



# MAINSTREAMING HIV PROGRAMMING INTO NATURAL RESOURCE MANAGEMENT AND ECONOMIC GROWTH (NRM/EG) ACTIVITIES IN TANZANIA

TECHNICAL BRIEF

**AIDSTAR-One**  
AIDS SUPPORT AND TECHNICAL ASSISTANCE RESOURCES

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## INTRODUCTION

The multi-dimensional HIV epidemic has disproportionately affected sub-Saharan Africa, where it presents not only a major health crisis but also a challenge to overall development of the sub-continent. The impact of HIV on natural resource management (NRM) is less direct and clear, but nonetheless a reality. During the past decade there has been increased interest in both research and program implementation on the nexus between HIV and NRM, and there is a growing body of literature on this topic that includes both peer-reviewed and grey literature. This technical brief is intended as a resource for NRM/EG and HIV donors, program managers, and implementers. It provides an introduction to the mainstreaming of HIV programming into NRM/EG activities; describes how four NRM/EG organizations in Tanzania have implemented HIV mainstreaming; documents the successes, challenges, and lessons learned of these four organizations; and provides recommendations for future programming.

## NATURAL RESOURCES AND HIV IN TANZANIA

Tanzania has world-renowned natural resources, including forests, grasslands, woodlands, wild animals, rivers, lakes, wetlands, and significant coastline. Tanzania supports some of the greatest concentrations of large mammals in the world, a unique natural heritage and resource of great importance both nationally and globally. Approximately 19 percent of Tanzania's surface area is devoted to wildlife in protected areas where no human settlement is allowed (<http://www.tanzania.go.tz/naturalresources.html>). However, Tanzania's natural resources are coming under increasing pressure as a result of climate change, human population growth, development pressures, rapid land use change, and the HIV epidemic.

Tanzania suffers from significant morbidity and mortality associated with HIV and AIDS, with an HIV prevalence of 5.6 percent and 1.4 million people living with the disease (UNAIDS 2009). The disease predominantly impacts adults between the ages of 25 and 45, causing a broad population-level impact on the most productive members of society. This threatens Tanzania's natural resources in the following four ways (Torell et. al 2007):

- Accelerated rate of extraction of natural resources, including fuel wood, wild foods, medicinal plants, and fish
- Decreased availability of labor
- Reduced management capacity
- Loss of traditional/indigenous knowledge.

## MAINSTREAMING HIV PROGRAMMING

As mentioned above, the past decade has shown increased interest in research and program implementation on the nexus between HIV and natural resources. National governments along with donor agencies and NRM/EG organizations increasingly recognize the linkages between HIV and the environment. This has led to implementation of more integrated programming in which NRM/EG organizations are "mainstreaming" HIV programming into their NRM/EG activities.

Mainstreaming of HIV programming is defined by UNAIDS and other international health agencies as "a process that enables development actors to address the causes and effects of AIDS in an effective and sustained manner, both through their usual work and within their workplace...address[ing] both the direct and indirect aspects of HIV and AIDS within the context of the normal functions of an organization or community" (UNAIDS et al. 2005, p. 11).

<b>FIGURE I. FIVE NRM/EG ORGANIZATIONS SUPPORTED BY USAID/TANZANIA TO MAINSTREAM HIV PROGRAMMING INTO THEIR NRM/EG ACTIVITIES.</b>	
<b>Implementing Partner</b>	<b>HIV Sub-Grantees</b>
<b>Jane Goodall Institute (JGI)</b>	<ul style="list-style-type: none"> <li>• <b>Kigoma Vijana Development Association (KIVIDEA)*</b></li> </ul>
<b>African Wildlife Foundation (AWF)</b>	<ul style="list-style-type: none"> <li>• <b>LOOCIP*</b></li> <li>• Afya Bora</li> <li>• Savana Forever</li> </ul>
<b>University of Rhode Island (URI)</b>	<ul style="list-style-type: none"> <li>• <b>UZIKWASA*</b></li> </ul>
<b>Fintrac</b>	<ul style="list-style-type: none"> <li>• <b>Huruma AIDS Concern and Care (HACOCA)</b></li> <li>• <b>UMATI*</b></li> <li>• <b>Zanzibar People Living with HIV/AIDS (ZAPHA+)</b></li> </ul>
<b>Technoserve</b>	None

\*The names of these organizations are in the local language (e.g. Swahili or Kimasai).

Mainstreaming has two interlinked dimensions: internal and external. External mainstreaming seeks to reduce vulnerability to new HIV infections and support HIV-infected and -affected people within the community, while internal mainstreaming seeks to achieve the same goal internally among an organization’s staff members and their families (UNAIDS et al. 2005). For purposes of this technical brief, the term “mainstreaming” refers to external HIV mainstreaming, unless otherwise noted.

## **PEPFAR WRAPAROUND PROGRAM**

Tanzania is one of the 14 countries targeted in the U.S. President’s Emergency Plan for AIDS Relief (PEPFAR), an initiative launched in 2003 by President George W. Bush that committed approximately \$46 billion to fighting the global HIV pandemic (PEPFAR Factsheet, 2012). In some countries, including Tanzania, PEPFAR provides support to varied “wraparound” programs

that mainstream HIV programs within other sectors to improve quality of life and strengthen development efforts overall. PEPFAR-supported wraparound activities are carried out within programs funded by the U.S. Government; the Global Fund to Fight AIDS, Tuberculosis and Malaria; United Nations agencies; the private sector; and other partners. Wraparound programs leverage resources, both human and financial, from entities with different funding sources to increase access to HIV services and maximize PEPFAR’s effectiveness (PEPFAR 2008). In addition to increasing access to HIV services among hard-to-reach or marginalized populations, the wraparound programming approach enhances the quality of development programs. Most wraparound activities are supported with a mix of funds, primarily from sources other than PEPFAR. In many cases, the other funding sources provide the platform, while PEPFAR supports activities for high-priority HIV-affected populations (PEPFAR 2011).

The U.S. Agency for International Development (USAID)/Tanzania implements a PEPFAR wraparound

program by linking the following four of its five strategic objectives in its development assistance portfolio:

- HIV/AIDS: Enhance the multisectoral response
- Health: Improve the health status of Tanzanian families
- Economic growth (EG): Increase the incomes of small farmers in selected agricultural commodity sectors
- Environment/natural resources (NR): Conserve biodiversity in targeted landscapes through a livelihood-driven approach (USAID/Tanzania Strategic Plan, p. 9-14).

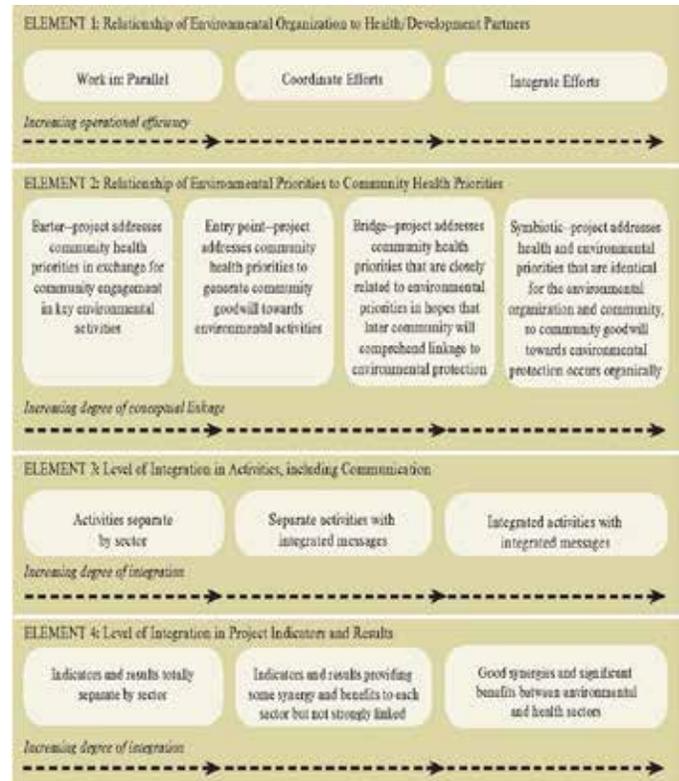
Tanzania's PEPFAR wraparound program links the USAID/Tanzania health team, which is working toward the HIV/AIDS and Health Strategic Objective, with the non-health team, which is working toward the EG and NR Strategic Objective. A core component of the EG and NR work in Tanzania is the funding provided to five NRM/EG partner organizations to implement several different conservation and agriculture projects. These five organizations also receive additional PEPFAR wraparound funding to "mainstream" HIV programming into their NRM/EG activities. The five NRM/EG organizations supported by USAID/Tanzania, along with their HIV sub-grantees, are shown in Figure 1. (Only the organizations and sub-grantees shown in bold text in the figure opposite are discussed in this technical brief.)<sup>1</sup>

## HIV MAINSTREAMING PROCESS

Mainstreaming of HIV programming into NRM/EG activities is a process that can take place along a continuum, beginning with parallel interventions occurring in both the NRM/EG and health sectors, and ending

with fully integrated NRM/EG and HIV projects. Figure 2 illustrates the HIV mainstreaming continuum using a framework for integration of NRM/EG and health programming.

**FIGURE 2. A FRAMEWORK FOR INTEGRATION OF NRM/EG AND HEALTH PROGRAMMING.**



Source: Bolton et al. 2010, p. 42 (adapted from Oglethorpe et al. 2008).

NRM/EG organizations likely will not be able to transition overnight from working only in the NRM/EG sector to integrating HIV messages, approaches, and indicators across their NRM/EG work (Bolton et al. 2007). Also, it is important to note that, with minor tweaks, the direction of flow in Figure 2 can be reversed to show mainstreaming of NRM/EG considerations into the activities of HIV organizations.

<sup>1</sup> Technoserve implemented the Sustainable Horticulture for Income and Food Security in Tanzania (SHIFT) Project in Iringa Region and was a recipient of PEPFAR wraparound funding for the mainstreaming of HIV programming into its NRM/EG activities. However, Technoserve is not discussed here because implementation of the SHIFT Project ended before data were collected for this technical brief. The information obtained about Technoserve/SHIFT project came largely from a desk review, which did not sufficiently reflect the project's work, and therefore a decision was made not to include it.

## MODELS OF HIV MAINSTREAMING

There are two primary models of HIV mainstreaming that have been implemented by the four NRM/EG organizations discussed in this technical brief. These models are not mutually exclusive and can be implemented in tandem by one NRM/EG organization, as appropriate.

### Keeping HIV mainstreaming in-house

An organization can elect to train and use its own staff to mainstream HIV programming into its NRM/EG activities. The community-based nature of NRM/EG work creates an ideal platform for health interventions, and field staff are often closely acquainted with the health concerns of the communities they serve. The risk with this model, however, is that NRM/EG staff have limited HIV capacity and might feel ill-equipped to implement HIV programming, or might perceive HIV mainstreaming as a challenging addition to the existing NRM/EG workload. For these reasons, organizations using this model often benefit from employing a full-time health specialist who has experience with HIV programming and can direct and support NRM/EG staff through the HIV mainstreaming process.

### Outsourcing HIV mainstreaming to HIV organizations

A second model of HIV mainstreaming is to partner with organizations specializing in HIV programming. These sub-grantees can be tasked with supporting discrete HIV-related activities within the context of the organization's NRM/EG work. As suggested in Figure 2, this model of mainstreaming can work in two directions: 1) HIV activities can be mainstreamed into the work of the NRM/EG organization leveraging its existing platform, or 2) NRM/EG activities can be mainstreamed into the work of the HIV organizations, focusing on HIV-affected households, people

living with HIV (PLHIV) and orphans and vulnerable children (OVC) participating in the NRM/EG activities. A single NRM/EG organization can use this model to work in one or both directions simultaneously.

## MAINSTREAMING HIV INTO LAND CONSERVATION

HIV threatens conservation in sub-Saharan Africa in the same four ways mentioned above: 1) accelerated rate of extraction of natural resources, 2) decreased availability of labor, 3) reduced management capacity, and 4) loss of traditional/indigenous knowledge. As a result of morbidity and mortality associated with HIV and AIDS, many organizations working on conservation, including government agencies, nongovernmental organizations (NGOs), research institutions, and the private sector have lost human capacity. National park and wildlife conservation staff are especially vulnerable to HIV, since many work away from their families for extended periods in remote areas where they are more likely to engage in high-risk sexual behavior. Loss of staff adversely affects institutional memory and continuity of operations, and can reduce an organization's ability to achieve program objectives. Precious conservation funds are also diverted to pay for such HIV- and AIDS-related staff costs as sick leave, medical expenses, terminal benefits, funerals, and training of replacement staff. Experiencing bereavement after bereavement can adversely impact staff morale and decrease productivity (WWF 2007).

Increased use of natural resources is another strain on conservation. As HIV-affected households lose wage earners and capacity for heavy agricultural labor, they turn increasingly to natural resources as a safety net. Activities such as hunting, fishing, and charcoal-making increase as families seek alternative livelihoods. Households caring for sick family members use more water, firewood, and medicinal plants, while timber

consumption for coffins and charcoal production increases, leading to deforestation (ABCG 2002; Barany et al. 2005). These unsustainable practices erode the natural resource base for the future. Protected conservation land becomes increasingly threatened as people seek access to natural resources that are no longer available in their communities. Additionally, traditional knowledge of sustainable natural resource management is lost when parents die before passing it on to their children (WWF 2007).

USAID/Tanzania supports three NRM/EG organizations implementing conservation projects in Tanzania: the Jane Goodall Institute (JGI) in Kigoma Region (western Tanzania), African Wildlife Foundation (AWF) in Arusha Region (northern Tanzania), and the University of Rhode Island' Coastal Resources Center in Tanga Region (northern Tanzania).

### **Jane Goodall Institute (JGI)**

JGI was founded in 1977 by the famous primatologist, Jane Goodall, who has studied chimpanzees at Gombe National Park in western Tanzania for more than half a century. The organization was originally founded to protect the chimpanzees and their natural habitat and to continue Goodall's research. However, as JGI began partnering closely with the local communities surrounding the park, its staff quickly learned that environmental degradation was not the primary concern of these communities. JGI staff conducted a rapid assessment of local needs to verify these anecdotal findings and found that health, education, safe water, and access to capital were community priorities (JGI 2011). From the early days, JGI has recognized and fostered synergies between these priorities and the organization's core mandate of NRM by designing a community-centered model of conservation that addresses local socioeconomic development needs.

JGI has been mainstreaming HIV programming into its NRM/EG projects in western Tanzania for the last 15

years through four different USAID/Tanzania-funded projects. JGI is currently implementing the Gombe-Masito-Ugalla (GMU) Program, which was launched in 2010 and continues through 2014. JGI supports a variety of HIV-related services in 46 villages, including home-based care for HIV-affected households; microenterprise/credit for PLHIV; fuel-efficient stoves to decrease indoor air pollution for PLHIV; forestry reserves, woodlots, and agro-forestry to decrease daily labor requirements for PLHIV; and HIV education. National park and wildlife conservation staff are especially vulnerable to HIV, since many work away from their families for extended periods in remote areas, where they are more likely to engage in high-risk sexual behavior. JGI also mainstreams broader health initiatives into its NRM/EG activities and implements internal mainstreaming among JGI staff and their family members.

### **Expansion of community health workers program**

JGI has long supported voluntary community health workers, also called community-based distribution agents (CBDAs), who offer family planning (FP) services in 46 villages in Kigoma District. The CBDAs provide FP education, dispense birth control pills and condoms, and refer women of child-bearing age to the dispensary and rural health centers for injectable contraceptives, intrauterine contraceptive devices, implants, and surgical interventions. JGI currently supports 170 CBDAs (86 male and 84 female), who have reached close to 200,000 people with FP messaging, which has led to the adoption of a FP method by over 9,000 women.

As the impact of HIV and AIDS in Kigoma District became increasingly evident, JGI decided to leverage its CBDAs to double as home-based care providers (HBCPs). JGI partnered with the Ministry of Health and Social Welfare (MOHSW) to train these CBDAs to provide HIV-related services to affected households, thus becoming HBCPs as well. JGI provides its

CBDAs/HBCPs with basic supplies to facilitate movement throughout the villages, including bags, bicycles, umbrellas, and boots for the rainy season. JGI supports refresher training for the CBDAs/HBCPs every six months using MOHSW trainers. The HBCPs have reached over 737 people (351 male and 386 female) with messaging on HIV prevention and provided home-based care and support to over 307 people (126 male and 181 female), including 42 PLHIV (20 male and 22 female).

### Microenterprise/credit for PLHIV

JGI provides education on income generation to 46 villages in Kigoma District to encourage establishment of microenterprise groups that distribute and oversee microcredit loans to village members. These self-governing groups elect a board and vote on such organizational matters as membership fees, loan repayment schemes, interest rates, and penalties. As part of JGI's efforts to mainstream HIV into its NRM/EG activities, JGI began providing seed money to PLHIV so they could join these microenterprise groups and access small loans. A total of 2,443,001 Tanzanian shillings (TZS) (about U.S.\$1,630) was provided to 42 PLHIV (22 female and 20 male) from nine villages to cover fees, deposits, and initial savings needed for them to join the microenterprise groups. Involving PLHIV



**Palm oil entrepreneur and beneficiary of the JGI-supported microenterprise/credit group in Mwakizega village, western Tanzania.**

Source: Victoria Rossi

in microenterprise has also been shown to reduce stigma against them, leading to greater acceptance by the community. The various microenterprises that have been established with support from JGI include palm seedling nurseries, production of palm oil and soap, sustainable charcoal-making, poultry farming, sustainable vegetable and fruit farming, fish trading, and beekeeping.

### Fuel-efficient stoves

JGI has designed a low-cost, fuel-efficient stove for inside the home that consumes significantly less firewood or charcoal. This produces much less smoke and soot and improves indoor air quality. PLHIV are more susceptible to respiratory infections and benefit significantly from decreased smoke and soot inside the home. The stove is made of locally available materials and has a raised, enclosed base that is vented to the outside. The enclosed base encapsulates heat, enabling food to cook twice as fast as on an open-flame fire, which loses up to 80 percent of its heat to the surroundings. The more efficient use of firewood means that fewer trees are cut, mitigating environmental degradation and lessening the daily labor requirements for PLHIV. The stoves also decrease daily labor requirements for a household because pots and pans sit above the flame and not inside it, collecting less soot to scrub off. These stoves—beneficial for both the environment and PLHIV—are a quintessential representation of JGI's effective integration of HIV and NRM/EG activities.

### Forestry reserves, woodlots, and agro-forestry

JGI works closely with the district council and village governments to develop land-use plans that designate certain areas of land to be used for certain purposes. Forestry reserves, woodlots, and agro-forestry plots are distinct land designations that JGI supports for inclusion in village land-use management plans. Forestry reserves are protected wooded areas, often on the outskirts of a village, inside which trees cannot be cut

down for firewood or used for home construction. Conversely, woodlots are small plots of trees planted exclusively to serve as firewood. Woodlots are usually located within a village and directly adjacent to people's homes. This minimizes the distance traveled for firewood collection, thus decreasing daily labor requirements, which is especially helpful for PLHIV. JGI also trains villages to practice agro-forestry, which is the combined use of land to cultivate both crops for human consumption and trees for reforestation. The training focuses on PLHIV and encourages them to cultivate trees while simultaneously growing vegetables to support good nutrition, which can improve tolerance of HIV medications.

### **HIV education**

In 2005, JGI began contracting with a local organization called the Kigoma Vijana Development Association (KIVIDEA) to support the integration of HIV education into JGI's Roots & Shoots program, which supports youth clubs in primary and secondary schools. R & S teaches youths primarily about conservation, while using life skills training as the entry point for HIV education. The life skills training includes teaching decision-making and critical thinking skills, conflict resolution and negotiation of peer pressure, relationship management, self-control, and understanding the physical changes in one's body. The R & S program's messaging around HIV is age-dependent, employing "abstinence and being faithful" (AB) messaging in the primary schools and "abstinence, being faithful, and condoms" (ABC) messaging in the secondary schools. KIVIDEA has adapted UNICEF's life skills training curriculum to the local context, and currently supports 32 schools and 70 R & S clubs throughout Kigoma District. JGI also integrates HIV education into its natural resource management training for the district council and village governments, village fire crews, and forest monitors. JGI screens village film shows on wildfire management, leaving time at the end to show an MOHSW-endorsed film on HIV and facilitate a

community-level discussion of the topic.

### **Broader health initiatives**

In addition to HIV activities, JGI is also successfully mainstreaming broader health issues into its NRM/EG activities, including FP, child survival, cervical cancer screening, and water and sanitation projects; the organization is also renovating five dispensaries in Kigoma District. JGI's CBDAs educate women and men about their reproductive health, the benefits of child spacing, and the availability of FP services and methods, and also provides some FP methods, including oral contraceptives and condoms. JGI has integrated child survival interventions into its FP activities to take advantage of the credibility and linkages that CBDAs have already established. The CBDAs educate families about child survival issues, including the importance of accessing early treatment for such childhood diseases as malaria, pneumonia, diarrhea, and upper respiratory infections. They also promote integrated management of childhood illnesses services at the village level and work closely with dispensary staff to ensure prompt treatment of sick children. JGI has also partnered with Grounds for Health, an international NGO that works with coffee-growing communities to establish sustainable cervical cancer prevention programs by bringing its cervical cancer screening techniques to Kigoma District. JGI facilitates Grounds for Health's efforts to educate and sensitize women in the villages about cervical cancer and encourages them to go for screening.

JGI has also mainstreamed water and sanitation activities into its NRM/EG activities to provide clean drinking water for rural villages to reduce the transmission of waterborne diseases. The organization's water and sanitation activities include providing education and training on hygiene and sanitation in communities and schools, protecting water springs, and constructing rainwater harvesting tanks and ventilated, improved pit latrines. The latter not only improves sanitation for

schools but also ensures that young girls can stay in school once they begin menstruating, which reduces their vulnerability to HIV. Water and sanitation initiatives also benefit PLHIV by helping to reduce the incidence of diarrheal diseases caused by contaminated water.

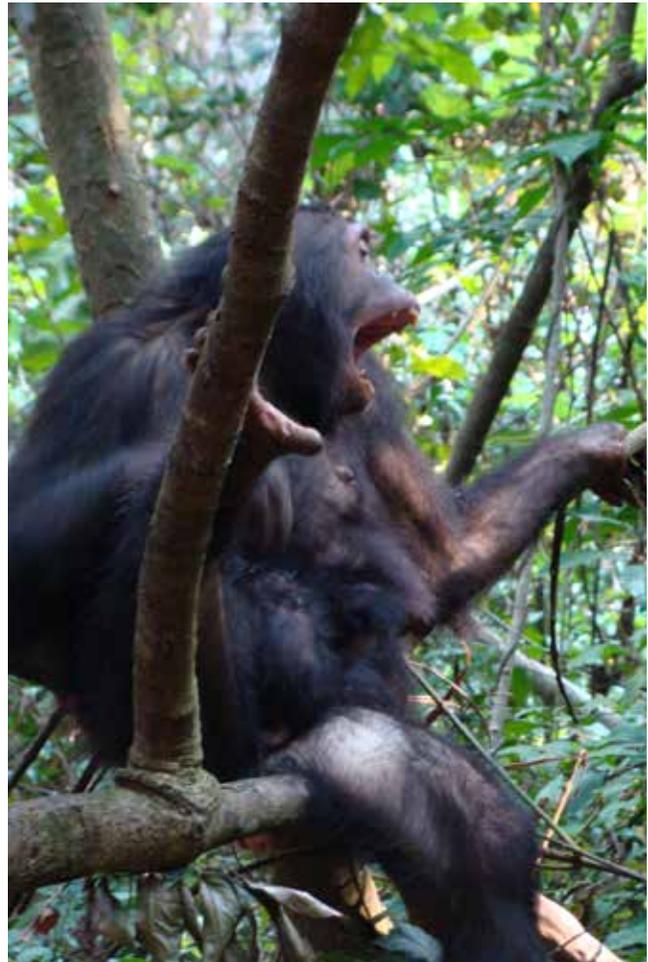
### Internal mainstreaming

In addition to JGI's external mainstreaming of HIV activities into community NRM/EG activities, the organization has also internally mainstreamed HIV into operations for JGI staff and family members. JGI has incorporated HIV education into general staff meetings and made condoms available in the bathrooms, the reception area, and the staff clinic in Gombe National Park. JGI partners with MOHSW and the Tanzanian National Park Association to conduct educational sessions on HIV and provide HIV testing and counseling for its ape researchers who live within Gombe and away from their families for extended periods of time.

### African Wildlife Foundation (AWF)

AWF is an international NGO committed to conserving Africa's natural resources while leveraging the continent's tremendous natural endowment for economic growth and improved livelihoods for its people. AWF was founded 48 years ago to improve the capacity of African institutions and individuals to manage wildlife and other natural resources. AWF's program has evolved over the decades into an integrated landscape-scale approach, which addresses threats to conservation, sustainable NRM, and improving livelihoods of the poorest (AWF 2009).

USAID/Tanzania supports AWF through the Scaling up Conservation and Livelihoods Efforts in Northern Tanzania (SCALE-TZ) project, aimed at achieving greater conservation in the Tarangire-Manyara and the Kilimanjaro-Natron ecosystems and improving human welfare. The project addresses threats to conservation and sustainable NRM by developing and increasing



Source: Victoria Rossi

### A chimpanzee in Gombe National Park in Western Tanzania.

the capacity of locally active partners and improving the livelihoods of the people who depend on the ecosystem by delivering a variety of social services, including HIV prevention outreach (AWF 2009).

AWF's SCALE-TZ project works primarily with the Maasai pastoralist communities in Arusha Region. Until recently, Maasai communities were relatively unaffected by HIV because they were a closed society that didn't interact much with other tribes. However, given the multi-faceted nature of the HIV epidemic and its links to poverty, gender inequality, human rights violations, illiteracy, rural livelihoods, and other complex environmental and sociocultural factors, the Maasai community has become increasingly affected by HIV.

The Maasai have several cultural practices that put them at risk for HIV infection, including polygamous practices and the encouragement of young men to experiment sexually before marriage. Within this cultural context, abstinence, faithfulness, and the use of condoms are not easily accepted. The Maasai also practice traditional rituals such as circumcision of both young boys and girls, which increases the risk for HIV infection through contaminated blood. Additionally, economic hardship has forced many Maasai men and some women (e.g., single women, widows, and women abandoned by their husbands) to relocate to urban areas in search of employment. The Maasai are known to be extremely conservative and closely guard their traditional practices, including polygamy and experimentation with sex before marriage, which puts them at risk given the considerably higher HIV prevalence in urban areas. The situation is further exacerbated by low literacy and limited knowledge about HIV, including the belief that HIV does not exist in the Maasai community.

AWF's approach to HIV mainstreaming was to establish a sub-grant with a local CBO in Longido District called LOOCIP. Loocip in Kimasai—the local language of the Maasai—means “people who tell the truth.” The organization was founded in 2003 by a local group of Maasai, first as a community initiative and then later as an officially registered CBO in 2006. LOOCIP is an indigenous organization; all staff are local Maasai, which increases its acceptability among the local communities.

### **Community Conversation methodology**

HIV prevention interventions that focus solely on changing individual behavior tend to be less effective, particularly in communities where cultural practices, beliefs, and attitudes are a strong influencing factor. Since 2010, LOOCIP has worked in more than 20 villages in Longido District implementing an HIV prevention strategy largely focused on changing individual

behavior in conjunction with community beliefs, to reduce the sexual transmission of HIV. LOOCIP uses a non-threatening behavior change communication (BCC) methodology adopted from the United Nations Development Programme (UNDP) known as Community Conversation (CC), which recognizes the capacity of communities to identify problems and design solutions on their own. Community contributions are captured through focus group discussions, reviews of existing health records and reports, community meetings, and key informant interviews. Through CC, LOOCIP facilitates a process in which Maasai community leaders and their people work together to identify factors that influence the spread of HIV and participate in activities designed to prevent HIV transmission.

### **Education about HIV transmission through contaminated blood**

It is a cultural tradition of the Maasai to perform mass circumcisions of young men and women using one blunt knife, and often the circumcisers do not wear gloves. Using CC, LOOCIP has educated communities about the potential for HIV transmission through contaminated blood and encouraged the consistent use of gloves by circumcisers. Nowadays, new, clean surgical blades provided by the government health facilities are used—one blade per young person traditionally circumcised—and are buried in anthill holes after one use.

Additionally, most Maasai women are now assisted during childbirth by traditional birth attendants (TBAs). In the past, these TBAs did not wear gloves while providing delivery services. However, by using CC, LOOCIP has educated Maasai women and TBAs about the risk of HIV transmission through contaminated blood. The TBAs have been taught to stock gloves at their homes, which they carry with them when summoned to provide delivery services. Some TBAs advise pregnant women to save money

throughout their pregnancy to buy gloves, so they are well-prepared on the day of the delivery. One TBA in Longido District reports that no TBA in her community will attend a delivery without gloves.

### **Supporting the community to address high-risk sexual behavior**

Several cultural norms of the Maasai can lead to men and women engaging in multiple concurrent sexual partnerships. Embolore is a practice whereby young uncircumcised boys (called layoni) sneak up on widowed women at night to have sex with them because girls their own age refuse to have sex with an uncircumcised boy. Through CC, however, embolore was identified as a risky sexual behavior that could result in sexually transmitted infections (STIs,) including HIV. Continued education and community engagement around the issue have fostered real and lasting change within the Maasai community, including reduction of the age at which young boys are circumcised. Initially, tradition dictated that boys be circumcised at 25 years of age or older. However, the age was first decreased to 18 years, and again to the current age of 14 years.

There have also been some changes to the construction style of Maasai huts to deter high-risk sexual behavior. First, the huts now have fixed doors, which prevent young boys from sneaking into the homes of older women. Additionally, some families with sufficient resources have started building a separate room in the Maasai hut that is designed specifically for visitors. This is in response to another high-risk sexual behavior known as orporor or the unwanted sexual advances of male visitors to the home. There are often cases in which male travelers from a different village will spend a night at his friend's house when he is not at home with his family. Hospitality of this kind is expected in Maasai land, but some men use the situation as an opportunity to have sex with the women of the household.

## **MAINSTREAMING HIV INTO COASTAL CONSERVATION**

Tanzania is a coastal state endowed with rich fishery resources. It has approximately 80,000 permanently employed fishermen with others who obtain their livelihood from employment employed in fishery-related activities. Fish contribute about 30 percent of the total animal protein intake of the Tanzanian population (<http://www.tanzania.go.tz/naturalresources.html>). The fishing sector has been affected heavily by HIV since it is a labor-intensive and physically demanding livelihood with long work hours. According to Torell and co-authors, "Sick fishermen may prefer fishing in shallow waters where the work is less labor-intensive, resulting in greater environmental deterioration and depletion of fish stocks [especially considering] near-shore waters are important marine habitat to sea grass, corals, mangroves and serve as nurseries for juvenile fish" (Torell et al. 2007, p. 6).

***"The optimal context for HIV transmission is one where men have money, have few recreational options, and are away from their families."***

Research in Africa has found that fishermen are at high risk for HIV infection and are more vulnerable to the effects of HIV infection (Simon-Meyer 2002). One study of the Kagera Region in Tanzania found that fishermen were five times more likely than farmers to die from side effects of HIV (Ainsworth and Semai 2000). Fishermen are a highly mobile population, given that they migrate between villages throughout the fishing season and are away from home between three to six months at one time. People become more susceptible



Source: Victoria Rossi

**UZIKWASA is a local CBO that supports mainstreaming of HIV activities into coastal conservation in Pangani District.**

to HIV infection when they engage in migratory work that regularly takes them away from the home and their families. Migrant workers have fewer social ties, which leads to high-risk sexual behavior, including multiple, concurrent sexual partners and inconsistent condom use. Fishermen also tend to have significant leisure time, given that fishing activities usually take place in a three- to five-hour period in the early morning or evening. As Torell and co-authors write:

The optimal context for HIV transmission is one where men have money, have few recreational options, and are away from their families. In addition, these men work in communities where limited access to education, employment, credit, or income can force women to resort to sex work to earn a living. This is the reality in many Tanzanian fishing villages. (Torell et al. 2007, p. 9).

### **University of Rhode Island (URI)**

USAID/Tanzania supports URI through the Conservation of Coastal Ecosystems in Tanzania (PWANI) Project, which aims to sustain the flow of environmental goods and services, reverse the trend of environmental destruction of critical coastal habitats, and improve the well-being of coastal residents in the Bagamoyo- Pangani and Menai Bay Seascapes. PWANI is implemented locally by the Tanzania Coastal Man-

agement Partnership (TCMP), which is a legal entity of URI. URI, through TCMP, has established sub-grants with several local organizations that have the range of experience and expertise to achieve PWANI's objectives (URI 2009-2012). UZIKWASA is the local CBO that supports the mainstreaming of HIV activities into PWANI's coastal conservation work by implementing HIV communication and prevention activities in six coastal villages in Pangani District.

### **Engendering HIV planning and leadership at the village level**

As part of Tanzania's national response to the HIV epidemic, the Government of Tanzania adopted a national policy in 2003 mandating that all districts in Tanzania establish AIDS action committees composed of village leadership and stakeholders from various sectors. The mission of these committees is to reach down to the council, ward, and village level (respectively, the CMAC, WMAC, and VMAC). To determine the extent to which this policy was being implemented, UZIKWASA conducted a baseline survey in 2006 to determine if these committees had been established, the training they received, their composition, members' knowledge and understanding of their roles and responsibilities, and how active they have been since inception. The findings suggested that although the CMACs, WMACs, and VMACs had been established in some places, they lacked action plans and were largely non-functional.

In response to these findings, UZIKWASA launched a program designed to contribute to an effective HIV response in Pangani District by building the capacity of the committees for sustainable community action. The program included a seven- to eight-day training for committee members on HIV and leadership, facilitating conversation with the community about HIV to support a participatory planning process, and finally developing HIV implementation plans by the committees. To foster the sustainability of the committees, UZIKWASA was careful not to directly inject funds



Source: Victoria Rossi

**Fishing boats anchored along the shore of Mkwaja village in Pangani District.**

into them but rather support them to raise money internally from income-generating activities, such as poultry rearing, in addition to direct contributions from the community. To motivate the committees, UZIKWASA supports an annual competition in which the five best-performing committees are invited to a private party celebrating their achievements, which are also announced on the district-wide radio station.

Mkwaja village is a typical fishing village along the Pangani coast that is supported by UZIKWASA and is home to 945 people (425 male, 520 female). The VMAC members in Mkwaja include the village executive officer, a dispensary nurse, a CBDA, fishermen, and other male and female representatives from the community. The VMAC has a robust HIV action plan and has raised 800,000 TSH (approximately U.S.\$500) from the community. They use the money to provide ongoing support to 20 OVC and two PL-HIV from the community. They have plans to expand the community support to widows and widowers when they raise more funds.

### **Reaching the fishermen**

Fishermen are a high-risk population for HIV infection, as discussed earlier. Because the fishermen are such a transitory population, they are rarely reached by the HIV prevention activities of the VMACs or local CBOs. While away, they are known to have different partners in every port and engage in transactional sex known as “fish for sex,” in which women receive free fish in exchange for sex. This presents significant risk for not

## **STRONG LEADERSHIP IS CRITICAL**

Mseko village in Pangani District provides an example of strong village leadership through an effective VMAC. The VMAC in Mseko has mobilized its own funds and developed an HIV village action plan to address HIV-related issues and priorities within the community. It provides school uniforms, materials, and goats to 12 OVC, and ongoing support to five disabled community members. The VMAC also started a community health fund to cover health care costs for 13 elderly community members. The VMAC leaders have purchased a communal village television to show educational movies and mobilize the community around important health-related issues. They have instituted and enforce opening and closing times for the local bars to mitigate drunkenness, which is an HIV risk factor. They have also used VMAC funds to purchase a corn mill machine for village use. Previously, the mill machine for milling corn was far away from the village and was causing community members to travel long distances from their homes, which is an HIV risk factor. Most recently, Mseko’s VMAC has successfully lobbied the district council for funding to launch a chicken-rearing project that will provide a sustainable source of VMAC funding for the future.

only the fishermen but also the female partners, who are often not empowered to demand condom use. The family members that the fishermen leave behind are also at increased risk for HIV because the wives and daughters are forced to go without any resources for many months. These are often the very wives and daughters that engage in “fish for sex” to feed their families.

UZIKWASA promotes behavior change among fishing communities through a package of interventions implemented largely through the VMACs. All of the VMACs in the six UZIKWASA-supported villages have developed activities targeted to fishermen and included them in their HIV action plans, which are jointly reviewed by the fishermen and VMAC. The fishermen receive training in basic HIV prevention that debunks popular misconceptions, such as the belief that if you dive deep in the water then you can't be infected with HIV. The VMACs in the six UZIKWASA-supported villages reached 150 fishermen in 2010, 200 in 2011, and 150 through early May 2012. The VMACs also work closely with the fishermen to promote the use of condoms, and have increased the number of condom distribution outlets in the six villages to 65.

### Theater for development and mobile video shows

UZIKWASA has developed evidence-based BCC programming for HIV prevention that has clear community priorities and includes interventions that build and maintain behavior change at the individual, family, and village levels. They employ a variety of communication media, including interactive theater, mobile video shows, radio, and printed materials. Using a model known as “theater for development” (TDF), they have established theater groups of young actors at the village level who practice and perform shows on a regular basis. The shows are designed to communicate real-life scenarios that contribute to HIV transmission in the community, demonstrating both risky behavior and the safer alternative behavior. These theater shows are followed by interactive community-

level discussion encouraging open dialogue and critical thinking from community members, and follow-up interventions from the VMAC.

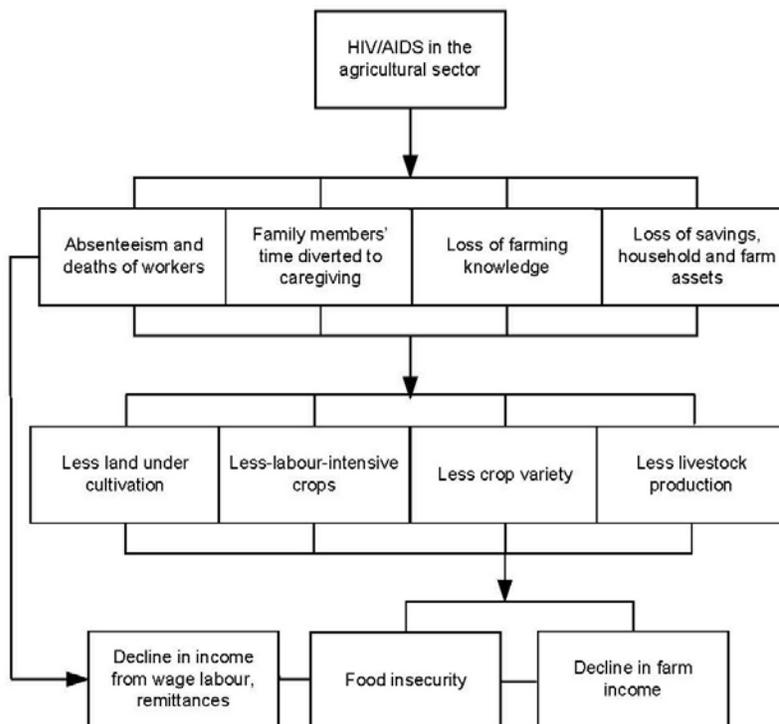
UZIKWASA has also produced several short films, including *Chukua Pipi*, which explores the issue of “sugar daddies” (older men using money to attract young girls), and *Fimbo ya Baba*, which explores parents' roles in early forced marriage. Both of these movies confront real-life cultural issues in Pangani District that contribute to HIV transmission. The films are screened throughout the district via a mobile video unit, which extends their reach to the majority of Pangani households that do not have access to television. UZIKWASA has also produced various printed information, education, and communication (IEC) materials, including children's comic books, posters, and leaflets to further support the messages relayed through the theater shows and mobile video shows. To continue to effectively tailor evidence-based BCC interventions to the community context, UZIKWASA is conducting robust qualitative research to monitor the impact of its BCC programming. This research longitudinally analyzes the diaries of beneficiaries for any trend of behavior change related to community issues addressed in UZIKWASA's TDF, mobile video shows, and IEC materials.



Source: Victoria Rossi

**Fishermen working along Tanzania's Swahili coast in Pangani District.**

**FIGURE 3. CONCEPTUAL FRAMEWORK FOR THE IMPACT OF HIV ON AGRICULTURE.**



Source: United Nations, Department of Economic and Social Affairs, Population Division 2004.

### District radio station

UZIKWASA, with support from the British Broadcasting Corporation – United Kingdom (BBC-UK), spear-headed creation of a district-wide radio station known as Pangani 107.7 FM, which was officially launched in August 2011. Pangani 107.7 FM reaches an estimated 38,000 of the 50,000 people in Pangani District and extends to other neighboring districts, for a total estimated audience of over 100,000 people. It is staffed by six full-time volunteers and broadcasts a mix of live and recorded programs. During the live radio show programs, special guests who are of importance to the local communities are often featured, including district government officials from the Ministry of Education or Ministry of Health, teachers, or doctors. Local community members can call into the station during these live programs to ask the special guests questions about daily issues affecting the community, such as repair of the seawall, electricity shortages, lack

of resources in the schools, and so on. These programs are extremely popular, attracting a consistently high volume of callers. The station staff are proud of their work and report that in many instances the live programs have translated into lasting action within the communities and among local government authorities.

## MAINSTREAMING HIV INTO AGRICULTURE

Agriculture is the foundation of the Tanzanian economy, accounting for approximately half of the national income and three quarters of merchandise exports. In addition to being a source of food, agriculture provides employment to about 80 percent of Tanzanians (<http://www.tanzania.go.tz/agriculture.html>). However, HIV threatens agriculture in sub-Saharan Africa much in the same ways it threatens conservation, causing 1)

an accelerated rate of extraction of natural resources, 2) decreased availability of labor, 3) reduced management capacity, and 4) loss of traditional/indigenous knowledge. Figure 3 provides a conceptual framework for the impact of HIV on agriculture.

The Food and Agriculture Organization of the United Nations (FAO) has estimated that in the 25 hardest-hit countries in Africa, AIDS has killed around 7 million agricultural workers since 1985 and could kill 16 million more before 2020. Figure 4 below shows that the most affected African countries could lose up to 26 percent of their agricultural labor force within a few decades; with agriculture still representing a large proportion of the gross domestic product, this loss in labor could have severe impacts on the national economy (FAO 2001).

HIV is characterized by recurrent periods of sickness and, therefore, recurrent loss of labor that eventually erodes agricultural production and food security both at the household and national level. Much of rural agricultural production is highly labor-dependent, and often labor demands are concentrated in specific periods of the year. For example, sickness or funeral attendance may result in missing the planting season, which could lead to the loss of a full crop (FAO 2001).

Additionally, rural farming systems depend upon a wealth of local agricultural and biodiversity knowledge that is essential for maintaining production. The loss of a productive generation means that livelihood skills, including agricultural knowledge, are not passed from generation to generation, leaving a young population ill-equipped to manage the impacts of the epidemic (FAO 2001).

HIV also leads to changes in land use. When agricultural labor capacity is diminished and household income declines, households farm with fewer resources, lacking inputs such as highly responsive seeds, fertilizer, pest control agents, and irrigation. Without them, more land is required to maintain crop yields, which leads to environmental degradation.

#### Fintrac

Fintrac is a consulting company that works throughout Latin America, Asia, and Africa to develop agricultural solutions to end hunger and poverty. It works with local and global partners to increase production, improve postharvest handling, add value, and develop markets and competitive value-chains for the world's most vulnerable farmers and communities. Fintrac serves more than 500,000 farmers worldwide, teaching them proven technologies and practices to

**FIGURE 4. PROJECTED LOSS IN TOTAL POPULATION AND AGRICULTURAL LABOR FORCE DUE TO AIDS IN A SAMPLE OF HIGH-PREVALENCE COUNTRIES, SUB-SAHARAN AFRICA, 1985-2020. (FAO 2001)**

	Total Population	Agricultural Labor Force
Namibia	-17%	-26%
Botswana	-30%	-23%
Zimbabwe	-23%	-23%
Mozambique	-16%	-20%
South Africa	-27%	-20%
Kenya	-16%	-17%
Malawi	-17%	-14%
Uganda	-8%	-14%
Tanzania	-7%	-13%

increase yields, which improves nutrition, generates income, and builds industries (<http://www.fintrac.com/company.aspx>).

USAID/Tanzania supports Fintrac through the Tanzania Agriculture Productivity Program (TAPP) to implement agriculture projects in Morogoro and Zanzibar. TAPP seeks to increase smallholder incomes, improve health and nutrition, and expand markets through value-chain development and agricultural innovation. TAPP also works to develop clusters of commercial farms, smallholders, and agribusinesses in areas with high agricultural potential. In Morogoro, TAPP targets vegetables for both local and regional markets, and pineapple and passionfruit for processing. In Zanzibar, TAPP targets cloves, fruits and vegetables for local markets and tourism, and vegetables and spices for small-scale processing (TAPP 2011).

### Partnering with a local PLHIV network

In Zanzibar and Pemba, there are 1,600 PLHIV that belong to a local support network known as the Zanzibar People Living with HIV/AIDS (ZAPHA+). One way in which Fintrac has mainstreamed HIV into its work is to partner with ZAPHA+ to provide agricultural training to its members. It has established two one-half acre demonstration plots where members come together to learn how to grow nutritious and marketable produce—such as tomatoes, eggplant, spinach, okra, and watermelons—using good agricultural practices. When the growing season is over, the demonstration plots are maintained as seed banks until the next growing season. Members sell what they personally harvest in their communities and to local markets as a means of income generation. Members also bring the vegetables home for consumption, increasing the household's access to nutritious food. Members also bring home the knowledge and skills gained from the demonstration plots to set up small household plots of their own. Fintrac and ZAPHA+ worked together with the local government authorities to install a well and a water pump for a drip ir-

rigation system at one of the demonstration plots, and lights so members could farm at night. The members working on the demonstration plots have raised enough money to open a bank account, and they use the funds to maintain the irrigation system.

### Demonstration plots

Fintrac has mainstreamed HIV into its work in Morogoro Region by partnering with Huruma Aids Concern & Care (HACOCA), a local NGO focused on providing HIV prevention, care, and support services to the community. Fintrac has established nine demonstration plots throughout Morogoro Region. Through HACOCA, Fintrac has used these demonstration plots to provide hands-on agricultural training to 200 OVC, 100 caretakers, and 300 farmers. The training is focused on vegetable farming mostly for consumption, which improves food security at the household level. Fintrac staff train the caretakers of the OVC during the morning, and then the OVC come to the demonstration plots after school so the caretakers can teach them what they learned that morning, with mentoring and support by Fintrac staff. The beneficiaries working on the plots are encouraged to apply the skills gained from the demonstration plots to establish small plots around their homes. The labor that they bring to farm



Source: Victoria Rossi

**Tungi demonstration plot in Morogoro Urban District serves 30 OVC and 25 caretakers by supporting them to grow cucumbers, tomatoes, pumpkin leaf, sweet potatoes, and maize.**

the demonstration plots is the only required input from these HIV-affected community members. They consume most of what is grown, but any money they make from selling the vegetables is used to buy additional seed.

### “Sack gardens”

One challenge in Morogoro Region is that many of the community members working on the demonstration plots do not have adequate land to establish small-scale plots at their own homes. To address this challenge, Fintrac introduced a type of agricultural technology known as “sack gardens,” in which community members fill small sacks with a mixture of soil, manure, and stones, and plant vegetable seedlings on top of and around the sides of the sack. These compact and upright standing sack gardens require little space and have thrived in communities where most of the land is used for housing. One hundred HIV-affected families that are supported by HACOCA are reported to be harvesting vegetables from these sack gardens. In many cases, families have multiple sacks and are growing different vegetables in each. Some households have reported reaping more than 10 harvests from one sack. The Kauzeni demonstration plot in Morogoro serves 40 OVC and 11 caregivers, with many of the caregivers maintaining multiple sack gardens which they report have improved the overall food security and nutrition of their families.

### Peer educators

In Morogoro Region, Fintrac partnered with UMATI, another local NGO, to raise HIV awareness among small-scale farmers’ groups organized by the Tanzanian Horticultural Association (TAHA). UMATI gave one-day basic HIV training sessions to 800 farmers and 56 other community members, covering topics ranging from the global impact of HIV to its effect on the district, modes of transmission, misconceptions about HIV, risk factors, preventive measures, stigma and discrimination, nutrition, and availability of HBC. During the training, UMATI identified 100 of the most active



Source: Victoria Rossi

**An OVC and her caregiver who are supported by Fintrac/HACOCA to cultivate vegetables in “sack gardens” at their home.**

and engaged participants and invited them to become peer educators to raise the HIV awareness of their fellow farmers and community members. These 100 peer educators then participated in a more in-depth five-day training activity, which included skills building and development of a peer education action plan. The primary components of the action plan included sensitization and education of the peer educators’ family members and neighbors, local farmers’ groups, and most-at-risk populations, including sex workers, barmaids, youth, and motorcycle and truck drivers.

## WHAT WORKS WELL

### Adapting the organizational mission to address community needs

The organizations described above recognize that the communities in which they work often have concerns and priorities that extend far beyond NRM. For these organizations to achieve their mandates, they must expand the scope of their work to address the communities’ concerns and priorities. JGI has used a successful model that first empowered community members to identify their own priorities, and then enabled enough organizational flexibility to adapt organizational mission state-

ments and design effective strategies to address those priorities. Through this model, JGI has fully integrated health promotion and socioeconomic development of the local communities into NRM.

### **Partnering with local government**

Collaboration with the local government ensures that program design is locally appropriate and fosters political buy-in that proves critical for successful implementation and future program sustainability. JGI supports MOHSW trainers to train the CBDAs/HBCPs, and also works directly with the district councils and village-level government to develop land use management plans, set up microenterprise groups, conduct HIV educational campaigns, and establish HIV committees within the village-level government structure. LOOCIP through CC works closely with the village government to facilitate a process in which Maasai community leaders and their people identify factors that influence the spread of HIV. Additionally, at the center of UZIKWASA's work are strong partnerships with the village leadership to address HIV through the VMACs.

### **Employing a health specialist to coordinate mainstreaming**

JGI and Fintrac both employ full-time health specialists to coordinate the HIV mainstreaming work of their respective organizations, and to build the capacity of the staff to implement HIV programming. It is important that the NRM/EG staff understand the intimate linkages between NRM/EG, HIV, and the health and socioeconomic status of the communities they serve. On a daily basis, the staff at these NRM/EG organizations, who are largely trained in a discipline outside of health, are the key players creating the time and space to effectively mainstream HIV into their work. They need to be led, coordinated, and mentored by staff with expertise in health program implementation.

### **Using EG activities to promote sustainability**

Incorporating EG activities into NRM and HIV programming promotes sustainability and empowers communities to support themselves. JGI supports a variety of microenterprise and microcredit groups in Kigoma District. UZIKWASA works with the VMACs in Pangani District to mobilize resources within their own villages to address HIV. Fintrac supports PLHIV in Morogoro Region to grow fruits and vegetables that are sold to markets for income generation. Ensuring that households have access to capital ultimately decreases their vulnerability to HIV.

### **De-stigmatization of HIV**

Community sensitization and education about HIV demystifies the disease and dispels inaccurate local beliefs about its cause, transmission, and treatment. Mainstreaming HIV into health-related services and broad, village-wide NRM/EG activities decreases the stigma attached to the disease. It has been anecdotally reported by staff from all of the NRM/EG organizations and also their beneficiaries that mainstreaming HIV programming into their NRM/EG activities has reduced the stigma associated with HIV in the communities they serve. JGI and Fintrac support PLHIV networks, and UMATI supports farmers to be peer educators, which are activities that directly combat stigma and discrimination.

## **CHALLENGES**

### **Weak HIV capacity of staff and lack of clarity on mainstreaming**

Mainstreaming HIV into NRM/EG activities is traditionally done by organizations that do not have significant experience with HIV or health expertise in general. Definitions of mainstreaming are somewhat vague and provide little guidance for operationalization. In this context, the capacity of staff to effectively internalize and mainstream HIV programming into

their NRM/EG work can be limited. Additionally, there may be concerns among staff that mainstreaming of HIV will detract from the organization's core area of expertise and thus will divert resources. Staff of NRM/EG organizations may perceive the mainstreaming of HIV as a burdensome addition to their daily work, and may be reluctant to prioritize these activities.

### **Funding from different USAID offices with different reporting requirements**

For organizations that receive both PEPFAR wraparound funds and NRM/EG funding, the ideal approach to work planning is to develop one single, integrated workplan to which the PEPFAR wraparound funds are added to the overall budget and into which all HIV activities are incorporated as part of the NRM/EG workplan. However, having one workplan that incorporates both NRM/EG and HIV activities presents challenges for tracking spending from the two different funding sources. This is especially true for fully integrated HIV and NRM/EG activities. Additionally, different reporting templates are often used for NRM/EG and HIV reporting, which increases the burden of reporting on staff. For example, on a quarterly basis JGI completes NRM/EG reports that document in a specific wraparound section how PEPFAR wraparound funds have been used to implement HIV mainstreaming activities. These NRM/EG reports are shared with the PEPFAR wraparound team. On a semi-annual basis, JGI completes PEPFAR reports using a distinct template to report against a set of standard PEPFAR indicators.

### **Fitting into PEPFAR indicators**

It can be challenging for NRM/EG organizations to accurately and fully capture their work within PEPFAR's standard set of indicators. Many of their mainstreamed HIV activities are primarily prevention related, falling outside the purview of the high-level PEPFAR indicators for HIV treatment, care, and support. NRM/EG organizations are encouraged to take full advantage

of the comments section of the PEPFAR reports to qualitatively document their achievements, but they remain concerned that funding levels may be adversely affected if they do not report against the full set of PEPFAR indicators.

### **Resource limitations**

PEPFAR wraparound funding is usually small compared to NRM/EG project budgets, ranging from 5 to 10 percent of the overall budget. Many of the NRM/EG organizations report that the reach of their HIV mainstreaming work is limited by the small amount of PEPFAR wraparound funding relative to NRM/EG funds.

## **RECOMMENDATIONS**

**K**ey lessons can be drawn from JGI, AWF, URI, and Fintrac's successful work mainstreaming HIV programming into their NRM/EG activities in Tanzania.

**Leverage the NRM/EG platform to address health needs of the community:** HIV programming, and health programming more broadly, can be mainstreamed into NRM/EG activities in a cost-effective manner by leveraging the platform that NRM/EG projects have built up over several years and through millions of dollars in funding. These four NRM/EG organizations are implementing community-based NRM/EG activities that are well established at the grassroots level. To achieve their organizational objectives, they must design and implement NRM/EG interventions that reach down to the village, hamlet, and even household level, which is a major challenge in the global health field. Implementing community-based health interventions can be highly resource-intensive, especially for remote, underserved populations. By leveraging an already existing platform that was established using NRM/EG funds, these organizations are able to invest most of their PEPFAR wraparound funds in direct HIV activities.

**Implement internal mainstreaming:** For NRM/EG staff to effectively mainstream HIV into their daily work, they must be well educated about HIV infection and understand its impact on the communities they serve. Internal mainstreaming, including training during staff meetings and support for staff members and their families affected by HIV, fosters a sense of well-being that will extend to their work in the communities. If staff do not feel adequately educated about HIV or enabled to confront it within their own personal lives, they will be ill equipped to mainstream HIV education and support services into NRM/EG activities at the community level. Organizations should institutionalize HIV internal mainstreaming by investing in the development of HIV workplace policies.

**Employ a health specialist to coordinate mainstreaming:** One recommendation worth strong consideration is recruitment of a full-time staff member with health expertise to coordinate the mainstreaming of HIV into an organization's NRM/EG activities and to train and mentor staff. On a daily basis, the staff at these NRM/EG organizations, who are largely trained in a discipline outside of health, are the key players expected to create the time and space to effectively mainstream HIV into their work. It is most effective to have one person with health expertise who is clearly tasked with managing an organization's HIV mainstreaming agenda to train and mentor staff and monitor the progress and quality of implementation.

**Partner with local and international HIV organizations:** As mentioned above, mainstreaming HIV into NRM/EG activities is traditionally done by organizations without significant HIV experience. Both local and international organizations specializing in HIV can be used to provide targeted technical assistance on the effective mainstreaming of HIV into annual workplans, implementation plans, and budgets. These organizations can also be subcontracted to directly implement HIV mainstreaming activities within

the context of the NRM/EG work, as has been done to varying degrees by all four NRM/EG organizations described in this technical brief.

**Know your audience:** For NRM/EG organizations to effectively mainstream HIV programming, they must know and understand the communities in which they work. To gain such insight, it might be useful to conduct a simple situational analysis using focus group discussions or individual key informant interviews with local government officials, national parks staff, farmers' groups, fishermen, health dispensary staff, community leaders, community members, and local and international HIV organizations working in that region or district. Based on the findings, NRM/EG organizations can then select a small number of targeted health interventions that are locally appropriate, address a real community need, and complement existing NRM/EG work. On a continual basis, organizations should monitor and evaluate their HIV mainstreaming activities and conduct small-scale impact evaluations when possible. Greater evidence related to the cost-effectiveness and impact of HIV mainstreaming activities will provide valuable information to policymakers and program managers.

**Maintain effective communication between recipient and donors:** PEPFAR wraparound funds link HIV programs with other non-health sectors that may not have a strong technical knowledge of HIV; similarly, HIV program staff at USAID/Tanzania may lack an understanding of NRM/EG. To minimize confusion, regular communication between the donors (in this case, USAID/Tanzania staff from the Health and NRM/EG teams) and the wraparound funding recipient is imperative. Although quarterly reports are a form of regular communication, as discussed above, they have some inherent challenges. A schedule of regular check-ins—including in-person meetings and field visits—might help improve implementation of wraparound programming.

## Take full advantage of both NRM/EG and PEPFAR reports:

As mentioned above, it can be challenging to accurately and fully capture HIV mainstreaming work within PEPFAR's standard indicators. PEPFAR recognizes this and encourages partners to qualitatively document their achievements in the comments section of the PEPFAR reports. If an NRM/EG organization is not able to report on any of the PEPFAR indicators, it can still submit a satisfactory report by fully describing in the comments section how it has mainstreamed HIV activities during that quarter into its core work. Furthermore, PEPFAR recently added an indicator to its reporting templates that captures economic strengthening work for vulnerable families in order to address the broader development work that partners are doing. This indicator should better capture the community-based economic strengthening activities that most NRM/EG organizations will implement in the future.

## Promote sustainable, country-led programming:

Strong partnerships with the government are critical, beginning at the national level and continuing down to the regional, district, and village levels. These partnerships ensure that programming is locally appropriate and that governments have the technical capacity and political commitment to sustain programming into the future. Empowering communities to leverage their own resources to support HIV programming, through the VMACs or microenterprise and microcredit groups as has been done by UMATI and JGI, respectively, decreases donor dependency and promotes program sustainability.

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