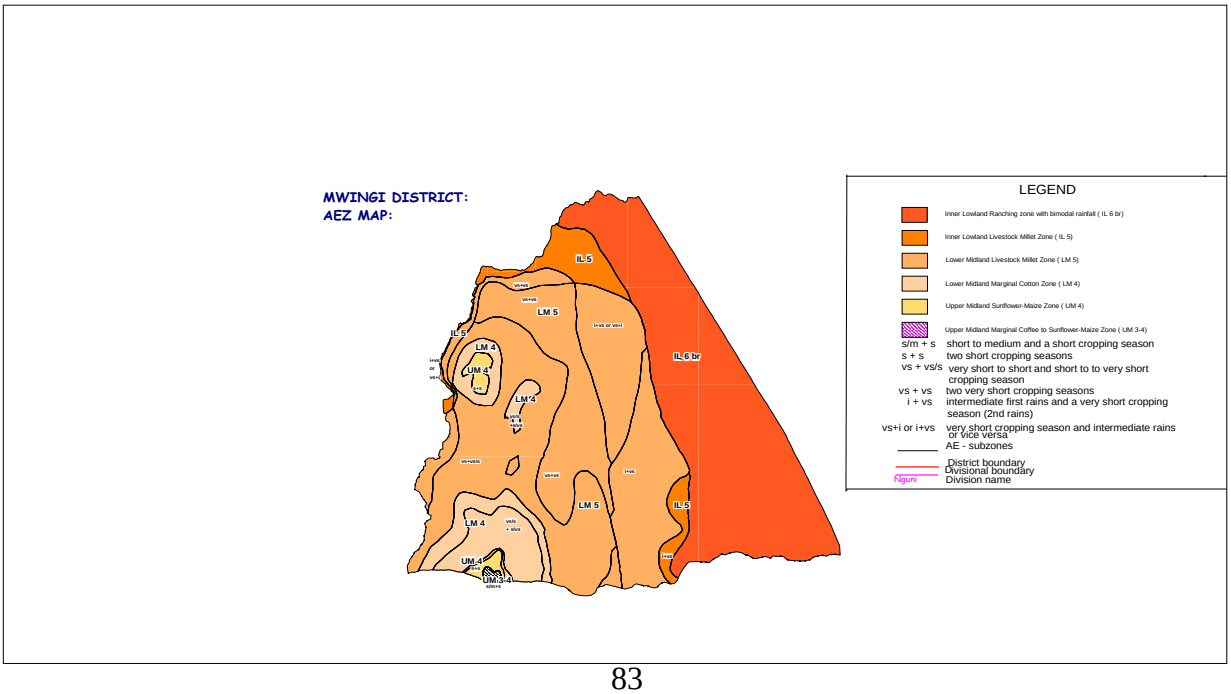


Figure 2(a) and (b): Map of Mwingi District showing Administrative divisions and infrastructure (a) and Agro ecological zones (b)

(a)



(b)



Annex 7: Photographs of UNDP pilot sites

Figure 3(a) and (b): Degraded land on a hill slope due to poor farming practices (a) and a degraded grazing land with a gully and exposed stones (b) due to high livestock populations within the UNDP pilot sites in Mwingi District

(a)

(b)

SIGNATURE PAGE

Country: Kenya

UNDAF Outcome(s)/Indicator(s):
UNDAF OUTCOME 3.2: ENHANCE Environmental Management for Economic Growth with Equitable Access to Energy Services and Response to Climate Change

Expected Outcome(s):
Enhanced capacity of regional, National, local level and community stakeholders to plan, manage and implement climate change adaptation measures

Expected Output(s): Targeted knowledge-based tools developed for effective climate risk management; National and regional coordination and information sharing improved, for effective climate risk management; Advocacy and outreach programme prepared and conducted for replication of adaptation measures disseminated through national, regional and international networks; Community-level capacity increased to undertake adaptation measures as well as support Community based micro-projects.

Implementing partner: Office of the Prime Minister

Other Partners: - Ministry of Agriculture
-Ministry of Livestock and Fisheries
- The World Bank
- IGAD

Programme Period: 2008-2012
Programme Component: _____
Project Title: Kenya: Adaptation to Climate Change in Arid and Semi-Arid Lands
Project ID: PIMS 3792; Atlas Project 00057371; Award 00047603
Business Unit: (KEN10)
Project Duration: 4 years
Management Arrangement: NEX

Total budget:	2,356,994
Allocated resources (GEF):	1,000,000
• Other:	
Office of Prime Minister	812,263
• In kind contributions	
Government (Met. Dept):	244,681
Government (MOA):	300,000

On Behalf of	Signature	Date	Name/Title
Government Coordinating Authority			**Dr Muusya Mwinzi**, Director General National Environment Management Authority
Implementing Partner			**Ms. Mary Ngari** Permanent Secretary Office of the Prime Minister; Ministry of State for the Development of Northern Kenya and other Arid Lands
UNDP-Kenya			**Mr. Aeneas Chuma** Resident Representative, UNDP