



**Transboundary Agro-ecosystem Management
Programme for the Kagera River Basin**

Project Document



Food and Agriculture
Organization of the
United Nations

E – Project cost and budget

8. INCREMENTAL COSTS AND PROJECT FINANCING	11
8.1 Summary Table of Incremental Costs	11
8.2 Cost Effectiveness	12
Annex 1 INCREMENTAL COSTS ANALYSIS DESCRIPTION.....	14
Annex 8 PROJECT BUDGET	23

8. INCREMENTAL COSTS AND PROJECT FINANCING

The incremental costs and benefits of the full project are presented below and in Annex 1 Table 1. The total incremental costs of the GEF Alternative amounts to an estimated US\$30.9 million of which US\$ 7,000,000 (23% of the total cost) represents the amount requested from GEF to fund the full project. Co-funding of the 75% balance (US\$24.5 million) will be provided from the four participating countries, direct collaboration with regional programmes, local beneficiaries (communities, farmers and herders), FAO, and additional donor support.

8.1 Summary Table of Incremental Costs

Capital Costs	Baseline-B	Alternative A (situation with project)	Increment A-B GEF and Co-funding
Outcome 1: Transboundary coordination, information sharing and monitoring and evaluation mechanisms	Baseline: US\$4,328,981 Governments: US\$ 1,563,000 Donor programmes; regional (NELSAP/ LVEMP; FAO-Africover etc.) US\$ 1,944,760 and national (RSSP;ASDP; PMA) US\$ 821,221	Alternative: US\$8,412,374	Increment: US\$4,083,393 GEF: US\$1,766,873 Co-funding (Governments, projects, beneficiaries) = US\$ 2,316,520
Outcome 2: Enabling policy, planning and legislative conditions in place.	Baseline: US\$6,216,255 Government and national donor programmes US\$ 5,066,255 Regional donor programmes US\$ 1,150,000	Alternative: US\$7,912,917	Increment: US\$1,696,662 GEF: US\$423,342 Cofunding: US\$1,273,320
Outcome 3: Capacity and knowledge for the promotion of and technical support for SLaM in the basin	Baseline: US\$15,446,004 Government and Donor: US\$14,485,684 Regional donor : US\$ 960,320	Alternative: US\$20,312,527	Increment: US\$ 4,866,523 GEF: US\$ 1,230,003 Cofunding: US\$ 3,636,520
Outcome 4: Improved land and agro-ecosystem management practices implemented and benefiting land users in all agroecosystems in the basin.	Baseline: US\$18,219,885 Government and Donor US\$ 16,705,885 Regional donor: US\$ 1,514,000	Alternative: US\$36,263,417	Increment: US\$18,043,532 GEF: US\$2,360,682 Cofunding: US\$ 15,682,850
Outcome 5: Project management	Baseline incorporated in components above as not possible to separate	Alternative: US\$2,182,800	Increment: US\$ 2,182,800 GEF: US\$582,800 Cofunding 1,600,000
Total Capital Costs	Baseline US\$44,211,125	Alternative US\$75,084,035	Total: US\$30,872,910 GEF: US\$6,363,700 Cofunding: US\$24,509,210

8.2 Cost Effectiveness

During project preparation, a number of options were examined to identify the most cost-effective approach to address land degradation issues in the very large and diverse river basin. This consisted of assessing (i) options for bringing about a change from unsustainable to sustainable agricultural management practices –techniques and approaches and (ii) required institutional arrangements for agreeing on, planning and implementing options with stakeholders.

In regard to techniques and approaches, an option that was considered was a process that would spread interventions widely across the basin to reach as many communities as possible. In regard to institutional arrangements, an option was a focus on strengthening the institutional and regulatory framework for preventing degrading practices (establishing and enforcing laws and accelerating implementation of the national action plans (NAP) for combating desertification and increasing productivity through input supply. This would entail achieving a high degree of regional co-operation among the countries sharing the basin and efficient delivery by their multiple government bodies concerned with the various natural resources and agricultural services.

In light of the size of the basin and very limited capacity of institutions in the basin (notably the district agricultural and planning office) and large distances for research bodies to reach the communities and taking into account lessons learned from other GEF- and FAO-supported projects, it was decided as the GEF alternative to use a more focused and two phase approach for cost effectiveness. First, to improve crop and livestock management practices with a limited number of selected communities, micro-catchments and transboundary land units to address specific issues identified and subsequently (PY3) to scale up successful practices more widely across the basin through FFS networking and district development plans building on demonstrations effect from proven SLM practices.

Certain practices and approaches were identified during project preparation (e.g. conservation agriculture, water harvesting, improved pasture management, rotational grazing, stall feeding, etc.) from the basin and wider region but require demonstration for local training, adaptation and validation through the collection of cost-benefit and impact data (environmental and livelihood). Thus when identifying the most suitable SLM practices to test and if proved successful to scale up, the national technical teams will draw on R&D results of successful land resources/agricultural management activities/projects and local knowledge systems and farmer innovations throughout the region. Attention will be placed on selecting the target sites for their best demonstration effects and access to research /technical support to optimise success and help in assessing the environmental and socioeconomic impacts and benefits. This should facilitate subsequent scaling up and expansion across the basin using trained FFS facilitators and technical staff, according to the interest expressed by other communities and opportunities for collaboration and funding. Participatory adaptive management through FFS approaches should ensure that improved SLaM techniques are those prioritised and validated by the communities through FFS study plots. Participatory monitoring tools (such as LADA) and local indicators will be used to assess the impacts of pilot interventions on farms and in target micro-catchments and transboundary land units level to ensure they are technically and socially appropriate, cost effective and generate global environmental benefits in terms of reversing biodiversity, sustainable use of biodiversity, carbon sequestration and water supply. Capacity building is an important part of the project at farmer, district and basin levels and cost-effectiveness will be optimised through use of extension approaches that allow cost effective delivery and scaling up, building capacity of local institutions and NGOs, and development of user-friendly information and decision support systems.

In regard to institutional support, instead of focusing on protection of resources and input support by the multiple sectors (seed, veterinary products, soil erosion control, irrigation, etc) for certain commodities, a focus will be placed on involving and building capacity of multi-sectoral teams in the districts for integrated ecosystem approaches that restore the health, productivity and resilience of farming systems. Demonstration of the multiple benefits generated is expected to increase district planning and budgetary support for the agriculture sector notably for training and supporting FFS approaches, community action planning and developing market opportunities for the products of biodiverse agro-ecosystems and incentives for sustaining valuable ecosystem services and adapting to climate change

The selected strategy is the more cost effective option as it will avoid diluting financial and human resources among many target sites and many institutions which would risk achieving little impact after the project 4.5 years. Rather than agricultural specialisation which tends to increase vulnerability to climatic vagaries and markets, the agro-ecosystem approach is expected to also increase food security and livelihoods of the population through better resource use efficiency (nutrient cycling, rainwater retention), multiple and quality products (diverse foods, fuel, building materials, etc), and reduced risk of pest and diseases (biocontrol). Collaboration with interventions that address food security (social nets, nutrition, etc), agricultural services (supply of fertilisers, improved seed) and marketing should enhance the uptake and viability of the resulting productive and sustainable agroecosystems.

The process of developing the full project with all actors on the ground (PDF-B) has been instrumental in generating understanding of the added value of GEF funding and, as a result, substantial co-funding by districts, governments and partners and interest to cooperate in project implementation.

The Baseline for the Project is also considerable, through financing of sectoral activities for water resources, crop and livestock development, forest management and coordinated water resources management in Nile and lake Victoria basins. Such efforts are evaluated at approximately US\$44.2 million throughout the Kagera river basin during the life of the project. The investments are however, unevenly distributed across the basin and the countries and tend to focus either on development or conservation rather than an integration of concepts leading to sustainable land use and integrated ecosystem approaches. The high baseline will ensure that the GEF financing will be cost effective as the project is expected to strengthen processes in the Kagera basin for intersectoral coordination and land use planning and mainstreaming land, water and agroecosystems management into district and national programmes and planning processes.

ANNEX 1 INCREMENTAL COSTS ANALYSIS DESCRIPTION

The Kagera River basin represents a globally important ecosystem and extremely important areas at the divide between Eastern and Central Africa in providing multiple environmental and economic services especially in terms of agro-biodiversity and the basis for sustainable livelihoods and food security of some 16.5 million people and some 18.5 million by 2015. However, in the four countries that share the river basin (Burundi, Rwanda, Uganda and Tanzania), land degradation and the resulting loss of ecosystem structure and function has been a growing issue and exacerbated by refugee movements and reduced capacity due to the prevalence of HIV/AIDS. The sustainability of resource management in the Kagera basin through its effects on the hydrology and functioning of its aquatic and terrestrial systems, directly influences the Lake Victoria basin (shared among Uganda, Tanzania and Kenya), being the largest tributary and providing 24% of the inflow, and also directly influences the larger Nile Basin of which it is also a part.

The rapid population growth and increased climatic variability has increased the vulnerability of the population in the basin and is resulting in land use change, land degradation, deforestation, fragmentation of land into smaller and smaller parcels and increasing pressures on limited and often fragile resources to meet household needs (food, firewood, etc.). The degradation of natural resources in the Kagera basin is exacerbated by poor management practices and market forces (burning, overstocking of pastures, crop specialisation, loss of soil nutrient restoring practices etc.) is leading to serious loss of ecosystem structure and function, loss of habitats and loss of globally important biodiversity, in particular, agricultural biodiversity on which rural population particularly depend for their livelihoods,

The key issue for countries sharing the Kagera basin is how to sustain socioeconomic development and livelihoods of those depending on the basin resources through reversing degradation and biodiversity loss and ensuring the sustainable management and use of land resources and the pastoral, cropping and mixed agricultural ecosystems. The Kagera basin and its ecosystems play crucial ecological and hydrological roles, sustaining water resources and offering a large range of habitats and land use systems allowing the conservation and sustainable use of globally significant biodiversity and providing multiple socio-economic opportunities. There are several programmes for transboundary and integrated management of the water resources, however, reversing degradation on productive arable and rangelands and reducing pressures on wetlands and forests and the watershed requires transforming unsustainable agricultural systems and management practices into sustainable practices. This requires a coordinated framework for collaboration and concerted efforts among the countries sharing the Kagera basin and watershed.

The transboundary diagnostic analysis (TDA) developed during the PDFB highlighted the problem of increasing degradation of resources, loss of productive potential of the land, loss of biodiversity and related loss of ecosystem function and services driven by population growth and the dependence of the majority of the rural population on increasing small land areas to provide their livelihood needs- food, fuel, income etc. The TDA also identified a number of policy and institutional constraints that hinder capacities of land users and other stakeholders from adopting more sustainable land use systems and practices. The analysis of the project baseline and incremental costs was considered by a regional workshop, held in Entebbe, among district planners, policy makers and relevant projects/programmes. The analysis was pursued in the beneficiary districts and at central level identifying relevant actions and investments that address land degradation, biodiversity loss and productive potential and functioning of agricultural ecosystems.

The baseline identifies government programmes and donor supported investments relevant to the project's component areas over the five years of the project life to support land resources management and agricultural and environment priorities in accordance with relevant national strategies and action plans. In addition to national investments in the beneficiary districts in the Kagera basin, the baseline includes specific land management related activities of regional river basin management programmes (NBI-NELSAP, in particular, the Transboundary Integrated Water Resources Management Project,

also operating across the Kagera basin, and the Lake Victoria Environmental Management Programme (LVEMP) among Kenya, Tanzania and Uganda (currently under a bridging phase 2006-mid 2007 in preparation for the phase II investment). These do not specifically address coordination and sharing of information among agriculture, livestock, water, land and forestry sectors with a view to reducing negative impacts of farming and herding activities on soil, water and biological resources and on ecosystem functions (direct impacts on arable and pasture systems, and impacts on wetlands, forests and protected areas) through community planning, development and management of sustainable and productive land and agroecosystems' management.

A summary of relevant programmes and projects contributing to the baseline is in Table 3 of Annex 1. Categories of activities include crop and livestock development, soil and water conservation and environmental protection and community forestry /agroforestry.

Component 1: Transboundary coordination, information sharing and monitoring and evaluation mechanisms

The transboundary river basin and water resources management programmes for the Nile Basin, including the Kagera basin, and Lake Victoria basin focus on transboundary cooperation for management of the water resources and lake ecosystems. Of relevance to Kagera TAMP, the GEF supported LVEMP-Phase I invested in scientific research including soil erosion studies and mapping and will continue to support water resources monitoring and management, data and information sharing and policy development as well as a component on land management. LVEMP Phase II is starting up after an interim phase, with more activities on the ground, estimated baseline US\$3.8 million.¹ Also planned is the NTEAP of the SVP for all Nile basin countries and a Water Use in Agriculture project, as part of NELSAP, in the 4 Kagera countries and 2 others, which will support irrigation and cross-border trading of resulting crop products (estimated 5% as baseline US\$180,000). The baseline for project management is estimated from the national institutions responsible for managing natural resources and agricultural and livestock development. Taking also into account maps and data from the regional Africover and FAO Nile basin water resources information projects, and the government support and referred regional projects the total baseline for this component is estimated at US\$4,328,981.

Component 2: Enabling policy, planning and legislative conditions

The governments and their development partners have supported the development of national policies and strategies and legislation relevant to Kagera TAMP activities, notably, poverty reduction strategies and programmes (PRSPs), national action plans to combat desertification and drought (NAPs), national biodiversity strategies and action plans (NBSAPs), national environment programmes (NEAPs) as well as Agriculture, Livestock and Forestry strategies and related programmes. However, the extent to which approaches are harmonised and their implementation effectively supported at local and district levels is variable, but on the whole limited, due to uncoordinated sectoral support services, short term planning processes and inadequate awareness, knowledge or capacity in particular for their integration and provision incentives for their application by land users. The baseline for this component is thus estimated at US\$6,216,255.

Component 3: Capacity and knowledge for the promotion of and technical support for Sustainable land and agro-ecosystem management across the basin.

The governments' provide substantial support to institutional and human capacity building, through programmes for environmental protection, agricultural and livestock development, poverty reduction

¹ TAMP will be implemented in full collaboration with the Kagera TIWRM project of NBI-NELSAP which aims to establish a sustainable framework for joint management of the shared water resources of the Kagera River Basin. Collaboration on policy, legal and institutional issues, data and information systems and project management is modestly estimated at US\$ 830,000 the two projects will be coordinated very closely this will contribute to ensuring an integrated land and water framework and coordinated among water, environment and agriculture bodies. Links established between the PSC of TIWRM which is guided by Ministries of water resources and the TAMP PSC which is steered by environment and agriculture ministries in the four countries,

and improved food security. These are often, large scale donor-supported programmes, in some cases multi-donor through basket funding mechanisms, and are increasingly based on principles of decentralisation of resources and decision making, participation, empowerment and self reliance of local communities and privatisation of service providers (notably ASSP in Tanzania, RSSP in Rwanda, and PMA in Uganda). The baseline for this component is important estimated at US\$15,446,004 as it includes the extension and research activities in the districts which have focused on increasing productivity and improving marketing of commodities and on environmental protection. There is a clearly identified need throughout the Kagera basin for building capacity at local and district and basin levels for developing and promoting integrated agro-ecosystem approaches and for identifying and developing ways and means to incentivate land users and communities for their wider adoption of sustainable land use systems and management practices.

Component 4: Improved land and agro-ecosystem management practices implemented and benefiting land users in all agro-ecosystems in the basin.

The programmes mentioned under component 3 also provide substantial support for agricultural and livestock development (supply of inputs and marketing - for certain commodities - veterinary products and services, intensification and for natural resources management (catchment afforestation, soil and water conservation) and land registration/demarcation. The estimate baseline for this component is also quite high US\$18,219,885. However, the actions on the ground are often quite scattered and do not address the constraints that land users face and that hinder adoption of sustainable agriculture systems and resources conservation including biodiversity (insecurity of tenure, poverty and lack of knowledge and tools, lack of markets for local varieties/products, lack of support for livestock breeding using adapted local breeds, lack of alternative energy sources, local customs e.g. large livestock herds). Thus land degradation, overexploitation of resources and loss of biodiversity continue. The actions tend also to support the better off farmers and herders and not to reach the poor and vulnerable groups. There is an identified need for support for development and implementation of community action plans and participatory learning-research-action approaches for improved and long term management of their common property resources and integrated management of their agricultural ecosystems which also requires operational incentive mechanisms and benefit sharing mechanisms.

Component 5: Project management structures operational and effective.

This has not been included as a separate component in the ICA as it proved too difficult to separate management from implementation for calculating the baseline and alternate for national programmes. The management issues are included in the other components in the ICA table below.

The GEF Alternative

Regional cooperation will be established among countries sharing the transboundary Kagera river basin and intersectoral collaboration to deal with issues of land degradation, biodiversity loss, especially threats to agro-biodiversity, and their impacts on carbon sequestration, the hydrological regime, shared water resources (part of the larger lake Victoria basin and Nile River basin) and interactions with climate variability and change. Inter-country and multi-stakeholder collaboration will address the transboundary issues identified and the institutional, policy, technical and socio-economic factors that are leading to degradation, unsustainable use and overexploitation of resources in the basin. Increased awareness and understanding will be generated in the East African region and internationally of the root and direct causes of land degradation and its effects on biodiversity and ecosystem structure and functions and hence on the potential of the land to support livelihoods.

Mechanisms will be identified, tested and adapted for the range of agro-ecosystems (pastoral, mixed and cropping) providing an enabling environment for land users and communities to adopt viable, sustainable and integrated land and agro-ecosystems management (SLaM). Community action plans will be the basis for promoting wider uptake of improved land management practices for common property resources and individual land holdings, through adaptive management, enhanced opportunities and incentive measures. Improved land use/management systems will be adapted and demonstrated through participatory action-research for a range of agro-ecosystems, targeting community territories, micro-catchments and larger land areas/ecologies (pastures, wetlands, riverine forests) across the basin. Successes will be scaled up including diversified production systems,

incentives for biodiversity conservation and the restoration of degraded arable and rangelands, and ways and means to reduce pressures on wetlands, forests and protected areas. Sustainability will be ensured through empowerment of local communities in decision making and planning for longer term resources /landscape management, through mechanisms for conflict resolution and supportive research in the development of improved, sustainable farming systems and restoration of degraded lands.

Increased awareness by stakeholders, of resource/ecosystem values and potentials and of vital ecological functions and their implications on livelihoods, through demonstrations, adaptive management and local empowerment, will help catalyse wider uptake of livelihood and economic opportunities/options for improved management of land and agro-ecosystems. Benefits of sustainable intensification to cope with population growth and other pressures on resources, will include enhanced productivity (per unit of land, water and labour), practices that restore degraded lands and sustainable use of agrobiodiversity (including habitats, plant and animal genetic resources and associated species - pollinators, soil biota, beneficial predators). Additional benefits of SLaM include reducing costs to local /district governments (road repair, water supply and quality), diversified market opportunities (decreased reliance on limited commodities), conservation of local tree species, crop species and varieties livestock breeds (through sustainable and productive use), and equally important for long term sustainability, improved capacity to meet household needs (food security, water, energy, income) and improved well-being (reduced drudgery and vulnerability to drought/flood/famine).

Sustainable land and agro-ecosystems management (SLaM) will have been mainstreamed into community, district and national planning and budgeting processes in accordance with national food security, poverty reduction and environmental goals, strategies and action plans (PRSP, NAP, NBSAP, agriculture including livestock and food security) and will be integrated with basin-wide water resources management strategies. Harmonised intersectoral policies, regulations and bye-laws will be developed and harmonised approaches applied across the region, discouraging practices leading to land degradation and biodiversity loss and providing incentives for sustainable land and agro-ecosystem management across the basin. Enhanced investment in improved land and ecosystems management in the basin and restored ecosystem structure and functioning will be generating long term benefits from local to global levels, including reversing land degradation processes, conservation of biodiversity especially agricultural biodiversity, and sustained ecosystem services - water regulation, carbon storage, nutrient cycling and mitigating the effects of climate change.

The incremental costs and benefits of the full project are presented in Table 2 below. The total incremental costs of the GEF Alternative amounts to an estimated US\$30.8 million of which US\$6,363,700 (21% of the total cost) represents the amount requested from GEF to fund the full project. Co-funding of the 79% balance (US\$24.5 million) will be provided from the four participating countries, direct collaboration with regional programmes, local beneficiaries (communities, farmers and herders), FAO, and additional donor support.

ANNEX 1: TABLE 1 - INCREMENTAL COST ANALYSES FOR KAGERA RIVER BASIN TAMP - GLOBAL SCALE

Scale	Baseline B	Alternative A	Increment A-B
Global	<p>Global threats currently exist due to complex interrelations between land use and ecosystem structure and processes:</p> <ul style="list-style-type: none"> • Land degradation with loss of productive land area (severely degraded land too costly to restore) and reduced productive capacity (soil biological chemical physical properties; capacity to support vegetation) which are vital to meet demands of expanding global and urban populations. • Loss of (agro)biodiversity as a result of changes in land use, including: deforestation (forest areas and trees in landscape; transformation of pasture/range and wetlands into cropping; intensification of land use; fragmentation of habitats. • Deforestation and land degradation, leading to reduced rainwater retention (runoff, soil moisture), erosion and downstream siltation, affecting the hydrological regime and functions of wetlands and impacting on terrestrial systems (productivity, risk of drought/desertification) and on aquatic systems (quality and quantity of precious water resources and international waters). • Effects of changing vegetation cover and hydrological regime on carbon sequestration (below and above ground) and climate variability and change (increasing soil temperatures, prolonged dry spells, intense rains and flood risk). 	<p>Global threats addressed more effectively through:</p> <ul style="list-style-type: none"> • International cooperation among countries sharing the transboundary Kagera river basin to deal with issues of land degradation, (agro)biodiversity loss/threats and their effects on productive potential, carbon sequestration, hydrological regime, shared water resources (main inflow to Lake Victoria; part of larger Nile basin), and interactions with climate change. • Increased awareness/understanding at international level, especially within Africa, of factors affecting land degradation and biodiversity in key agro-ecosystems, their consequences and ways and means to address them through cross-border collaboration to address related transboundary issues and provision of an enabling environment for viable, sustainable, integrated resource management and diversified (crop-tree-livestock systems that meet food security, poverty reduction and environmental goals. • Reversal of land degradation and biodiversity loss, notably agrobiodiversity (including associated beneficial/wild species and habitats), catalysed through increased awareness of resource/ ecosystem values/potentials, in particular, of vital ecological functions and opportunities/options for improved management of land resources and agro-ecosystems. • Demonstrating how sustainable resources management generates livelihood and economic opportunities-reduced costs (road repair, water supply/quality), diverse market opportunities, improved wellbeing (reduced drudgery and risk of drought/flood/famine) 	<p>Global benefits derived:</p> <ul style="list-style-type: none"> • Reduced threat to habitat destruction, fragmentation, land degradation and associated loss of biodiversity. • Reduced threat to loss of indigenous crop species and varieties and livestock species and breeds, including indigenous domesticated species and useful wild species • Increased carbon sequestration in soils and vegetation in crop land, pasture/range, forest and wetlands • Basin-wide project coordination mechanism established and effective in disseminating information and providing an enabling environment; leading to wide adoption of better land use systems and management practices within the basin and wider region.

ANNEX 1: TABLE 2 - INCREMENTAL COST ANALYSES FOR KAGERA RIVER BASIN TAMP – SUBREGIONAL SCALE

Capital Costs	Baseline-B (Situation without project)	Alternative A (situation with project)	Increment A-B GEF and Co-funding
<p>Outcome 1: Transboundary coordination, information sharing and monitoring and evaluation mechanisms</p> <p>1.1 Basin-wide coordination mechanism</p> <p>1.2 Basin-wide knowledge management system</p> <p>1.3 M & E and financial and progress reporting</p> <p>1.4 Project management structures operational and effective.</p>	<p>Limited attention to improving agricultural land resources management and related livelihoods (pastoral/cropping) in river basin approaches that are largely driven by the water sector (NBI-NELSAP, LVEMP)</p> <p>Transboundary problems not well addressed by current land, agriculture and environment interventions due to lack of cross-border mechanisms. Constraints include: inadequate dialogue among stakeholders; conflicts in resource use and management, poor coordination among sectors; lack of mechanisms to compile, analyse and share knowledge/information at agro-ecosystems level; diverse approaches by range of actors.</p> <p>Division of responsibility among countries, district, communities and individuals for land resources leading to piecemeal actions and lack of harmonised strategy to address over-exploitation of resources, land degradation, loss of biodiversity and risks to long term potential of the basin to support the growing population and reduce vulnerability (food insecurity; markets, climate change).</p> <p>Governments: \$1,563,000 Donor programmes; regional (NELSAP/ LVEMP; FAO-Africover etc.) \$1,944,760 and national (RSSP;ASDP;PMA) \$821,221 sub-total: \$2,765,981 Total: \$ \$4,328,981</p>	<p>Mechanisms for transboundary coordination and cooperation, information sharing, monitoring and evaluation of trends and progress improving effectiveness of efforts by Kagera basin countries for sustainable land and agro-ecosystem management and restoration of degraded lands.</p> <ul style="list-style-type: none"> • Regional dialogue and cooperation (to address basin wide and transboundary issues) and strategic planning • Sharing and analysis of data and information through user-friendly knowledge management system (GIS, remote sensing and web-based tools) used to guide decisions and for participatory M&E • Upstream downstream benefit sharing in the basin through improved management of resources (reduced erosion, sediment transport and deposition, improved water quality, enhanced river basin ecosystem health) • Coordination among policy and decision makers across sectors and among the Kagera countries for improved management of basin resources, with attention to reducing threats and sharing of benefits (with attention to poor and vulnerable groups) • Increased regional development in participatory agro-ecosystems research and technology transfer <p>Alternate: \$8,412,374</p>	<p>GEF \$1,766,873 Co-funding (Governments, projects, beneficiaries) = \$2,316,520 Total: \$4,083,393</p>

Capital Costs	Baseline-B (Situation without project)	Alternative A (situation with project)	Increment A-B GEF and Co-funding
<p>Outcome 2: Enabling policy, planning and legislative conditions in place.</p> <p>2.1 Sustainable management of land and agro-ecosystems (SLaM) at national and river basin levels and mainstreamed in national development programs.</p> <p>2.2 Regulatory actions developed and used to promote - or remove existing barriers to - sustainable land and agro-ecosystem management</p> <p>2.3 A coherent strategic and planning framework</p>	<p>Kagera basin governments are placing greater focus on poverty reduction strategies (improved technology, services, commodity based markets), but there is overall failure to mobilise long-term natural resource/ecosystem management, to address pressures on resources and increasing food insecurity/vulnerability. There is weak adoption of natural resource management policies and regulations for various reasons: poor coordination among sectors, weak enforcement and knowledge at local level, conflicts between user groups in their application, lack of viable alternatives, inadequately integrated in local planning/budget allocation processes. Specific issues include, for example: i) insecure land tenure hindering investment in the land; ii) policies favouring sedentarisation of pastoralists, limiting seasonal migrations for dry season grazing and water - despite their rationale for sustainable use of fragile lands (low carrying capacity) and coping with dry periods/ drought; ii) some land planning support but mainly for demarcation, registration, title deeds; little or no support for planning and improved management of wider community territories/landscapes.</p> <p>Government and national donor programmes \$ 5,066,255</p> <p>Regional donor programmes \$ 1,150,000</p> <p>Total \$ 6,216,255</p>	<p>Development and application of harmonised approaches, inter-sectoral policies, regulations, by-laws from local to district levels, and basin wide as appropriate, that enhance livelihoods while promoting sustainable land and agro-ecosystems management and discouraging practices leading to land degradation and biodiversity loss. This will start with participatory processes to review and improve the regulatory context of target communities, for addressing major threats to resources, constraints to adoption of sustainable practices, and opportunities for generating environmental and livelihood benefits. Successful measures/instruments (security of tenure, planning tools, incentive measures, etc.) mainstreamed into national policies, strategies and actions.</p> <p>Alternative: \$7,912,917</p>	<p>GEF \$423,342</p> <p>Cofunding: \$1,273,320</p> <p>Total: \$1,696,662</p> <p>(NB harmonisation of policy and planning is covered under component 1, where government funding is weaker)</p>
<p>Outcome 3: Capacity and knowledge for the promotion of and technical support for SLaM in the basin</p> <p>3.1 Methods and approaches to</p>	<p>Declining ecosystem productivity and functions in the basin is partly due to limited knowledge/capacity of land users of how they can benefit from improved resources management and of</p>	<p>Enhanced capacity and knowledge at local, district and central levels for technical support and promotion of SLaM in the basin.</p> <p>Methods and approaches to promote the adoption of</p>	<p>GEF: \$1,230,003</p> <p>Cofunding: \$3,636,520</p>

Capital Costs	Baseline-B (Situation without project)	Alternative A (situation with project)	Increment A-B GEF and Co-funding
<p>promote the adoption of SLaM developed and tested</p> <p>3.2 Enhanced quality of services provided to rural communities</p>	<p>policy makers of the costs of degradation not only on productivity but on roads (erosion damage), water resources and loss of future opportunities Low capacity of district technical officers/researchers in facilitating participatory learning processes, building on local knowledge and innovation, and in understanding and promoting integrated ecosystems' approaches. Inadequate linking of technical support for land resources management with business management, credit and savings, beneficiary empowerment.</p> <p>Agricultural support services are biased towards commercial high yielding varieties and exotic breeds) leading to loss of adapted local crop varieties/livestock breeds and limited development of markets for local products. Service providers have limited capacity to address causes (direct and root) of degradation and the constraints faced by farmers and herders: declining productivity, problems of invasive/ weedy species in degraded pastures and crop land, limited use of adapted indigenous tree species in woodlots, crop/ pastoral landscapes.</p> <p>Breakdown of local resource management customs and loss of indigenous knowledge exacerbated by HIV/AIDS, rural exodus and refugee movements and by inadequate recognition of farmer knowledge and innovations</p> <p>Inadequate awareness of implications on livelihoods where natural ecological functions are undermined (hydrological regime, nutrient cycling, pollination, biocontrol of pests and diseases, etc.)</p>	<p>SLaM practices (including pastoral and cropping) and ecosystem approaches identified, developed and tested, through participatory “action-research” in target areas: study plots for learning by doing, demonstrations for introducing new ideas/opportunities, exchange visits with other areas/programmes to share lessons learnt. Improved quality of services to target communities through intersectoral approaches, building on local knowledge/innovations; agro-ecosystems management and awareness of various stakeholders of the multiple socio-economic and environmental benefits that can be generated (e.g. from local crop/tree species and varieties, non-wood forest products; improved pasture; uses of wetland resources; mixed farming).</p> <p>Decreasing reliance on imported goods where local alternatives are cheaper/more readily available and improved capacity to meet household needs (food security, water, energy, income)</p> <p>Empowerment of local communities in decision making and planning for wider resources/landscape/ watershed management and farmer-research collaboration in development of improved, sustainable farming systems</p> <p>Capacity building on provision of incentives for adoption of SLaM and development of markets for locally available products</p> <p>Increased local capacity through action-oriented farmer-driven research, awareness of opportunities and benefits (restoring degraded lands, coping with drought; biodiversity conservation, diversification) and conflict resolution</p> <p>Alternate \$20,312,527</p>	<p>Total: \$4,866,523</p>

Capital Costs	Baseline-B (Situation without project)	Alternative A (situation with project)	Increment A-B GEF and Co-funding
	Government and Donor: \$14,485,684 Regional donor : \$960,320 Baseline Total \$15,446,004		
Outcome 4: Improved land and agro-ecosystem management practices implemented and benefiting land users in all agro-ecosystems in the basin. 4.1 Participatory land management plans in targeted communities, micro-catchments and wider land units. 4.2 SLaM practices adopted by farmers and herders in targeted communities and replicated more widely. 4.3 Market opportunities and other cost-benefit sharing mechanisms for the provision of environmental services demonstrated and promoted	Unsustainable agricultural systems and their pressures on land resources (soil, water, biological), on valuable wetlands, riverine forests, and other habitats are resulting in loss of ecosystem structure and function (in arable, range, wetland and forest systems). Government and Donor \$16,705,885 Regional donor: \$1,514,000 Total \$18,219,885	Improved land use and agro-ecosystem management practices implemented and providing local-global environmental and local socio-economic benefits for the range of agro-ecosystems in the basin. Participatory action oriented land management plans developed and implemented in targeted communities, micro-catchments and wider land units. Improved SLaM practices tested, adapted and successfully adopted by farmers and herders in targeted communities and replicated in other areas. Market opportunities and other cost-benefit sharing mechanisms for the provision of environmental services identified, demonstrated and promoted among land users, including payments for environmental services. Alternate \$36,263,417	GEF: \$2,360,682 Cofunding: \$15,682,850 Total: \$18,043,532
Outcome 5: Project management	Baseline incorporated in components above as not possible to separate	Alternate \$ 2,182,800	GEF: \$582,800 Cofunding \$1,600,000 Total: \$ 2,182,800
Total Capital Costs	\$44,211,125	\$75,084,035	GEF: \$6,363,700 Cofunding: \$24,509,210 Total: \$30,872,910

ANNEX 1 TABLE 3: Regional and National Programmes and Projects Co-funding Sustainable Land and Agro-ecosystem management support to Kagera TAMP (2008-2013)

Origin	Co-funding source	Cofunding amounts	Totals
Burundi	Government - provinces, beneficiaries	860,000	6,260,000
	Govt./donor programmes		
	- PRASAB - PABV	2,400,000 3,000,000	
Rwanda	Government - provinces, beneficiaries & Community Development Fund (MINAGRI, MINATTE)	768,000	6,293,760
	Govt./donor programmes		
	- IDA/RSSP	1,285,000	
	- AFDB/PAIGELAC and PADAB - IFAD/PRDCIU	2,710,760 1,530,000	
Uganda	Government (MAAIF, MLD) Districts & beneficiaries		3,707,800
	Govt./donor programmes	260,800	
	- PMA/NAADS	797,000	
	- FIEFOC - NLIPI	2,150,000 500,000	
Tanzania UR	Government (MAFC, MLD, DOE) Districts of Karagwe and Bukoba and beneficiaries)	418,650	2,463,050
	Govt./donor programmes		
	- ASDP/DASIP (MAFC & DAOs) -Ministry of Livestock Development	1,694,400 350,000	
Regional	Regional donor supported programmes:		4,780,000
	- CATALIST (Burundi, Rwanda), Netherlands/IFDC	4,000,000	
	- NELSAP TIWRM, Norway - Devt Economique de Bugesera, Luxembourg	481,000 299,000	
FAO		351,000	351,000
ASARECA	Regional research (soil & water management; climate change)	300,000	300,000
NGOs	INADES and Africa 2000 Network,	353,600	353,600
TOTAL			24,509,210

Annex 8 PROJECT BUDGET

ORACLE Budget	ORACLE Report	Description	unit cost US\$	w/m /no.	Component 1	Component 2	Component 3	Component 4	Component 5	Total
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ORACLE Budget	ORACLE Report	Description	unit cost US\$	w/m /no.	Component 1	Component 2	Component 3	Component 4	Component 5	Total
<u>Project Personnel- salaries</u>										
Regional/National professional posts										
5300	5011	Regional Coordinator/Technical Adviser	5,000	54	105,000	20,000	35,000	50,000	60,000	270,000
		National Project Manager /Technical Adviser Burundi	3,000	54	68,947	18,232	34,108	25,713	15,000	162,000
		National Project Manager /Technical Adviser Rwanda	3,000	54	68,947	18,232	34,108	25,713	15,000	162,000
		National Project Manager /Technical Adviser Uganda	3,000	54	68,947	18,232	34,108	25,713	15,000	162,000
		National Project Manager /Technical Adviser Tanzania	3,000	54	68,947	18,232	34,108	25,713	15,000	162,000
		Subtotal Professional salaries:		270.0	380,788	92,928	171,432	152,852	120,000	918,000
International										
		Finance and Budget Adviser (part-time)	12,904	14,0	0	0	0	0	180,656	180,656
		Human Resources & Procurement Adviser (part-time)	12,904	13,8	0	0	0	0	178,589	178,589
				27.8	0	0	0	0	359,245	359,245
<u>Project Personnel- travel</u>										
		Regional Coordinator/Technical Adviser - travel			5,161	721	2,111	4,878	10,250	23,000
		National Coordinators/Technical Adviser Burundi - travel			9,925	1,386	4,059	9,380	7,000	29,750
		National Coordinators/Technical Adviser Rwanda- travel			9,925	1,386	4,059	9,380	7,000	29,750
		National Coordinators/Technical Adviser Uganda - travel			9,925	1,386	4,059	9,380	7,000	29,750
		National Coordinators/Technical Adviser Tanzania - travel			9,925	1,386	4,059	9,380	7,000	29,750
		Subtotal Professional travel:			44,860	6,265	18,347	42399	38,250	142,000
5570	5013	<u>International Consultants - Honoraria</u>								
		Land/Agro-ecosystem management /planning	11,000	14,0	55,000	8,800	44,000	44,000	0	151,800
		Land tenure/access to resources	11,000	4,0	11,000	22,000	5,500	5,500	0	44,000
		Natural resources management - M&E system	10,500	3,0	10,500	5,250	5,250	10,500	0	31,500
		Sustainable agro-ecosystems - incentives & policy	10,500	2,0	10,500	3,500	3,500	3,500	0	21,000
		Adviser SLM Farmer Field School process	6,450	6,0	3,225	3,225	12,900	19,349	0	38,699
		Mid-term evaluation	10,500	1,3	5,250	1,050	2,100	5,250	0	13,650
		Final evaluation	10,500	2,0	8,400	2,100	3,150	7,350	0	21,000
		5542 Subtotal: International Consultants - Honoraria		32,3	103,875	45,925	76,400	95,449	0	321,649
5570	5021	<u>International Consultants - Travel</u>								
		Land/Agro-ecosystem management /planning travel	4,650	9,0 trip	27,782	2,344	5,863	5,861	0	41,850

ORACLE Budget	ORACLE Report	Description	unit cost US\$	w/m /no.	Component 1	Component 2	Component 3	Component 4	Component 5	Total
		Land tenure/access to resources - travel	4,650	4,0	5,460	4,650	3,050	5,440	0	18,600
		Natural resources management- M&E system - travel	4,650	3,0	5,595	2,780	2,288	3,287	0	13,950
		Sustainable agro-systems SLM - incentives & policy travel	6,000	2,0	6,812	1,672	1,968	1,548	0	12,000
		Adviser Farmer Field School process-travel (based in region)			2,020	1,120	5,280	11,580	0	20,000
		Finance & Budget Adviser (part-time) travel			0	0	0	0	0	0
		Human Resources & Procurement Adviser (part-time)			0	0	0	0	0	0
		Mid-term evaluation travel		1,0	9,023	1,260	3,690	8,528	0	22,500
		Final evaluation travel		1,0	14,436	2,016	5,904	13,644	0	36,000
		Inception & final Policy Workshops		2 trips	802	112	328	758	8,000	10,000
		Technical meetings - livestock, range, PES		4 trips	12,218	1,008	2,952	1,822	2,000	20,000
		5684 Subtotal: International Consultants - Travel			84,148	16,962	31,323	52,468	10,000	194,900
5570	5013	National/Regional Consultants - Honoraria								
		SLM baseline studies- Burundi & target land areas in basin	3,000	6,0	7,500	1,500	3,000	6,000	0	18,000
		SLM Trainers/ Workshop Coordinators	3,000	10,0	6,000	1,680	12,920	9,400	0	30,000
		FFS Master Trainers	3,000	5,5	500	500	3,500	12,000	0	16,500
		Communications & website preparation/maintenance	3,000	11,0	25,500	1,500	1,500	4,500	0	33,000
		National participants Mid-term evaluation (4)	3,500	0,8	1,000	350	450	1,000	0	2,800
		National participants Final Evaluation (4)	3,500	1,2	1,680	420	840	1,260	0	4,200
		5543 Subtotal: National Consultants - Honoraria		34,5	42,180	5,950	22,210	34,160	0	104,500
5570	5013	National/Regional Consultants - Travel								
		Regional SLM baseline studies - travel			5,013	700	2,050	4,738	0	12,500
		SLM Trainers/ Workshop Coordinators - travel			20,050	2,800	8,200	18,950	0	50,000
		FFS Master Trainers - travel			5,293	739	2,165	5,003	0	13,200
		Communications & website - travel			1,604	224	656	1,516	0	4,000
		National participants Mid-term evaluation (4)			930	130	380	879	0	2,320
		National participants Final Evaluation (4)			1,315	184	538	1,243	0	3,280
		5685 Subtotal: National Consultants - Travel			34,205	4,777	13,989	32,329	0	85,300
5500	5012	Support Staff								

ORACLE Budget	ORACLE Report	Description	unit cost US\$	w/m /no.	Component 1	Component 2	Component 3	Component 4	Component 5	Total
		Temporary assistance /casual labour		17,0	35,180	4,913	14,388	33,250	0	95,850
		5337 Subtotal: Support Staff		17,0	35,180	4,913	14,388	33,250	0	95,850
5650	5014	Contracts (Service Orders/Letters of Agreement)								
		GIS/RS data analysis & training – regional centre	2 LOA		30,050	2,800	13,200	3,950	0	50,000
		Agro-ecosystems/biodiversity management (crop & livestock based)	8 LOA		12,832	1,792	5,248	12,128	0	32,000
		Target studies/monitoring environmental impacts: pastures, wetlands, energy, C-sequestration, burning, land degradation, biodiversity	12 LOA		16,040	2,240	6,560	15,160	0	40,000
		Monitoring of sustainable livelihood (SL) benefits/impacts	8 LOA		12,832	1,792	5,248	12,128	0	32,000
		Community/landscape planning for SLM and land tenure	8 LOA		10,000	4,480	35,200	30,320	0	80,000
		SLM technologies training + equipment demonstration– conservation agriculture, holistic livestock management, water harvesting	12 LOA		7,440	8,288	60,272	72,000	0	148,000
		Data/information systems management	4 LOA		25,664	3,584	10,496	24,256	0	64,000
		On hands training and curriculum development for SLAM (NGOs, colleges)- continuous support	4 LOA		30,000	14,000	111,250	94,750	0	250,000
		SLM activities with Farmer Field Schools and Networks	grants		30,000	40,320	137,680	512,000	0	720,000
		Community action plans and catchment management and land tenure	grants		40,600	33,600	98,400	427,400	0	600,000
		District land use planning and awareness (support for facilitators and interdisciplinary teams)	22 LOA		28,972	9,632	48,208	85,188	0	172,000
		Design and testing of incentive measures (PES- C-sequestration, water, biodiversity)	6 LOA		54,420	4,984	14,596	15,000	0	89,000
		Sustainable pastoral development			19,729	2387	4,229	4,229	0	30,574
		5571 Subtotal: Sub-contracts (Services)			318,579	129,899	550,587	1,308,509	0	2,307,574
5920	5023	Group Training								
		Regional/National: SLM policy/incentive measures			20,050	2,800	8,200	18,950	0	50,000
		Data collection & analysis training			9,023	1,260	3,690	8,528	0	22,500
		Training of trainers on participatory SLM learning and adaptive management (FFS/PLAR)			26,466	3,696	10,824	25,014	0	66,000

Commento [SB1]: do we keep this or move it : Keep it (jvA)

ORACLE Budget	ORACLE Report	Description	unit cost US\$	w/m /no.	Component 1	Component 2	Component 3	Component 4	Component 5	Total
		Community planning/capacity-building			20,050	2,800	8,200	18,950	0	50,000
		Sensitisation/awareness-creation on policies & laws			17,644	2,464	7,216	16,676	0	44,000
		Capacity-building for land-users (through FFS)			40,100	5,600	16,400	37,900	0	100,000
		Land-user exchange visits			30,075	4,200	12,300	28,425	0	75,000
		Field visits by national technical advisers			8,020	1,120	3,280	7,580	0	20,000
		5905 Subtotal: Group Training/ Field Trips			171,428	23,940	70,110	162,023	0	427,500
		<u>Meetings/Workshops (technical and policy)</u>								
5900	5021	Regional inception workshop - incl. PSC members	1,0		20,035	2,960	5,740	6,265	0	35,000
		National inception /stakeholder workshops incl. national PSC	4,0		20,040	2,240	6,560	11,160	0	40,000
		Regional PSC meetings and policy review	2,0		30,000	5,000	7,500	7,500	0	50,000
		Regional TAC meetings with field visits to review /endorse SLaM proposals	2,0		16,040	2,240	6,560	15,160	0	40,000
		National training workshops on policy/legal/planning issues-led by PSC/TAC members	8,0		16,000	4,000	16,000	4,000	0	40,000
		Regional experience sharing/lessons learned workshop	1,0		12,000	2,500	7,500	3,000	0	25,000
		Final SLM policy/Terrafrica/SIP mainstreaming workshop	4,0		14,480	1,120	3,280	1,120	0	20,000
		Drivers/casual labour - travel			2,807	392	1,148	2,653	0	7,000
		5698 (Non-staff Travel) Subtotal: Meetings/Workshops			131,402	20,452	54,288	50,858	0	257,000
6000	5024	<u>Expendable Equipment</u>								
		Office supplies & minor equipment			25,584	3,573	10,463	24,180	8,700	72,500
		Spares for major equipment			30,075	4,200	12,300	28,425	0	75,000
		Extension/training materials			2,010	560	3,640	3,790	0	10,000
		5024 Subtotal: Expendable Equipment			57,669	8,333	26,403	56,395	8,700	157,500
6100	5025	<u>Non-expendable Equipment</u>								
		Land-management equipment for field activities & monitoring			56,140	7,840	22,960	53,060	0	140,000
		Computers & printers [RPU, RS/GIS, 4 NPUs)		6 sets	4,010	560	1,640	3,790	10,000	20,000
		Laptop computers and printers (15 of 22 District information/monitoring centres		15 sets	7,500	7,500	7,500	7,500	0	30,000
		GPS, Camera, PPT projector, mobile phones etc.		4 sets	18,246	2,548	7,462	17,245	2,500	48,000

ORACLE Budget	ORACLE Report	Description	unit cost US\$	w/m /no.	Component 1	Component 2	Component 3	Component 4	Component 5	Total
		Motorbikes for RPU, NPUs and DFs		20	21,654	3,024	8,856	20,466	6,000	60,000
		4WD vehicles		4	45,684	9,173	20,863	42,080	22,200	140,000
		5025 Subtotal: Non-expendable Equipment			153,233	30,645	69,281	144,141	40,700	438,000
6300	5028	General Operating Expenses								
		Printing of extension/training materials			9,143	1,277	3,739	8,641	0	22,800
		Printing reports/publications			13,421	1,176	3,444	2,959	0	21,000
		Media & Communications			10,053	845	8,475	1,721	5,905	26,999
		Database maintenance			23,228	1,568	1,592	11,612	0	28,000
		General operating costs			45,240	10,920	39,000	60,840	0	156,000
		Miscellaneous [including physical & price contingencies]			41,726	10,072	35,971	56,114	0	143,883
		Operation & maintenance – vehicles			36,090	5,040	14,760	34,110	0	90,000
		Operation & maintenance - equipment			10,025	1,400	4,100	9,475	0	25,000
		Sundry expenses			20,401	56	164	10,379	0	1,000
		5028 Subtotal: General Operating Expenses			209,327	32,354	111,245	195,851	5,905	554,682
		GRAND TOTALS			1,766,873	423,342	1,230,003	2,360,682	582,800	6,363,700
Note: from the approved PIF the Fullscale project = \$6,363,700 and the 10% Agency Fee = \$636,300 Total = \$7,000,000										

