United Nations Development Programme

United Republic of Tanzania

Annual Work Plan [January 2018 to 31st December 2018 (YR 3)]

Project Title	Securing Watershed Services through Sustainable Land Management in the Ruvu and Zigi catchments (Eastern Arc Region), Tanzania
UNDAP Outcomes	Outcome 2: Relevant MDAs, LGAs and Non-State Actors improve enforcement of environment laws and regulations for the protection of ecosystems, biodiversity and the sustainable management of natural resources
UNDP Strategic Plan Outputs and Indicators	Output 2.5: Legal and regulatory frameworks, policies and institutional enabled to ensure the conservation, Sustainable use, and access and benefit sharing of natural resources, biodiversity and ecosystems, in line with international conventions and national legislation. Indicator 2.5.1: Number of countries with legal, policy and institutional frameworks in place for conservation, sustainable use, and access and benefit sharing of natural resources, biodiversity and ecosystems.
Executing Entity/Implementing Partner	Ministry of Water and Irrigation (MoWI), Tanzania
Other responsible Partners	VPO-Division of Environment (Envr), Ministry of Minerals, Ministry of Natural Resources and Tourism, Ministry of Livestock and Fisheries, Ministry of Agriculture and Co-operative, PO-RALG, Ministry of Land, Housing and Human Settlement, Ministry of Finance and Planning, and other line Ministries, National Land Use Planning Commission (NLUPC), National Irrigation Commission (NIRC), Tanga Urban Water and Sanitation Authority (Tanga-UWASA), Dar es Salaam Water and Sanitation Authority (DAWASA), Morogoro Urban Water and Sanitation Authority (MORUWASA) ,Pangani and Wami-Ruvu Basin Water Boards (PBWB and WRBWB)

Programme period: 5 years	TOTAL BUDGET (US $)
Atlas Award ID: 00086631	GEF:3,648,858
Project ID (proposal): 00093855	
PIMS No: 5077	Government:22,000,000
Start date: 2016	

End Date: 2021	**UNDP:**2,000,000
Management arrangements: NIM	
PAC Meeting Date:21 July 2015	Other:

Agreed by (Executing Entity/Implementing Partner): MoWI

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FOR: PERNAMENT SECRETARY
MINISTRY OF WATER,
AND IRRIGATION

for: (Director of Water Resources-DWR)

Date: 01.02.2018

Agreed by : UNDP

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(Country Director)

Date: 05/02/18.

Project Description:

This project will be implemented in the Uluguru and East Usambara Mountains of Tanzania. These mountains, which give rise to the Ruvu and Zigi Rivers respectively, form part of the Eastern Arc chain, and are amongst the most important catchments areas in the country. The forests in these catchments are recognised as globally important stores of carbon and centres of species diversity and endemism. They also provide critical watershed services, the continued functioning of which is being compromised by a host of human-induced pressures and poor land-use practices that are causing rapid land use change and land degradation. The situation is made worse by high levels of poverty and population growth; inadequate infrastructure for providing clean water to communities, low levels of compliance with water-use regulations and a lack of co-ordination amongst the various institutions and programmes operating in the catchments. The combined results of this are that both the quantity and quality of water in the Ruvu and Zigi river catchments is declining, undermining ecosystem services and functions and resulting in water shortages for people and the environment.

Despite an impressive baseline of existing interventions, the rate of deforestation and severity of land degradation in the Ruvu and Zigi catchments is unacceptably high. Sustainable Land Management (SLM) offers a comprehensive approach to management and governance of land and water resources and holds the potential to make significant and lasting differences both in the short and long term. Although the Government of Tanzania is committed to addressing the interconnected issues of land degradation, water security and poverty, its ability to resolve these problems by integrating SLM into watershed management is limited by: (i) lack of a collaborative institutional framework that enables water basin authorities and stakeholders to effectively plan, monitor and adapt land management and leverage investments for SLM; ii) staff, resource and technical capacity deficits; and (iii) inadequate demonstrated experiences in integrated watershed management approaches at the landscape level. It is these barriers that this Project will address.

This project has been organised under *two components*, the first focussed on building institutional capacity and strengthening co-ordination amongst Water Basin Authorities and other relevant stakeholders, and the second on implementing practical Sustainable Land Management (SLM) interventions to address land degradation in forests, rangelands and farmlands, with the overall purpose of securing watershed services and improving livelihoods.

Component 1 provides for several areas of project support, including: (i) development and implementation of Integrated Land Use Management Plans (ILUMPS) and Village Land Use Plans; (ii) establishing or strengthening multi-sectoral stakeholder committees whose role will be to co-ordinate dialogue and action amongst stakeholders, and raise awareness about SLM; (iii) forming and strengthening Water User Associations and capacitating them to perform their roles effectively; (iv) improving compliance and enforcement; and, (v) increasing the funds available for SLM.

Component 2 will target the widespread adoption of SLM practices within agricultural and livestock production systems and the conservation and rehabilitation of degraded forests in the two river basins. Key areas of project support will include working with selected communities and relevant basin management authorities to: (i) reduce human-induced pressures (e.g. illegal harvesting and mining and unwise use of fire) and promote sustainable forest management and forest restoration both within and outside of protected areas; (ii) develop and test sustainable livestock management technologies; and (iii) increase household food production and incomes through uptake of SLM and Sustainable Rangeland Management practices, and the development of diversified, alternative sustainable livelihoods.

The total cost of investment in this project is estimated at US$ 27,648,858, of which US$3,648,858constitutes funding from the GEF, US$ 2 million represents co-financing from the UNDP, and a further US$22 million represents co-financing from the Government of Tanzania.

Brief content of the AWP and Budget for FY 2018

The Annual work plan of 2018 has been prepared to adhere with current Government of Tanzania (GoT) motto drawn with his Excellency Hon. President Dr.John Magufuli's speech aims to promote the efforts of achieving the SIDP goal of bringing an economy to a state of accelerating industrialisation and to provide concrete strategies to implement SIDP 2020 that will also support the vision of 2025. The country to become a semi-industrialized by 2025, for which the contribution of manufacturing to the national economy must reach a minimum of 40% of the GDP (https://www.tanzaniainvest.com/industrialisation) by enabling utilization of land in sustainable manner that will ensure water availability that will facilitate improved production.

However, the issue of Water is Global issue, hence this work have adhered to the UN sustainable development goals (SDGs) like the SDG number one which address the issue of poverty reduction and SDG number 6 that address the issue of clean water and sanitations.

Furthermore, other cross cutting issue like gender and innovation have been addressed and applied in different aspects of livestock, land use planning, strengthening of water user associations, formation of environmental clubs and demarcation of 60 meter along the rivers to ensure effectively and efficient protection of the watershed in the Ruvu and Zigi catchment.

EXPECTED OUTPUT	PLANNED ACTIVITIES	ANNUAL TARGET	TIME FRAME (JAN-DEC,2018)				PLANNED BUDGET 2018 (YR3)				RESPONSIBLE PARTY
			Q 1	Q 2	Q 3	Q 4	PLANNED BUDGET(TSHS)	Amount (USD)			
Component 1: Establishing a collaborative framework for water basin authorities to effectively plan, monitor and adapt land management and leverage national and regional investments for integrating SLM into watershed management.											
Outcome 1: Enabling institutional arrangements are in place to support mainstreaming of SLM into integrated water resource management											
Output 1.1: Integrated Land Use Management Plans and Village Land Use Management Plans are in 8 Districts (Morogoro Urban, Morogoro Rural and Mvomero, Kisarawe, Chalinze, Kibaha DC and Bagamoyo (Ruvu catchment), and Muheza, Mkinga, Korogwe and Tanga City (in Zigi Catchment).	1.1.1 Develop Integrated Land Use Management Plans (ILUMPS) for four districts and Village Land Use Management Plans in at least 10 villages in each river catchment (Ruvu and Zigi), using participatory rural appraisal and land-use planning	Complete 12 villages land use plans (Morogoro DC-6, Mvomero DC-4 and Mkinga DC-2) in Ruvu and Zigi Catchments up to stage 4	x				253,050,000.00				NLUPC
	1.1.2 Review and update existing land use plans in targeted districts and villages, identify and catalyse appropriate measures to activate implementation of existing district/regional plans (Mvomero and Mkinga) and village plans that have been developed but whose implementation is not effective.	Develop Two (2) District Land Use Management Framework Plan (Mvomero and Mkinga Districts)	x				85,400,000.00				

EXPECTED OUTPUT	PLANNED ACTIVITIES	ANNUAL TARGET	TIME FRAME (JAN-DEC,2018)				PLANNED BUDGET 2018 (YR3)				RESPONSIBLE PARTY
			Q 1	Q 2	Q 3	Q 4	PLANNED BUDGET(TSHS)	Amount (USD)			
	1.1.3 Identify appropriate measures for adoption and ongoing monitoring of Village Land Use Plans that mitigate land degradation, protect catchment forests and optimise production and living conditions.	Develop appropriate measures for integrated detailed village land use management (Based on step 6 of PVLUP Guidelines) to be applied in Ruvu and Zigi Catchments (Swahili and English	x				11,550,000.00				
Output 1.2: Multi-stakeholder committees are established (or strengthened) and active in promoting co-ordination and dialogue in support of mainstreaming of SLM into other sectors, programmes and policies.	1.2.1: Develop and Implement a catchment wide communications and awareness raising strategy that will identify information/awareness needs suited to various stakeholder groups, develop and disseminate communication/awareness raising materials using multiple means; Monitor information	Develop appropriate and gender sensitive messages	x				5,000,000.00				PCU
		Develop and produce various communication materials (brochures, sign boards - 6 for Morogoro DC, 4 in Mvomero, 3 Morogoro MC, 2 Mkinga DC, 1 Korogwe DC, 2 Muheza DC, 1 Tanga CC, 1 ANFR, 1 UNFR)	x				20,000,000.00				PCU

EXPECTED OUTPUT	PLANNED ACTIVITIES	ANNUAL TARGET	TIME FRAME (JAN-DEC,2018)				PLANNED BUDGET 2018 (YR3)				RESPONSIBLE PARTY
			Q 1	Q 2	Q 3	Q 4	PLANNED BUDGET(TSHS)	Amount (USD)			
	dissemination, uptake and impacts of communication and use the feedback for adaptive management of the communications strategy used by the Multi-stakeholder Committees and the project.	Dissemination of awareness raising material (Media, schools, public meetings etc.)	x	x	x	x	15,000,000.00				PCU
Output 1.3: Water User Associations (WUAs) and River Committees are established and capacitated to perform their roles effectively in all key sub-catchments within the two river basins	1.3.1 : Using participatory means develop sub catchment committees in the three sub catchment of the Zigi river (using the UWAMAKIZI model) establish a learning exchange through which the lessons learnt in the establishmet of UWAMAKIZI can be transferred to the new associations	In collaboration with GIZ facilitate 18 WUA members from 6 WUAs and 3 members from UWAMAKIZI to participate in WUAs exchange/learning meeting.		x			10,000,000.00				PBWB/WRBWB/Tanga UWASA
	1.3.2 In the Ruvu Catchment establish 2 new WUAs (Mvuha and Mbezi) and baseline survey of 2 new WUA (Mgeta and Mtombozi)	Establishing 2 WUAs Mvuha and Mbezi	x	x			100,000,000.00				WRBWB/LGA

EXPECTED OUTPUT	PLANNED ACTIVITIES	ANNUAL TARGET	TIME FRAME (JAN-DEC,2018)				PLANNED BUDGET 2018 (YR3)				RESPONSIBLE PARTY
			Q 1	Q 2	Q 3	Q 4	PLANNED BUDGET(TSHS)	Amount (USD)			
	1.3.3 Strengthen the existing WUAs in the Mfizigo, Ngerengere Upper (A&B), Mgololo and Lower Ngerengere in Ruvu catchment; Upper Zigi, lower Zigi and Kihuhwi in Zigi Catchment	2 Brick making machine for low cost bricks for construction of WUA offices (one for each basin) - including training on use of machine	x				10,000,000.00				Supplier/Contractor
	1.3.4 Conduct annual training for all Water User Associations and Sub catchment Committees in the principle of SLM in protection of water sources, provision of all relevant land and water use legislation, financial management and developing of funding proposals, entrepreneurship skills, the cost and benefit of alternative livelihoods	Develop training materials for financial management and developing of funding proposals, entrepreneurship skills, the cost and benefit of alternative livelihoods in ZIGI catchment, train 3 WUAs in the above stated areas	x				37,000,000.00				PBWB/PCU
	1.3.5 Provide technical support and advice all water user association in the catchment	Train 18 WUAs management committee members on physical water quality parameters (turbidity) and simple flow measurement in ZIGI	x				12,000,000.00				PBWB
		Report and follow up - 3 WUAs in Zigi Catchment	x	x	x	x	5,000,000.00				PBWB

EXPECTED OUTPUT	PLANNED ACTIVITIES	ANNUAL TARGET	TIME FRAME (JAN-DEC 2018)				PLANNED BUDGET 2018 (YR3)				RESPONSIBLE PARTY
			Q 1	Q 2	Q 3	Q 4	PLANNED BUDGET(TSHS)	Amount (USD)			
		Follow up of 5 WUAs performance and provide technical support - in Ruvu Catchment	x	x	x	x	7,500,000.00				WRBWB
	1.3.6 Provide office equipment, means of transport and tools to equip at least 4 WUAs to do its job (based on the resource needs assessment conducted at the start of the project), starting with existing WUAs and then extending to the new ones to be established during the project.	Lobby for support from other stakeholders (WARIDI, DAWASA, MORUWASA, to provide equipment to WUAs in Ruvu and Zigi Catchments	x	x			5,000,000.00				BWBs/PCU
Output 1.4:Wami-Ruvu and Pangani River Water Basin Board and water users understand water basin regulations and are capacitated to identify and prosecute water and land-use infringements and harness greater compliance	1.4.1: Conduct a water use audit in each Basin, including a survey of water users, use and needs; water permit allocations; and payment compliance (including spatial depiction).	• Identification of all water users in catchment • Conduct survey of water users, use and needs, water permit allocation and payment compliance • Update database, Reports and follow up • Conduct water use audit and survey of water users for Mvuha and Mbezi Rivers	x		x		25,000,000.00				BWBs

EXPECTED OUTPUT	PLANNED ACTIVITIES	ANNUAL TARGET	TIME FRAME (JAN-DEC 2018)				PLANNED BUDGET 2018 (YR3)				RESPONSIBLE PARTY
			Q 1	Q 2	Q 3	Q 4	PLANNED BUDGET(TSHS)	Amount (USD)			
	1.4.1.1: Update and Review EFA Recommendation in Ruvu Catchment and Conduct second round EFA in Zigi Catchment	Review and Update EFA recommendation at 5 existing EFA site (Mgeta/Duthumi, Ruvu/Kibungo, Ruvu/Kidunda, Ngerengere/Mgude, Ruvu/Kongo) and Add 2 new EFA sites (Myuha and Mbezi) Water Allocation that will lead the grant of Water Use permit in WRBWB	x	x			78,000,000.00				WRBWB/SOKOINE UNIVERSITY (SUA)
		Complete the study of EFA on Dry Season for Zigi catchment in PBWB to complete the technical aspects and share findings with stakeholders	x	x			107,052,200.00				PBWB/SOKOINE UNIVERSITY (SUA)
	1.4.1.2: Flow measurement and water quality analysis.	Conduct at least two rounds (dry and wet) flow measurements at **Ruvu River(11)**: Mbezi/Kihole,Ruvu/Kibungo, Ruvu/Darajani,Mgeta/Duthumi, Mlali/Mlali, Mgeta/Mgeta, Ngerengere/Mgude, Matombo/Matombo,Mfizigo/Kibangile,Ruvu /Kidunda, Kingorwila/Kingorwila and **Zigi River (5)**: Zigi/Kisiwani, Zigi/Miembeni, Zigi/Lancon, Zigi/Longuza and Muzi/Msakazi	x		x		70,000,000.00				BWBs
		Water quality and sediment sampling and analysis at 16 stations in Ruvu and Zigi Catchments	x		x		50,000,000.00				BWBs
		Assessment of Mercury in Zigi river	x				15,000,000.00				PBWB/UNIVERSITY OF DAR-ES-SALAAM

EXPECTED OUTPUT	PLANNED ACTIVITIES	ANNUAL TARGET	TIME FRAME (JAN-DEC 2018)				PLANNED BUDGET 2018 (YR3)				RESPONSIBLE PARTY
			Q 1	Q 2	Q 3	Q 4	PLANNED BUDGET(TSHS)	Amount (USD)			
	1.4.1.3: Rehabilitation of Monitoring stations	Reliable data for better Management: Rehabilitation of 5 automatic and manual gauging station, Installation of 5 cable ways in Ruvu catchment –(Ruvu/Kibungo, Mfizigo/Kibangile, Ruvu/Morogoro Bridge, Ruvu/Kidunda, Mzinga/Mzinga) stations	x				17,931,000.00				WRBWB
	Activity 1.4.2: Provide the staff of Water Basin Offices, District Facilitation Teams, WUAs and other community governance structures (such as Village Natural Resource or Environmental Committees) with training in the provisions of all relevant Acts and legislation.	Train 30 Village/Street Natural Resources/Environmental committees (16 Morogoro DC and 10 Mvomero DC) and 4 streets in Morogoro MC (300 hundred people will be Trained)	x	x			17,880,000.00				MOROGORO DC, MVOMERO, MOROGOR MC
Subtotal Outcome 1							957,363,200.00				
Outcome 2:Finances available for SLM investments are increased by accessing new streams of public finance and more effective alignment of existing sectoral contributions											

EXPECTED OUTPUT	PLANNED ACTIVITIES	ANNUAL TARGET	TIME FRAME (JAN-DEC,2018)				PLANNED BUDGET 2018 (YR3)				RESPONSIBLE PARTY
			Q 1	Q 2	Q 3	Q 4	PLANNED BUDGET(TSHS)	Amount (USD)			
Output 2.1: New streams of public finance are identified and accessed	2.1.1 Enhance research capacity in the key water resource management institutions to determine degradation trends and the impacts of adaptation strategies in order to access financing for mitigation strategies identified in the National Action Plan (NAP).	• ToR developed • Determine degradation trends and the impacts of adaptation strategies • Meetings (Inception and Interim) • Reports and follow up	x	x			39,500,000.00				ARDHI UNIVERSITY
	2.1.2 Identify likely sources of additional public finance and other financing mechanism that can be tapped for the implementation of SLM in Ruvu and Zigi Catchments and develop a strategy and action for accessing these	Develop two fundable proposals (one for each catchment) to access local funding (Water Fund)		x			10,000,000.00				BWBs/LGA/PCU
	2.1.3 Undertake an economic evaluation of the cost/benefits of different SLM practices and production systems use the results to develop a business case for leveraging new	Develop proposal of the SLM business case identified in the study on economic evaluation		x			12,000,000.00				PBWB
		Assist WUAs to develop fundable proposals to tape local funding for financing SLM. One proposal for each WUA - 3 WUAs in Zigi		x			3,000,000.00				BWBs

EXPECTED OUTPUT	PLANNED ACTIVITIES	ANNUAL TARGET	TIME FRAME (JAN-DEC 2018)				PLANNED BUDGET 2018 (YR3)				RESPONSIBLE PARTY
			Q 1	Q 2	Q 3	Q 4	PLANNED BUDGET(TSHS)	Amount (USD)			
	stream of public finance	Assist WUAs to develop fundable proposals to tape local funding for financing SLM. One proposal for each WUA - 3 WUAs in Ruvu		x			3,000,000.00				BWBs
Output 2.3: The effectiveness of SLM investment is improved	2.3.1 Facilitate linkages and opportunities for joint financial planning by sectoral departments, as well as donors, NGOs, business and private enterprises that provide funding for SLM in the Ruvu and Zigi catchments.	Participate in SLM/Water Resources management meetings that will raise fund for SLM investment in Zigi or Ruvu Catchment	x				8,000,000.00				IPs
Subtotal Outcome 2							75,500,000.00				
Output 3.1:The institutional capacity (staff and resource requirements for promoting SLM) is strengthened in the Wami-Ruvu and Pangani Water Basin Offices, regional offices of line ministries and local government institutions	3.1.1: In accordance with the resources-development plan, equip each Water Basin Office and other implementing partners with the necessary GIS software, Project Management Software and hardware, water monitoring kits, other basic tools and equipment required to deliver the project outputs.	Purchasing low cost weather station and Automatic Rainfall stations station (Ambiet weather type) at Upper & Lower Zigi (Mabayani Dam). In Ruvu Catchment: fixing of battery and Solar panel for Langali and Mgeta	x				64,000,000.00				BWB/LGA

EXPECTED OUTPUT	PLANNED ACTIVITIES	ANNUAL TARGET	TIME FRAME (JAN-DEC 2018)				PLANNED BUDGET 2018 (YR3)				RESPONSIBLE PARTY
			Q 1	Q 2	Q 3	Q 4	PLANNED BUDGET(TSHS)	Amount (USD)			
		GIS software licences for 3 users - NLUPC & BWBs	x				12,000,000.00				NLUPC/BWBs
		2 GIS processing heavy duty computers for NLUPC	x				9,000,000.00				NLUPC
		1 Map/Graphic printer (with capacity of printing A3 size)	x				800,000.00				NLUPC
		Training on GIS and remote sensing (1 staff from each LGA, 2 from each basin and 2 from MOWI) - Total 13 staff	x				47,840,000.00				Consultancy
		Training on Land Use Decision Support tools/LDT tool - 13 staff	x				38,480,000.00				Consultancy
Output 3.3: Extension services are capacitated to promote uptake of SLM and promote sustainable livelihoods	3.3.1: Train extension officers in SLM concepts and technologies, principles of integrated water resource management and alternative sustainable livelihoods and equip them with suitable awareness raising materials to support their extension services.	To train extension staff in SLM concepts in four LGAs, facilitate preparation of 8 demonstration plots in three LGAs (Muheza,Morogoro,Mvomero, Mkinga and Korogwe) Follow up of implementation of activities in 5 LGAs	x	x			30,000,000.00				LGAs and MALF(A)
	3.3.2: Expand extension services by providing incentives for non-extension staff to participate in extension delivery (e.g. farmer's associations; other CSOs and NGOs, model farmers).	Provide incentives to 5 none extension staff from each LGA (Muheza, Mkinga, Morogoro, Tanga City, Mvomero and Korogwe) for each to reach 50 farmers		x			15,000,000.00				Morogoro DC, Tanga City, Morogoro MC & Mvomero DC

EXPECTED OUTPUT	PLANNED ACTIVITIES	ANNUAL TARGET	TIME FRAME (JAN-DEC 2018)				PLANNED BUDGET 2018 (YR3)				RESPONSIBLE PARTY
			Q 1	Q 2	Q 3	Q 4	PLANNED BUDGET(TSHS)	Amount (USD)			
	3.3.3: Promote farmer to farmer extension by showcasing and rewarding farmer innovations and strengthening the activity of farmer field schools, with particular attention given to women farmers in ten villages at Zigi catchment	To facilitate 2 farmers' field days in each catchment (Ruvu and Zigi) on SLM farming practices			x	x	10,000,000.00				MALF(A)/LGAs
		To create Economic groups of womens and youth by training them entrepreneurship, credit and loans, improve quality of products and availability of product market			x	x	22,420,000.00				Mvomero DC
Subtotal Outcome 3							249,540,000.00				
Component 2:Reducing the effects of land degradation on watershed services and improving livelihoods through increased landscape level adoption of SLM measures in the Ruvu and Zigi catchments											
Outcome 4: Landscape-level adoption of SLM measures in the Ruvu and Zigi catchments promoted to reduce the effects of land degradation on watershed services and to improve livelihoods											
	4.1.1: Work with the Tanzania Forest Service (TFS) -UNR and ANR and forest-adjacent communities to develop forest management plans and to develop strategies to manage fire, illegal logging, illegal alluvial gold mining, firewood collection and riverbank conservation.	To review 15 Village Forest management plans (By-laws) and developing strategies to manage fire, illegal logging, illegal alluvial gold mining, firewood collection and riverbank conservation	x		x		89,000,000.00				TFS-ULUGURU
		10 villages by laws to functional stage in TFS-Amani NR	x	x			14,040,000.00				TFS-Amani NR
		2 By-laws stakeholdres' workshops conducted in TFS-Amani NR	x	x			6,230,000.00				TFS-Amani NR

EXPECTED OUTPUT	PLANNED ACTIVITIES	ANNUAL	TIME FRAME (JAN-DEC 2018)				PLANNED BUDGET 2018 (YR5)				RESPONSIBLE PARTY
		TARGET	Q 1	Q 2	Q 3	Q 4	PLANNED BUDGET(TSHS)	Amount (USD)			
		10 signboards constructed and installed in TFS-Amani NR	x	x			8,000,000.00				TFS-Amani NR
		Rehabilitate 100 ha by planting trees and encouraging natural regeneration outside the protected areas in Muheza District (60 m buffer)	x	x			15,000,000.00				Muheza DC
		To conduct tree planting campaign 60,000 trees per ward in each ward at Mvomero DC, Morogoro MC and Morogoro DC, so that to improve natural vegetation	x	x			15,000,000.00				MVOMERO DC and MOROGORO DC
	4.1.2: Work with communities and the TFS to develop assisted natural generation and enrichment planting projects to re-vegetate 5,000 ha of riverine forest within the Uluguru and Amani Nature Reserves (and other protected forests), and 5,000 ha of degraded forest outside of protected forests, and put in place a tracking system to monitor impact over time.	Demarcation of 60 metres river buffer with concreate beacons at a spacing of 100m; cover total of 20 Km - (10 Kms in Ruvu and 10 Kms in Zigi)	x	x			40,000,000.00				BWB/ Contractor
		Establishment of tree nurseries and Planting of 5000 various tree species in Ubiri village and enhance natural regeneration in affected area of illegal mining	x	x			6,000,000.00				Korogwe DC
		Conducting enrichment planting (gap filling) to re-vegetate 2,500 ha within and outside Forest reserve at Kimhandu, Ng'weme, Kihunza, Bohomela, Kitengu and Mnyanza/Kilangalanga.		x			17,300,000.00				TFS ULUGURU

EXPECTED OUTPUT	PLANNED ACTIVITIES	ANNUAL TARGET	TIME FRAME (JAN-DEC 2018)				PLANNED BUDGET 2018 (YR3)				RESPONSIBLE PARTY
			Q 1	Q 2	Q 3	Q 4	PLANNED BUDGET(TSHS)	Amount (USD)			
	4.1.3: Undertake an assessment of affordable, viable alternative energy technologies for cooking, heating and lighting, select cost-effective and appropriate technologies for sale and distribution, particularly by women and youth (building on the model tested by CARE in their wPOWER project), and train community members, with a focus on women and youth, and equip them with suitable materials to raise awareness of the environmental and health benefits of using alternative energy technologies and reducing reliance on wood fuel and charcoal.	UNFR: Conducting training to community members adjacent to Forest Reserve (Woman and Youth) on affordable alternative sources of energy for cooking, heating and lighting, that are available around their vicinity and suitable to raise awareness of the environmental and health benefits and reducing reliance on fuel wood and charcoal. (At least 5% of household in targeted villages using cleaning energy cooking technology and 40% of household aware of alternatives energy solutions)	x		x		8,500,000.00				TFS-ULUGURU
		One (1) biogas constructed, 80 Energy saving stoves constructed in Amani NFR	x	x			17,120,000.00				TFS-Amani NR
	4.1.4: Create awareness by training teachers in environmental	Establishments of 10 Environmental clubs at Muheza DC	x		x		10,000,000.00				Muheza DC

EXPECTED OUTPUT	PLANNED ACTIVITIES	ANNUAL	TIME FRAME (JAN-DEC 2018)				PLANNED BUDGET 2018 (YR3)				RESPONSIBLE PARTY
		TARGET	Q 1	Q 2	Q 3	Q 4	PLANNED BUDGET(TSHS)	Amount (USD)			
	education and the role of forests in protecting water resources, and by working with cultural groups and performers to incorporate forest conservation messages in their work	Strengthen 10 established Student environmental clubs in Tanga CC	x		x		1,000,000.00				Tanga city
		Strengthen 10 established Student environmental clubs in Mkinga DC	x		x		2,000,000.00				Mkinga DC
		Strengthen One (1) established Student environmental clubs in Korogwe DC	x		x		750,000.00				Korogwe DC
		Formulation of 10 school Environmental clubs in Morogoro DC pertaining the role of forests in protecting water sources	x	x			10,000,000.00				Morogoro DC
		Formulation of 4 school Environmental clubs in Mvomero DC pertaining the role of forests in protecting water sources	x	x			4,000,000.00				Mvomero DC
		Supporting Environmental clubs by providing Working tools	x	x	x	x	10,000,000.00				LGAs/TFS
		Formulation of 4 school Environmental clubs in Morogoro DC and Morogoro MC pertaining the role of forests in protecting water sources in Villages adjacent to UNFR	x				4,000,000.00				TFS - ULUGURU, MOROGORO DC, MOROGORO MC &MVOMERO

EXPECTED OUTPUT	PLANNED ACTIVITIES	ANNUAL TARGET	TIME FRAME (JAN-DEC 2018)				PLANNED BUDGET 2018 (YR3)				RESPONSIBLE PARTY
			Q 1	Q 2	Q 3	Q 4	PLANNED BUDGET(TSHS)	Amount (USD)			
	4.1.5: Construction of the police post near Amani NR to support patrol for illegal mining and logging as agreed in the stakeholder meeting	Provide all construction changes as agreed in the stakeholder meeting Adapt all variations (replacement of gypsum with reinforced in the cells , install the inside inbuilt toilet) Construction completion report and follow up	x	x			50,000,000.00				Contractor
Output 4.2: Household food production and incomes increased by 30% (for actively participating villages) through promotion of sustainable income generating activities in participating villages	4.2.1: Undertake a market assessment (building on the data gathered by Sustainable Agriculture Tanzania, TFCG, Care, TaTEDO and WWF in other projects) to establish the costs/benefits of different sustainable land management and production systems, quantify current household incomes and production rates and identify, with the community, viable alternatives for economic development (e.g. bee-keeping, zero-grazing dairy farming; organic spice growing; mushroom farming) to be implemented in targeted villages.	• Establish bulking and processing centre for value addition and marketing of spices in upper Zigi • Capacity enhancement training on marketing and financial management (SIDO)		x	x		75,000,000.00				PBWB, Muheza DC, WRBWB and Morogoro DC

EXPECTED OUTPUT	PLANNED ACTIVITIES	ANNUAL TARGET	TIME FRAME (JAN-DEC 2018)				PLANNED BUDGET 2018 (YR3)				RESPONSIBLE PARTY
			Q 1	Q 2	Q 3	Q 4	PLANNED BUDGET(TSHS)	Amount (USD)			
	4.2.2 Work with farmer's associations such as UWAMAKIZI, Juwakihuma and Wakuakuvyama and equip them to play a mentorship role in promoting awareness and uptake of SLM practices including terracing (fanya juu and fanya chini), green manuring, soil conservation measures, using the Best Practice Guide developed under Output 3 as a key awareness-raising and training tool.	Establish reference site (farmer school) for best farming practices such as conservation agriculture, soil conservation, the use of best agro inputs(seeds, green manure) in Muheza DC	x	x			10,000,000.00				Muheza DC
		To expand UWAMAKIZI traditional conservation knowledge to four (4) other villages in Muzi River. (i.e Terrace farming, Fanya juu fanya chini, agroforestry, forest restoration, river cleaning, village community based water supply etc) - 50 farmers	x	x			10,000,000.00				Tanga UWASA
		To expand UWAMAKIZI traditional conservation knowledge to two (2) other villages in Mnyanza and Tangeni villages. (i.e Terrace farming, Fanya juu fanya chini, agroforestry, forest restoration, river cleaning, village community based water supply etc). Mvomero DC	x	x			17,000,000.00				Mvomero DC
		Reviews demonstration plots for SLM practices in the project catchment in Morogoro DC - 5 groups of farmers with about 100 farmers					20,000,000.00				MOROGORO DC
		Consolidate of demonstration plots for SLM practices in the project catchment in Mvomero DC - 5 groups of farmers with about 100 farmers	x	x			20,000,000.00				MVOMERO DC
	4.2.3: Work with selected villages to implement bee-keeping,	Construction of 1 new fishponds in Morogoro DC and strengthen 2 fish farming groups to benefit 300 households	x	x			40,200,000.00				MOROGORO DC

EXPECTED OUTPUT	PLANNED ACTIVITIES	ANNUAL	TIME FRAME (JAN-DEC,2018)				PLANNED BUDGET 2018 (YR3)				RESPONSIBLE PARTY
		TARGET	Q 1	Q 2	Q 3	Q 4	PLANNED BUDGET(TSHS)	Amount (USD)			
	zero-grazing dairy farming, organic spice growing, apiculture, butterfly farming, mushroom farming and so on, and establish markets and competitive pricing strategies for produce.	Beekeeping in Morogoro DC - Training of beekeeping groups, follow-ups; Logo, Gozo, Nige, Kilemela, Kibangile and Uponda Villages		x	x		27,700,000.00				MOROGORO DC
		Establish 8 new beekeeping groups and training and support visits to 20 Beekeeping groups in Mkinga DC		x	x		20,000,000.00				MKINGA DC
		Establish 10 new beekeeping groups; training and support visits plus 150 beehives in Muheza DC			x		31,000,000.00				MUHEZA DC
		To facilitate construction of water gravity project at Tangeni and Mnyanza Villages this will reduce destruction of river banks and total of 6,862 peoples will be beneficiaries with the project in Mvomero DC	x	x	x		80,000,000.00				MVOMERO DC
		Feasibility study for rehabilitation of Community Water Supply Project at Newyork Village-Tongwe Ward			x	x	10,000,000.00				PBWB, Tanga UWASA and Muheza DC
Output 4.3. Sustainable livestock management technologies developed and tested and infrastructure developed to	4.3.1 Identifying (by type, location and scale), a suite of prospective sustainable livestock management technologies.	Establish 6 water points to support Sustainable livestock management practices in potentially livestock stressed areas; Kinyenze and Mkuyuni villages in Mvomero DC, Duthumi village in Morogoro DC, Machimboni in Mkinga DC, Pande Darajani village in Muheza DC, Mabayani Pande in Tanga CC.	x	x			225,000,000.00				LGAs/MALF (L)/Contractor

EXPECTED OUTPUT	PLANNED ACTIVITIES	ANNUAL TARGET	TIME FRAME (JAN-DEC 2018)				PLANNED BUDGET 2018 (YR3)				RESPONSIBLE PARTY
			Q 1	Q 2	Q 3	Q 4	PLANNED BUDGET(TSHS)	Amount (USD)			
operationalize SLM in rangelands											
	4.3.2 To develop sustainable range land management plan for four LGAs of catchment - provision of six watering points (water troughs) for livestock in four LGAs (Morogoro, Mvomero, Mkinga and Tanga City)	Inventory and Training of Livestock Officers in Four LGAs (Morogoro, Mvomero, Mkinga and Tanga City) Inventory of livestock and livestock keepers in four districts of Morogoro, Mvomero, Mkinga and Tanga City	x	x			30,000,000.00				MALF(L)
	4.3.3 Monitoring and Evaluation	Fuel 5,000 litres	x	x	x	x	11,180,000.00				MoWI,PCU,IP
		DSA for 4 members of PCU, 84 days times/year each at TZS 120,000	x	x	x	x	44,180,000.00				
		DSA for 2 Drivers 84 days times/year each @ TZS 80,000	x	x	x	x	15,652,000.00				
		Participation of Counterparts	x	x	x	x	54,000,000.00				
		Mid-term evaluation (mid of the project implementation)		x	x		60,000,000.00				
		Auditing	x			x	7,000,000.00				
		Documentation of lesson learnt	x		x		9,000,000.00				
		3 Quarterly Reflection Meeting - Technical Committee	x	x	x	x	61,388,100.00				
		2 Project Steering Committee Meeting (PSC)		x		x	40,000,000.00				
Subtotal of Outcome 4							1,246,240,100.00				
Project Management			x	x	x	x					PCU

EXPECTED OUTPUT	PLANNED ACTIVITIES	ANNUAL TARGET	TIME FRAME (JAN-DEC 2018)				PLANNED BUDGET 2018 (YR3)				RESPONSIBLE PARTY
			Q 1	Q 2	Q 3	Q 4	PLANNED BUDGET (TSHS)	Amount (USD)			
Support											
	Maintainance of office equipment		x	x	x	x	3,150,050				
	Air Tickets		x	x	x	x	11,200,000				
	Stationery and other supplies		x	x	x	x	11,258,000.00				
	Sundries		x	x	x	x	4,400,000.00				
Subtotal (Project Management)							30,008,050.00				
Grand Total (Tshs)							2,558,651,350.00				
Grand Total (USD $)							*1,145,000.00*				

ANNEX 1: **Monitoring and Evaluation (M&E) Workplan and Budget**

M&E Activity	Responsible parties	Budget US$ (excluding PCU staff time)	Time frame
Project Inception Workshop and Launch Event	PCU UNDP CO, UNDP GEF	5,000	Within 3 months of project start-up
Project Inception Report	PCU, UNDP CO	Nil	2 weeks after the Inception Work
Internal Progress monitoring by implementation team	PC to oversee hiring of specific studies and institutions and delegate responsibilities to team members	Nil (Any consultancy fees to be determined at Project Inception and confirmed under the relevant project outputs in the full project budget)	At start, mid-term and end of project evaluation cycle and annually when required
Measurement of means of verification for Project Progress (on output and implementation)	UNDP GEF Regional Technical Advisor and PC to oversee measurements by regional field officers and local Implementing Agencies (IAs)	To be determined as part of annual work plan preparation	Annually, prior to Annual Progress Report (APR)/Project Implementation Report (PIR) and according to annual work plans
APR/PIR	PCU UNDP CO UNDP RTA UNDP GEF RCU	Nil	Annually
Tri-partite Review (TPR) and TPR Report	Government counterparts, UNCP CO, UNDP GEF-RCU and Project Team	Nil	Annually, after receipt of APR
Steering Committee Meetings	PCU, UNDP CO	15,000	Following Inception Workshop and subsequently at least once a year ahead of APR
Periodic status/ progress reports	PCU	Nil	Quarterly
Technical Reports	Project team Consultants, as needed	consultancy fees built into the project budget under individual outputs	To be determined according to need as agreed by Project Team (PT) and UNDP CO

Mid-term evaluation	PC UNDP CO UNDP RCU External consultant(s) – evaluation team	40,000	Mid-point of project implementation period
Final External Evaluation	PC UNDP CO UNDP RCU External Consultants (Evaluation team)	40,000	At least 6months before end of project
Project Terminal Report	PCU UNDP CO	Nil	At least 3months before end of project
Lessons learnt report	Project Team, UNDP GEF RCU	5,000	Annually
Audit	UNDP CO Project manager and team	17,500 (3,500 per year)	Annually
Field visits	UNDP CO UNDP RCU (if required) Government representatives	Paid from IA fees and operational budgets	Annually
TOTAL COSTS		122,500US$	

*Note: This cost included in the main budget above

ANNEX 2: **M&E MATRIX**

STRATEGIC RESULTS FRAMEWORK (SRF)

Hierarchy of Objectives	Indicator	Baseline level (2014/2015)	Target at End of Project (Dec. 2020)	Level at 31st December, 2017
Project Objective: Sustainable land and natural resource management alleviates land degradation, maintains ecosystem services and improves livelihoods in the Ruvu and Zigi sub-catchments of the Eastern Arc Mountains in Tanzania.	Reduction in land degradation in the Ruvu and Zigi catchments as measured by at least a 25% increase in land cover in forests and rangelands	See GEF LD Tracking Tool (land degradation within the project area is significant and the current land use practices and management approaches lack integration and targeted financing to promote INRM and SLM)	A 10% reduction in soil erosion, improved soil organic matter as reflected in the GEF LD Tracking Tool. 20,000 ha under direct SLM practices A 10% improvement in water quality and quantity in rivers at intervention sites as measured by water flows, annual rainfall, sediment load, using methods to be established at project inception At least 10,000 ha of degraded forest restored (5,000 in protected forest and 5,000 ha outside of protected areas) At least 25 %	Basic data for sediment load and mechanism for monitoring has been established at selected points in both catchments. **In Ruvu catchment:** sediment loads measurement points identified are Mbezi/Kihole, Ruvu/Kibungo, Ruvu/Darajani, Mgeta/Duthumi, Mlali/Mlali, Mgeta/Mgeta, Ngerengere/Mgude, Matombo/Matombo, Mfizigo/Kibangile, Ruvu/Kidunda, and Kingorwila/Kingorwila. The baseline at project inception and target to be achieved at project end is 50 tons/Km^2/year and 30 tons/Km^2/year respectively. Sediment loads in the Ruvu catchment are much higher than in the Zigi catchment because there are much higher human activities (especially cultivation and grazing), soils are to a large extent very loose prune to erosion and because of intensive livestock, land is left bare and therefore more vulnerable to soil erosion. Further, Ruvu catchment is approximately 18,000 Km^2 which is about 18 times higher than Zigi. With all those challenges, sediment loads measured during the reporting period had been reduced to 42.5 tons/Km^2/year as a result of project interventions especially law enforcement for protection of 60m river line in upstream. Further improvement is expected as 2,622 legal notice to land users within the protected 60m buffer were issued with notice end date ranging up to 31st July 2017. On water quality; physical and chemical water analysis baseline data were established and monitoring mechanism is in place. Similarly baseline water flows at peak, mid and low flows have been established; In Ruvu the figures are averaging 9.3 m^3/second as minimum flow and 37.8 m^3/second as maximum flow. As part of monitoring, data are being collected during peak, mid and low flows and then analysed to establish suspended sediment loads, chemical and physical parameters. **In Zigi catchment:** The baseline at project inception and target to be achieved at

Hierarchy of Objectives	Indicator	Baseline level (2014/2015)	Target at End of Project (Dec. 2020)	Level at 31st December, 2017
			improvement in household welfare and 10% increase in annual food production for at least 40% of the households in pilot villages, measured as a percentage increase in household incomes, percentage reduction in the number of food insecure days per year, and other indicators to be determined at project inception □ At least 30% of livestock keepers adopt sustainable rangeland management practices, with a 25% improvement in land cover over 2,000 ha of rangeland	project end is 2.31 tons/Km²/year and 0.57 tons/Km²/year respectively. Sediment loads measurement points identified are Zigi/Kisiwani, Zigi/Miembeni, Zigi/Lancon, Zigi/Longuza and Muzi/Msakazi. In addition, Lancon Estate rainfall station is used to supplement data needed for analysis and interpretation. Two legal notice to ending 28th July 2017 to big land users within 60m buffer were issued, anticipating that successful eviction will further contribute to improving river heath. 151.38 ha of degraded forest in protected areas have been restored in Uluguru nature reserve through improved law enforcement and sensitization of community surrounding the area. In Amani forest nature reserve 115 ha have been restored from illegal mining at the root of Zigi River. Outside the project area degraded areas have been identified and interventions necessary for reversing the situation started. Activities implemented for restoration purpose include tree planting, enforcement of bylaws and encouraging natural degradation. Measurement of forest land rehabilitated will be done in the next reporting period. Basic data on Food production levels were established for Zigi and Ruvu Catchment, in Ruvu production levels range from 2.5 to 3.0 tons/ha. Alternative income generation activities appropriate for communities have been identified and implementation started. Drivers of land degradation contributed by livestock keeping have been identified. These include absence of areas specifically designated for livestock keeping, poor quality pastures, diseases, low genetic potential of most of traditional stock, low investment, lack of processing facilities for livestock products and by-products, lack of water and infrastructure, and frequently recurring spells of droughts which is contributed by climate change. In the project areas there are pastoralists who moved from northern and Lake zone Tanzania; these unsettled livestock keepers keeps moving with herds of cattle

Hierarchy of Objectives	Indicator	Baseline level (2014/2015)	Target at End of Project (Dec. 2020)	Level at 31st December, 2017
				in thousands across rangelands, forests and even agriculture areas causing conflicts and land degradation. For instance in Mvomero district, herds of cattle amounting to 37,000 cattle about 60% of livestock in the district are not settled which makes it difficult to manage rangeland and even develop the livestock sector for optimal ecological and socio-economic benefits. A strategy to mitigate the situation is being developed in collaboration with Sustainable Rangeland Management Project (SRMP), which is under the Ministry of Agriculture, Livestock and Fisheries (MALF) funded by IFAD Tanzania through the International Land Coalition (ILC) as part of a larger project on land governance. Baseline data on technologies for sustainable livestock management have been established including mapping of potential rangelands for development and livestock populations in the project area. Land use planning processes for acquisition of rangelands upon which sustainable rangeland management will be applied is ongoing. On land cover changes, there has been eviction of livestock keepers from areas illegally used such as forests and river line in Morogoro and Mvomero districts, improvement in awareness and law enforcement through use of Water Users Associations (WUA), District Facilitation Teams (DFTs) which has improved land cover in protected areas including the 60m buffer along the river line; the project will measure the land cover changes during the next reporting period.
Outcome 1: Enabling institutional arrangements are in place to support mainstreaming of SLM into Integrated Water Resource	Number of land use management plans integrating SLM	Formal integration of SLM is currently limited or non-existent	SLM integrated into 7 District Land Use Plans in the Ruvu and Zigi catchments Develop planning guideline for mainstreaming SLM into IWRM in Ruvu and Zigi	According to a standardised procedure by the National Land Use Planning Commission, Participatory Land Use Management (PLUM) teams for four districts of Muheza, Mkinga, Morogoro and Mvomero were formed, inaugurated and trained on the facilitation and development of Land Use Management Plans that integrates SLM to address land degradation challenges in Zigi and Ruvu catchments. Review of 2 District Land Use Management Framework for Muheza and Mkinga districts in Zigi catchment was accomplished. The activity revised the existing District Land Use Management framework which was more for management of coastal resources and developed a planning framework that integrates sustainable land management

Hierarchy of Objectives	Indicator	Baseline level (2014/2015)	Target at End of Project (Dec. 2020)	Level at 31st December, 2017
Management in the Ruvu and Zigi catchments				for water resource management. This allowed for Village Land Use Management Planning processes to proceed; Village Land Use Management (VLUM) teams for four villages in Zigi catchment have been formed and trained, which is 20% of a total target of 20 villages in both Ruvu and Zigi catchments. The Village plans are at step 4 out of 6 of the planning cycle which is the Participatory village land-use planning, this stage is about completing village land use plan and By-laws and erecting village land use plan sign boards. The four Villages will move into step 5 and 6 of the planning cycle in the next reporting period, step 5 is about land administration and step 6 is about Village land use management. The remaining 6 villages have been identified, their village land use plans will be developed in the next reporting period.
Outcome 2: Finances available for SLM investments are increased by accessing new streams of public finance and more effective alignment of existing sectoral contributions	% increase in public funds allocated to SLM interventions in the Ruvu and Zigi catchments	No SLM funds currently allocated to water resources management agencies.	15% increase in fund earmarked for SLM interventions in the Ruvu and Zigi catchments	SLM investment strategy and its monitoring mechanism is being developed through a consultancy assignment currently on-going. The project is also assessing current trend of public fund allocation to SLM for water resources management. Apparently, there are some funding allocated for SLM from aligned sectors (mainly agriculture, livestock, water, environment and forestry) but not specifically centrally coordinated SLM funding.

Hierarchy of Objectives	Indicator	Baseline level (2014/2015)	Target at End of Project (Dec. 2020)	Level at 31st December, 2017
Outcome 3: Institutional capacity is built for promoting sustainable land and forest management in support of IWRM in the Ruvu and Zigi Catchments	Increase in awareness and capacity of local communities and institutions (e.g. extensions services, district authorities, Basin Water Offices) for integration of SLM into resource use and management practices (measured as per UNDP Capacity Scorecard).	1 – The required skills and technologies are identified, as well as their sources but are only partially developed As per UNDP Capacity Scorecard	3 -The required skills and technologies are available and there is a nationally-based mechanism for updating the required skills and upgrading technology As per UNDP Capacity Scorecard	At project inception, only a limited number of staff had SLM practical knowledge and skills; an assessment conducted by the Ministry of Agriculture and Food Security (MALF) revealed that only 20% of the extension staff in the project catchment had reasonable knowledge and skills on SLM best practices and integrated water resources management (IWRM). Progress has been made to impart knowledge and skills through trainings for basin staff, extension officers and local communities, in Ruvu catchment the number has increased to 43%. At project inception, there was 4 water users' associations (WUAs) in Ruvu catchment and one (1) WUA for Zigi catchment. A decision was reached by community members to subdivide one (1) WUA in Zigi (Zigi Mkulumuzi) into two WUAs (Upper Zigi and Lower Zigi) to improve efficiency especially because the geographical coverage was big and therefore it was practically difficult and were limited to hold meetings with members and even for the management committee to reach out the members because they do not have transport facilities. In addition, one more WUA (Kihuhwi) was formed resulting into increase in the number from 1 to 3 WUAs in Zigi Catchment. In Ruvu catchment a new Mgolole WUA was formed increasing the number of WUAs from 4 to 5 in Ruvu catchment. Preliminary work for establishment of Mbezi and Mvuha WUAs in Ruvu catchment was undertaken (baseline survey and stakeholders' analysis), where series of community awareness meetings were conducted, proposal for establishment of the WUAs has been submitted to the Wami-Ruvu Basin Board for approval. Awareness was conducted and practical trainings on integrating water resources management involving LGAs, WUA management Committees and SLM piloting farmers, a total 87 people were trained. The trainings were conducted in collaboration with Sustainable Agriculture Tanzania (SAT) Training Centre, Morogoro and Ministry of Agriculture, Livestock and Fisheries (MALF - Land Use Planning, implementation and Management). In Ruvu Catchment two committees of paraprofessionals in relation to SLM were

Hierarchy of Objectives	Indicator	Baseline level (2014/2015)	Target at End of Project (Dec. 2020)	Level at 31st December, 2017
				formed by MALF for the purpose of demonstrating and disseminating SLM practices on farmland. The Committees have established 5 demonstration sites two in Morogoro and 3 in Mvomero and are recruiting farmers for adoption of the SLM and IWRM technologies to be practiced in the next farming season.
Outcome 4: Landscape-level adoption of SLM measures in the Ruvu and Zigi catchments promoted to reduce the effects of land degradation on watershed services and to improve livelihoods	Reduction in extent of degradation in the Ruvu and Zigi catchments and improvement in the livelihoods of basin communities due to increased benefits from adoption of SLM practices	To be determined at project inception	□ Over 15,000 - 20,000 ha under direct SLM as a result of this project in the target areas in the Ruvu and Zigi catchments □ Household incomes increased by at least 25% in at least 40% of the households in participating villages, as a result of uptake of SLM practices introduced through the project, with special focus on most vulnerable households	Basic data on Food production levels were established for Zigi and Ruvu Catchment, in Ruvu production levels range from 2.5 to 3.0 tons/ha, the target is to reach 6 tons/ha for participating households. In Zigi catchment production level stands at 2 tons/ha the basin set target of reaching 5 tons/ha at project end. These indicators have not been measured during the project reporting period, the project will measure the indicator in the next reporting period. Alternative income generation activities appropriate for communities have been identified through Assessment of IGAs in Zigi and later a study on best SLM practices and supported IGAs. Implementation of the IGAs have started in Ruvu Catchment where 9 groups of farmers with more than 100 members are piloting beekeeping with initial support of 90 beehives. Another 260 beehives have been fabricated in Ruvu catchment on demand from community groups interested to practice beekeeping.

ANNEX 3: PROJECT RISKS AND MITIGATION MEASURES UPTODATED TO DEC 2017

A number of risks that might impede successful delivery of the project outputs were identified during the project design phase. These can be loosely categorised into: institutional, socio-economic and environmental risks. For each of these potential risks, the project has designed a mitigation strategy, as described in the table below.

Risks and mitigation measures

Risk	Rating	Mitigation Strategy	Status at the end of 2017
Institutional			
The current high levels of Government commitment to IWRM and SLM diminishes	Low risk	This is considered unlikely, given the large number of policies, programmes and strategies introduced by government to promote integrated approaches to water resource management and the adoption of SLM as a key means for combating land degradation. The project has been designed to give catalytic effect to prioritised interventions under these policies, which should contribute to maintaining Government support for them. The project will establish a Project Steering Committee, membership of which will be drawn from high-ranking officials (Permanent Secretary and Director level) from key Ministries and other government agencies responsible for watershed management. Through the Project Steering Committee (PSC), a strong sense of Government ownership of the project will be nurtured thus enhancing the opportunities for ensuring ongoing support.	Government commitment remains high and continue to implement policies, programmes and strategies that promotes integrated approaches to water resource management and the adoption of SLM as a key means for combating land degradation. The project has established a PSC with membership drawn from the Ministry of Finance, VPO-Division of Environment, National Land Use Planning Commission (NLUPC), Tanga Urban Water and Sanitation Authority (Tanga-UWASA), Dar es Salaam Water and Sanitation Authority (DAWASA), Morogoro Urban Water and Sanitation Authority (MORUWASA) , Pangani and Wami-Ruvu Basin Water Boards (PBWB and WRBWB), Ministry of Agriculture, Livestock and Fisheries, Ministry of Energy and Minerals, Ministry of Natural Resources and Tourism, Ministry of Land, Housing, and Human Settlement, Ministry of Water and Irrigation, President Office-Regional Administration and Local Government

Risk	Rating	Mitigation Strategy	Status at the end of 2017
Government institutions lack the resources and/or capacity to implement the project or to sustain gains once external project support has been withdrawn	Low risk	The project will have a strong focus on building the staff, resource and technical capacity of water basin authorities, across the water resource management spectrum, to ensure that they are adequately capacitated to design and manage SLM interventions and raise funds from a variety of sources. This will strengthen both the financial and institutional sustainability of the project and effectively mitigate against this risk. The project will focus specifically on growing and diversifying the funding base for SLM interventions and on equipping staff of relevant institutions to develop bankable funding proposals. It will create opportunities for joint financial planning and will develop an integrated investment framework for each catchment, which should lead to more effective deployment of resources. In addition, Memoranda of Understanding (MoUs) will be put in place between the project and the various implementing partners to secure ongoing commitment.	Capacity building on Integrated Water Resources Management and Sustainable Land Management was conducted. Basin Authorities including LGA have been capacitated in managing SLM interventions. The project has provided a motor vehicles for facilitating the implementation of the project including monitoring and supervision of the project activities Training to basin staff on hydrological and water allocation model (SWAT) has been conducted
Conflicts and misunderstanding among public institutions, private sector partners, NGOs and resource users undermine partnership approaches and	Low	A major focus of this project will be on building social capital and facilitating opportunities for linkage and collaboration between different stakeholder groups. Where appropriate, formal agreements/MOUs will be used to define roles and responsibilities of implementing partners to avoid misunderstandings. The project will strengthen stakeholder linkages and create opportunities for dialogue, collective planning and problem solving at numerous levels including:	Collaborations have been engaged between different stakeholders; NGOs such as ONGAWA, TFS, Mohammed Enterprises (Mjesani Sisal Estate), UWAMAKIZI, Amani Nature Reserve, Nilo Nature Reserve etc. Some understanding has been built among stakeholders in Zigi Catchment. Project introduction meetings were conducted with LGAs within Ruvu Catchment

Risk	Rating	Mitigation Strategy	Status at the end of 2017
implementation of cooperative governance arrangements		The Project Steering Committee will bring high-level representatives of key implementing institutions together, ensuring that they remain in regular communication and have opportunities for dealing with any potential conflicts; The Technical Team (which will include representatives from numerous institutions), will provide another opportunity for maintaining positive institutional linkages; at the catchment level, the project will set up multi-stakeholder forums/committees/ associations for bringing stakeholders together around a common vision for each catchment and providing regular opportunities for co-operation, collective problem-solving, reviewing plans, activities and achievements and resolving conflict; the project will develop and implement a basin-wide communication strategy that will ensure that all stakeholders remain well-informed about the project.	Stakeholders Forum was conducted with implementing partners to explain about the Project Different implementing Partners from Wami/Ruvu, SAT and UNR used to present the implemented activities at different project areas.
Conflict or lack of commitment within the Project Co-ordination Unit or Project Steering Committee hampers implementation.		The Project Board will play a facilitatory role and establish an independent facilitation function to ensure the effective functioning of the Project, holding a six monthly review of operational dynamics and intervening more intensely if necessary in the case of crisis.	There is no conflict since fund is enough for project implementation.
Socio-economic			

Risk	Rating	Mitigation Strategy	Status at the end of 2017
Poor households and other vulnerable members of the communities (women – especially widows, youth, the elderly and tenant farmers) may not be able to share in benefits of the project and may have no other alternative but to drive further land and forest degradation through unsustainable practices	Low risk	SLM is labour intensive and may involve higher input costs than is usual in traditional farming practices. This may mean that only more 'well-off' farmers with more resources to invest will be able to adopt SLM and that the poorest of the poor, and other vulnerable farmers (such as women and the elderly), will be 'missed'. This can be mitigated by developing a specific strategy for targeting the very poor and other vulnerable groups. Elements of this strategy will include: building group cohesion to enable collective savings schemes and labour pooling; focussing at sub-village level to make it easier for poorer farmers to attend gatherings (shorter travelling distances); convening focal group discussions (women, youth, tenant farmers) to identify and address their barriers to participation.	There was a problem before at the moment the issue will be dealt with since the study to find the best Income Generating Activities (IGA) has been conducted and will be implemented. Together, best farming practice activities are practiced in some selected villages to start with in Zigi Catchment. Different villages which underlay in Mfizigo, Ngerengere WUAs were trained on SLM farming practices followed with the practical training to construct terraces farms in Ruvu Catchment.
Land owners/users may continue to flout planning regulations leading to further encroachment of river beds, mining in the river beds, burning of forests	Moderate risk	People-centred, participatory methods that foster collaboration will be followed during the development of land use plans under Outcome 1 of the project. This means that local communities will be integrally involved throughout the land-use planning process; they will participate fully in identifying the parameters within which plans should be developed and the community needs to which they should respond, and will have ample opportunity to raise	Already four (4) Water Users Associations are in place. Through these WUAs of which one of their mandates is environmental conservation it is expected that encroachment will be minimised. Identification of Land Owners in riparian zones in Ruvu Catchment at Kibangile, Nige, Gozo, Uponda, Kilemela, Kiswira and Logo Villages. Where by different groups formed and prioritize different Income generating activities such as; Beekeeping,

Risk	Rating	Mitigation Strategy	Status at the end of 2017
and expansion of agricultural areas into forest reserves		concerns that they may have. They will also be involved in enforcement of the plans. This should ensure that the resulting plans strike the right balance between meeting stakeholder interests and safeguarding ecosystems. In parallel to the planning process, the project will make a strong ecological and economic case for sustainable land management as the basis for socio-economic development, and will communicate this through the various multi-stakeholder forums that it will establish. The project will develop and implement a comprehensive communication strategy and stakeholder involvement plan to improve co-operation with, and secure the buy-in of, local communities, and it will empower community members to lead the process of mainstreaming SLM. The project will simultaneously work with communities to identify alternative income generating activities, which should create an incentive for supporting forest restoration activities and limiting pressure in riparian zones.	rearing, fish farming, tree nurseries. Where by beekeeping is being implemented.
Local level economic growth fails to provide adequate returns on investment in SLM, or the economic gains of SLM are eroded by external factors	Low risk	At the macro-economic scale, the economic outlook for Tanzania over the lifespan of the project is expected to be good, so this has been categorised as a 'low' risk. The project can mitigate against this risk by addressing structural inefficiencies in markets to ensure that farmers realise the best possible prices and attain maximum access to markets. By providing training in financial management and budgeting, improving access to micro-credit and savings	Rampant inflation is not an issue. The economy is expected to be good through SLM interventions.

Risk	Rating	Mitigation Strategy	Status at the end of 2017
such as rampant inflation		schemes, and diversifying the income base using SLM production systems, the project can empower farmers to buffer themselves against periodic downturns in the local economy.	
Environmental			
Predicted or unexpected effects of climate change further compromise the delivery of watershed services and limit agricultural production, despite adoption of SLM	Low	As best as can be predicted at this stage, it is likely that in the Uluguru and East Usambara Mountains there will be more marked seasonality of rainfall, with wetter wet seasons and drier dry seasons, and a raised risk of floods and droughts. The project will mitigate against these possible impacts by increasing the resilience of production systems, communities and rivers to impacts, in the following ways: improving land cover and soil quality to enhance the water-storage functions in the catchments; introducing soil and water conservation measures, and practices that improve water-use efficiency; introducing climate smart crops and agricultural practices including improved agro-forestry systems. Throughout the project, the Project Co-ordination Unit will maintain close links with relevant academic and research institutions that are studying climate change, in order to identify any additional adaptation or mitigation measures that should be adopted to safeguard agricultural or livestock production systems, forests or river systems against the undesired effects of climate change.	Through SLM and best farming practices introduced different climate adaptation measures, effects of climate change will be addressed and effects attenuated thus, limitations of agricultural production will be minimal.

Risk	Rating	Mitigation Strategy	Status at the end of 2017
Invasive alien plants and animals negatively impact the biological diversity and watershed functions of the targeted catchments	Low	The project will ensure that none of its own interventions result in the spread of invasive alien species, it will include control of invasive alien plants as an integral part of integrated catchment management and will include material on the potential negative impacts of invasive alien species in educational material that it is producing for local stakeholders.	Issue of alien plants is out of question. Ruvu and Zigi catchment lie within nature reserves (Amani and Uluguru Nature Reserve). The negative impacts will occur through anthropogenic activities.