PROJECT IDENTIFICATION FORM (PIF)

PROJECT TYPE: FSP
TYPE OF TRUST FUND: GEFTF

PART I: PROJECT INFORMATION

Project Title:	Securing watershed services through SLM in the Ruvu and Zigi catchments (Eastern Arc Region).		
Country	Tanzania	GEF Project ID:	5463
GEF Agency	UNDP	GEF Agency Project ID:	5077
Other Executing Partner	Ministry of Water and Irrigation, DAWASA, Tanga-UWASA, National land use planning commission	Submission Date: Resubmission Date:	20/06/2013 7/08/2013 15/8/2013
GEF Focal Area	Land Degradation	Project Duration (Months)	72
Parent program	N/A	Agency Fee ($):	346,641

A. INDICATIVE FOCAL AREA STRATEGY FRAMEWORK:

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Trust Fund	Indicative Fin GEF	Indicative Co-fin ($)
LD-3: Reduce pressures on natural resources from competing land uses in the wider landscape	Outcome 3.1: Cross-sectoral enabling environment for integrated landscape management (in support of SLM)	Output 1: Integrated land management plans developed and implemented (7)	GEFTF	800,000	5,000,000
	Outcome 3.2: Integrated landscape management practice adopted by local communities	Output 2: INRM tools and methodologies developed and tested (in over 200,000 ha)	GEFTF	2,375,103	8,000,000
	Outcome 3.3: Increased investments in integrated landscape management	Output 4: Appropriate actions to diversify the financial resource base	GEFTF	300,000	1,000,000
Sub-total				3,475,103	14,000,000
Project management cost				173,755	1,000,000
Total project costs				3,648,858	15,000,000

B. INDICATIVE PROJECT DESCRIPTION SUMMARY

Project Objective: Sustainable land and natural resource management alleviates land degradation, maintains ecosystem services and improve livelihoods in the Ruvu and Zigi sub-catchments of the Eastern Arc Mountains of Tanzania

Project Component	Ty	Expected Outcomes	Expected Outputs	Trust Fund	Indicative GEF	Indicative Cofin
Enabling framework for Water Catchment Offices and districts to plan, monitor and adapt land management and leverage national and district baseline investments for SLM		1. *An institutional arrangement in place and supports the mainstreaming of SLM into over 100,000 hectares of land in the Ruvu and Zigi Catchments through the implementation of an integrated natural resource management (INRM[1]) framework; evidenced by:* Regular application of the LD-PMAT (Land Degradation Focal Area - Portfolio Monitoring and Assessment Tool);	1.1 Integrated Land Use Management Plans (ILUMPs) developed for seven districts ensuring optimal allocation of land to generate development benefits and critical environmental benefits in tandem. 1.2 Multi-sectoral stakeholder committees established (or strengthened) in the 7 districts and become active in promoting and coordination dialogue amongst the production sectors in support of mainstreaming SLM in the other production sectors, programmes and policies (ToRs and sustainability mechanisms will be defined during ppg); 1.3 Water Use Associations (WUAs) formed and/or strengthened in the 7 districts and become effective in implementing/ enforcing compliance with the Water Basin regulations on water development; 1.4 The definition and description of land management crimes and the ability of relevant	GEFTF	800,000	5,000,000

[1] That is: *"….a conscious process of incorporating the multiple aspects of resource use into a system of sustainable management to meet the goals of resource users, managers and other stakeholders (e.g. production, food security, profitability, risk aversion and sustainability goals)"*. (as defined by Sayer and Campbell (2004) and incorporated into the Land Degradation Focal Area Strategy for GEF5).

			institutions and their personnel to recognise and ensure prosecution for the land and water related crimes improved by at least 100% ; Rates of successful prosecution for land and water use crimes increase by 100% (baselines to be confirmed at PPG);			
	TA	2. Finances for SLM investments increased and existing financial contributions from the forestry, agricultural and rangeland sectors better aligned to support SLM practices more effectively, thereby reducing pressure on competing land uses in the landscapes;	2.1: Economic valuation of the costs/benefits of different SLM practices and production systems provided and being factored in decision making as well being used as a basis for brokering new public finance for SLM; 2.2: Re-alignment of existing financial streams and brokerage of public finance resources for SLM funding increases funding available for SLM by at least 10% (baseline confirmed at ppg); 2.3: Guidance and resource distribution criteria for allocations provided and application leading to improvement in the efficacy of SLM investments (reduce overlap and redundancy) – baseline and targets established at ppg.	GEFTF	300,000	1,000,000
Landscape level uptake of SLM measures avoids and reduces land degradation (LD) delivering ecosystem and development benefits over 50,000 ha (10,000 ha forests, 10,000 ha rangeland, 30,000 ha	INV	*3.0: Institutional capacities emplaced for promoting sustainable forest and land management in the Ruvu and Zigi catchments through INRM across the landscape, evidenced in the UNDP-GEF Capacity Development Scorecard [focused on institutional collaboration];*	3.1: Institutional capacity enhancement programs (based on capacity assessments) prepared and implementation started, leading to fully staffed institutions (or reduction in staffing and other capacity deficits) in the Water Basin Offices, regional offices of the line ministries and the extension service of the 7 districts (baselines and targets set at ppg); 3.2: Training programs (based on skills and training needs assessment) prepared and implemented leading to increased technical knowledge on mainstreaming SLM into land and water management processes amongst the extension service, technical staff of the Basin Water Offices, technical staff of relevant line ministries, UWAs and land users (baselines and targets set at ppg); 3.3: A more effective implementation of the extension and other SLM advocacy measures lead to at least 50% increase in adoption of improved SLM measures by land users in the 7 districts (baselines and targets confirmed at PPG); 3.4: Livestock management technologies developed, tested and appropriate infrastructure established to operationalize SLM in the rangelands, in line with the ILUMPs, namely: (i) decrease stocking rate in moderately degraded pastures; (ii) provision of watering points away from river beds; (baselines and targets at ppg, but likely to cover 10,000 ha of rangelands);	GEFTF	1,000,000	4,000,000
		4: Incentives for increasing tree cover within the SLM context leads to increased forest cover and ecological connectivity between and within different forest blocks; securing watershed and other ecosystem services Collectively, the two outcomes above lead to: - Reduced water deficiency; Increased clean water supply for human, animal and plant consumption; Reduced soil erosion; Increased productivity (increased net primary production in rangelands); Incomes	4.1: 10,000 ha of riverine forests acquire higher protection status that reduces human induced stressors (e.g. from deforestation, fire, unsustainable forest/wood harvesting) significantly to allow natural rehabilitation; 4.2: Uptake of forest landscape management practices in the wider landscape (outside the 10,000 ha of higher protection) and within the linear ecological corridors (primary linkages) and stepping stone corridors (secondary linkages) increased by at least 50%, leading to improved flow of watershed services; 4.3: Uptake of alternative and sustainable income generating activities throughout the landscape increase household food production (at least 30% for 3 or 4 key crops) and incomes by at least 30% for actively participating households (baselines and targets	GEFTF	1,375,103	4,000,000

			confirmed at ppg).			
Sub-total				GEFTF	3,475,103	14,000,000
Project management Cost:				GEFTF	173,755	1,000,000
Total project costs				GEFTF	3,648,858	15,000,000

C. INDICATIVE CO-FINANCING FOR THE PROJECT BY SOURCE AND BY NAME IF AVAILABLE, ($)

Sources of Co-fin	Name of Co-financier	Type	Amount ($)
Government Agencies	Ministries of Agriculture, Food Security & Coops; Min of Water & Irrigation (Pangani and Wami-Ruvu Basin Water Boards and Offices), Min of Livestock Development & Fisheries, Min of Lands, Housing & Human Settlements (National Land Use Planning Commission)	Grant	11,500,000
GEF Agency	UNDP	Grant	2,000,000
Non-Government	WWF	Grant	1,500,000
Total Co-fin			**15,000,000**

D. INDICATIVE TRUST FUND RESOURCES ($) REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY

GEF Agency	Type of Trust Fund	Focal Area	Country Name	Grant Amount ($)	Agency Fee ($)	Total
UNDP	GEF TF	LD	Tanzania	3,648,858	346,641.51	3,995,499.51
Total Grant Resources				3,648,858	346,641.51	3,995,499.51

E. PROJECT PREPARATION GRANT (PPG)[2]:

Please check on the appropriate box for PPG as needed for the project according to the GEF Project Grant:

Amount Requested ($) = 100,000	Agency Fee for PPG ($) 9,500

PART II: PROJECT JUSTIFICATION

A. Project overview

A.1. PROJECT DESCRIPTION

1. **Context and global significance:** Tanzania's economy is highly dependent on water resources, whose continued flow is influenced by the health of the countries ecosystems. Agriculture, the largest sector and main source of livelihoods for the majority of the population, is dominated by rainfed farming and livestock, both of which are severely affected by unreliable rainfall and poor water management. Tourism and fisheries, the two largest sources of foreign exchange earnings, are dependent on healthy ecosystems, whose integrity in turn depends on water flows. Although the country is endowed with sufficient freshwater resources to meet its current water needs, it faces complex challenges in balancing demand from multiple users (domestic water for basic human needs; ecosystem goods and services for livelihoods; irrigation; and hydropower) and both have evidence of detrimental impacts from insufficient environmental flows in the past. The unsustainable use of water is mirrored by the unsustainable use of land coupled with unsustainable production practices. Many watersheds face moderate to severe deforestation and overgrazing pressures, corresponding to high rates of erosion, increasing soil salinity, lowered soil fertility, and loss of biodiversity. Degradation is undermining ecosystem functions and services and the welfare of rural people dependent upon these services for their subsistence and for their livelihoods.
2. The most important water catchment areas are the Eastern Arc Mountains[3], which are also amongst the most affected by degradation of ecosystem services. Believed to be remnant islands of a once greater tropical forest that extended from east to west across Africa, the Eastern Arc watersheds are influenced by the monsoonal rains from the Indian Ocean, which has helped sustain their unique biological characteristics[4], dominated by endemic species. It is estimated that there are over 2000 plant species in 800 genera in the montane forests, with at least 800 species believed to be endemics. In addition to being sources of food, fibre and wood fuel, the forests store as much as one hundred million tons of carbon which might otherwise be released

[2] On an exceptional basis, PPG amount may differ upon detailed discussion and justification with the GEFSEC.
[3] They comprise a chain of 12 main mountain blocks: from south to north, Mahenge, Udzungwa, Rubeho, Uluguru, Ukaguru, North and South Nguru, Nguu, East Usambara, West Usambara, North Pare, South Pare and Taita Hills. The highest point (Kimhandu Peak in the Ulugurus) is more than 2,600 m in altitude, but most of the ranges peak between 2,200-2,500 m (GEF 2002; WWF-US 2003a).
[4] UNECSO 2010: Application to the WHS

into the atmosphere to contribute to climate change[5]. Their greatest contribution to the development of Tanzania however is linked to their water catchment services[6]. The forests sustain half a dozen rivers flowing into large municipalities and cities, maintaining a fresh-water supply for more than 20% of national population (including more than 5 million people in Dar Es Salaam); 60% of the country's electricity comes from hydropower stations along rivers flowing from the Eastern Arc Mountains; the power and water supports 80% of Tanzanian industries and much of the irrigated agriculture[7].

3. Despite their importance, the watersheds of the Eastern Arc Mountains have undergone serious deforestation and degradation over several millennia, which accelerated dangerously over the last 100 years. Newmark (1998) reported that the forest cover declined from 23,000 km2 to 15,000 km2 in about 2000 years and from 15,000 to about 5,340 km2 between 1900 and the mid-1990s. Only 27 percent of the forests remain as closed forests and there is serious degradation within forest patches (UNDP-GEF 2002)[8]. Although there has been considerable investment since the mid-nineties to conserve representative samples of the endemic biodiversity of the Eastern Arc Mountains, much of it with GEF funding, these investments have improved natural resources management and biodiversity conservation, but only in a fraction of each watershed. Widespread land degradation continues outside PAs in ecologically sensitive areas important for the provision of watershed services; particularly serious in the sub-catchments of the Zigi and Ruvu rivers, which are critical for supplying water to the most important cities in the country (Dar es Salaam, Tanga, Bagamoyo and Morogoro) (more details on the Ruvu and Zigi in annex 1).

4. The negative impacts of the degradation of watershed services have been registered as shortages of water for people and the environment. As natural vegetation and forests have become more fragmented, the land has been exposed to erosion and increased surface runoff and sediment load, especially during the rainy season (WWF Tanzania, 2006). This is a serious challenge in a country where the use of water resources is approaching unsustainable levels, with agriculture accounting for two-thirds of the total water demand. In addition to declining food productivity and well-being of the dependants of the two water basins, the key consequences of the catchment degradation are deterioration of water quantity: in a 2007 report, CARE reported the Ruvu had registered a marked decline in the dry season water flow over the past 53 years at the offtake for the Dar es Salaam water supply, with no appreciable change in dry season rainfall over the same period. Water turbidity at offtake point increased at an average of 5 NTUS per year over the past 20 years, with turbidity and conductivity values exceeding 1000 NTU 5000 µS/cm respectively. Similar changes have been recorded in the Zigi. In its 2012 Business Plan, Tanga UWASA reported that the Mabayani Dam has lost about 38% of its storage capacity, decreasing its average height by 3.3 m (from 8.7 m at the time of filling the dam to the current 5.4 m)[9]. This translated to a decrease in capacity of 2.1 million m3 (from 8 million at the time of construction to the current 5.9 million m3) (ACE Consulting Engineers, 2010). Consequently, the weekly maximum turbidity rose from about 300NTUs[10] in 2004 to about 900 NTUs by 2010 (ibid). The quantity of chemicals needed to treat a cubic meter of water at the height of the rainy season has trebled in the same period. These factors together have led to unfulfilled water demands for environment, public and private consumption and contributed to the slow economic development of the coastal region of Tanzania.

5. **The major threat to watershed services** in the Ruvu and Sigi sub-catchments is land degradation outside the protected areas largely driven by expansion of human settlements, expansion of commercial and subsistence agriculture, inappropriate agricultural practices, over stocking and over-harvesting of forest resources. Years of **overharvesting of natural resources, expansion of agriculture into natural forests and forest fires and excessive gathering of fuel wood** by local people dependent on this resource for fuel have led to widespread deforestation, reducing forest cover to a fraction of the former area. This is particularly prominent in the Uluguru Mountains, where land under cultivation doubled between 1990 and 2000. In the same period, grasslands increased from 25% to 41%, while bushland and woodland shrank from 24% to 18% and 41% to 26% respectively (Yanda and Munishi, 2007). In the East Usambaras, natural forests declined from 9,962ha (85%) in 1955 to 6,066ha (52%) in 1995 while the area under cultivation increased from 1090ha (9%) to 5448ha (46%) within the same time frame. This was accompanied by encroachment of the riparian zone (cultivation and settlements by small holder farmers and expansion of tea plantations), through the entire length of the Zigi and its tributaries, extensive charcoal burning, riparian logging, fire outbreaks and more recently, mining along the river banks.

6. **Pollution from livestock combined with overgrazing:** Pastoralism is wide spread in the Ruvu sub-basin ranging from the lowlands of the basin in the Mvuha area, to Ngerengere down to Chalinze, Kiserawe and Bagamoyo Districts. Although there are no accurate records of livestock numbers, large migration has taken place into the Ruvu sub-basin over the years due to the availability of good pasture and water for the livestock. This is putting pressure on available pastures, leading to the compaction of soil, soil erosion, and a loss in soil permeability—reducing water infiltration and storage capacities. This affects the

[5] As above
[6] The mountains are one of the Global 200 Ecoregions of WWF, part of a biodiversity hotspot of Conservation International (Mittermeier et al., 1998; 2004); and, an Endemic Bird Area of BirdLife International: they were nominated for inclusion in the World Heritage Site, although the application was withdrawn by government in March 2011
[7] UNESCO Application to the
[8] Neil Burgess, Tom Butynski, Ian Gordon, Quentin Luke, Peter Sumbi, John Watkin:
[9] Tanga UWASA Business Plan 2011-2015.
[10] NTU (nephelometric turbidity units) is a measure of the suspended material in water: the standard for drinking water is normally set at one NTU, with water of 10 NTU interfering with, or damaging, treatment filters, which can result in intake closures at drinking-water facilities.

ecosystem's hydological provisioning and regulation functions. There is currently no provision for watering points so livestock are watered directly at the rivers, contributing to the destruction of river-banks, and leading to conflicts between farmers and pastoralists.

7. **The context for water resources management in Tanzania is highly influenced by Integrated Water Resources Management (IWRM):** Tanzania has a highly progressive, decentralized and integrated water resources management policies and institutional set up, meant to address the **regulation, planning, enforcement and production practices** of natural resources as they affect water resources, at all levels. Although the primary responsibility for water resources management lies with the Ministry of Water (MOW) assisted by a National Water Board (Advisory), water resources management is organized around participatory and representative forums at five levels of basin management— national, basin, catchment, district and community or water association level. To increase sector efficiency, the role of the central government is to make policy, facilitate and regulate, with the actual management of catchments and water vested in the nine River Basins, gazetted in 1989, through the Water Utilization (Control and Regulation) Act No. 42 of 1974, Amendment No. 10 of 1981). The legal, regulatory and institutional framework for public participation and cross sectoral coordination of water resources management was further provided via the Water Resources Management Act No. 11 (2009) and the Water Supply and Sanitation Act No. 12 (2009), which came into effect in August 2009.

8. At the national level, the implementation of these policies is supported by the adoption of the National Water Sector Policy (NAWAPO); and the recent adoption of the National Water Sector Development Strategy (NWSDS) to implement NAWAPO, with a high emphasis on IWRM. In recognition of the fact that water resources management and water supply and sanitation are multidisciplinary and multi-sectoral activities, the individual health, environmental, local government reform, rural development, land, settlement and forestry policies provide strategic linkages to the NAWAPO, and supplement the aims and objectives of NAWAPO as envisaged under the program. At the **Basin level management,** Basin Water Offices have been established for all nine basins, and are mandated with management of the water resources and implementation of the water law at the **basin level.** Further, the responsibility for service delivery is devolved to Basin Water Offices (BWOs), Urban Water Supply and Sewerage Authorities and Local Government Authorities. Each Basin Water Office is required to implement the decisions made by the board and carry out operations. At the **catchment level**, the aim is to have a catchment council that provides integrated planning, enforcement and adoption of IWRM. At the **community level** Water Users Associations (WUAs) are recognized as the vehicles through which communities will participate in water catchment management and water resources governance. WUAs are formed by the agreement of the majority of a group of water users for one or a combination of the following purposes: manage, distribute and conserve water from a source used jointly by the members of the water users association; acquire and operate any Permit under the provisions of this Act; resolve conflicts between members of the association related to the joint use of a water resource; collect water user fees on behalf of the Basin Water Board; and represent the special interests and values arising from water used for a public purpose, such as in an environmental or conservation area, or for the purpose of managing a Groundwater Controlled Area. Further detail on the context of resources management is provided in the table of Stakeholder Engagement in section A2.

9. Further context for watershed management is provided by the National Land Use Planning Commission Act, which created the National Land Use Planning Commission (NLUPC). The most significant functions of the NLUPC are to prepare regional physical land use plans, formulate land use policies for implementation by the government and to specify standards, norms and criteria for protection of beneficial uses and maintenance of the quality of land. As an advisory organ, the NLUPC also recommends measures to ensure that government policies, including those for the development and conservation of land, take adequate account of their effects on land use, stimulate public and private participation in programmes and activities related to land use planning for the national beneficial use of land and seek advancement of scientific knowledge of changes in land use and encourage the development of technology to prevent or minimize adverse effects that endanger man's health or welfare.

10. A National Land Use Master Plan (NLUMP) was prepared in 2009, covering the period 2009 t0 2029. The Master Plan describes the land use pattern of the country as well as future land management challenges, lays out sustainable land use principles, sets out alternative scenarios for land use and development, and provides guidance for sectoral land management (transport, tourism etc.). The plan delineates areas of ecological and cultural importance, slated for protection and areas where higher environmental management standards are prescribed. The plan zones the country into Urban, Rural, Agricultural and Natural land use categories and attributes specific regulations governing land use for each category. Under the plan, the Districts are responsible for developing master plans for their territories in consultation with the National Ministries and the Regional Governments, in conformity with the provisions of the NLUMP. The district master plan is legally enforceable and indicates both to the district, municipalities within the district and to the public (developers, land owners, etc.) where certain types of land use and associated developments are permissible, and where certain activities are unlikely to be permitted. As such, it forms the basis for land use management and serves as a guideline to inform the Municipalities in its decisions on new developments and changes to existing land uses in its area of jurisdiction. The District Master Plan also functions as a framework for public and private sector investment in different types or levels of development in those areas of the municipalities that are identified as appropriate or suited to such development. It acts as a more detailed representation of the NLUMP and can be used for the updating/adjustment of the NLUMP if such actions are justified. The country is in the process

of developing these District Master (Land Use) Plans, but due to funding constraints, emphasis has been placed on developing urban plans for the municipalities and larger towns. The Directorate of Urban Planning (DGUP), Ministry of Public Works and Transport (MOPWT), prepares and reviews urban master plans in conformity with the provisions of the NLUMP and District Master Plans. The NLUMP's Natural and Agricultural zones, as well as District Master (Land Use) Plans (where they exist) are further regulated through the development of enforceable management plans for designated grazing and forested areas. These management plans are developed by the District Land Use Planning Units, the respective Municipalities and local stakeholders.

11. While NLUMP, District Master Plans and Municipal Urban Plans set out the desired future patterns of land use and development within district and municipal boundaries, and provide a framework for land use permitting, depending on the nature of proposed development activities, land use permitting processes within district and municipal boundaries can involve several regulatory authorities across all spheres of government. Typically, permitting processes involve several regulatory authorities. Upon receipt of an application for land conversion, regulatory authorities review the application and issue permits. They have several options: (a) refuse to grant the permit/license (b) grant it unconditionally or (c) issue permit with conditions to mitigate and minimise impacts; and offset unavaoidable impacts on land. However, land conversion often takes place illegally (with no application being submitted to the authorities, or with proponents not abiding by all the necessary permitting conditions). Without proper monitoring and enforcement, the offenders are not penalised, regulatory processes are undermined, and land continues to be degraded and lost. The National Land Use Commission recognizes the importance of participatory land use plans at village level and encourages its use as natural resource management and economic development tool, but has limited capacity to bring the stakeholders together to achieve these objectives.
12. **The Baseline Programs:** The proposed project will build on an extensive baseline, composed of government, NGOs, community and donor water resources management and PES programs, totalling USD over 50 million (15 of it serving as co-finance), described below.
13. **Planning and Enforcement:** Baseline programs will provide an estimated USD 10 million dollars in support of planning and enforcement through two key programs: Water Basin Authorities and the National Land Use Planning:
    - **Implementation of the IWRM via Water Basin Authorities**: The country is committed to IWRM and will invest in excess of US$ 30 million in the two watersheds, in the areas of planning and enforcement. 5m will serve as co-finance to this project. This investment will support the implementation of the Water Sector Development Programme (WSDP) 2006-2025, which provides the strategic background for the implementation of plans and interventions outlined in the national water policy and its National Water Sector Development Strategy (NWSDS). As described in the section above, the investment will be used to support the implementation of the integrated water resources management policies and institutional set up, in particular strengthening the **regulation, planning, enforcement and mainstreaming water resources management in the productive sectors.** At the **Basin level,** the co-finance will support the operations of the Pangani and Wami-Ruvu Basin Water Offices, particularly in the continuing process of devolving service delivery to Basin Water Offices (BWOs), Urban Water Supply and Sewerage Authorities and Local Government Authorities. In this regard, the baseline will continue to support the operations of the Tanga-UWASA and DAWASA urban water authorities; this includes providing budgets to implement annual workplans aimed at planning for and regulating water usage and collaborating with the Pangani and Wami-Ruvu Water Basin Authorities in ensuring that natural resources uses in the catchments enhance the water shed services. The baseline will therefore support staffing, provision of technical skills, operational capacities needed by these institutions. This includes the formation of Water Users Associations (WUAs) at the community level. WUAs have the responsibility of ensuring compliance with the water use regulations at the land users' level. Further baseline on land use planning will be provided through the **National Land Use Planning Commission,** whose main purpose is to advance sustainable land management systems by ensuring that land use planning is carried out nationally and that it addresses issues of land degradation and conflicts. The government is investing heavily in enhancing capacity of the National Land Use Planning program of work in the country, in particular the capacity for co-ordinated participation of all stakeholders in the formulation of District Land Use Plans, in recognition of the fact that the land use planning program will be best achieved through other partners such as the ministries in charge of productive sectors, regional authorities, districts and villages, civil society and the private sector. The national treasury allocates over a million dollars a year for this purpose, giving a total of 6 million dollars for the duration of the project. Further investments on **enforcement** will be made by the municipalities in the 4 municipalities in the two Water Basins, to the tune of US$ 0.5 million in their police force which will among other duties perform environmental enforcement. The Internal Security Force will spend in excess of US$ 3 million in applying law and order in the region. The Ministry of Natural resources and tourism allocates US$ 1 million a year (US$ 6 million over the project period) for the enforcement of forestry legislation nationally.
14. Since the institutional framework for water resources provides the basis for integrating water resources management considerations into the relevant sectors (agriculture, environment, local government reform, rural development, land, settlement

and forestry policies), the implementation of the Water Sector Development Program will therefore benefit from investments in these sectors, relating to regulation, planning, enforcement and practices, as outlined in the section below.

15. **Production Practices:** Baseline programs will provide further co-finance of USD 5 million through the agriculture and forestry ministries, in support of productive practices that affect land degradation on the ground.

- Agriculture Support: The national treasury will allocate about USD 2.5 million which will support the improvements in soil and water conservation programs in support of increased agricultural productivity and better market linkages for small farmers in the two water basins, through the provision of technical support services and strengthened capacity of project implementing agencies and farmers' organizations. The Forestry sector will also receive a further estimated US$ 2.5 million from the treasury in support of improved forest management and reforestation.

16. **The long term solution and barriers to achieving it**: Although the baseline is impressive, there are several gaps which hinder the country from achieving the long-term vision for securing watershed services. While the water resources management sector has undergone rapid change with a range of new policies and strategies and institutional reforms (including decentralization and the introduction of IWRM), capacities to implement the reforms are severely constrained, especially at decentralized levels. The main challenge for the integration of SLM into the water sector is consequently not the overall policy framework, but rather an implementation gap, where the institutional, human and financial resources needed to deliver on the progressive policy framework are severely constrained. This is particularly so within the Basin Water Bodies, and the constituent catchment and village level (Water Use Associations), and the National Land Use Planning Commission. Consequently, the baselines initiatives are not sufficiently coordinated and do not specifically take global environmental concerns into account. Despite the policy enabling environment, many sectoral initiatives still remain narrowly focused: for instance forestry activities focus solely on increasing tree cover, without addressing rangeland management as would be needed under a landscape wide SLM strategy. Moreover they do not focus on restoring forest functions (as opposed to simply increasing tree cover) with a particular emphasis on the relationship between various functions within different areas of the landscape. They therefore fail to enhance the services provided by a restored forest landscape, including soil stabilisation, local climate regulation, food security, biodiversity conservation and wildlife habitat.

17. The Agriculture sector investments are focused on enhancing food security by increasing agricultural production through intensive agriculture based on inappropriate use of inorganic additives and weak land husbandry. These can have adverse effects, including reduced water quality (surface and groundwater) and soil erosion where these parameters have not been taken into account in planning. Likewise, by failing to address livestock husbandry, they risk undercutting their own success, given that livestock can damage seedlings and destroy river banks, increasing pollution. Nevertheless, the baseline is large and presents an opportunity to demonstrate a paradigm shift from unsustainable to sustainable land use, enabling the effectiveness of the baselines to address economic development while enhancing ecosystem integrity and securing watershed services. The proposed project will seek to demonstrate how the implementation capacity gap can be bridged to achieve the long term vision.

18. There are, however, two major **barriers** to implementing this solution, as described below:

19. Barrier 1: Absence of a collaborative framework for effective participation of stakeholders in controlling land degradation and upscaling SLM in the two watersheds: The substantial financial and human resources earmarked for baseline programs related to agriculture, forestry, land use planning and improvement of water quality in the Ruvu and Zigi Watersheds are deployed and managed by sectoral departments, which, despite the existence of the relevant Water Basin Authorities and Offices, still work in silos. This is because the Water Basin Offices are still not fully recognized as the focal points for coordination, leading to very weak stakeholder linkages. This has severely limited the practical harmonization and coordination of efforts and resources across sectors, weakening stakeholder involvement and coordinated mainstreaming of SLM in the management of water catchments. These challenges are exacerbated by the fact that the Water Basin Authorities lack the capacity and finances to implement their mandates in the areas of policy and law enforcement, particularly the protection of water catchments to secure water flow and water quality. Weak administration systems have reduced the ability of the Water Basin Offices to collect revenue from water users, thereby further weakening its capacities to perform overall duties. This is compounded by a lack of awareness on the need to protect water sources within communities. In addition, there is still some conflicting legislation, in particular the distance allowed to build a structure from water source, so there is a need for harmonization and enforcement of all laws that improve catchment protection. The capacity gaps have in particular slowed down the formation and operationalization of WUAs. Currently there are only seven WUAs in the Wami/Ruvu basin while there are four in the Pangani basin with eight more to be registered[11]. Moreover, the established WUAs are still far from fully empowered and as demonstrated by previous experience in Upper Ruaha and Rufiji[12], they still face the risk of failure, if governance, financial and

[11] Pangani and Wami-Ruvu Business Plans 2010/11 - 2015

[12] As reported by several authors including IUCN and Koppenet al, 2004 - The WUA system in the Upper Ruaha Catchment area of the Rufiji basin failed because of corruption and unclear mandates. Dealing with user fees led to corruption at the local level and the fees paid were not enough to cover the government's fee collection costs. People were not fully aware of the reasons for the fees: those who could afford the fee believed they were entitled to use as much water as they liked, wasting the resource and causing conflicts with users further downstream when water ran low. Users downstream, who could not afford to pay, began to pay in the understanding that this would guarantee them an increased water source. In some cases having a WUA to manage local water resources specifically caused confusion and ambiguity in terms of management procedures when coinciding with local village governments and Village Natural Resource Committees.

institutional mandates vis existing local level institutions are not clearly strengthened and/or clearly spelt out. Furthermore, the draft District Land Use Plans for the seven districts have not comprehensively taken on board SLM principles in watershed management, and do not involve a wide range of well informed stakeholders in land use planning that promotes optimum delivery of ecosystem services.

20. Barrier 2: Inadequate demonstrated experiences in INRM approaches at the landscape level: The Water Basin Offices do not yet have operational, "on-the-ground" examples of integrated sustainable land management at landscape level (as opposed to more piece-meal management of specific problems such soil erosion). This is largely because the Water Basin Offices and the line ministries still lack the capacity to generate, implement and enforce integrated land and water management plans that enhance livelihoods while restoring ecosystem functionality and watershed services. They lack equipment to gather information on the status of water resources. Information exchange among departments at district, regional and national level is consequently limited. Without proper assessment, monitoring and planning regimes for the maintenance of ecosystem services, resource managers and users find it difficult to effectively evaluate and integrate land degradation risks systematically within decision-making. These shortfalls are exacerbated by the weak extension service and weak linkages between extension and research organizations, weakening the development of tools and management options for integrating sustainable land management in natural resources use. Without access to know-how, proven through demonstration, government decision-makers and resource users do not have the tools and knowledge necessary to decrease land degradation and increase ecosystems functionality; and, sustain such gains in the long-term. There is need to build on the baseline initiatives to provide tools and knowledge to tackle these problems, with particular focus on the following sectors (that are driving land degradation).

21. Forest Management: Although the principles of forest management are well understood, know-how needed to maintain the functional integrity of forests is lacking. The long-term resilience of the forests and their ability to provide important watershed and other ecosystem services will require that management adopt a landscape restoration approach, with an emphasis of restoring forest functions. To ensure that forests continue to provide services such as soil stabilisation, local climate regulation, food security, biodiversity conservation will require that large forest blocks and riverine belts are conserved rather than utilised for firewood and grazing and that connectivity is maintained between these conserved areas by better managing the drivers of degradation—thus removing anthropogenic stressors that are impeding natural forest rehabilitation.

22. Arable Land: although it is now well understood that the degradation of the water catchment is driven by the fact that more than 90% of the village communities in two watersheds depend on subsistence agriculture for their livelihoods, there are few tools available for dealing with the challenges. In particular, the baseline initiatives lack the tools for arresting the serious decline in soil fertility that has encouraged expansion of agriculture into forests (through clearing new land for cultivation). The mainstreaming of sustainable land use management into irrigated and arable farming has not yet taken place and subsistence agriculture has led to pollution and siltation of the rivers and dams, with dire consequences to livelihoods. Rangeland Management: Although there is general agreement that there need to reduce stocking levels in ecologically sensitive areas, the authorities do not have clear tools for addressing this challenge. The livestock in the basins is kept under pastoralism mode of production, making it difficult to provide services for migratory communities.

23. **Incremental /Additional cost reasoning: The incremental Activities Requested for GEF FINANCING and the associated global environmental benefits to be delivered by the project:** The Government of Tanzania is requesting GEF support through this project to remove, in an incremental manner, the afore-mentioned barriers to engendering sustainable land management. Two components are proposed, addressing the barriers in turn.

24. **Component 1: Collaborative framework for Water Basin Authorities to effectively coordinate the integration of SLM into the planning and monitoring of land management and leverage national and district baseline investments for SLM** (focusing on Ruvu and Zigi watersheds): Under this component, a framework and capacity for collaboration of stakeholders will be strengthened; this will include provision of reliable information to support planning and management, building stakeholder capacity for participation (particularly the WUAs), strengthening WRBWO capacity for coordination, regulation and compliance, and ensuring sustainable financing. This component will therefore incorporate sustainable land management objectives and safeguards in the land use planning and natural resource permitting process. Given the existence of Village Governments and Environment Management Councils, technical staff from line ministries at the District Level and Water Basin Boards sub-catchment Committees, the project will facilitate the formulation of a cooperation framework for coordinating watershed rehabilitation and compliance monitoring amongst these relevant institutions and support capacity development to ensure operationalization of the framework. Integrated Land Use Management Plans (ILUMPs) will be developed for the seven districts ensuring optimal allocation of land resources to generate development benefits and critical environmental benefits in tandem. The support to INRM will be strengthened by making key spatial data and information available through the development of a GIS based LD/SLM database that will aid landscape modelling and planning, monitoring of impacts on SLM, INRM and associated global environmental and development benefits through community and government actions at different scales. Through these 'decision support systems', districts and municipalities will be able to identify critical habitats and their values as well as threats facing each habitat, the predominant land uses at the sites and the current and potential effects of land

degradation on ecosystem services. The project will set up protocols for monitoring and evaluation of SLM practices in the two watersheds and link this to the GIS System. The project will build on the existing knowledge base that is largely sectoral, e.g. biodiversity conservation, rangeland management, forest management, water resource management, infrastructure development and agricultural production on arable land.

25. The Water Basin Offices and the District Councils will then be capacitated to effectively oversee the coordination mechanism that brings together authorities tasked with natural resource and land use planning and permitting at Basin and district levels. This will enable authorities to develop and implement a joint vision for degradation free land use in the districts and municipalities. Further, compliance monitoring and enforcement, based on the newly developed ILUMPs, will be strengthened in order to eliminate the current silo approach, where for example agricultural officials only monitor impacts on agriculture and water officials only monitor impacts on water, to a more integrated approach that allows for joint enforcement. Enforcement and compliance teams comprised of officials from different sectors will be created and trained on this new approach. Also, as part of this process, the capacity of regulatory authorities, law enforcement agencies and courts to prosecute land crimes will be strengthened.

26. This will be coupled with the formation of Water Users Associations (WUAs) to cover the two sub-catchments. New and existing WUAs will be empowered to increase their ability to regulate water resources management, in particular providing land and water users with the technical support needed to comply with the local regulations on watershed and environmental management. To build the business case for increasing resources flows, valuation will be undertaken of costs/ benefits of different production systems and SLM practices within selected landscapes and their benefits to ecosystem functioning and to livelihoods. This information will be used by selected local governments to broker public and private resources for increased funding towards SLM. The process of increased funding allocation towards SLM by the project will also involve a process of review and alignment of existing funding to the identified production sectors: Public Expenditure Reviews of the agricultural, forestry and rangeland sectors in the two watersheds will be undertaken, negative trends of expenditure will be identified and reduced, and budgets realigned to finance for example the destocking of rangeland and rehabilitation of forests. For both new and existing (realigned) funding sources, the project will develop resource distribution criteria to ensure the most effective and efficient application of scare resources.

27. **Component 2: Reducing the Effects of Land Degradation on Ecosystem Services through Sustainable Land Management:** The component will target the widespread adoption of SLM practices within the agriculture and livestock production systems and the conservation and rehabilitation of critical watershed services in the two Basins. Ecological connectivity between existing forests complexes in the watersheds will be enhanced by designating 5,000 hectares of intact forests as protection forests (reducing or preventing logging, firewood collection and grazing in these areas) and addressing human induced stressors that are impeding forest rehabilitation in degraded areas (10,000 ha). The delineation of forest complexes as protection forests as well as the identification of areas for rehabilitation will be undertaken with a view towards creating ecologically representative and linear ecological corridors (e.g. reforestation of the Kinale area which is adjacent to existing nature Reserve, to protect the source of the Ruvu). Stepping stone corridors along the Zigi will be built to connect the Amani Nature Reserve with forests in the lower reaches of the watershed. This will increase the functional connectivity of the forests and improve watershed services. The boundaries of the protection forests will be delineated and marked and communities and district authorities capacitated in forestry management. This will include the regulation of harvesting woody resources from the forests important for the delivery of critical ecosystem services, moving high-value forests from the 'harvested' to the 'protected' category and implementing non-exhaustive forest use in cooperation with local communities. It will also include capacity building to restrict forest felling for heating, forest fire management including early warning systems and fire combating techniques In addition, sustainable land management practices will be implemented in over 50,000 ha of subsistence and commercial agriculture areas, in order to reduce the negative impacts on watershed services. Improved management practices will include construction of soil conservation measures on steep slopes (such as terraces), crop-rotation and inter-cropping with leguminous soil enriching plants. Communities around the proposed Kidunda dam and will also be assisted to introduce SLM activities that lead to income generation such as growing crops for markets, bee keeping and art and crafts, tree planting, improved stoves, dairy goat husbandry, fish farming and poultry.

28. Furthermore, work on commercial agriculture will address both pesticide and fertilizer pollution reduction through various interventions e.g. organic control practices, application of pesticides only when threshold values indicate that pesticides use is justified, use of organic instead of inorganic additives (manure, composted plant residues, etc.) to improve soil structure, water and nutrient holding capacity and soil fertility. The project will further address the rampant use of fire with an aim to controlling negative impacts of fire on the landscape, particularly in the Uluguru areas. Under livestock production in the rangelands, technologies will be developed and tested and the necessary infrastructure will be put in place to demonstrate SLM approaches at specific sites covering at least 10,000 ha. Although the exact interventions will be identified during the PPG, it is expected that provision of livestock and domestic watering points away from the river banks will reduce river bank degradation. Rangeland management arrangements including rangeland rehabilitation and protection will be agreed between municipalities concerned, livestock herders and other rangelands users and a rangeland management protocol binding the parties developed.

Overall, the SLM measures will create conservation buffer zones to manage soil, water and nutrients for sustainable agricultural production, while minimizing negative impacts on the ecosystem functionality and the delivery of ecosystem services.

29. **Global benefits**: G**lobal benefits** will be delivered through the adoption of SLM practices on more than 200,000 ha and include securing ecosystem services, reduction of soil erosion, siltation and pollution in water bodies, including the coastal watrers of the Indian Ocean. They are elaborated below:

Baseline practices	Alternative to be put in place by the project	Selected environmental benefit
Degradation of catchment forests through: - Inappropriate agricultural practices; - Extension of agriculture into forested lands; unregulated harvesting of woody resources from forests; rampant fires without rehabilitation of burned areas.	Sustainable management of forests and improved agricultural practices: - Forest exclusion zones and set aside of important areas as Protected Forests; regulating/reducing volumes of wood products harvested from forests; Restoration of degraded forests; Proactive forest fire management; Proactive soil conservation measures (terraces, improved seeds);	i) Sustainable management of land and natural resources on at least 200,000 hectares of land consisting of agricultural land, rangeland and forest land that result in reduced soil erosion, halt/reverse land degradation process and continued provision of ecosystem services. ii) Improved productivity as measured by increase in Primary Productivity and reduced erosion rates. iii) Improved socio-economic returns from improved land productivity. iv) Increase in Biodiversity Intactness in catchment Forests. v) Improved water availability through the improvement of streamflow and quality. **Baseline data and GEB targets will be collected during the PPG stage, in conjunction with the completion of the LD Tracking Tool.
Over-grazing and degradation of rangelands: - Inadequate attention and compliance with carrying capacity of rangelands; uncontrolled movement of livestock across the critical catchment areas; spread of unpalatable species across the rangelands; no provision of livestock watering services away from river banks;	Improved rangeland management: - Greater compliance with carrying capacity regulations (through stronger WUA and capacity to enforce regulations); - Re-seeding of palatable species and weed management; provision of livestock watering facilities away from river banks;	
Land degradation through innparpriate agriculture practices, soil erosion and siltation of water bodies (including Indian Ocean): - Lack of adhearance to regulations for cultivation within the 60 meter rule; innapropriate use of pesticides/fertilisers in commercial agriculture	SLM practices on the ground, including terracing, conservation measures and appropriate cropping regimes. Law enforcement strengthened and increased complaince with environmental regulations; Sustainable Land Management principles introduced in arable farming that lead to reduced use of fertilisers and pesticides.	

30. Significant socioeconomic benefits will accrue at both national and local levels as a result of project interventions. Nationally, the project will secure ecosystem services vital to the economy of Tanzania, in particular water provisioning services. This will reduce the potential impacts and costs, both in terms of asset loss and human lives, of possible natural disasters including floods and landslides. The main livelihood options of local communities in both Zigi and Wami Ruvu Watersheds are based on agriculture, pastoralism and harvesting forest resources. The project will therefore enhance the resilience of the resource base on which livelihoods and economic development depends. Without the project, watershed and land degradation will continue unabated, the ability of the ecosystem to provide important services and its resilience in the face of threats will continue to decline. Specifically, under the business-as-usual scenario, the land use planning will continue to be biased towards urban planning, it will not consider the long-term resilience of the resource base on which communities rely, and it will fail to mainstream SLM and SFM as integral parts of land use planning. Under the GEF project, local communities in 7 districts covering over 200,000 ha of land, will – through the ILUMPs receive assurance that the resource base on which they depend on for agriculture and pastoralism will be more productive in the long term, that stable water quality and supply will be guaranteed. The project will capacitate land users in over 10,000 ha with knowledge, and skills on improving land productivity while enhancing the integrity of the agro-ecological system, which will ultimately translate into higher resilience and sustainable economic development. Reduced incidents of uncontrolled and destructive fires will have positive impacts on the resource base. Improved ecological connectivity of the forests will improve watershed services and improved delivery of ecosystem services such as reduced soil erosion. Improved livestock rearing practices in over 10,000 ha will further reduce soil erosion and lead to increased ground cover in the rangelands. These measures will collectively reduce soil erosion and siltation in the rivers, increase water flow and water quality with increased benefits to the health of both the ecosystems and people dependent on the natural resources, including urban dwellers (in Tanga and Dar es Salaam). The monetary value of this benefit will be quantified during PPG (and reported at CEO request). Many local level activities will be implemented by local stakeholders themselves. The project will make the business and economic argument of the value of optimal functioning ecosystems, supported by ecosystem service valuation studies that will ultimately result in increased Government and private sector investments in the conservation and rehabilitation of the watershed. Following the UNDP and GEF gender policies and strategies, special attention will be placed on gender equity, and in particular ensure full participation of women in consultations on integrated natural resource management, and land-use planning processes.

31. **Sustainability and innovation for scaling up**: This project is building on a strong baseline. First, a policy and institutional framework for integrating natural resource management into IWRM and land use planning already exist. Secondly, there is a strong commitment from Government to address land and ecosystems degradation issues in the two Watersheds, given their critical contribution to the economic

development of the country. The two watersheds supply water to Dar es Salaam and Tanga, two of the largest cities. Third, the project has financial sustainability written into it, through the review and realignment of public expenditure and the brokering of additional public and private funding towards natural resource management in the watershed. The key gaps in the current process are coordination and capacity for the decentralized implementation of the baseline programs, in particular capacity and coordination for mainstreaming SLM/SFM into the IWRM and land use planning programs among all the spheres of Government. The project aims to empower local stakeholders (The Water Basin Authorities/Offices, WUAs, municipalities, land users/landowners and pastoralists) to lead the process of mainstreaming SLM/SFM in all land use practices and to improve ecosystem integrity, resilience and delivery of ecosystem services to livelihoods and ecosystem development. Specifically, the innovation of the project is in delivering the following: (a) Improved collaboration mechanism, including integrated land use plans and institutions with capacity to coordinate a broad range of stakeholders to participate in the formulation and implementation of these plans, which mainstream SLM/SFM and ecosystem management in productive land use: b) Capacity of all regulatory authorities that impact on natural resources at the water basin and district level and support the embedding of this by developing sustainable mechanisms for institutional cooperation and coordination between spheres of government, civil society that deliver improved regulatory efficiencies and effectiveness; (b) Secure sustainable financing for natural resource management through realignment of public expenditure streams and brokering additional funds for sustainable land management; (c) direct implementation of SFM/SLM in over 100,000 ha through empowering local decision-making bodies and communities to co-manage natural resources. Project implementation will be integrated in the existing government and local natural resource management institutions, thereby providing the systemic capacity needed for scaling up the initiative to other river watersheds, particularly within the extensive Pangani and Wami-uvu river Basins.

A2. IDENTIFY KEY STAKEHOLDERS INVOLVED IN THE PROJECT INCLUDING THE PRIVATE SECTOR, CIVIL SOCIETY ORGANIZATIONS, LOCAL AND INDIGENOUS COMMUNITIES, AND THEIR RESPECTIVE ROLES, AS APPLICABLE

Stakeholder	Indicative roles and responsibilities
National level: Ministry of Water and Irrigation Ministry of Agriculture, Food Security and Cooperatives, Ministry of Livestock Development, Ministry of Lands and Human Settlement, National land use planning commission, Ministry of Energy and Minerals	The Ministry of Water has responsibility for surface and sub-surface water, including water resources conservation and protection, the areas controlling the quantity and quality of that water fall substantially under the Ministry of Natural Resources and Tourism (MNRT) and the Ministry of Agriculture, Food Security and Cooperatives (MAFC). The Ministry of Energy and Minerals (MEM) has a significant role in water resources management since it has overall responsibility for the management of mining industry which is a major water user, potential source of pollution and production of sediments which flow into water courses. The Ministry of Lands and Human Settlement is also concerned about water resources, particularly the availability of potable water for urban settlements, and inundation. The Ministry of Livestock Development has responsibilities for mainstreaming SLM into livestock production, including pastoralism. These ministries will make policy contributions to the project and use the lessons generated to inform national policies, improving policy-practice interactions.
Pangani and Wami-Ruvu Basin Water Boards, their sub-catchments and Water Use Associations	Basin Water Boards (BWBs) are responsible for data collection, processing and analysis for WRM monitoring and resource assessment, co-ordinates technical aspects of trans-boundary issues in the basin, co-ordinate and approve basin WRM planning / budgets, approve issue and revoke water use and discharge permits, and enforce water use permits and pollution control measures. The Boards resolve conflicts between water users, co-ordinate stakeholders and integrate district plans into basin WRM plans. Catchment Water Committees (CWCs) have responsibility of coordination and harmonize catchment IWRM plans and resolve water resources conflicts in the catchment. Water User Associations (WUAs) are responsible for local level management of allocated water resources, water use conflict management, collection of various data and information; participate in preparation of plans, conservation and protection of water sources. These institutions will play a key role in the institutional set up for coordination and provide the baseline for project.
DAWASA and Tanga-UWASA	Water Supply and Sanitation Authorities (WSSAs) own, manage and develop water supply and sewerage infrastructure. They are responsible for preparing business plans to provide water supply and sewerage services including capital investment plans. The functions of the WSSAs comprise also the securing of financing for capital investments. These agencies will contribute co-finance (and baselines) and will benefit from the increased flow of water and reduced siltation and pollution.
District and Local government authorities of catchment Districts	Local Government Authorities (LGAs) including Municipal and District councils are responsible for coordinating the physical planning with WASSAs and coordinating WSSAs budgets within Council Budgets. Different central and local government departments and organisations have mandates to be involved in the provision of these services. Within the policy framework for decentralisation, the mandate to provide basic services, including water supply and sanitation has been devolved to the lowest administrative level. The roles and responsibilities of the decision-making authority and control of resources for the delivery of basic services have been transferred to the District Councils. These authorities will contribute technical input into the project and learn and upscale lessons generated by the pilot project
WWF	WWF will provide technical assistance in setting up the Payment for Watershed Services Scheme in the Zigi Basin, a co-finance initiative to this project.
Land users	This is the most important stakeholder in the project. They will undertake improved land management practices in order to rehabilitate watershed services. They will therefore be the beneficiaries as well as the custodians of its sustainability.

Ardhi University	This is an important stakeholder in providing technical aspects on land use planning, water and sanitation as well as capacity building to both technical staff and communities in various aspects especially on land use and catchment conservation and management.

A3 INDICATE RISKS, INCLUDING CLIMATE CHANGE RISKS THAT MIGHT PREVENT THE PROJECT OBJECTIVES FROM BEING ACHIEVED, AND IF POSSIBLE, PROPOSE MEASURES THAT ADDRESS THESE RISKS TO BE DEVELOPED DURING PROJECT DESIGN:

Risk	Rating	Management Strategy
Production sectors such as infrastructure, mining and agriculture, and local communities be reluctant to embrace zoning of the catchment and setting aside areas for no-development, as well as rehabilitation of forests	Moderate	The project will work towards developing capacity of the Basin Water Body Offices, the local government officials and stakeholders in different sectors in developing integrated local land-use and development planning. The process will be done with the full participation of the stakeholders in government, non-government and the private sector, and including women, fostering understanding of the need for striking the right balance between development and safeguarding of ecosystems. The project will also make the economic case of sustainable land management versus the development of other sectors in sensitive areas delivering critical ecosystem services. An effective communication strategy and stakeholder involvement plan will also be developed and implemented, for stakeholder support.
Land owners/users may continue to flout planning regulations leading to further encroachment of river beds, mining on the river beds, burning f forests and extension of agricultural areas into forest reserves	Moderate	The project targets strengthening of compliance monitoring and enforcement to reduce the risk of flouting regulations and engaging in inappropriate measures by land users and livestock managers, miners and infrastructure developers. Establishment of landscape level management fora and landscape level management planning through participatory processes, as well as robust implementation of monitoring mechanisms for biodiversity and ecosystem resilience will work towards minimizing the risk. A dialogue with industry and farmers will be undertaken as part of the process of district land use planning – to obtain industry buy-in and address concerns, so as to improve compliance.
Communities may resist the designation of areas designated for conservation and provision of EGS with fear of losing state access and benefits	Medium	The project will work closely with the communities in selecting and establishing the forest reserves, ensuring that community concerns are adequately taken into consideration, and compensated through the government system. This will include careful selection of tree species for reforestation (including commercial species where possible), provision of watering facilities for both livestock and people in compensation for loosing access to the river banks, and payment for watershed services in the Zigi river (through WWF co-finance).
Future Government Administrations may be reluctant to increase areas designated for conservation and provision of EGS with fear of losing state revenues	Medium	The project will invest in development of a decision support system for land-use, with valuation tools for different types of ecosystem services and other land use values. The project will conduct SEA of the watershed and value the monetary loss of land degradation causes and drivers in order to convince Government and private sector of the importance of preserving these services.
Conflicts and misunderstanding among public institutions, private sector partners, NGOs and resource users undermine partnership approaches and implementation of cooperative governance arrangements	Moderate	Where possible, formal agreements/MOUs will be used to define roles and responsibilities. Training will be provided to stakeholders on governance and conflict resolution. Activities will be designed and implemented in a win-win manner, beneficial to all, as far as possible. The sustainable development of the landscape will be emphasized with arguments that are supported with long-term economic forecasts.

A4: OUTLINE THE COORDINATION WITH OTHER RELATED INITIATIVES

32. The proposed project will coordinate closely with the WWF project on Piloting of PES in East Usambaras and build on lessons generated by the recently concluded testing of the PES in the Ulugurus led by WWF, CARE International, Netherlands, Denmark and Government of Tanzania. Under implementation since 2005, the recently closed project tested the implementation of the PES policy on Equitable Payments for Watershed Services (EPWS), in the Kibungo sub-catchment of the southeastern Uluguru Mountains. A new project, building on the lessons is now under implementation in the East Usambaras. Financed by the Dutch Governments (EUR 1.3 million/US$ 1.65 million), the project will further test the concept of fair and equitable distribution of benefits accruing from the sale of ecosystem services to downstream users, engaging four communities and two downstream water users. Phase I comprised a feasibility assessment and baseline data collection to formulate a business case, identified and link buyers and sellers. The second phase has established water PES on a pilot scale (four villages, 2 buyers); it is envisaged that the third phase will emphasize sustainability and scale up the program to include more communities across the Zigi river catchment. The project will provide financial incentives for SLM/SFM adoption, and will be closely coordinated with the proposed project. The proposed project will also coordinate closely with the World Bank supported GEF 5 project on mainstreaming biodiversity conservation into the implementation of the Water Sector Development Project in Kihansi. The project is currently under development and will focus on the globally significant biodiversity in the

Kihansi ecosystem. Lessons will be exchanged with the proposed project and linkages will be sort and consolidated during the PPG.

33. The Government of Tanzania, assisted by TerrAfrica Partners is establishing a National SLM Platform to oversee and coordinate the development and implementation of the National Framework for SLM, which will include the proposed project. The National Framework for SLM and the National SLM Platform will be supported by a collective, multi-partner, coordinated effort, in line with the objectives and approach advocated by the TerrAfrica multi-stakeholder partnership. All development partners operating in the country (including the WFP, GTZ, Finland, Norway, FAO, and The GM of the UNCCD, AfDB, IFAD, and the World Bank) will be encouraged to align their support with the SLM Framework through different delivery mechanisms, based on their respective country dialogue and comparative advantages. UNDP will ensure close coordination of the SLM initiatives, as the Terrific lead GEF Agency for LD, and the Coordinator of UN Agencies in Tanzania. The project will in particular link with agricultural support programmes and the Kilmanjaro and Miombo Woodlands Projects (funded by GEF 4), deriving lessons from these and other projects. It will also link with other GEF initiatives, past and present, including the work cordinated by the Eastern Arc Mountains Conservation Endowment Fund (EAMCEF).

B. B: Description of the consistency of the project with:

B.1 NATIONAL STRATEGIES AND PLANS OR REPORTS AND ASSESSMENTS UNDER RELEVANT CONVENTIONS:

34. The project will contribute to the main objective of the country's NAP – that of promoting proper management and sustainable use of the resources of arid and semi-arid areas to meet both the local and national needs sustainably. It will contribute more specifically to objectives 5, 3 and 6: To introduce and/or improve intersectoral planning, management and monitoring approaches; To establish and support effective administrative structures for the implementation of the NAP; To reduce the destruction of resources in arid and semi-arid areas and to promote their sustainable use for the wellbeing of the inhabitants of these areas. It is also in line with the National Water Sector Policy (NAWAPO) and the National Water Sector Development Strategy (NWSDS) through which the government is implementing IWRM. These policies are in line with the MKUKUTA, the country's Growth and Development Strategy, through which the government prioritizes environmentally friendly agriculture as the a driver of national development.

B.2. GEF FOCAL AREA AND/OR FUND(S) STRATEGIES, ELIGIBILITY CRITERIA AND PRIORITIES

35. The project will address the GEF land degradation focal area objectives LD1 and LD3. It is designed to engineer a paradim shift from unsustainable to sustainable land management in the Ruvu and Zigi Watersheds, in the Eastern Arc Mountains. Ranked as Tanzania's most important watersheds, these areas are critical sources of water for urban use and food production. Notwithstanding this significance, the watersheds suffer from accelerating land degradation, which is undermining ecosystem functions and derivative services. Land degradation is attributabuted to historic deforestation, innpropriate agricultural practices, uncontrolled fires, excessive harvesting of resources, especially wood products, overgrazing, expansion of urban settlements, and inappropriate infrastructure placement. The project will promote an integrated approach towards fostering sustainable land management – seeking to balance environmental management with development needs. Amongst other things, it will increase management capacities of the stakeholder institutions to implement a multi-sector planning platform to balance competing environmental, social and economic objectives in district development plans and associated investments. In doing so, it will reduce conflicting land-uses and improve the sustainability of land management so as to maintain the flow of vital ecosystem services and sustain the livelihoods of local and downstream communities. The platform will be underpinned by a robust decision support system—including a Strategic Environmental Assessment, and monitoring framework so as to inform the planning process, development investments and enforcement. This will provide a system for determining where development should be avoided (in the most ecologically sensitive areas), where and how impacts should be reduced, and where and how land should be rehabilitated. Further, the project will adapt land use practices in different economic sectors—testing new management measures, as needed to reduce environmental stressors. The project advances the strategic objectives of the UNCCD 10-year strategic plan namely: 1) To improve the living conditions of affected populations; 2) To improve the condition of affected ecosystems; 3) To generate global benefits through effective implementation of the UNCCD. It addresses the following operational objectives of the 10-year UNCCD Strategic Plan: 1) Advocacy; 2) Science, technology and knowledge; 3) Capacity-building; and 4) Financing and technology transfer.

B.3 UNDP'S COMPARATIVE ADVANTAGE FOR IMPLEMENTING THIS PROJECT

36. The project is in line with UNDP Country Program Pillar three, objectives c and e: (c) integrate environmental concerns into development policies and plans; and (e) conserve biodiversity and ensure that communities benefit from these resources including considerations for mitigation and adaptation to climate change effects and the promotion of innovative land management practices. UNDP will contribute US$ 2.0 million of co-financing from its country program. Tanzania is one of the pilot country's under the ONE-UN initiative. Under this pilot, Tanzania developed a one UN-wide support program to

Tanzania, which emphasizes the role of Land Rehabilitation and restoration in support of the agriculture-led economic development. UNDP is the lead GEF Agency for the SIP/TerrAfrica partnership in Tanzania.

37. UNDP is the lead agency within the United Nations (UN) system helping countries to develop capacity for Ecosystems and Biodiversity Management. With 40 years of transformational work in Ecosystems and Biodiversity management, and building on an established global network of country offices and regional centres, UNDP has been supporting countries to shape and drive natural resources management for sustainable development—driven by national commitments, needs and priorities. More specifically, UNDP works directly with countries to integrate ecosystems management and biodiversity into poverty reduction, development planning and economic sectors through: (a) developing capacity at the individual, institutional and systemic levels to remove barriers to, and identify new options for, effective governance and finance for biodiversity and ecosystem management and (b) assisting countries to identify, access, combine and sequence environmental finance to address the biodiversity and ecosystem financing gap, mobilize pro-poor markets for ecosystem goods and services, and generate sustainable livelihoods. Last but not least, UNDP has a wealth of experience in supporting ecosystems and biodiversity management projects in South Africa. Past and ongoing projects implemented through UNDP Country Office include the CAPE project, the Agulhas Biodiversity Initiative, The National Grasslands Programme, to mention a few. The UNDP-GEF Biodiversity Team comprised of 1 Principal Technical Advisor and 4 Regional Technical Advisors sits in the country office and is on hand to provide technical assistance and ensure smooth implementation.

PART III: ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT AND GEF AGENCY

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT ON BEHALF OF THE GOVERNMENT.

NAME	POSITION	MINISTRY	DATE *(Month, day, year)*
Dr Julius Ningu	GEF Operational Focal Point	Vice President's Office	14th June 2013

B. GEF AGENCY CERTIFICATION

This request has been prepared in accordance with GEF policies and procedures and meets the GEF criteria for project identification and preparation				
Agency & Coordinator	**Signature**	**Date**	**Project Contact Person**	**Telephone & email address**
Adriana Dinu OIC UNDP GEF		15 August 2013	Veronica Muthui - RTA, EBD UNDP	+27123548140 veronica.muthui@undp.org

ANNEX 1: DESCRIPTION OF RUVU AND ZIGI RIVER CATCHMENTS

THE RUVU SUB-CATCHMENT

38. The Ruvu constitutes the smaller part of the Wami-Ruvu basin covering about 18,078 Km^2 of the total basin area (of 66,820 Km^2). The basin straddles an altitudinal range between 400 and 2,500 m and drains towards the Indian Ocean. The climate of the of highlands of Ulugurus, Nguru, Rubeho and Ukaguru ranges from humid to semi-humid; while that of the plains of Mgeta (Ruvu), Mkata, and the Berega valley is semi-arid. The Wami River originates in the dry north and east of Dodoma draining the Ukaguru, Rubeho and Nguru mountains ranges; while the Ruvu originates in the Uluguru Mountains and extends from Morogoro to the Coast and Dar es Salaam regions before draining into the Indian Ocean in Bagamoyo. The Dar es Salaam Water offtake is located at vvvv and the construction of a new dam has started at Kidunda, at the foothills of the Uluguru Mountains. The river has four important tributaries; the Ngerengere, Morogoro Mgeta and Mfizigo Rivers. Together with the tributaries, the Ruvu supplies water to Morogoro Municipal and Morogoro sisal estates, Dar es Salaam and Bagamoyo.The population of both the Wami and Ruvu basins combined is approximately 5.4 million, about 80% of them live in urban areas and 20% in rural areas; this includes Dar es Salaam (3 million) and the smaller cities of Morogoro, Kibaha and Dodoma. The rural population is dominated by the Luguru tribe, who prefer to live on the mountains because of the favorable climate which allows them to grow crops through most of the year, including temperate fruits and vegetables which they can export to the towns and people of the lowlands2. 75% of the rural households are indeed subsistence farmers struggling with poverty and shrinking resources. Land uses in the Ruvu catchment include fishing, agriculture, mining and pastoralism, as well as textiles. A 2010 WWF survey reported that 89.2% of villagers are subsistence farmers with no more than 1 ha of land, and that population density increased with rainfall and altitude.

THE SIGI RIVER

39. Originating in the East Usambara Mountains, the Sigi River flows through 3 Districts, namely Muheza, Mkinga and Tanga Municipal Council in Tanga Region before entering the Indian Ocean at Amboni (map 1). The river is about 115km long, and

has four tributaries (Nanguruwe, Dondwe, Kwekuyu and Kihuhwi). The upper catchment is mountainous to steep and the lower catchment hilly to undulating. Covering an area of 1,050km^2, the catchment holds a population of 200,000, mainly of the Shambaa ethnic group in the higher altitude areas and the Bondei who traditionally live in the lowlands. The main land use in the catchment is small-scale agriculture: subsistence cultivation of maize, cassava, banana and fruit, and some cash crops such as tea, forest and sisal; minor levels of grazing occur. Recently, mining industries have begun. The most significant cash crops include fruits, vegetables, cardamom and sugarcane; spices like cinnamon, pepper and clove are commonly cultivated. The population depends on the 30,000ha of natural forest within the catchment to regulate and maintain a healthy water supply by preventing water run-off, soil erosion and landslides. The forests are also an important source of timber and medicinal plants.