INITIAL ENVIRONMENTAL EXAMINATION

USAID/TANZANIA NATURAL RESOURCES MANAGEMENT AND WATER PORTFOLIO
(EG)

April 2014

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INITIAL ENVIRONMENTAL EXAMINATION
AND
REQUEST FOR CATEGORICAL EXCLUSION

USAID/TANZANIA NATURAL RESOURCES MANAGEMENT AND WATER PORTFOLIO
(EG)

PROGRAM/ACTIVITY DATA:

Program/Activity Number: SOAG 621-013-xxxx ( # TBD when PAD approved)
Country/Region: Tanzania/East Africa
Activity Title: Natural Resource-Based Livelihoods Diversified and Improved

USG Foreign Assistance Framework

Functional objective 3: Investing in People
Program area 3.1: Health
Program Element 3.1.8: Water Supply and Sanitation

Functional Objective 4: Economic Growth
Program Area 4.8: Environment
Program Element 4.8.1: Natural Resources and Biodiversity
Program Element 4.8.2: Clean productive Environment

Funding Begin: FY 2013 Funding End: FY 2017 LOP Amount: ($ 104.69 Million)

IEE Prepared By: Gabriel Batulaine, MEO, USAID/Tanzania

Current Date: April 1, 2014 (revised)
Expiration Date: September 30, 2018

IEE Amendment (Y/N): NO. This IEE supersedes the previous IEE:
ENVIRONMENTAL ACTION RECOMMENDED:

Categorical Exclusion: ______ X ______ Negative Determination: ______ X ______
Positive Determination: _______________ Deferral: _______________

ADDITIONAL ELEMENTS:

CONDITIONS ______ X _______ PVO/NGO: ______ X _______ EMMP/EMMR: ______ X ______
ESF/ERR: ______ X ______

SUMMARY OF FINDINGS

USAID/Tanzania’s SO 13: “Natural Resource-Based Livelihood Diversified and Improved” aims to achieve the key goal of biodiversity conservation in targeted landscapes, while using economic and other livelihood incentives to encourage conservation behavior. This IEE provides basic Regulation 22 CFR 216 Threshold Determinations, to ensure that all activities that will be implemented under SO 13 are environmentally-sound. The IEE is associated with the SO 13 SOAG with the Government of Tanzania (GOT), which covers all Environment Natural Resources and Water (ENRW) activities expected to be implemented during the entire period of USAID/Tanzania’s 2013-2018 Country Development Cooperation Strategy (CDCS). The activities will be implemented under the following sub-Intermediate Results (IRs):

Sub IR 1: Improved natural resource management at the landscape scale
Sub IR 2: Increased benefits from environmentally friendly enterprises for women and youth:
Sub IR 3: Climate resilience measures adopted by communities increased
Sub IR 4: Well-being of targeted beneficiaries improved
Sub IR 5: integrated natural resource management policy applied

Section 1 covers the background and program description; Section 2 provides an overview of the Country and Environmental Information; Section 3 provides an evaluation project activities with respect to of the potential environmental impacts, Section 4 provides recommendations of threshold environmental determination and mitigation measures for them; Section 5 describes environmental monitoring and compliance assurance responsibilities for USAID/Tanzania’s Natural Resources and Water portfolio.

RECOMMENDED ENVIRONMENTAL DETERMINATIONS:

1 Categorical Exclusion: Recommended

A Categorical Exclusion is recommended for all activities on policy-related studies, research, training, capacity building and similar activities to be implemented through a cooperative agreement, under all policy interventions to be carried out under Sub IR 5.1 as well as landscape scale interventions such as ecological monitoring, research, General management plan (GMP) development and similar interventions under Sub IR 1, Sub IR.2, Sub IR 3 and Sub IR 4, except to the extent that the activities directly affect the biophysical environment, pursuant to:
a) 22 CFR 216.2(c) (2) (i), for activities involving education, training, technical assistance or training programs;
b) 22 CFR 216.2(c) (2) ii) Controlled experimentation exclusively for the purpose of research and field evaluation which are confined to small areas and carefully monitored;
c) 22 CFR 216.2(c) (2) (iii), for activities involving analyses, studies, academic or research workshops and meetings;
d) 22 CFR 216.2(c) (2) (v), for activities involving document and information transfers; and
e) 22 CFR 216.2(c) (2) (xiv), for activities involving studies, projects or programs intended to develop the capability of recipient countries and organizations to engage in development planning

2 Negative Determination Threshold Decisions:

2.1 Land improvement and Watershed management:
A Negative Determinations with Conditions is recommended, pursuant to 22 CFR 216.3(a)(2)(iii), for the entire range of CBNRM livelihood improvement activities under Sub IRs 1, 2, 3 and 4 that are not covered by the above Categorical Exclusions.

Conditions: The SO 13 team and activity implementing partners shall ensure that improvements in land and integrated water resources management techniques do not cause destruction or degradation of natural habitat, including deforestation, desertification and drainage of wetlands; lead to loss of biodiversity; do not lead to the Introduction of exotic and non-native animals and plants; lead to erosion and loss of soil fertility, siltation of water bodies or reduction in water quality; or spread disease.

2.2 Credit schemes and Business Development Services (BDS):
A Negative Determination with Conditions is recommended, pursuant to 22 CFR 216.3(a)(2)(iii), Credit schemes –Development Credit Authority (DCA), loan funds, micro-finance institutions (MFIs), and micro-, small- and –medium enterprise support, Business Development Services (BDS).

Conditions: MSE credit and service providers are urged to institutionalize their own environmental reviews of credit and service projects and individual activities. MSE and environment guidelines can be used to improve the effectiveness, on a case-by-case basis, of reviewing and mitigating the adverse environmental impacts of MSEs, so there should be the inclusion of screening criteria in the loan provision process

2.3 Water and Sanitation activities:
A Negative Determinations with Conditions is recommended, pursuant to 22 CFR 216.3(a)(2)(iii) for water related activities
Conditions: To mitigate potential effects of inadequate drinking water quality, the Implementing partners shall prepare a Water Quality Assurance Plan (WQAP) that describes monitoring criteria, monitoring frequency, and measures for ensuring the safe provision of water to recipients. The Water Quality Assurance Plan shall describe how the partner intends to ensure safe drinking water and require the mandatory testing for arsenic. The new Water Quality Assurance Plan guidance document, currently under development by the USAID Bureau for Economic Growth, Education, and Environment (E3), should be considered during implementation. See Annex 3 for a sample template for WQAP Compliance, and for a sample WQAP, see http://www.usaidgems.org/Workshops/SouthSudan2013/3.%20Additional%20Resources/Gems%20sample%20WQAP.pdf. (Please consult the E3 BEO for the most recent version of this guidance document).

2.4 Public / private partnerships (PPP):
Pursuant to 22 CFR 216.3(a)(2)(iii) A Negative Determinations with Conditions is recommended for activities: Public / Private Partnerships.

Conditions: PPPs shall be subject to USAID due diligence processes. USAID credit enhancement assistance encourages financial institutions to make loans to SMEs that are engaged in environmentally friendly practices.

2.5 For any potential infrastructure activities:
Pursuant to 22 CFR 216.3 (a)(2)(iii) a Negative Determination with conditions is recommended for infrastructure activities. A key resource which should inform the SO and its implementing partners in their design and implementation of [these] activities are the USAID Sector Environmental Guidelines (SEGs) (http://www.usaidgems.org/sectorGuidelines.htm).

Conditions: The SO team should assure that implementing partners have access to these and other appropriate USAID environmental assessment resources. Such resources will help these partners to determine what potential impacts to guard against for different types of development activities in various settings.

2.6 Small scale construction:
Condition: The SO 13 team shall ensure rehabilitation of existing facilities and construction of facilities in which the total surface area disturbed is less than 10,000 square feet (1000 m²), the total cost is less than $200,000, the construction is not done in protected areas or other environmentally sensitive areas and that these activities shall be conducted following principles for environmentally sound design and construction, as provided in the Small Scale Construction chapter of the USAID SEGs: http://www.usaidgems.org/Sectors/construction.htm.

For the construction of any facilities in which the total surface area disturbed exceeds 10,000 square feet (1,000 square meters), the program shall conduct a supplemental environmental review as set out by the AFR Environmental Review Form (ERF) (available at http://www.usaidgems.org/compliance.htm), according to guidance on the GEMS website Subsidiary Review page (http://www.usaidgems.org/subsidiary.htm). The ERF must specifically address the potential impacts identified in the above analysis of this activity. Construction will not begin until such a review is completed and approved by the Mission Environmental Officer.
2.7 **Road rehabilitation:**
A Negative Determinations with Conditions is recommended, pursuant to 22 CFR 216.3(a)(2)(iii) for activities involving minor feeder rural road construction and rehabilitation of old roads involving a total of less than 10 km. Rehabilitation larger than this scale (or construction of new roads of any size) would require an amendment to the IEE.

**Conditions:** In the event that tertiary road rehabilitation in protected areas and WMAs shall be considered under this SO, all such work shall be conducted in a manner consistent with the good planning, design and implementation practices described in the Rural Roads SEG: ([http://www.usaidgems.org/Sectors/roads.htm](http://www.usaidgems.org/Sectors/roads.htm)) Before support is provided for road rehabilitation in protected areas and WMAs, the SO Team will provide the BEO with the results of an evaluation demonstrating the effectiveness of the procedures and design standards proposed for use. If such an evaluation has not been conducted, then the SO Team will need to conduct one prior to support for such activities.

In addition, the formal AFR subproject/sub grant review process, as set out by the AFR Environmental Review Form (available at [http://www.usaidgems.org/compliance.htm](http://www.usaidgems.org/compliance.htm)) must be completed and approved prior to construction or rehabilitation of each road project. The ERF must specifically address the potential impacts identified in the above analysis of this activity.

2.8 **Biosafety & GMOs and Pesticides:**
This IEE does not cover genetically-modified organisms (GMOs) or life-modified organisms (LMOs). Any support for laboratory- or field-based research, multiplication, or dissemination of GMOs or LMOs shall be subject to prior review under the Agency's Biosafety procedures. The IEE also does not cover use of pesticides, including their procurement, use, transport, storage or disposal. For any use of agricultural pesticides, such as for crop protection, post-harvest commodity protection or for treating livestock ectoparasites, a Pesticide Evaluation Report and Safer Use Action Plan (PERSUAP) will be prepared, in accordance with AFR Bureau guidance and fulfilling all analytical elements required by 22CFR216.3(b), USAID's Pesticide Procedures.

2.9 **General Project Implementation and Monitoring Requirements:**
In addition, there are certain requirements that apply to all activities falling under the threshold determination of “Negative Determination with Conditions. These include: the IEE must incorporate into all contracts and grants language for use in solicitations and awards budget provisions will be made for environmental reviews, partners will complete annual environmental mitigation and Monitoring Report (EMMR), CORs/AORs and partners will jointly assess of the environmental impacts of ongoing activities, USAID/Tanzania will ensure that implementing partners have capacity to complete the environmental screening process, SO 13 will ensure adherence to GOT environmental laws and policies, and as required by ADS 204.3.4, the SO 13 team shall actively monitor ongoing activities for compliance with approved IEE recommendations, and modify or end activities that are not in compliance, monitoring and evaluation of the environmental effects. These conditions are explained in details under section 4.4
APPROVAL OF THE RECOMMENDED ENVIRONMENTAL ACTIONS

IEE for USAID/TANZANIA NRM & WATER PORTFOLIO FY 2013-2018

CLEARANCE:
USAID/Tanzania Mission Director: ___________________________ Date: 3/14/14

CONCURRENCE:
Bureau Environmental Officer: ___________________________ Date: 4/14/2014

Filename: TANZANIA/NRM_WATER_2013_2018 (USAID/AFR BEO)

ADDITIONAL CLEARANCES:
USAID/Tanzania Mission Environmental Officer: ___________________________ Date: 6/19/2014

EG/NRM Office Director: ___________________________ Date: 5/13/14

NRM Team Leader: ___________________________ Date: 5/10/2014

Regional Environmental Advisor: ___________________________ Date: 1/16/2013

Bureau Environmental Advisor (AFR/SD): N/A Date: ____________

OPTIONAL CLEARANCES:
General Counsel (Africa Bureau): N/A Date: ____________

Regional Legal Advisor: N/A Date: ____________

Distribution:
Project file
AOR and Activity Managers
EG/NRM Team Leader
APPROVAL OF THE RECOMMENDED ENVIRONMENTAL ACTIONS

IEE for USAID/TANZANIA NRM & WATER PORTFOLIO FY 2013-2018

CLEARANCE:
USAID/Tanzania Mission Director: ___________________________ Date: 3/14/14
Sharon L. Cromer

CONCURRENCE:
Bureau Environmental Officer: ___________________________ Date: __________
Brian Hirsch

Filename: ___________________________ (USAID/AFR BEO)

ADDITIONAL CLEARANCES:
USAID/Tanzania Mission Environmental Officer: ___________________________ Date: 6/9/2014
Gabriel Batulaine

EG/NRM Office Director: ___________________________ Date: 1/13/14
Mary Hobbs

NRM Team Leader: ___________________________ Date: 1/10/2014
Robert Layng

Regional Environmental Advisor: ___________________________ Date: 11/6/2013
David Kinyua

Bureau Environmental Advisor (AFR/SD): ___________________________ Date: __________
Tim Resch

OPTIONAL CLEARANCES:
General Counsel (Africa Bureau): ___________________________ Date: __________

Regional Legal Advisor: ___________________________ Date: __________

Distribution:
Project file
AOR and Activity Managers
EG/NRM Team Leader
1. BACKGROUND AND PROGRAM DESCRIPTION

1.1 Purpose and scope of this initial environmental examination (IEE)

This IEE consolidates the threshold determinations for current and new activities USAID/Tanzania intends to undertake using FY2013 – FY2017 resources to conserve biodiversity, to improve management of water resources and increase resilience to climate change. Activities will be carried out mainly under the Foreign Assistance Objective 4: Economic Growth, Program Areas 4.8, (Program Elements 4.8.1 and 4.8.2), and significant resources will be committed for activities under Objective 3: Investing in People, Program Area 3.1 (Program Element 3.1.8). This IEE replaces the previous SO 13 IEE Biodiversity Conserved in Targeted Landscape through a Livelihood-driven Approach. (35Tanzania_SO13_NRM_IEE.doc). This IEE provides a basis for Threshold Determinations for new program activities not covered under the previous IEE including: resilience to climate change, land and water management, and conservation based enterprise.

The IEE does not cover use of Genetically-modified organisms (GMOs) and/or life-modified organisms (LMOs), or Use of pesticides handling of which would require the preparation of a Pesticide Evaluation Report and Safer Use Action Plan (PERSUAP, in accordance with AFR Bureau guidance and fulfilling all analytical elements required by 22CFR216.3(b), USAID's Pesticide Procedures.

1.2 Background

USAID/Tanzania’s Environment, Natural Resources and Water (ENRW) Strategic Objective, SO 13: “Natural Resource-Based Livelihood Diversified and Improved” seeks to address the core goal of biodiversity conservation. However, in striving towards its achievement, the SO will increase focus on the well-being of rural populations by using economic and other livelihood incentives to promote environmental stewardship in general and landscape-scale conservation behavior in particular, among a diverse range of natural resource management practitioners and stakeholders in targeted landscapes.

By 2018, as a result of USAID investment in ENR, critical elements of Tanzania’s biological diversity will be better conserved and natural resources based livelihood diversified and improved. A broad range of stakeholders, from central government to local communities, will participate in both conservation and sustainable utilization efforts, and share equitably in benefits. Livelihoods will be enhanced through increased investment in emerging biodiversity-based economic opportunities. Along the coast, mariculture, fisheries, and tourism will prosper. Inland, new approaches to wildlife management will diversify and expand opportunities in the wildlife sector. Locally, thriving rural settlements will rely on abundant natural resources and biodiversity for their food and livelihoods. Nationally, the contribution of...
biodiversity to Tanzania’s gross domestic product (GDP) will grow, along with incentives and resources to conserve Tanzania’s valuable natural resource base.

The Environmental Threats and Opportunities Assessment (ETOA compiling environmental information, including data on degradation) conducted by the Mission in 2012 to inform the Country Development Cooperation Strategy (CDCS), identified degradation of elements of Tanzania’s natural resource and biodiversity assets as a critical problem jeopardizing Tanzania’s development potential. Degradation is being caused by a range of unsustainable use practices driven by factors such as: poverty; lack of appropriate NRM technologies; poor natural resource governance; and population growth. A number of trends underscore the nature of this problem:

- Conversion, loss, degradation, and fragmentation of natural habitats: Tanzania’s forests, valuable reservoirs of biodiversity and an important watershed resource critical for both human health and agriculture are being cleared at a rate of about 412,000 hectares per annum.

- Marine ecosystems are under severe stress, due to open access to coastal resources. Coral reefs at one to ten meter depths are generally degraded (overfishing, destructive fishing, sedimentation, nutrient loading and coral bleaching), particularly near urban areas. Mangrove vegetation has decreased (illegal cutting, expansion of rice growing, beach hotel development) slightly over the past ten years, eliminating valuable species habitat and causing beach erosion. Freshwater and marine fisheries are being exploited at high levels. Overharvesting of valuable species and by-catch in the near-shore areas.

- Conversion of open lands to agriculture in marginal, arid areas is undermining productivity of traditional pastoralist systems and the viability of wildlife dispersal areas and migratory corridors. Deteriorating pasture and water resources are forcing pastoralists into less productive livelihood strategies which are incompatible with wildlife, undermining the integrity of Tanzania’s wildlife-rich landscapes.

- Elephants and rhinos poaching levels are the worst in records and ivory trafficking to China and Thailand has dramatically increased in recent years. It is estimated that in Tanzania 30 elephants are killed per day. As measure to address the significant effect of wildlife trafficking the USG issued an Executive Order of July 01, 2013.

- Finally, Tanzania’s growing population offers little respite to the mounting pressures, doubling over the past 25 years (from 23.3 million in 1988 to 44.9 million in 2012) and projected to reach 63.5 million by 2025.

Reconciliation of the requirements of natural resource conservation with opportunities for long-term economic growth and poverty alleviation is inevitable. Such balance also requires attention to natural resource governance issues as a means to integrate conservation and development agendas. This will lead to sustainable achievement of biodiversity conservation, improved livelihoods, and good governance.

1.3 Results Framework for Tanzania Strategic Objective (SO) 13: Livelihood diversified and improved

The Natural Resource Management portfolio is linked to the proposed Economic Growth DO (Inclusive and sustainable economic growth in rural areas) and Results Framework through two high-level
indicators: “Per Capita expenditures of rural households (as a proxy for income) increased”, and “Number of women assisted by USG programs designed to increase access to productive economic resources”.

In addition, the portfolio is also linked to the EG Intermediate Result IR2: “Livelihoods Diversified and Improved” through proposed indicators 2.1: “Number of people with increased economic benefits from Natural Resources”; indicator 2.2 “Number of conservation-based SMEs developed through USG support”, and; 2.3 “Number of hectares of biological significance showing improved biophysical conditions”.

SO 13 will build on the foundation and opportunities established during the previous program, increasing focus on the well-being of rural populations, while retaining biodiversity conservation as its core goal. The program rationale rests on the linkage between environment and economic growth and poverty alleviation, and the challenge of sustainable management of Tanzania’s biodiversity assets. Through a livelihood diversified and improved approach that emphasizes improved governance of natural resources, the SO will generate results relevant to both US Government (USG) and Government of Tanzania (GOT) priorities in areas of conservation, economic growth, and governance.

The Results Framework is as provided in the following Sub-Intermediate Results (Sub-IRs).

**Sub IR 1: Improved natural resource management at the landscape scale**

**Illustrative activities:**

- Conserve key species by developing and expanding anti-poaching strategies;
- Create incentives for sound natural resource management by building capacity of key institutions at all levels in targeted landscapes (e.g. Water Users Associations - WUAs, WMA AA, etc.) for participatory decision-making, strengthened legal enforcement, public accountability, revenue sharing approaches and advocacy;
- Build capacity of key institutions, organizations, associations and groups to understand and respond to projected impacts from climate variability and increased demand on natural resources;
- Strengthen data-based management capacity to register, monitor, and enforce water rights /water permitting;
- Provide technical support as needed to USAID/Tanzania FTF programs focused on irrigation expansion with respect to social and environmental sustainability and climate resilience of proposed programs;
- Support improved meteorological, hydrologic, and socioeconomic data collection, harmonization and management systems at the District and Basin level;
- Strengthen analytical and decision-support capacity of river basin organizations and government ministries, including creating flexible systems that allow organizations to adjust to changes in river flows and withdraws;
- Collaborate in analysis and policy advocacy to establish minimum environmental flow requirements in the Rufiji Basin, and continue efforts to institutionalize formal adoption of environmental flow requirements in the Wami-Ruvu River Basin.
Sub IR 2: Increased benefits from conservation-based enterprises for women and youth:
Illustrative activities:
- Strengthening of public-private sector partnerships for conservation-based investment and enterprise
development in the targeted areas;
- Increase access to credit and financing for conservation-based enterprises and microenterprises;
- Capacity developed to increase and strengthen wildlife and water management cooperatives and
associations;
- Promote alternative, environmentally sustainable livelihood opportunities to improve land and
resource management practices to reduce threats to biodiversity / ecosystem services in high value
upper watersheds, forests, corridors, wetlands, and deltas;
- Promote more sustainable use of forest and wetland resources by local communities;
- Promote involvement of WMA management in water/natural resource management planning (and
implementation);
- Strengthen linkages to economic opportunities in the local tourism value chain.

Sub IR 3: Climate resilience measures adopted by communities increased
Illustrative activities:
- Improve access to science and analysis for decision-making in weather prediction, hydrology, water
management and allocation;
- Build the scientific, technological and information management base/capacity for science-based
decision-making to minimize climate risks to agriculture and vulnerable coastal activities;
- Utilization of new technologies and techniques for improved decision-making among local
government, social service delivery units and economic industries;
- Implement pilot initiatives to decrease local risks from climate change.

Sub IR 4: Well-being of targeted beneficiaries improved:
Illustrative activities:
- Increase access to and availability of water for multiple-uses;
- Increase access and use of improved sanitation;
- Improve access to family planning and HIV/AIDS information and services;
- Scale up adoption of multiple-use services (MUS) models of water supply delivery, including both
‘domestic-plus’ and ‘irrigation-plus’ models;
- Provide Business Development Services (BDS) capacity to small-scale entrepreneurs providing goods
and services in domestic or MUS water supply, basic sanitation, hygiene products, and small-scale
irrigation technologies and services;
- Increase access to small-medium scale credit financing for entrepreneurs, service providers, and end
users to finance WASH/irrigation service delivery.
Sub IR 5: Enhanced and integrated natural resource management and policy applied in target landscapes

Illustrative activities:
- Support to governance structures including the National Environment Management Council, Wildlife Division and Wildlife Management Area support unit in the Wildlife Division, TAWA, Authorized Associations and the Authorized Association Consortium for the WMA’s and CBO capacity development in newly established WMAs;
- Develop key anti-poaching policy and implementation approaches for the wildlife assets across multiple protected area classifications and for use by multiple management authorities within and outside the Ministry of Natural Resources;
- Support participatory decentralized management processes which give communities greater access and decision-making authority over land management and resources. The program will also help to reduce land use conflicts, through Land Use Planning, Resource Zone Plans, and General Management Plans, which will support the decisions taken by communities on resource utilization and conservation to ensure future protection and sustainability;
- Research and ecological monitoring to further support spatial planning and management, and provide evidence-based data for improved decision making for policy and legislative development;
- Promote enabling environment and policy to encourage private sector engagement and market emerging conservation enterprises such as beekeeping, coffee production, sustainable agriculture, tree nurseries; craft shell jewelry, and tourism, all of which have great potential for increasing local incomes.
- Working with Government and communities to strengthen anti-poaching efforts and resource monitoring to protect and conserve species and their habitats.

2. COUNTRY AND ENVIRONMENTAL BASELINE INFORMATION

2.1 Country information

Tanzania is located between 1° and 12° south latitude and 30° and 40° east longitude. It lies within the tropical latitude; all its forests are tropical. Tanzania covers a land area of approximately 945,087 km² comprised of land area of 883,749 km², (881,289 km² mainland and 2,460 km² Zanzibar), plus 59,050 km² of inland water bodies. It has a population of 44,928,923 people and the growth rate is 2.7%. Of her population, 80% lives in rural areas and rely on natural resources for their livelihoods. However, the urban population in Dar es Salaam, Mbeya, Morogoro, Mwanza, Arusha and Tanga, cities is growing at an average rate of 3.1% per year.

Population growth, commercial expansion, and impacts from climate change, and poverty, are all threats to Tanzania’s biodiversity and the benefits associated with sustainable utilization of these and other natural resources. Furthermore, as these resources are the base of overall socio-economic development in

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1 Most of the information excerpted from the Tanzania Biodiversity Report (2009) and USAID Tanzania ETOA (2012)
2 United Republic of Tanzania (URT) (2006), the State of Environment Report
3 United Republic of Tanzania (2012), Population and Housing Census
4 ibid.
the country, this dependence, aggravated by poverty, lack of appropriate utilization-technologies, and ineffective governance of natural resources, has resulted in a tendency towards irrational and inefficient utilization of resources. The inevitability of using the natural resource base to attain socio-economic development goals and the poverty of resource users combine to pose a formidable challenge to sustainable development.

The climate of Tanzania is variable. Annual average rainfall ranges from 200 to 2000 mm, with most of the country receiving less than 1000 mm on average. Rainfall is unimodal in the southern and western parts of the country and bimodal in the northern, eastern, and northern coastal areas. Arid grasslands and savanna ecosystems that receive less than about 400 to 600 mm of rainfall on average extend south from Tanzania’s border with Kenya. Semi-arid areas with 500 to 800 mm of precipitation occupy large central and southeastern zones. Plateau zones (800 to 1500 m in elevation) in western and southern Tanzania support miombo woodlands.

Tanzania is endowed with a diverse base of natural resources which its population relies upon for survival and livelihood. These resources include forests, agricultural lands, rangelands, wildlife, fisheries, minerals and aquatic resources. The Government of Tanzania has recognized the importance of its natural resource base and has set aside for protection a network of protected areas which covers some 25% of the Mainland comprising of 14 National Parks (4.1%), 32 Game Reserves (10.4%), and 38 Game Controlled Areas (9.6%), the Ngorongoro Conservation Area (1%) and some marine reserves. In addition, there are 815 Forest Reserves totaling 15 million ha (about 45% of the forested area), the total area of natural forests is 33.5 million ha. These are areas of high biodiversity values and represent unique habitat of Tanzania.

Biological diversity or “biodiversity” which is the variety and variability of living organisms at three level of organization: genes, species, and ecosystem or ecological processes making up terrestrial, marine and other aquatic life; is one of the country’s greatest assets. The state of environment report shows that Tanzania possesses important populations of species that are globally endangered and threatened these include: Black rhinoceros, Wild dog, Chimpanzee, African elephant, Cheetah and Wattled Crane. In total, Tanzania harbours about 33 species of mammals, 30 species of birds, 19 species of fish and 46 species of invertebrates classified as globally threatened. Tanzania has also 293 species of reptiles in 104 genera and 21 families and most species have a wide distribution range. The number of bird species is 1065 of which 25 (2%) are endemic and mostly are forest-based species.

2.2 Environmental baseline information

Tanzania’s major ecosystems includes: terrestrial, fresh water and wetlands, marine, and agricultural.

The terrestrial ecosystem includes the natural forests which cover 33.5 million ha consisting of:

- The grassland savanna and woodland savanna and bushland plant communities distributed across about 25 million ha of northern and central Tanzania. *Acacia-Commiphora* woodlands and the associated herds of large mammals represent one of Africa’s most iconic ecosystems. These ecosystems are key features of World Heritage Sites and Biosphere Reserves at Serengeti

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5 USAID (2005). Tropical Forestry and Biodiversity (FAA 118 and 119) Analyses
7 ETOA (2012)
National Park and the Ngorongoro Conservation Area where ungulate migrations track cyclical wet and dry seasons.

- Miombo woodlands which cover about 40% of Tanzania’s land area. Miombo woodlands are home to chimpanzees, in the Gombe Stream National Park in western Tanzania, and some of the largest known populations of African elephants and African wild dogs. The Selous Game Reserve is mainly of dry miombo woodland. The Selous and adjacent Kilombero Valley have, along with Moyowosi, Rukwa Valley, Itigi Thicket, been identified as areas of particular conservation interest for Tanzania’s miombo ecoregion.

- The coastal forests – natural vegetation of the Zanzibar-Inhambane Coastal Forest mosaic, that extends from Kenya to Mozambique, is comprised of both dry, scrub, *Brachystegia*, forest types as well as riverine, groundwater, and swamp types.

- The Montane forests which cover an areas of 2 million ha are located in the Eastern Arc Mountains, a chain of 13 separate blocks formed on crystalline bedrock that contain some of the highest densities of endemic plant and animal species in the world. The Eastern Arc Mountains forests contain at least 800 endemic vascular plant species. It is among the World’s top 25 biodiversity hotspots and conservation priority areas. Other montane forests occur on the slopes of Kilimanjaro, Meru, Livingstone and Rungwe mountains.

The freshwater and wetlands ecosystem of Tanzania include: rivers, freshwater lakes namely, Lake Victoria, Lake Tanganyika, Lake Nyasa, Lake Rukwa and Lake Chala, Saline lakes, Natron, Manyara, and Eyasi, are found in the Rift Valley. The nine major river basins are: Lake Victoria, Lake Tanganyika, Lake Rukwa, Internal drainage, Pangani, Wami Ruvu, Rufiji, Ruvuma and Southern coast. About 10% of the country’s land is covered by wetlands. The Kilombero Valley Floodplain wetland and Ramsar site covers an area of about 797,000 ha. The valley contains almost 75% of the world's population of the wetland-dependent Puku antelope *Kobus vardonii*. This antelope is now only found in 18 locations in Africa and its survival, as a species, is dependent on the Kilombero Valley population. Three endemic birds are known: the Kilombero weaver, *Ploceus burnieri*, and two undescribed species of *Cisticola*. In the wet season it is an essential spawning area for many kinds of fish in the Rufiji River system of which two endemic species *Citharinus congicus* and *Alestes stuhlmanni* are dependent on the Kilombero floodplain. The Kilombero Wetlands are an important source of livelihoods for the majority of dwellers in the area.

The coastal and marine ecosystems of Tanzania occupy an area of about 241,500 km² (about 20% of Tanzania). The coastal and marine ecosystem has various species that makes this segment of the environment rich in biodiversity. Biodiversity found in this ecosystem include fish resources, coral reefs, sea turtles, marine mammals, sea grasses and plankton. Mangrove forests are found in all coastal districts of Tanzania. Nine species of mangroves are found in mainland Tanzania and Zanzibar. The largest continuous mangrove forests are in the districts of Rufiji, Kilwa, Tanga-Muheza, and Mtwara. The Rufiji Delta supports the largest mangrove forest in East Africa; it has a total of 53,000 ha of mangrove forests, which is equal to 52% of mangrove forests in the country. Mangroves serve as feeding, breeding, and nursery grounds for a great variety of invertebrates and fish, many of which move out into the ocean during their adult stages.

Agriculture is the foundation of the Tanzanian economy. It accounts for about half of the national income (50% GDP), 75% of foreign earnings, three quarters of merchandise exports, is a source of food, and provides employment to about 80% of Tanzanians. Nearly 80% of the poor in Tanzania are in rural areas and depend on the sale of agricultural products for 75% of their household cash income. Agriculture in Tanzania is dominated by smallholder farmers cultivating farms of less than three hectares, and is mainly rain-fed, not irrigated, agriculture. Maize is the country’s main subsistence crop and is grown by more
than 50% of Tanzanian farmers and is found in all regions of the country. Rice is the second most important staple in Tanzania. Other major food crops include sorghum, millet, wheat, pulses, cassava, potatoes, bananas, plantains, sugar, groundnuts, sesame, coconuts, and soybeans. Tanzania has over 2.3 million ha of high potential land for irrigation, but only 289,245 ha are developed due to high investment costs.

2.3 SO 13 Geographic focusing (by the program objectives)

The program interventions aims at achieving IR 2 that is Natural resources –based livelihoods diversified and improved, it will contribute results and impacts to the USAID/Tanzania’s development objectives of inclusive and sustainable economic growth increased in rural areas (DO 1).

This IEE SO 13 is being prepared when formal determination on SO 13’s geographic focus is yet to be done. However, based on the Environmental Threats and Opportunities Assessment (ETOA) report, and the Country Development Cooperation Strategic (CDCS), it is likely that about 70% of the SO 13 programming will target the southern agricultural corridor of Tanzania (SAGCOT) area including Rufiji Water Basin, Coastal zone and Zanzibar and; it will continue investing in northern, western and southern landscapes with critically endangered ecosystems. These are: the Tarangire/Lake Manyara ecosystem in the northern Tanzania, the Gombe-Masito Úgalla ecosystem in western Tanzania and Ruaha ecosystem in southern Tanzania.

The Rufiji Basin\(^8\) covers an area of 177420 square kilometers (about 20% of Tanzania). The Rufiji Basin comprises of four major rivers namely: the Great Ruaha River, the Kilombero River, The Luwengu River, and the Rufiji (lower part of main river). Located in the Rufiji Basin are four National Parks (Kitulo, Ruaha, Mikumi and Udzungwa), at least 6 game reserves, (Selous, Rungwa, Usangu, Mpanga/Kipengere, Lunda, Kilombero) and about 82 forest reserves covering an area of 23,200 km\(^2\). The basin includes the Rufiji Delta, the coast line and Mafia Island. The famous Kihansi Golden Toad globally found only in the Kihansi River falls Gorge is in the Rufiji Basin. The Rufiji river drains into the Indian Ocean at Mafia Channel.

Tanzania's coastline lies within an 800 km stretch along the Western Indian Ocean. This strip of land and water encompasses a diversity of ecosystems, including sandy beaches, rocky out crops, coral reefs, sea grass beds, islands and extensive mangrove stands. Tanzania coastal ecosystems are of great importance to the well-being of coastal communities. The coast also has great significance to the nation's economic development. For example, tourism, fishing, shipping, mariculture, salt mining, natural gas, and urban development are viewed by national government as important economic opportunities. Along this stretch there are five administrative regions which encompasses thirteen (13) coastal districts. This coastal area is home to about a quarter of the country's population. About eight million people, live in coastal regions, most of these live in coastal villages, with little access to infrastructure or services. They depend on coastal resources for food, security and very modest livelihoods.

The five coastal regions contribute about one third of the national Gross Domestic Product (GDP). They are rich in natural resources and currently contribute more than a proportionate share of the nation's income. The coast also contains resources that will be the engine for the nation's development. Coastal

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\(^8\) Information based on Rufiji Basin Water Offices: Email info@rufijibasin.com, box, 1798, Iringa, Tanzania
tourism, mariculture development, agriculture, and natural gas exploitation are just beginning. These resources are seen as potential activities for national economic development and the gradual improvement of the quality of life of coastal communities. The challenge is to maintain and improve the resource base on which the rural coastal economy depends, while developing new economic opportunities in ways that benefit the people of the coast and the nation as a whole.

Zanzibar consists of terrestrial and marine flora and fauna. Its floral vegetation is among the coastal forests of eastern Africa. Zanzibar has many marine parks ecosystems which are protected for their biodiversity. These parks have abundant tropical fish species; sea grasses beds, coral reefs and mangrove forests. Menai Bay conservation area in the south west of Unguja, the main island of the Zanzibar Archipelago covers almost 500 square kilometers. It is the largest conservation area in Zanzibar managed locally by community and government officials.

Tarangire National Park is the fourth largest park in Tanzania with one of the highest densities of elephants in the country. It is part of Tanzania's popular northern tourist circuit that includes Arusha, Mt. Kilimanjaro, Lake Manyara, and Serengeti National Parks as well as Ngorongoro Conservation Area. Lake Manyara National Park is located north of Tarangire National Park. The park is small and thus best considered as part of a larger ecosystem. The park contains a large soda lake, which provides crucial habitat for exceptional numbers of birds including Flamingos. The park also has large numbers of macrofauna including elephant, buffalo, hippopotamus, giraffe, wildebeest, and zebra.

Gombe-Masito-Ugalla ecosystem includes Gombe National Park in the north, Masito and Ugalla forests in the south and the corridor that joins the two ecosystems. The ecosystem provides the habitat for between 600 and 1,000 chimpanzees, which is about 25 - 40% of Tanzania’s entire chimpanzee population. The Chimpanzees serves as a key umbrella or focal species for many other plants and primates such as the red colobus monkey, blue monkey, redtail monkey, vervet monkey, yellow and olive baboons and bushbabies found in this ecosystem.

The 40,000 square km Ugalla ecosystem comprises Ugalla Game Reserve (UGR), adjacent buffer zones and neighboring communities in Tabora, Sikonge, Mpanda and Urambo districts. It encompasses important forests and grasslands that serve as habitat for a diverse assembly of wildlife. Natural resources utilization activities, by residents as well as non-residents in the ecosystem include bee-keeping, seasonal fishing in the Ugalla river and licensed trophy hunting. UGR is one of the lesser-known game reserves of Tanzania. Located in miombo woodlands, it is isolated and away from all major routes. Ugalla Game Reserve serves as a link in the long but disjointed span of protected areas in western Tanzania. Ugalla Game Reserve is home to a wide variety of flora and fauna. One of Ugalla's most notable species is sable antelope. The Reserve is also home to leopard, lion, cheetah, elephant, crocodile, eland, buffalo, waterbuck, zebra, and redbuck. The Reserve also contains valuable timber species.

2.4 Environmental laws policies and procedures

2.4.1 Environment and Natural Resources

Biologically, Tanzania is one of the wealthiest nations on earth. Its diverse terrestrial, marine, and freshwater landscapes provide habitat for an array of plant and animal species: it is home to the fifth largest number of species and the third largest elephant population in Africa. Tanzania boasts many internationally recognized biologically rich areas, including several World Heritage Sites, Man and
Biosphere Reserves, and Ramsar Wetlands. It is a “megadiversity” country – one of a few nations that together account for a disproportionately large percentage of global biodiversity. Over 25% of Tanzania’s territory enjoys some level of protective status, including nearly 15% of which has been set aside for the express purpose of biodiversity conservation. The country’s well-protected, spectacular wildlife estate places it among Africa’s premiere tourism destinations, with the sector’s average annual growth currently at 20%, and its contribution to GDP was about 17.5% in 2012. Eighty-five percent of Tanzanians depend entirely on the management of natural resources for their livelihood. Natural resource-based activities such as agriculture, livestock-raising, forestry, fisheries, mining, and nature based tourism have promising futures as engines for Tanzania’s long-term economic growth, but only if Tanzania invests in these sectors in a sustainable fashion. The importance of biodiversity and wildlife to Tanzania’s development is understood at a fundamental level by Tanzanian policy makers and farmers alike. This recognition – from topmost levels of government (see Nyerere’s renowned 1961 Arusha Manifesto9), to an appreciation and awareness by the citizenry on their interdependence with Tanzania’s natural resources, has created a national pride by Tanzanians for their country’s natural resource endowment – at a level that has few peers in Africa.

Over the past twelve years the Government of Tanzania has embarked on a process of policy reform that had led to local communities having greater involvement and authority in the management of natural resources - including wildlife. The approach has significant lead to the modification of existing legal and structural relationships, requiring changes in laws and land use designations to accommodate greater local control. The Government recognizes that decentralization and devolution of governance and fiscal powers and responsibilities to lower levels of government and rural communities - would, on balance, be better for natural resources management and sustainable economic development. The Government recognizes that it has insufficient human and financial resources to manage resources that are becoming increasingly under threat from a growing population. The Government also understands that moving toward a new management process requires building capacity of local governments and communities in resource management and defining the roles and relationships of local organizations vis-à-vis central government.

Under the previous Country Strategic Plan for Tanzania USAID worked with the Government of Tanzania and other donors to support implementation of the Wildlife Policy (1998) and Environmental Policy (1997) by promoting policy development and capacity building at both central and decentralized levels for improved environmental management and sustainable development. The Policy objective was to foster the involvement of local communities in the management of wildlife through the establishment and functioning of Wildlife Management Areas (WMAs). WMAs represent a new category of land use that is supposed to be run and managed by communities with explicit objective of accruing benefits and improving livelihoods whilst enhancing conservation. The programme key target has been the development and implementation of 19 functioning WMAs and 20 at various stages of development in selected areas through direct intervention and in cooperation with other partners in the SO13 programme and GTZ, DANIDA and Frankfurt Zoological Society (FZS). Recent evaluation of the WMAs has registered success and pointed areas for improvement. This programme is also supporting the preparation

9 The terms “wildlife” and “biodiversity” are used interchangeably in Tanzania. Wildlife is defined as follows: “Wildlife means those species of wild and indigenous animals and plants, and their constituent habitats and ecosystems, to be found in Tanzania...” (Wildlife Policy of Tanzania, 1998)

10 “The survival of our wildlife is a matter of grave concern to all of us in Africa. These wild creatures amid the wild places they inhabit are not only important as a source of wonder and inspiration but are an integral part of our natural resources and our future livelihood and well being.”

“In accepting the trusteeship of our wildlife we solemnly declare that we will do everything in our power to make sure that our children's grand-children will be able to enjoy this rich and precious inheritance.”

“The conservation of wildlife and wild places calls for specialist knowledge, trained manpower, and money, and we look to other nations to co-operate with us in this important task, the success or failure of which not only affects the continent of Africa but the rest of the world as well.” (Mwalimu J. K. Nyerere, 1961)
of monitoring indicators and monitoring plans for the implementation of WMAs and also, continued with sensitization of district officials on the WMAs.

Significant progress has been made over the past six years, in strengthening institutional and legal framework for environmental management in Tanzania. A number of progressive NRM policies, laws and devolution of authorities have been promulgated, and several key sector policies to better reflect environmental concerns, including biodiversity conservation were revised. A National Environmental Action Plan and National Environmental Policy, key foundational pieces of the improved framework, were adopted in 1997. An Institutional and Legal Framework for Environmental Management was adopted in 2002. Local government reform has increased responsibilities of local authorities, so that most services, including environmental management, are to be delivered at the district level or below. Furthermore, key policies and laws pertaining to management and sustainable utilization of natural resources and devolution of authority have been promulgated, including: Wildlife Policy 1998; Land Act 1999; Village Land Act 1999; National Tourism Policy 1999; Forest and Bees Acts 2002; and the National Coastal Strategy 2002. The National REDD+ Strategy 2010, An array of subsidiary legislation to implement these new policies is in place.

Notwithstanding such impressive progress on a sound and progressive legal framework, implementation on the ground has been uneven. While local authorities welcome an increased role in natural resource governance, their performance is severely hampered by limited human and financial capacity. In addition, given the highly lucrative nature of some natural resource sub sectors, not all stakeholders of the “old” paradigm are anxious to see a new status quo. In Tanzania, recognition of environmental impact assessment (EIA) in supporting sustainable development is demonstrated in a series of official policies and strategies, such as the 2005 Environmental Management Act, the National Conservation Strategy for Sustainable Development (NCSSD), the National Environmental Action Plan, the National Environmental Policy (December 1997), National Parks Policy, Wildlife Policy and Forest Policy. All call for the use of EIA as a key policy implementation and development tool. Several initiatives have also been taken by government institutions and donors to operationalize the use of EIA in development planning.

2.4.2 Water

Tanzania has placed much emphasis on improving its management of water resources and addressing problems of water supply and sanitation. It subscribes to the UN Millennium Development Goals with a pledge to reduce by half by the year 2015 the proportion of people who do not have sustainable access to safe drinking water. Tanzania’s Development Vision 2025 targets access to safe water to rise from 50% to 90% by 2025.

Water supply and Management and policy are based on the National Water Policy (NAWAPO) adopted in 2002. The NAWAPO of 2002 was introduced in response to water resources management challenges and is developed around the principles of Integrated Water Resources Management (IWRM) and proposes: devolution of responsibility for operational matters to River/Lake Basins and catchments; greater reliance on a multi-sectoral approach; treating water as a social and an economic good; and according second priority to environmental uses of water (basic human needs are the first priority). The environmental aspects of NAWAPO include provision of water for environmental flows, improved control over pollution through requirements for pollution permits and establishment of water quality
standards, reductions in diffuse source pollution through education, and promotion of water conservation and recycling.

The policy defines the future direction for the water sector in achieving sustainable development an utilization of the Nation’s water source and in increasing the availability of water supply and sanitation services, emphasizes collaboration and coordination mechanisms among various sector based on River Basins as a planning unit and promotes participatory processes and puts emphasis on community involvement in the management of water schemes. The National Strategy for Growth and Reduction of Poverty (NSGRP II) of 2010or MKUKUTA II recognizes a need for integrated management of water resources, where users of water collaborate in planning, allocation and use of water in various productive activities. The Water Sector Development Programme (WSDP) and the new Water Resources Management Act (2009); provide the overarching framework through establishment and strengthening of basin-level water resource institutions

3. EVALUATION OF PROJECT /PROGRAM ACTIVITIES WITH RESPECT TO ENVIRONMENTAL IMPACT

Under SO 13 a number of activities (see section 1.3 above, and also table 1 in section 4.1) will be implemented involving analyses, studies and information transfers, education, technical assistance and training, and support for some intermediate credit institutions. Also all activities under Sub-IRs 1 and 5 address development (including evaluation, harmonization and integration) and application of key environment natural resources policies and laws. These would not have any direct biophysical impacts on the environment. On the other hand, other proposed activities do have a potential for negatively impacting the environment.

Following is an overview of issues with respect to impact potential by Sub-IR categories. Mitigation measures and specific threshold determinations are detailed later Table 1 and section 4:

Sub IR1: Improved natural resource management at the landscape

This IR seeks to promote community-based land and water resource management approaches; enhanced conservation of biodiversity through improved land use utilization and management practices; integration of NRM plans, to build capacity for planning, management, and implementation, and otherwise ensure that conservation is practiced at a scale most meaningful for effective biodiversity conservation, i.e., at the landscape scale. Activities will specifically involve building capacity of both the NRM institutions and the NRM actors for participatory planning and natural resources management within and across management units, such as communities, village forest reserves, wildlife management areas, fisheries management areas, districts, national parks, land trusts, etc. Priority areas for capacity building will be set using appropriate audit and needs assessment methodologies. While no significant direct impacts are foreseen in relation to the type of capacity building expected under this IR, methodologies for training will be carefully reviewed to anticipate and mitigate against potential adverse effects. The IR will also engage in land use planning and mapping to support formulation of plans for natural resource area management, and establishment of baseline for regular monitoring of area under conservation management trends over time. No adverse impacts are expected from these interventions.
Sub IR 2: Increased benefits from conservation based enterprise for women and youth

The Sub-IR seeks to protect natural resources through livelihood driven approaches. This will include assisting communities to develop sustainable conservation-based tourism and micro-enterprises, as alternative livelihood solutions to improve social and economic development; promoting equity and gender based inclusiveness by encouraging participation of women and youth, with the goal of introducing and supporting increased economic opportunities and greater decision making authority for these groups; supporting the growth of conservation-based enterprises, as well as the development, management and marketing of environmentally friendly microenterprises for products such as honey, coffee, other food commodities, and handicrafts. The program will also support increased capacity in sustainable production and marketing of locally made pumps and drills for access to clean water and sanitation in rural villages. Support will also be given to establish Saving and Credit Cooperative Societies (SACCOS) to support increased access to credit and financing for establishment of microenterprises.

Credit and service providers are urged to institutionalize their own environmental reviews of credit and service projects and individual activities. Medium and Small Enterprises (MSE) and environment guidelines can be used to improve the effectiveness, on a case-by-case basis, of reviewing and mitigating the adverse environmental impacts of MSEs, so there should inclusion of screening criteria in the loan provision process. All and any activities relating to the expansion of microfinance and or micro enterprise shall be subjected to environmental review.

Sub IR 3: Climate resilience measures adopted by communities increased

The Sub IR seeks to ensure sustainability across sectors and to protect investments in agriculture, water supply and sanitation, and biodiversity conservation and recognizes the important role that climate change adaptation can have on development outcomes. Current climate change forecasts for East Africa predict increases in temperature and rainfall variability, more flooding and droughts, and sea level rise in the coming years. These increases will affect not only people’s ability to grow food but also more generally the natural resource base upon which most economic activities depend. Under this Sub-IR, formulation of USAID/Tanzania’s strategy of engagement on climate change adaptation nationally will be based on significant vulnerabilities identified for the important agricultural sector and coastal economic activity. The program will invest resources in the Southern Agricultural Growth Corridor of Tanzania (SAGCOT), a priority region for agricultural green growth for both the Government of Tanzania and donors, (including DFID, Norway and the World Bank) and where USAID’s Feed the Future initiative is investing heavily in irrigation. No adverse impacts are expected from these interventions.

Sub IR 4: Well-being of targeted beneficiaries improved:

The Sub-IR targets to provide clean water, hygiene and sanitation services for Tanzanians. The water, sanitation and hygiene (WASH) program component will be targeted to the Rufiji Water Basin and will take a holistic approach to water and sanitation supply, addressing both the supply and demand side of service provision. This program will use an innovative multiple-use water services (MUS) approach, integrating water service provision and community-led total sanitation in a coordinated framework to achieve sustainable and equitable improvements in access to water, income, health, hygiene, and food security. The Sub-IR seeks to promote larger watershed management approach, which identifies and protects important drinking water source areas, ensures water to downstream communities and
ecosystems, incentivizes more sustainable agriculture practices, and protects water quality from source to point-of-use. All and any activities relating to the clean water, hygiene and sanitation services shall be subjected to environmental review.

Sub IR 5: Enhanced and integrated natural resource management and policy applied in target landscapes:

The Sub IR seeks to improve and harmonize Tanzania’s ENRW policy and legal framework while building capacity of government and civil society actors at all levels to carry out the policies and laws in an accountable and increasingly participatory manner. Under this Sub IR, the development and application of key policies and legislation to provide the legal basis for promoting decision making and conservation of biodiversity through improved land use utilization and management practices, and promoting conservation enterprises and income generating opportunities, to help alleviate poverty and sustain biodiversity is critical. Attention shall be paid to institutional and governance issues, and civil society shall proactively participate in shaping Tanzania’s future for governance of natural resources, and all institutional actors shall thrive under a new paradigm for NRMW that emphasizes local management and benefits. The sub-IR shall promote efforts to “mainstream” environment into key GOT development policies, such as the Poverty Reduction Strategy II, (i.e.MKUKUTA II) as well as key sector strategies, such as the National Water Development Sector Strategy, and Agriculture Sector Development Strategy. It will also strengthen civil society organizations (e.g., youth and women groups; Associations of CBOs; local and national ENRW NGOs, other CBNRM groups, etc.) that propagate and advocate for integrated NRM and IWRM approaches, and Support revision of legislation to increase transparency and reduce legal conflicts, as in the Hunting Regulations and Photographic Tourism Regulations. No direct environmental impacts are anticipated in association with these activities.

Each activity therefore, shall require environmentally-sound design and assessment to determine the specific nature and magnitude of potential impacts and where adverse impacts may exist the need to mitigate effects and monitor for unforeseen changes in the environment/natural resource base.

The SO 13 program will be implemented through grants and contracts with private voluntary organizations (PVOs) and firms, identified through competitive solicitations. A number of U.S. PVOs with a presence in Tanzania have either a specific mandate for or experience in NRMW. A number of these PVOs have had active involvement in implementation of USAID’s environment program in the past and have their own ongoing environmental projects in Tanzania. Such presence translates into advantage for SO 13, which can use its limited financial resources to support a significant program through a mostly grants-based approach. Of critical importance to the success of the SO will be identification of the most relevant target landscapes for investment.
4 RECOMMENDED THRESHOLD DETERMINATIONS AND MITIGATION MEASURES (INCLUDING MONITORING AND EVALUATION)

4.1 Recommended Threshold Decisions and Conditions

The recommended **Categorical Exclusions** and environmental **Threshold Decisions** and conditions are as given in **Table 1**. The relevant information on specific sectoral guidelines and references can be found on the USAID Africa Bureau Environmental Capacity Building (ENCAP) Website, [www.encapafrica.org](http://www.encapafrica.org), and the USAID Global Environmental Management Support (GEMS) Website [http://www.usaidgems.org/](http://www.usaidgems.org/).
Table 1.

<table>
<thead>
<tr>
<th>Strategic Objective (SO) 13: Livelihoods Diversified and Improved</th>
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<tbody>
<tr>
<td><strong>Program/Activity</strong></td>
</tr>
<tr>
<td><strong>Sub-IR 1: Improved natural resource management at the landscape</strong></td>
</tr>
<tr>
<td>• Conserve key species by developing and expanding anti-poaching strategies;</td>
</tr>
<tr>
<td>• Create incentives for sound natural resource management by building capacity of key institutions at all levels in targeted landscapes (e.g. Water Users Associations - WUAs, WMA AA, etc.) for participatory decision-making, strengthened legal enforcement, public accountability, revenue sharing approaches and advocacy;</td>
</tr>
<tr>
<td>• Build capacity of key institutions, organizations, associations and groups to understand and respond to projected impacts from climate variability and increased demand on resources;</td>
</tr>
<tr>
<td>• Strengthen data-based management capacity to register, monitor, and enforce water rights /water permitting;</td>
</tr>
<tr>
<td>• Support improved meteorological, hydrologic, and socioeconomic data collection, harmonization and management systems at the District and Basin level;</td>
</tr>
<tr>
<td>• Strengthen analytical and decision-support capacity of river basin organizations and government ministries, including creating flexible systems that allow organizations to adjust to changes in river flows and withdraws;</td>
</tr>
<tr>
<td>• Collaborate in analysis and policy advocacy to establish minimum environmental flow requirements in the Rufiji Basin, and continue efforts to institutionalize formal adoption of environmental flow requirements in the Wami-Ruvu River Basin.</td>
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</tbody>
</table>
- Provide technical support as needed to USAID/Tanzania FTF programs focused on irrigation expansion with respect to social and environmental sustainability and climate resilience of proposed programs;

<table>
<thead>
<tr>
<th>Sub IR 2: Increased benefits from conservation based enterprise for women and youth</th>
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<tbody>
<tr>
<td><strong>Program/Activity</strong></td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
</tr>
<tr>
<td>• Capacity developed to increase and strengthen wildlife and water management cooperatives and associations;</td>
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<tr>
<td>• Promote alternative, environmentally sustainable livelihood opportunities to improve land and resource management practices to reduce threats to biodiversity / ecosystem services in high value upper watersheds, forests, corridors, wetlands, and deltas;</td>
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<tr>
<td>• Promote more sustainable use of forest and wetland resources by local communities;</td>
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<tr>
<td>• Promote involvement of WMA management in water/natural resource management planning (and implementation);</td>
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<tr>
<td>• Strengthen linkages to economic opportunities in the local tourism value chain.</td>
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<tr>
<td>These activities will be subjected to a screening process, using the USAID SEGs and the mitigation and monitoring measures outlined in Section 4.3</td>
</tr>
</tbody>
</table>

Exclusions listed below
| Strengthening of public-private sector partnerships for conservation-based investment and enterprise development in the targeted areas;  
Increase access to credit and financing for conservation-based enterprises and microenterprises; | Services to emerging micro- and small enterprises, conservation based business opportunities, and credit scheme targeted to local communities shall be subjected to environmental screening | **Negative Determination, With Conditions pursuant to 22 CFR 216.3 (a)(2)(iii)**  
**Conditions:** SO Team shall assist MFI and MSE credit and service providers to institutionalize environmental reviews of credit and service projects and individual activities. MSEs & MFIs shall receive training in the use of environment guidelines. The guidelines will illustrate how environmentally sound practices can be used to improve the effectiveness and efficiency of doing business. |
## Sub IR 3: Climate resilience measures adopted by communities increased

<table>
<thead>
<tr>
<th>Program/Activity</th>
<th>Impact Issues &amp; Conditions, Mitigation Actions</th>
<th>Recommended Threshold Determination &amp; 22CFR 216 Citation</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Improve access to science and analysis for decision-making in weather prediction, hydrology, water management and allocation;</td>
<td>No further action is required. Best practices shall be included in all training materials and venues</td>
<td>Categorical Exclusion is recommended for all activities per 22 CFR 216.2 (c)(2)(i)</td>
</tr>
<tr>
<td>• Build the scientific, technological and information management base/capacity for science-based decision-making to minimize climate risks to agriculture and vulnerable coastal activities;</td>
<td></td>
<td>[education, technical assistance, training], (iii)</td>
</tr>
<tr>
<td>• Utilization of new technologies and techniques for improved decision-making among local government, social service delivery units and economic industries;</td>
<td></td>
<td>[analyses, studies, workshops and meetings] and (v)</td>
</tr>
<tr>
<td>• Implement pilot initiatives to decrease local risks from climate change.</td>
<td></td>
<td>[document and information transfer] and (xiv) [programs to develop capability of recipient countries and organizations in development planning].</td>
</tr>
</tbody>
</table>

## Sub IR 4: Well-being of targeted beneficiaries improved:

<table>
<thead>
<tr>
<th>Program/Activity</th>
<th>Impact Issues &amp; Conditions, Mitigation Actions</th>
<th>Recommended Threshold Determination &amp; 22CFR 216 Citation</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Increase access to and availability of water for multiple-uses;</td>
<td>These activities will be subjected to a screening process, using the USAID Sector Environmental Guidelines and The mitigation</td>
<td>Negative Determination, With Conditions pursuant to 22 CFR 216.3 (a)(2)(iii), regarding availability of water for multiple-uses, improving sanitation,</td>
</tr>
<tr>
<td>• Increase access and use of improved sanitation;</td>
<td></td>
<td>regarding availability of water for multiple-uses, improving sanitation,</td>
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<tr>
<td>• Improve access to family planning and HIV/AIDS information and services;</td>
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<tr>
<td>• Scale up adoption of multiple-use services (MUS) models of</td>
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</tbody>
</table>
water supply delivery, including both ‘domestic-plus’ and ‘irrigation-plus’ models;
- Provide Business Development Services (BDS) capacity to small-scale entrepreneurs providing goods and services in domestic or MUS water supply, basic sanitation, hygiene products, and small-scale irrigation technologies and services;
- Increase access to small-medium scale credit financing for entrepreneurs, service providers, and end users to finance WASH/irrigation service delivery.

and monitoring measures outlined in Section 4.3.
To mitigate potential effects of inadequate drinking water quality, the Implementing partners shall prepare a Water Quality Assurance Plan that describes monitoring criteria, monitoring frequency, and measures for ensuring the safe provision of water to recipients.

<table>
<thead>
<tr>
<th>Program/Activity</th>
<th>Impact Issues &amp; Conditions, Mitigation Actions</th>
<th>Recommended Threshold Determination &amp; 22CFR 216 Citation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sub IR 5: Enhanced and integrated natural resource management and policy applied in target landscapes:</td>
<td>No further action is required.</td>
<td><strong>Categorical Exclusion</strong> is recommended for all activities per 22 CFR 216.2 (c)(2)(i) [education, technical assistance, training], (iii) [analyses, studies, workshops and meetings] and (v) [document and information transfer] and (xiv) [programs to develop capability of...</td>
</tr>
<tr>
<td>• Support to governance structures including the National Environment Management Council, Wildlife Division and Wildlife Management Area support unit in the Wildlife Division, TAWA, Authorized Associations and the Authorized Association Consortium for the WMA’s and CBO capacity development in newly established WMAs;</td>
<td>Best practices shall be included in all training materials and venues.</td>
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<tr>
<td>• Develop key anti-poaching policy and implementation approaches for the wildlife assets across multiple protected area classifications and for use by multiple management authorities within and outside the Ministry of Natural Resources;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Support participatory decentralized management processes which give communities greater access and decision-making authority over land management and resources. The program will also help to reduce land use conflicts, through Land Use Planning, Resource Zone Plans, and General Management Plans, which will support the decisions taken by communities on resource utilization and conservation to ensure future protection and sustainability;</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
- Research and ecological monitoring to further support spatial planning and management, and provide evidence-based data for improved decision making for policy and legislative development;
- Promote enabling environment and policy to encourage private sector engagement and market emerging conservation enterprises such as beekeeping, coffee production, sustainable agriculture, tree nurseries; craft shell jewelry, and tourism, all of which have great potential for increasing local incomes.

Working with Government and communities to strengthen anti-poaching efforts and resource monitoring to protect and conserve species and their habitats.
4.2 Activities Recommended for Categorical Exclusion from further environmental review

A Categorical Exclusions is recommended for all work on policy to be carried out under Sub-IR 1, 3, and 5, except to the extent that the activities directly affect the environment (such as construction of facilities, water supply systems, waste water treatment, etc). Specifically, this is for activities covered by the following citations in Reg. 216, by subparagraph of 22 CFR 216.2(c)(2):

(i) Activities involving education, training, technical assistance or training programs;
(ii) Activities involving controlled experimentation exclusively for the purpose of research and field evaluation and carefully monitored;
(iii) Activities involving analyses, studies, academic or research workshops and meetings;
(v) Activities involving document and information transfers; and
(iv) Studies, projects or programs intended to develop the capability of partners to engage in development planning.

4.3 Activities Recommended for Negative Determination with Conditions

4.3.1 Watershed management and Land improvement:
A Negative Determinations with Conditions is recommended, pursuant to 22 CFR 216.3(a)(2)(iii), for the entire range of CBNRM livelihood improvement activities under Sub IRs 1, 2,3 and 4 that are not covered by the above Categorical Exclusions. For activities involving CBNRM, good-practice design and operation standards must be implemented, generally consistent with Chapter II of the USAID EGASSA at: http://www.encapfrica.org/EGSSAA/Word_English/cbnrm.doc. For activities involving land and water management improvement, watershed management, good-practice design and operation standards, specifically for erosion control, must be implemented, generally consistent with the Agriculture chapter of the USAID Sector Environmental Guidelines (http://www.usaidgems.org/Sectors/agriculture.htm).

There are 12 sector-specific guidelines and 6 micro and small enterprise briefings that are part of the USAID Sector Environmental Guidelines (http://www.usaidgems.org/sectorGuidelines.htm).

Conditions: The SO 13 team and activity implementing partners shall ensure that improvements in land and integrated water resources management techniques do not cause destruction or degradation of natural habitat, including deforestation, desertification and drainage of wetlands; lead to loss of biodiversity; do not lead to the Introduction of exotic and non-native animals and plants; lead to erosion and loss of soil fertility, siltation of water bodies or reduction in water quality; or spread disease.

For projects involving the construction or rehabilitation of irrigation schemes (<50 Ha irrigated area), the formal AFR subproject/sub grant review process, as set out by the AFR Environmental Review Form (available at http://www.usaidgems.org/compliance.htm) shall be followed according to guidance on the GEMS website, Subsidiary Review page (http://www.usaidgems.org/subsidiary.htm). http://www.encapfrica.org/compliance.htm.

The ERF must be completed and approved prior to construction or rehabilitation of any irrigation scheme and must specifically address the potential impacts identified in the above analysis of this activity. Construction will not begin until such a review is completed and approved by the Mission Environmental Officer. Rehabilitation or construction larger than this scale would require an amendment to the IEE.
4.3.2 Credit schemes and Business Development Services (BDS)
A Negative Determinations with Conditions is recommended, pursuant to 22 CFR 216.3(a)(2)(iii), Credit schemes, loan funds, micro-finance, and micro-, small- and –medium enterprise support, Business Development Services (BDS).

Conditions
MSE credit and service providers are urged to institutionalize their own environmental reviews of credit and service projects and individual activities. MSE & environment guidelines can be used to improve the effectiveness, on a case-by-case basis, of reviewing and mitigating the adverse environmental impacts of MSEs, so there should be scope for factoring in some screening criteria in the loan provision process.

The Mission shall ensure that the Guaranteed Party or Parties have environmental screening system sufficient to demonstrate compliance with local environmental laws and to enable USAID to make an assessment of the environmental impact of such activities and shall submit to USAID their proposed policies and procedures to assure that the projects financed are environmentally sound and comply with applicable laws and procedures. MSE credit and service providers are urged to institutionalize their own environmental reviews of credit and service projects and individual activities. MSE and environment guidelines can be used to improve the effectiveness, on a case-by-case basis, of reviewing and mitigating the adverse environmental impacts of MSEs, so there should be scope for factoring in some screening criteria in the loan provision process.

4.3.3 Water and Sanitation activities:
A Negative Determinations with Conditions is recommended, pursuant to 22 CFR 216.3(a)(2)(iii) for water related activities.

Conditions:
Water supply and sanitation activities should be conducted in a manner consistent with the good design and implementation practices described in the Water and Sanitation Sector Environmental Guideline, at http://www.usaidgems.org/Sectors/watsan.htm.

Water quality testing is essential for determining that the water from a constructed water source is safe to drink and to determine a baseline so that any future degradation can be detected. Simple and cost-effective sample kits for E. coli and fecal coliforms are available through a variety of manufacturers (e.g. Idexx Colilert or Coliscan Easygel) Among the water quality tests which must be performed are tests for the presence of arsenic.

Any USAID –supported activity engaged in the provision of potable water must adhere to Guidance Cable State 98 108651, which requires arsenic testing. That 1998 cable also anticipates ‘practical guidelines on sampling and testing for arsenic’ that were then under development. The new Water Quality Assurance Plan guidance document, currently under development by the USAID Bureau for Economic Growth, Education, and Environment (E3), should be considered during implementation. (Please consult the E3 BEO for the most recent version of this guidance document.) The SO 13 team must assure that the standards and testing procedures in this guidelines document are followed for potable water.
To mitigate potential effects of inadequate drinking water quality, the Implementing partners shall prepare a *Water Quality Assurance Plan* that describes monitoring criteria, monitoring frequency, and measures for ensuring the safe provision of water to recipients. The *Water Quality Assurance Plan* shall describe how the partner intends to ensure safe drinking water and require the mandatory testing for arsenic.

### 4.3.4 Public / private partnerships:

A Negative Determinations with Conditions is recommended, pursuant to 22 CFR 216.3(a)(2)(iii) public private partnerships.

**Conditions**

Public / private partnerships shall be subject to USAID GDA due diligence processes. USAID credit enhancement assistance encourages financial institutions to make loans to SMEs that are engaged in environmentally- friendly practices.

### 4.3.5 For any potential infrastructure (other than roads in PA and WMAs):

Pursuant to 22 CFR 216.3 (a)(2)(iii) a Negative Determination with conditions is recommended for infrastructure activities other than roads. A key resource which should inform the SO and its implementing partners in their design and implementation of [these] activities is the Sector Environmental Guidelines ([http://www.usaidgems.org/sectorGuidelines.htm](http://www.usaidgems.org/sectorGuidelines.htm)).

**Conditions:** The SO team should assure that implementing partners have access to these and other appropriate USAID environmental assessment resources. Such resources will help these partners to determine what potential impacts to guard against for different types of development activities in various settings.

### 4.3.6 Small scale construction:

**Condition:** The SO 13 team shall ensure rehabilitation of existing facilities and construction of facilities in which the total surface area disturbed is less than 10,000 square feet (1000 m²), is not done in protected areas or other environmental sensitive areas and that these activities shall be conducted following principles for environmentally sound construction, as provided in the Small Scale Construction chapter of the Sector Environmental Guidelines: [http://www.usaidgems.org/Sectors/construction.htm](http://www.usaidgems.org/Sectors/construction.htm).

For the construction of any facilities in which the total surface area disturbed exceeds 10,000 square feet(1,000 square meters), the program shall conduct a supplemental environmental review as set out by the AFR Environmental Review Form (ERF) ([available at http://www.usaidgems.org/compliance.htm](http://www.usaidgems.org/compliance.htm)), according to guidance on the GEMS website, Subsidiary Review page ([http://www.usaidgems.org/subsidiary.htm](http://www.usaidgems.org/subsidiary.htm)http://www.encapafrica.org/compliance.htm). The ERF must specifically address the potential impacts identifies in the above analysis of this activity. Construction will not begin until such a review is completed and approved by the Mission Environmental Officer.

### 4.3.7 Road rehabilitation:

A Negative Determinations with Conditions is recommended, pursuant to 22 CFR 216.3(a)(2)(iii) for activities involving minor feeder rural road construction and rehabilitation of old roads involving a total
of less than 10 km. Rehabilitation larger than this scale (or construction of new roads of any size) would require an amendment to the IEE.

**Conditions:** In the event that tertiary road rehabilitation in protected areas and WMAs shall be considered under this SO, all such work shall be conducted in a manner consistent with the good planning, design and implementation practices described in *Rural Roads Sector Environmental Guideline* (http://www.usaidgems.org/Sectors/roads.htm). Before support is provided for road rehabilitation in protected areas and WMAs, the SO Team will provide the BEO with the results of an evaluation demonstrating the effectiveness of the procedures and design standards proposed for use. If such an evaluation has not been conducted, then the SO Team will need to conduct one prior to support for such activities.

In addition, the project shall follow the formal AFR subproject/sub grant review process, as set out by the AFR Environmental Review Form (available at http://www.usaidgems.org/compliance.htm) according to guidance on the GEMS website, Subsidiary Review page (http://www.usaidgems.org/subsidiary.htmhttp://www.encapafrica.org/compliance.htm). The ERF must be completed and approved prior to construction or rehabilitation of any roads. The ERF must specifically address the potential impacts identified in the above analysis of this activity. Construction will not begin until such a review is completed and approved by the Mission Environmental Officer. Rehabilitation larger than this scale (or construction of new roads of any size) would require an amendment to the IEE.

**4.3.8 Biosafety and GMO and Pesticides**

**Biosafety & GMOs:** This IEE does not cover genetically-modified organisms (GMOs) or life-modified organisms (LMOs). Any support for laboratory- or field-based research, multiplication, or dissemination of GMOs or LMOs shall be subject to prior review under the Agency's Biosafety procedures.

**Pesticides:** The IEE also does not cover use of pesticides, including their procurement, use, transport, storage or disposal. For any use of agricultural pesticides, such as for crop protection, post-harvest commodity protection or for treating livestock ecto-parasites, a Pesticide Evaluation Report and Safer Use Action Plan (PERSUAP) will be prepared, in accordance with AFR Bureau guidance and fulfilling all analytical elements required by 22CFR216.3(b), USAID’s Pesticide Procedures. No funds shall be obligated or expended for the procurement or use of pesticides unless they are specifically approved through an amendment to this IEE in accordance with 22 CFR 216.3(b).

This IEE makes reference to the current PERSUAPs prepared for the Mission’s NAFAKA and TAPP programs under the FtF program at http://gemini.info.usaid.gov/egat/envcomp/repository/pdf/38800.pdf and http://gemini.info.usaid.gov/egat/envcomp/repository/pdf/38806.pdf. For any pesticides falling within these PERSUAPs, the respective Safer User Action Plan (SUAP) shall apply.

**4.4 General Project Implementation and Monitoring Requirements**

In addition to the specific conditions enumerated in Section 4.3, the negative determinations recommended in this IEE are contingent on full implementation of the following general monitoring and implementation requirements:

1. **IP Briefings on Environmental Compliance Responsibilities.** The SO13 team shall provide each Implementing Partner (hereinafter IP), with a copy of this IEE; each IP shall be briefed on
their environmental compliance responsibilities by their cognizant C/AOR. During this briefing, the IEE conditions applicable to the IP’s activities will be identified.

2. Development of EMMP. Each IP whose activities are subject to one or more conditions set out in section 4.3 of this IEE shall develop and provide for C/AOR review and approval an Environmental Mitigation and Monitoring Plan (EMMP) documenting how their project will implement and verify all IEE conditions that apply to their activities.

These EMMPs shall identify how the IP shall assure that IEE conditions that apply to activities supported under subcontracts and subgrant are implemented. (In the case of large subgrants or subcontracts, the IP may elect to require the subgrantee/subcontractor to develop their own EMMP.)


3. Integration and implementation of EMMP. Each IP shall integrate their EMMP into their project work plan and budgets, implement the EMMP, and report on its implementation as an element of regular project performance reporting.

IPs shall assure that sub-contractors and sub-grantees integrate implementation of IEE conditions, where applicable, into their own project work plans and budgets and report on their implementation as an element of sub-contract or grant performance reporting.

4. Integration of compliance responsibilities in prime and sub-contracts and grant agreements.

   a. The SO13 team shall assure that any future contracts or agreements for implementation of SO13 portfolio activities, and/or significant modification to current contracts/agreements shall reference and require compliance with the conditions set out in this IEE, as required by ADS 204.3.4.a.6 and ADS 303.3.6.3.e.

   b. IPs shall assure that future sub-contracts and sub-grant agreements, and/or significant modifications to existing agreements, reference and require compliance with relevant elements of these conditions.

5. Language for Use in Solicitations and Awards: The responsibility for implementing activities in accordance with the findings and conditions of this IEE must be incorporated into all contracts and grants that serve to implement activities covered under this IEE. Refer to the fact sheet “Environmental Compliance: Language for Use in Solicitations and Awards” for help in assembling appropriate, ADS-mandated environmental compliance language for all solicitations and awards [http://www.usaidgems.org/envCompProc.htm](http://www.usaidgems.org/envCompProc.htm), which links to the appropriate ADS 204 Helpfile? The solicitation language will draw upon the determinations in this IEE.

6. Assurance of sub-grantee and sub-contractor capacity and compliance. IPs shall assure that sub-grantees and subcontractors have the capability to implement the relevant requirements of this IEE. The IP shall, as and if appropriate, provide training to subgrantees and subcontractors in their environmental compliance responsibilities and in environmentally sound design and management (ESDM) of their activities.

7. SO13 team monitoring responsibility. As required by ADS 204.5.4, the SO13 team will actively monitor and evaluate whether the conditions of this IEE are being implemented
effectively and whether there are new or unforeseen consequences arising during implementation that were not identified and reviewed in this IEE. If new or unforeseen consequences arise during implementation, the team will suspend the activity and initiate appropriate, further review in accordance with 22 CFR 216. USAID Monitoring shall include regular site visits.

8. **New or modified activities.** As part of its Work Plan, and all Annual Work Plans thereafter, IPs, in collaboration with their C/AOR, shall review all on-going and planned activities to determine if they are within the scope of this IEE.

If SO13 activities outside the scope of this IEE are planned, the SO13 team shall assure that an amendment to this IEE addressing these activities is prepared and approved prior to implementation of any such activities.

Any ongoing activities found to be outside the scope of the approved Regulation 216 environmental documentation shall be modified to comply or halted until an amendment to the documentation is submitted approved.

9. **Compliance with Host Country Requirements.** Nothing in this IEE substitutes for or supersedes IP, subgrantee and subcontractor responsibility for compliance with all applicable host country.

### 4.5 Monitoring, Compliance Assurance and Reporting

This IEE is prepared and approved at the Strategic Objective level, and all USAID/Tanzania programs funded under the SO 13fall under its environmental threshold determinations. ADS 204.5.4 requires USAID/Tanzania and implementing partners to actively monitor activities based on the conditions in the IEE, and to modify or terminate activities that are not in compliance.

The USAID/Tanzania SO 13 Team will use an annual Environmental Mitigation and Monitoring Report (EMMR) to ensure programmatic compliance with 22 CFR 216 and ADS 204.5.4 by documenting that the conditions specified in this IEE have been met for all activities carried out under each bi-lateral award. The EMMR will be due in October each year. If the SO 13 Team or the program’s implementing partners propose that new activities, not described in this IEE, should be added to any award, an Environmental Screening Form (ESF) (and possibly an Environmental Review Report, ERR) must be prepared to examine potential environmental impacts the new activity. Annex 2 presents templates of these forms. If environmental screening and review reveal inconsistencies with the determinations of this IEE and/or if additional conditions are necessary to mitigate environmental impact during implementation of new, proposed activities, this IEE must be amended. The EMMR must be completed by each organization carrying out activities under a USAID/Tanzania SO 13 bi-lateral award. It will include the organization’s own report plus the EMMRs of any sub-awardees, to capture the entire range of activities funded by USAID/Tanzania under the bi-lateral award. The prime USAID/Tanzania bi-lateral implementing partners are responsible for ensuring that each sub-awardee completes and submits the EMMR to the prime in a timely fashion. The EMMRs are reviewed and approved by the CO/AOTR and the Mission Environmental Officer.

The EMMR consists of 3 parts:

1. The Environmental Verification Form
2. The Mitigation Plan for specific environmental threats carried out by the implementer,
3. The Reporting Form
The EMMR Environmental Verification Form
Because of the integrated nature of the USAID/Tanzania SO 13 portfolio, a single bi-lateral award (along with any sub-awards) often contains activities having different conditions required for prevention or mitigation of environmental impact. This form indicates the categories of activities carried out by implementing partners (or their sub-awardees) and serves to ‘trigger’ USAID expectations of mitigation measures.

The EMMR Mitigation Plan
Implementing partners will use the Mitigation Plan to describe the specific actions they will undertake under each category of activity when screening reveals potential environmental threats. In these cases, compliance with ‘Conditions’ and mitigation will be undertaken as described in Section 4.1 of this IEE. The Mitigation Plan also identifies the person responsible for monitoring compliance with mitigation and the indicator, method and frequency of monitoring.

The EMMR Reporting Form
This form reports on the results of applying the mitigation measures described in the Mitigation Plan and identifies outstanding issues with respect to required conditions. In some cases, digital photos will be the best way to document mitigation and should be included in the report.
Annex 1. ENVIRONMENTAL MONITORING AND MITIGATION (EMMP) & REPORT

EMMP Part 1 of 3: Environmental Verification Form

USAID/Tanzania Award Name: __________________________

Name of Prime Implementing Organization: _____________________________

Name of Sub-awardee Organization (if this EMMR is for a sub):
________________________________________

Geographic location of USAID-funded activities (Region, District):
________________________________________

Date of Screening:________________________

Funding Period for this award: FY____- FY____

Current FY Resource Levels: FY_______________

This report prepared by:

Name:_____________ Date: ____________

Date of Previous EMMR for this organization: _________________ (if any)

Indicate which activities your organization is implementing under SO 13 funding.

Key Elements of Program/Activities Implemented

<table>
<thead>
<tr>
<th>Activity Group</th>
<th>Group Description</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Technical assistance, training, training modules development, capacity building, workshops, media events, radio programs, creating awareness, organizational strengthening, civic education, policy reforms, legal and social services, and development of business plans and strategies</td>
<td></td>
<td></td>
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<tr>
<td>2</td>
<td>Micro credit, loans, MFIs and micro enterprises; loan guarantees, SACCOS</td>
<td></td>
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<tr>
<td>3</td>
<td>Biotechnology</td>
<td></td>
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<tr>
<td>4</td>
<td>Fertilizers, pesticides, construction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Water, Sanitation and Hygiene Activities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Sub-grants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Other activities that are not covered by the above categories</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### EMMR Part 2 of 3: Mitigation Plan

<table>
<thead>
<tr>
<th>Activity from Section 4 of SO 13 IEE</th>
<th>Describe specific environmental threats of your organization's activities (based on analysis in Section 4 of SO 13 IEE)</th>
<th>Description of Mitigation Measures for these activities as required in Section 4 of SO 13 IEE</th>
<th>Who is responsible for monitoring</th>
<th>Monitoring Indicator</th>
<th>Monitoring Method</th>
<th>Frequency of Monitoring</th>
</tr>
</thead>
<tbody>
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</tr>
</tbody>
</table>

### EMMR part 3 of 3: Reporting form

<table>
<thead>
<tr>
<th>List each Mitigation Measure from column 3 in the EMMR Mitigation Plan (EMMR Part 2 of 3)</th>
<th>Status of Mitigative Measures</th>
<th>List any outstanding issues relating to required conditions</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>
2.1 Recommended Planning Approach

Often, development activities proposed for support are presented and considered as discrete interventions, in isolation from other planned community developments. This linkage argues strongly for the adoption of an integrated approach towards activity planning and implementation. Although an integrated approach towards program planning and management is more complex and time-consuming "up-front," it will reap significant dividends over the longer term in the form of more cost-effective, sound and sustainable community investments and improved natural resources management. For maximum efficiency and effectiveness, these review procedures are intended to be applied within the context of development plans, natural resource management plans or land use plans developed for the areas in which the activities will take place.

2.2 Environmental Screening and Review

These environmental screening and review procedures specify how activities will be examined on in order to comply with the determinations (see Section 4 of the main body of the IEE) in accordance with the Agency's Environmental Procedures, Section 216.3(a)(2). These procedures are intended to result in environmental accountability and soundness, by requiring that USAID/Tanzania put in place specific mechanisms to ensure that interventions are designed, implemented and monitored in a sound and sustainable manner. The USAID Activity Managers and the SO Team Leader will work with the appropriate implementing partners to achieve compliance with these procedures, with assistance from the Mission Environmental Officer (MEO).

Adherence to the procedures in this IEE, it must be emphasized, cannot be considered in lieu of Tanzanian requirements or vice versa. Efforts will be made, however, in the refinement of the Screening Form to dovetail respective assessment information requirements to the maximum extent allowable.

This IEE identifies several situations in which it is expected that a supplemental environmental review be conducted as set out by the AFR Environmental Review Form (ERF) (available at http://www.usaidgems.org/compliance.htm), according to guidance on the GEMS website Subsidiary Review page (http://www.usaidgems.org/subsidiary.htm). The ERF must specifically address the potential impacts identified in the above analysis of this activity. Construction will not begin until such a review is completed and approved by the Mission Environmental Officer.

Annex 3. Water Quality Assurance Plan (WQAP) Compliance Template

General Information on Water Access Point

Type: ________________________
(describe system)

Location: __________________________________
(village/community; include GPS coordinates)

In-Service Date: ______________________________
(date construction/installation/rehabilitation completed)

Initial Water Quality Testing:

Arsenic (as applicable)

<table>
<thead>
<tr>
<th>Sample Date</th>
<th>Reading</th>
<th>Test Method</th>
<th>Initials</th>
<th>Notes / Action Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

Total Coliform

<table>
<thead>
<tr>
<th>Sample Date</th>
<th>Reading</th>
<th>Test Method</th>
<th>Initials</th>
<th>Notes / Action Taken</th>
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</thead>
<tbody>
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</tbody>
</table>

Water Quality Monitoring

Arsenic (as applicable)

<table>
<thead>
<tr>
<th>Scheduled Tests</th>
<th>Sample Date</th>
<th>Reading</th>
<th>Test Method</th>
<th>Initials</th>
<th>Notes / Action Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-month/1st Quarterly</td>
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<tr>
<td>6-month/2nd Quarterly</td>
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<tr>
<td>9-month/3rd Quarterly</td>
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<tr>
<td>12-month/4th Quarterly</td>
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</tbody>
</table>

Total Coliform

<table>
<thead>
<tr>
<th>Scheduled Tests</th>
<th>Sample Date</th>
<th>Reading</th>
<th>Test Method</th>
<th>Initials</th>
<th>Notes / Action Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>6-month</td>
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<tr>
<td>12-month</td>
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<td>18-month</td>
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<td>24-month</td>
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<tr>
<td>32-month</td>
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</table>

(attach additional monitoring record if needed)

Record of Response Actions

Using the Compliance Template

- Complete and retain this document as a record of water quality testing and monitoring
- Ensure template remains current with ongoing results.
<table>
<thead>
<tr>
<th>Action date</th>
<th>Response Trigger</th>
<th>Responsible Party Notified</th>
<th>Initials</th>
<th>Pending Action</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(attach additional records if needed)