USAID – COCA-COLA COMPANY
COMMUNITY WATERSHEDS PARTNERSHIP PROGRAM

Improving Local Community Livelihoods and Strengthening Capacity for Implementing Tanzania's Water Sector Development Strategy

APPROVED

CONTRACTOR/GRANTEE IMPLEMENTATION PLAN

FEBRUARY 1, 2007

USAID/Tanzania

in partnership with

Kwanza and Bonite Coca-Cola Bottlers of Tanzania

Coastal Resources Center
University of Rhode Island

Florida International University

World Vision

Tanzania Health and Environmental Sanitation Association

USAID – Coca-Cola Company Community Watersheds Partnership Program

1. Executive Summary

The project will support Tanzania's new water governance strategy. It will improve community access to sustainable safe water, provide sanitation services to local communities in need, and promote sustainable management of watershed and water resources in the country's two most important basins – the Wami-Ruvu and Pangani River Basins. The project will build on existing programs and projects of the USAID Mission in Tanzania and the International Union of the Conservation of Nature in both of these river basins. The project will also anticipate the recently approved World Bank Water Sector Support Program, which targets the Pangani River Basin in years 1 and 2 and the Wami-Ruvu in years 2-3, and includes investments in rural water and sanitation, as well as water management.

Of the nine river basins in Tanzania, the two with the largest populations dependent on their water resources are the Wami-Ruvu and Pangani River Basins. These river systems are crucial to the public and private sectors and are critical for maintaining biodiversity and managing wildlife parks and marine ecosystems. Each of these basins has experienced environmental degradation from agricultural runoff from intensive sugar, rice, and sisal cultivation; water withdrawals to supply towns and villages; sewage outfalls; increasing use of land for livestock production accompanied by overgrazing; illegal and excessive logging; and charcoal production.

The project will 1) delineate the drainage basins and characterize the surface catchments in the Wami River; 2) increase the capacity of communities in water supply and sanitation through training and education, appropriate technologies, and strengthened community organizations; 3) improve community access to safe water and sanitation services; 4) promote environmental management systems to reduce wastewater discharges from the agro-industrial sector; 5) conduct an environmental flow assessment of the Wami River Basin; and 6) strengthen database management systems.

Planned project outcomes include the following:

- The development and improvement of water supply systems, hygiene education, and sanitation facilities in nine wards within five districts in the Wami-Ruvu and Pangani river basins
- Strengthened Village Water Committees and the local ownership and management of water supply and sanitation services
- The identification of best practices in agro-industrial water use and wastewater discharge that improve water flow and quality and reduce business operating costs
- The identification and prioritization of threats to biodiversity in the two river basins
- The production of geomorphological profile zones of the Wami River, including surface catchment maps

- The determination of current and projected water available for allocation to human uses and for ecosystem maintenance in the Wami River Basin
- The increased accessibility to river basin managers of data and tools for spatial analysis of the Wami River Basin

The project will be managed through USAID/Tanzania's environment and natural resources management strategic objective and implemented by a partnership involving the Kwanza and Bonite Coca-Cola bottlers, World Vision, the Tanzania Health, Environment and Sanitation Association (THESA), the Coastal Resources Center at the University of Rhode Island through its Tanzania Coastal Management Partnership program office located in Dar es Salaam, Florida International University through its GLOWS program site in the Mara River Basin, the Division of Environment in the Vice President's Office, the National Environment Management Council, the Ministry of Water, the Ministry for Local Governments, the Wami-Ruvu River Water Basin Office, the Pangani River Water Basin Office, District Councils, Village Water Committees, Saadani National Park, and agro-industrial sugar and sisal producers, including the Tanganyika Planting Company and the Mtibwa Sugar factory.

2. Program Description

2.1 Problem Statement

Tanzania is divided into five primary drainage systems. In 1989, these systems were sub-divided into nine separate river and lake basins to facilitate the effective management of the country's water resources. The river basins furthest to the north that drain into the Indian Ocean are the Wami-Ruvu and the Pangani. These are the most important freshwater basins in the country with respect to levels of population and economic activity that they support.

The Wami River catchment encompasses the Wami-Mbiki pilot Wildlife Management Area, the Mtibwa sugar complex, teak plantations, the Wami rice irrigation scheme, the Chalinze-Wami water treatment plant and water distribution project, and Saadani National Park. The Ruvu River catchment is the primary source of water for Dar es Salaam, which has the largest urban population in the country. The principal source of water for the Wami-Ruvu and the Pangani river basins is Mount Kilimanjaro, the highest peak on the African continent. Its upper catchments support tropical rain forests and are rich in water, plant, and animal life, many species of which are endemic to Tanzania.

The Wami-Ruvu and the Pangani river basins have experienced considerable environmental degradation over the years. This degradation has been associated with agricultural runoff from intensive sugar, rice, and sisal cultivation; water withdrawals to supply the requirements of expanding towns and villages; sewage outfalls; increasing use of land for livestock production accompanied by overgrazing; illegal and excessive logging; and the production of charcoal.

One of the intents of the Tanzanian government's water sector policy is to provide equitable access to, as well as a sustainable supply of, clean water in rural and urban areas. The National Water Policy was adopted in 2002 and the government has prepared a National Water Sector

Development Strategy to spearhead the implementation of this policy. Some of the more important issues addressed in the strategy include community ownership and management of water and sanitation facilities, private sector participation in development, integration of water supply and sanitation initiatives, and decentralization of service delivery to the district council level. Water supply systems have been installed or are in operation in several of the wards selected for the program, but sanitation programs are weak or absent. Some wards in the watersheds that have installed facilities and have undertaken sanitation education have identified reforestation to control erosion as the next important priority issue.

In collaboration with the Wami-Ruvu and Pangani Water Basin Offices, the project will support implementation of the National Water Sector Strategy by providing critical baseline assessments required to support informed integrated water resources management and watershed management decision-making at the local, regional, and national levels, and by improving water supply and sanitation systems of selected local communities.

2.2 Goals and Objectives

The primary goals of the project are to: 1) support government efforts to achieve sustainable management of water and watershed resources in the Wami-Ruvu and Pangani river basins as articulated in the country's National Water Sector Development Strategy and its Millenium Development goals; 2) improve community access to sustainable safe water; and 3) provide sanitation services and hygiene education to local communities.

The correspondence between the primary objectives and the expected outcomes of the program are highlighted in the following table (Table 1):

Table 1. Project Objectives and Outcomes

PRIMARY OBJECTIVES	**OUTCOMES**
1. Develop and improve water supply and sanitation systems in selected local communities in the Wami-Ruvu and Pangani River Basins.	The improvement of water supply and sanitation services, and hygiene practices, affecting more than 20,000 community members in nine wards and five districts in the Wami-Ruvu and Pangani River Basins: Community needs assessments completed, educational awareness campaigns conducted, and water supply and sanitation systems developed.
2. Promote participatory decision-making processes and the local ownership and management of water supply and sanitation services of communities in the Wami-Ruvu and Pangani River Basins.	The strengthening of Village Water Committees and the local ownership and management of water supply and sanitation services and water resources management: Committee members trained.

3. Delineate the drainage basins and characterize surface catchments in relation to lateral, longitudinal, and vertical dimensions of the Wami River.	The production of geormophological profile zones of the Wami Rivers, including surface catchment maps.
4. Determine credible measures of river basin flows, as well as water quantity and quality requirements of household and private sector water users, and the rates of flow required to maintain biodiversity and ecosystem processes.	The determination of current and projected water available for allocation to human uses and for ecosystem maintenance in the Wami-Ruvu River Basin: Environmental flow assessment completed, water allocation planning initiated, the identification and prioritization of threats to biodiversity in the two river basins.
5. Mainstream the participation of both genders to optimize the use of water resources and improve sanitation and hygiene.	The improvement of water supply and sanitation services, and hygiene practices, affecting more than 20,000 community members in nine wards and five districts in the Wami-Ruvu and Pangani river basins; community needs assessment completed, educational awareness campaigns conducted, water supply and sanitation systems developed. The strengthening of Village Water Committees and the local ownership and management of water supply and sanitation services and water resources management: Committee members trained, village water use management plans prepared.
6. Identify sources of pollution and fresh water use that have the potential to affect sanitation and health related to water contact and extraction, along with best practices in agro-industrial water use and wastewater discharge that have the potential to improve water flow quality and reduce business operating costs. Collaborative initiatives with sugar and sisal producers, and Kwanza and Bonite Coca-Cola bottlers, to assess environmental management systems.	Assessment reports detailing opportunities for better practices prepared to facilitate voluntary adoption of environmental management systems industrial operations.

7. Strengthen the capacity of the Wami-Ruvu Water Basin Office in the use of spatial information and data base management systems.	The production of geormophological profile zones of the Wami River, including surface catchment maps.

2.3 Geographic Areas of Emphasis

The project's geographic areas of emphasis are within the Wami-Ruvu and Pangani River Basins, consistent with the primary thrusts of Tanzania's water policy. These locations will allow the project to consolidate the achievements of previous, as well as current, water management initiatives supported by USAID/Tanzania, including the TCMP-SUCCESS project that is implemented by the University of Rhode Island Coastal Resources Center. This program has been active in the Wami-Ruvu River Basin for more than a year and its outputs have included the assembly of available GIS land cover information for the Wami River Basin, related GIS training, and an initial analysis of available hydrological data for the river and its tributaries. The project has been active in Bagamoyo and Pangani districts since 2001. World Vision also implements community development projects, including sanitation and hygiene education programs, in nearly all of the wards in both of the project's basins and the local Coca-Cola bottling company partners have distribution or production facilities in most of the same locations, as well.

The following table (Table 2) highlights the project's selected districts, wards and associated villages and provides population estimates of each of these.

Table 2. Population of Wards/Associated Villages in the Project Area

REGION	DISTRICT	WARD_SHEHIA	Includes these villages	TYPE	WARD MALE	WARD FEMALE	WARD TOTAL	WARD HH NO.	WARD AVG_HH SIZE	WARD AREA KM2	WARD DENSITY
Morogoro	Kilosa	Dumila	Dumila	Mixed	10271	10066	20337	4110	4.90	537.19	37.86
Morogoro	Kilosa	Msowero	Msowero	Mixed	8550	8241	16791	4050	4.10	535.54	31.35
Morogoro	Mvomero	Mvomero	Mvomero	Mixed	15227	14221	29448	6367	4.60	1260.64	23.36
Morogoro	Mvomero	Mtibwa	Mtibwa	Mixed	14736	12479	27215	6127	4.40	320.84	84.82
Pwani	Bagamoyo	Miono	Miono, Kikaro, Rupungwe, Mandera	Rural	9602	10185	19787	4277	4.60	568.16	34.83
Pwani	Bagamoyo	Mkange	Saadani	Rural	5020	5065	10085	2175	4.60	1017.70	9.91
Tanga	Pangani	Pangani Mashariki (east)	Pangani town	Mixed	1559	1511	3070	647	4.70	6.14	500.00
Tanga	Pangani	Pangani Magharibi (west)	Pangani town	Urban	2294	2655	4949	1150	4.30	2.71	1826.20
Tanga	Korogwe	Mnyuzi	Hale	Mixed	8707	8763	17470	4284	4.10	34.25	510.07
TOTAL					**75966**	**73186**	**149152**	**33187**	**4.48**	**4283**	
Source 2002 Census, data prepared by International Livestock Research Institute.									average		
http://geonetwork.ilri.org/ilri/srv/en/metadata.show?id=325											

The table indicates the population, area, and population density of the Wards within which the water supply/sanitation/education work will take place. Selected village names are also indicated for reference. The data is from the 2002 Census. The data were then placed in a GIS data set revealing the area and population density by the International Livestock Research Institute. The population in most of these areas has probably increased somewhat since 2002.

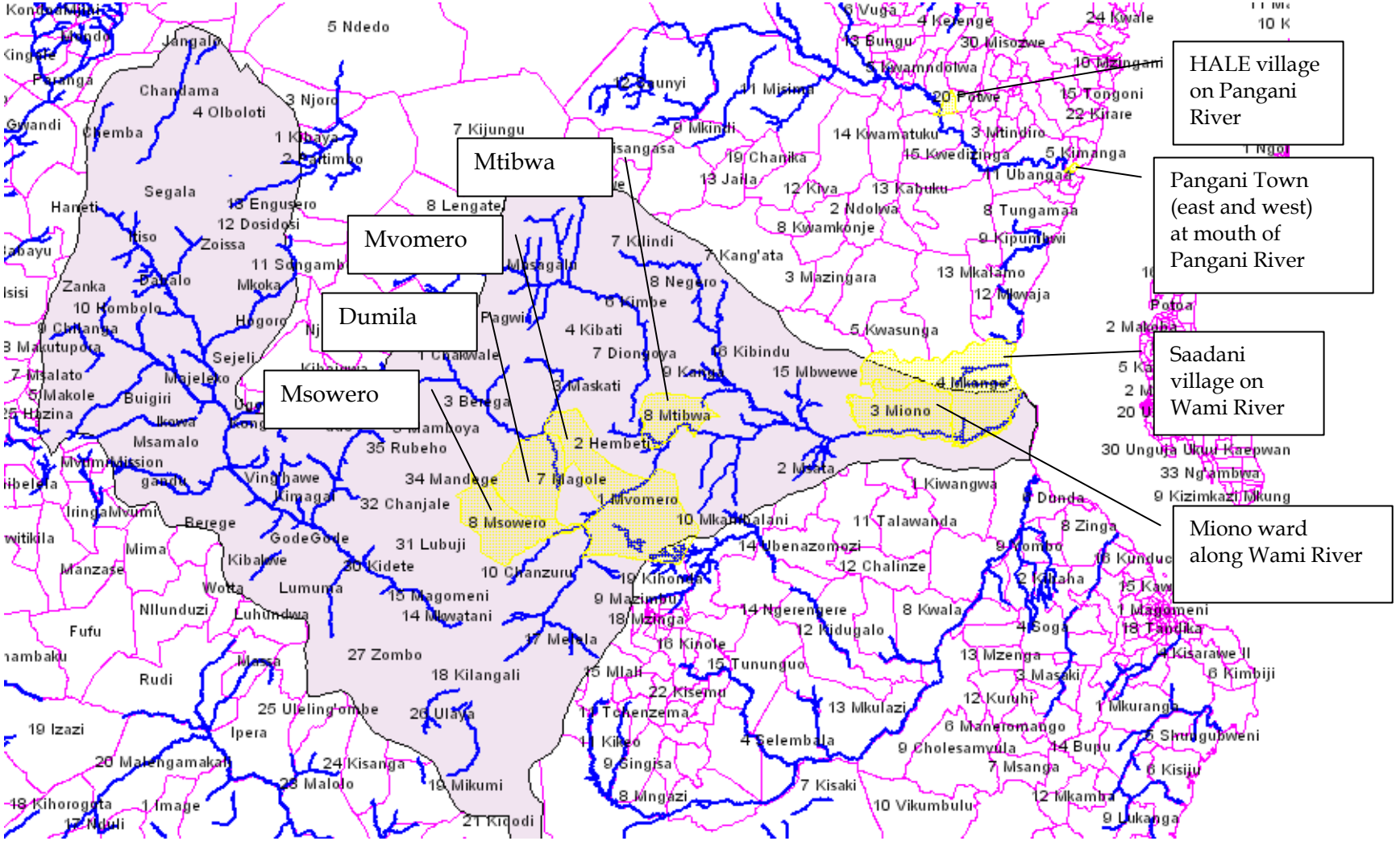

Figure 1. Map of Wami watershed (gray shape) showing wards (yellow highlight) included in the CWPP project. Three additional wards in the Pangani basin are located in the upper right corner and shown in the next map. Labels refer to wards or villages included in the project.

2.4 Technical Approach, Activities and Expected Results

2.4.1 Conceptual Framework

The project's conceptual framework is built around the effective application of principles of integrated water resources management to problem-solving efforts at the water basin level. This approach incorporates several strategic activities to catalyze efforts to strengthen management of water resources and to increase access to improved water supply and sanitation services. It also incorporates various actions designed to eradicate important gaps in information. It seeks to establish a consensus among stakeholders across various levels of government, civil society, and the private sector. The approach is guided by the following principles:

- Build on local capacity and leadership.
- Involve a broad array of stakeholders.
- Capitalize on current, as well as previous, USAID investments.
- Collaborate with complementary programs.
- Support cross-sector linkages.
- Form private sector alliances.

Project partners will act, in collaboration with the Wami-Ruvu and Pangani River Basin Offices, the Ministry of Water, as well as District Councils and Village Water Committees, to strengthen local capacities to implement the National Water Policy and the National Water Sector Development Strategy. The project will capitalize on various other USAID investments, including the Mara River Basin project, led by one of the project's partners (Florida International University), the Ruaha River Basin project, which provides a well-documented case study of low environmental flows, and the TCMP-SUCCESS program, which has already initiated activities in the Wami-Ruvu catchment, as well as other projects such as the IUCN Pangani River Basin Management Project, the World Wildlife Fund Rufiji River Basin project, and the experiences of THESA and World Vision with water supply and sanitation efforts in other regions of the country.

The GDA-funded component of the project has a one-year timeframe, which arguably is not long enough to allow for the maturation of the participatory processes and capacity development that will be required to ensure long-term project sustainability. Participatory processes associated with successful water supply and sanitation programs are generally not expected to be fully in place, operational, and sustainable in multiple locations within a one-year time frame. The project has therefore been designed to be a four-year effort, with a significantly larger investment in the first year of project implementation.

One of the initial activities of the project will be a "kick-off" planning workshop with all of the project's partners. This will include organizations with extensive water supply and sanitation experience, such as World Vision and THESA, as well as other organizations such as Rotary International and other potential water supply implementing partners including Play Pumps and Kick Start.

2.4.2 Performance Management Plan

Project partners will prepare an M&E plan to identify appropriate progress indicators, following guidelines that will be provided by the Community Watershed Partnership Program. The M&E plan will link indicators to targets and the program outcomes that are described in section 2.2 of this document. The computerized system used for TCMP reporting and documentation will be extended for this program.

2.4.3 Primary Project Activities

(1) Element A: Improve community access to sustainable improved water and sanitation services

An initial needs assessment of the degree of access to improved sources of water supply used by villagers, as well as sanitation conditions and awareness of good hygiene practices, will be conducted in eight selected communities bordering the lower Wami and Pangani rivers where the USAID/Tanzania Mission supports other environmentally sustainable development interventions through its TCMP-SUCCESS project. This assessment will determine the status of potable water supply access, sanitation service access, waste management and hygiene practices, and provide the basis for developing a more comprehensive understanding of villagers' requirements and preferences, as well as local customs. Specific water and sanitation systems for selected villages will be determined on the basis of this assessment. A hygiene behavior change promotion program will be designed that focuses on the introduction of improved latrine sanitation technology, including VIP toilets in villages and schools, but might also include the rehabilitation of water supply systems, rainwater harvesting, or development of new water points.

World Vision has been selected to be the lead implementing partner responsible for water supply, sanitation and hygiene activities. It has extensive experience throughout the developing world, including more than two decades in Tanzania, where it has been active in most of the districts that are targeted within the Pangani and Wami-Ruvu catchments. It also has the capacity to implement water supply and sanitation activities successfully within a relatively short period of time. Its Water-Health-Life approach focuses on children as a primary beneficiary group, as well as an important pathway for influencing adults. For the wards that are identified in the two basins, the main focus will be on sanitation facilities and related hygiene education and behavior change. Further details are provided in the World Vision Annex.

If appropriate in the context of a specific village, feasible in this time frame, and if a particular site meets the minimum conditions required by the overall USAID PlayPumps alliance, the PlayPumps water supply system may be demonstrated in at least one target village (paid for through a separate agreement).

In support of the National Water Sector Development Strategy, the project will strengthen community ownership and management of water supply and sanitation systems. In the eight project wards and associated villages, this will involve the active participation, as well as capacity building, of Village Water Committees and District officials. Training in water supply and sanitation, planning, leadership, and governance will be provided in the first year of project activities. Education and awareness campaigns will be designed for villages and wards under the leadership of World Vision.

A rapid assessment will also be conducted of the Water User Associations that currently exist in the Wami-Ruvu and Pangani River Basins with the objective of identifying options for capacity building in subsequent years of the project, including opportunities for forming Water User Associations near the Kwanza and Bonite Coca-Cola bottling plants. There is currently only one Water User Association, located in close proximity to the Mtibwa Sugar Factory, formed in the Wami-Ruvu River Basin. Water User Associations represent important institutional mechanisms for managing water resources under Tanzania's current water management strategy. These associations not only provide the means for allocating water resources at the local level and ensuring their equitable distribution during periods of drought, but they also provide a point of reference for resolving local disputes over water resources.

(2) Element B: Conduct assessments and make recommendations to reduce wastewater discharges originating in the private sector.

Environmental management systems can reduce or eliminate water consumption and waste generation while improving the efficiency and profitability of farming and other commercial operations. Sugar and sisal production and processing consume large amounts of water and generate industrial wastes that can be reduced using best practices and applying appropriate process engineering technologies. In the first year of the project, efforts will be made to collaborate with two sugar processing plants and Water Basin Offices, one in the Wami River Basin and the other in the Pangani River Basin, to assess the current status of environmental management systems. While this is not intended to result in the implementation of a particular management system, the expectation is that efficiencies as well as the increased ability to comply with discharge permits required under new water and environmental laws will provide compelling incentives for operators to volunteer to test the recommendations.

The Mtibwa Sugar Factory is a major water user in the Wami-Ruvu River Basin and during peak processing periods releases heavy loads of contaminants into the Wami River. Their representatives have expressed a strong interest in receiving some cost-effective technical assistance associated with reducing the impacts of these contaminants. Subsequent to establishing agreements with sugar processors, an assessment of low-cost options to reduce water contamination will be conducted by environmental management systems specialists from THESA. Separate evaluations of water consumption and waste generation associated with the Kwanza and Bonite Coca-Cola plants are also expected to be undertaken to identify best practices and requirements for technical support.

(3) Element C: Conduct an environmental flow assessment of the Wami River Basin.

A flow assessment measures the quantity, quality, and timing dimensions of a river basin in order to estimate the impacts of current and projected water-use requirements (agricultural, domestic, and industrial/commercial). Such an assessment has previously been initiated in both (1) the Pangani River Basin through the Pangani River Basin Management Project led by the IUCN and in (2) the Mara River Basin through the TransBoundary Water for Biodiversity Project led by Florida International University and World Wildlife Fund Tanzania. The planned assessment of the Wami River Basin would involve providing a descriptive characterization of the catchment basin, selecting and applying an appropriate methodology for determining ecosystem water requirements and current water use, applying available water flow models, and setting condition and use objectives to compare alternative water use allocations.

The environmental flow assessment of the Wami River Basin will be led by Florida International University and conducted in collaboration with the Wami-Ruvu River Basin Office and other stakeholders using internationally accepted assessment methodologies. These stakeholders will contribute to field assessments, the establishment of objectives, and the evaluation of alternative use scenarios. The activity will also provide rapid assessments of the estuarine areas of the Wami River in the coastal and marine interface to determine ecosystem condition, links with the upper watershed, and valued ecosystem components.

(4) Element D: Strengthen government information management systems for water resources management.

Spatial information and database management systems are critical for planning, setting priorities, and making decisions. This activity will strengthen the capacity of the Wami-Ruvu River Water Basin Office for using database management and geographic information systems in partnership with the GIS Office of the Water Ministry. The need for capacity building in information management systems has been identified in the Wami-Ruvu Basin Office Business Plan, 2005. This activity will build on the limited training that has been previously provided to the Basin Office through the USAID SUCCESS project. Florida International University will play a lead role in this initiative.

2.5 Plan for Sustainability and Institutional Management

The partnership with local Coca Cola bottlers as well as the continued support provided through the USAID/Tanzania Mission, will ensure that a significant local presence will be maintained well beyond the period of the CWPP funding through the full four-year project time frame. This approach will provide local village and district institutions and national partners with the mandate, as well as capacity, to continue water management activities in project-supported areas. Important institutions with oversight responsibilities that have already established an active partnership with USAID/Tanzania include the Division of Environment in the Vice President's Office, the National Environmental Management Council, the Ministry of

Water, District Councils, and the Wami-Ruvu Water Basin Office. Sustainability will also be promoted through project implementation strategies, including participatory processes and capacity building methodologies that support local ownership. Project activities are designed to catalyze new approaches that empower local institutions and stakeholders.

3. Implementation

The project will be implemented by a combination of strategic partners, including the Kwanza and Bonite Coca-Cola bottlers, the Coastal Resources Center of the University of Rhode Island through its Tanzania Coastal Management Partnership program office located in Dar es Salaam, Florida International University through its GLOWS program site in the Mara River Basin, the Division of Environment in the Vice President's Office, the National Environment Management Council, the Ministry of Water, the Ministry for Local Governments, the Wami-Ruvu River Water Basin Office, the Pangani River Water Basin Office, District Councils, Village Water Committees, Saadani National Park, and agro-industrial sugar and sisal producers, including the Tanganyika Planting Company and the Mtibwa Sugar factory. The Tanzania Health, Environment and Sanitation Association will focus on design of sanitation facilities and environmental management systems for industries and World Vision will be the lead implementing partner responsible for water supply and sanitation activities, including community hygiene education, as well as education resulting in behavior change. The offices and facilities of the Tanzania Coastal Management Partnership will serve as the headquarters of the project.

3.1 Program Management

The USAID/Tanzania Mission through its Environment and Natural Resources Management strategic objective will be responsible for managing the project in the field, in coordination with GETF on behalf of the CWPP. This will include responsibility for approving work plans, monitoring project activities, and evaluating project accomplishments. The University of Rhode Island will be responsible for work planning and implementation, including managing subcontracts, technical assistance, and reporting. Project accomplishments will be guided by the completion of work plan activities and the progress achieved in meeting established Performance Monitoring Plan targets. The terms of reference for securing a CWPP Local Program Coordinator were prepared and the position announcement that was advertised is provided as an Annex. A short-list of candidates was interviewed and a Program Coordinator was subsequently selected. The Program Coordinator will report to the Tanzania Coastal Management Partnership Project Manager and the University of Rhode Island Coastal Resources Center Project Manager. The Project Coordinator will act to insure that partners will work as a unified team through joint preparation of the work plan, careful integration of individual terms of reference, and continuous consultation and mutual support in carrying out tasks, logistics and information sharing.

3.2 Country Program Summary Chart

The table below (Table 3) summarizes proposed sub-grant/sub-contract agreements. There may be additional sub-grants/sub-contracts determined during the implementation of the project.

Table 3. Country Program Summary Chart (Summary of Sub-grants and Sub-contracts)
(Please refer to the accompanying tables at the end of this summary document for a more detailed breakdown of the proposed budget.)

Implementing Organization/ Individual	Total Budget	Matching Funds / Cost-share / Leveraging (indicate "cash" vs. "in-kind")	Summary of Activities	Geographic Location	Estimated # Beneficiaries (related to lead responsibility)	Type of Action (subgrant or subcontract)	GETF-Administered?	Proposal Status
Florida International University	$90,000	-----	Environmental flow assessment; spatial information systems	Wami-Ruvu Basin	Water Basin Office and related constituency	Sub-contract	No	
THESA	$28,500	-----	Community water supply and sanitation capacity building; sanitation; Assessments of environmental management systems	Lower Wami River Basin	Processing facilities receiving technical assistance	Sub-contract	No	
World Vision	$175,000	-----	Community water supply and sanitation activities	Lower Wami River Basin	20,000 through facilities and education	Sub-contracts	No	
URI/TCMP	206,500	$700,000 through USAID/ Tanzania	Program coordination and administration; local capacity building; environmental flow assessment; community forestry; information systems	Wami-Ruvu and Pangani River Basins	Related to tree planting activities, 2,000	Grant		
TOTAL (must total no more than the amount available for the entire program)	$500,000	$700,000 through USAID/ Tanzania		Wami-Ruvu and Pangani River Basins	22,000			

4. Implementation Schedule

The Community Watershed Partnership Program funding is for one year until December 2007. USAID Tanzania has committed cash and in-kind resources for the activities initiated in the first year to be extended over the four-year life of the project. The implementation table below (Table 4) describes the overall sequencing of activities in the first year of the project.

Table 4. Implementation Schedule

Activity	First Qtr	Second Qtr	Third Qtr	Fourth Qtr
Project partners prepare detailed work plans	x			
Recruit Program Coordinator	x			
Launch event	x			
A. Improve community access to sustainable improved water and sanitation services				
Water and sanitation committees established and strengthened in identified villages in the 8 wards	x			
Conduct participatory water and sanitation needs assessment in 8 villages	x			
Design training and educational campaigns	x			
Execute training and education using PHAST (Participatory Hygiene and Sanitation Transformation) methodology		x	x	x
Develop Village Water Committee Plans		x	x	x
Improve access to water sources and/or environmental sanitation facilities: physical assessments of sites, and construction of facilities		x	x	x
B. Environmental management systems				
Assessment of status of Environmental Management Systems at two sugar plants	x	x		
Awareness building of commercial sugar operations on EMS and environmental policy topics			x	
Engage private sector and Water Basin Offices			x	
Rapid assessment of status of water consumption and wastewater practices at local Coca-Cola plants		x		
C. Environmental flows assessment of the Wami River Basin				
Engage the Wami-Ruvu Water River Basin Office	x			
Recruit in-country specialist team	x			
Five-day workshop to prepare assessment	x			
Field data collection and assessment (wet and dry periods)	x	x	x	
Estuarine ecological assessment	x			
Final report and prescriptions				x
D. Information systems				
Preparation of GIS data base	x	x		
Technical assistance in GIS data base management	x	x	x	x
Prepare GDA program final report				x

Project activities in outlying years will provide a continuity of effort for first-year project elements. These activities will include: follow-up technical assistance and monitoring in the management of water supply and sanitation facilities, continued community education and awareness efforts, application of environmental flows assessment to water supply and demand planning, capacity building of Wami-Ruvu River Water Basin Office in GIS data base

management, technical support for environmental management systems, outreach and communications, and lessons learned and the sharing of experience with other River Basins.

5. Budget

The period of using GDA funds for implementing the Community Watershed Partnership Program is one year, but USAID/Tanzania Mission support for the project will extend over four years. The following table (Table 5) provides a representative project budget over the four-year period of planned implementation. The figures in this table are consistent with those in Table 3. Each project element includes sub-contracts and costs for project management, equipment, operating costs, personnel, travel costs, and overhead on the part of the Tanzania Coastal Management Project office and the University of Rhode Island. Further explanatory notes and additional budget detail is provided in Table 6.

Table 5. Budget by Program Element

Element	Type	Year 1		Year 1	Year 2	Year 3	Year 4	TOTAL
		GDA	Match (USAID/ Tanzania)	Match (USAID/ Tanzania)	Match (USAID/ Tanzania)	Match (USAID/ Tanzania)	Match (USAID/ Tanzania)	
A. Community water supply, sanitation, and education	Cash	**$255,073**		**$24,786**	**$30,002**	**$30,002**	**$30,002**	**$369,864**
	In-kind		$40,000		$40,000	$40,000	$40,000	$160,000
B. Environmental Management Systems in the agro-industrial	Cash	**$66,211**		**$20,811**	**$22,501**	**$22,501**	**$22,501**	**$154,525**
	In-kind		$20,000		$20,000	$20,000	$20,000	$80,000
C. Environmental flow assessment and water allocation planning and	Cash	**$150,367**		**$20,810**	**$15,001**	**$15,001**	**$15,001**	**$216,180**
	In-kind		$20,000		$20,000	$20,000	$20,000	$80,000
D. Information systems for water resources management	Cash	**$28,350**		**$8,580**	**$7,500**	**$7,500**	**$7,500**	**$59,431**
	In-kind		$20,000		$20,000	$20,000	$20,000	$80,000
TOTAL	Cash	**$500,000**		**$74,987**	**$75,004**	**$75,004**	**$75,004**	**$800,000**
	In-kind		$100,000		$100,000	$100,000	$100,000	$400,000