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Gender, Agriculture, and Climate Change: An Analysis for USAID/East Africa

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Gender, Agriculture, and Climate Change: An Analysis for USAID/East Africa

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ACRONYMS

ASAL	Arid and Semi-Arid Lands
ASARECA	Association for Strengthening Agricultural Research in Eastern and Central
CGIAR	Consultative Group for International Agricultural Research
CLIP	Climate-Land Interaction Project
COMESA	Common Market for Eastern and Southern Africa
DFID	Department for International Development
EA	East Africa
EAC	East African Countries
FAO	Food and Agriculture Organization
FEMCOM	Federation of National Associations of Women in Business in Common Market for Eastern and Southern Africa
FTF	Feed the Future
GHG	Green House Gas
GCCI	Global Climate Change Initiative
ICRAF	World Agroforestry Center
ICRISAT	International Crops Research Institute for the Semi-Arid Tropics
ICT	Information and Communications Technology
IDRC	International Development Research Centre
ILRI	The International Livestock Research Institute
IPCC	Intergovernmental Panel on Climate Change
KARI	Kenya Agricultural Research Institute
KIPPRA	Kenya Institute for Public Policy Research and Analysis
LEAP	Landscapes, Energy, and Adaptation Program
NRM	Natural Resource Management
RANET	Radio and Internet for the Communication of Hydro-Meteorological Information for Rural Development
REDD	Reducing Emissions from Deforestation and Forest Degradation
REGI	Regional Economic Growth and Integration
SOW	Scope of Work
SWC	Soil Water Conservation
UNDP	United Nations Development Program
UNFCCC	United Nations Framework Convention on Climate Change
UNEP	United Nations Environment Program
USAID	United States Agency for International Development
WID IQC	Women in Development Indefinite Quantity Contract

EXECUTIVE SUMMARY

This report reviews the gender implications of the activities of the United States Agency for International Development/East Africa (USAID/EA) Regional Economic Growth and Integration (REGI) program with particular reference to the Feed the Future and the climate change initiatives. In East Africa, there is a need to incorporate gender dimensions into local, national and regional climate change programs and discussions. There is a common recognition that the poor and marginalized will experience the impacts of climate change most acutely and that they have the least capacity to adapt, and that women and girls make up a disproportionate number of the poor or marginalized. Addressing this in East Africa is challenging because of the high level of social and environmental heterogeneity. Addressing climate change in intensive farming systems will be very different from those in agro-pastoral systems, for example. Climate change responses will need to be flexible, multiple and locally specific. Adaptation and mitigation policies and programs could potentially exasperate existing inequalities, and their success depends on addressing these potential issues.

A large knowledge gap exists in how climate change is expected to impact key sectors in East Africa, including agriculture, water and energy. An even larger knowledge gap exists in what adaptation and mitigation strategies would be successful, where, and for whom. USAID/EA could contribute to reducing the gaps by supporting science-based, gendered analyses of potential strategies, and their economic and social effects. This would involve capacity building of women and men to have the knowledge, skills and voice to engage in climate change program debates from the local to the international arena, and developing institutional mechanisms to encourage this integration. Cross-border and regional policies and programs will be critical in the energy, water and agricultural sectors, and many have gender implications.

Agriculture is the sector that is expected to be most affected by climate change, and the Feed the Future program will need to include climate as well as gender issues in its program. The report identifies key gender issues for Feed the Future (FTF) such as improved policies and capacity building to encourage women to engage in regional trade, obtain credit, gain access to agricultural research results and extension, and reduce barriers to women-owned businesses.

Particular activities in technical assistance, knowledge management, capacity building and policy support that would address gender issues and be implemented at the regional level are discussed in the report. In sum, regional level responses are critical in agricultural and climate change programs because of the scale of the problem, the international and cross-border dimension of the response, and the level of expertise needed to respond effectively. It will require a combination of local, national and cross-border adaptation projects, with regional and national policies and programs.

Summary of Recommendations

Addressing gender issues at the regional scale is uncommon and challenging. We recommend the following activities:

- USAID/EA should hold a regional gender strategy workshop that brings together institutions working towards gender equality in East Africa. Gender focal points, gender advisors, representatives from government ministries and key international organizations working in thematic areas relevant to FTF and LEAP should be invited. The objective of the workshop should be to work towards the creation and harmonization of gender mainstreaming policies in the region. It could address the harmonization of laws on equal opportunities, tenure security, gender-based violence, personal mobility, customs procedures, and developing indicators to monitor the impact of these laws. The regional workshop would be a first step towards establishing regional cooperation between international organizations working on gender issues relevant to FTF and LEAP. The cooperation would allow joint programming, pooling of resources and promote cross-institutional learning.
- USAID/EA should promote a network of practitioners from the above workshop and with others. The regional mission might consider establishing a regional IT platform to house a database (or to support another organization to) on gender, livelihoods, climate smart agriculture, and climate issues. The mission could produce an online/electronic newsletter to share information on lessons learned, best practices and new challenges.
- USAID/EA should work closely with partners designing and implementing the FTF and LEAP programs to ensure that gender specific indicators are included during monitoring and evaluation. The indicators must necessarily be identified beforehand and as much as possible harmonized across the region.

Particular recommendations include the following:

- Support a regional effort to develop model, harmonized gender policies in national trade policies.
- Create guidance for partners on gender-equitable governance in trade and business associations.
- Support efforts to pass the “East African Protocol on Gender and Development.”
- Conduct studies of women’s trade patterns and the extent to which border harassment is a constraint to trade and mobility of men and women.
- Work with FEMCOM to promote capacity building of other regional trade organizations. The approach should address issues of gender equity in their own organizations as well as in the topical areas in which they work.
- Develop guidance for gender-equitable cooperatives and associations (formation and operation) across the region to ensure that fees and by-laws are equitable, that women are appropriately represented, and that they do not create barriers or disincentives for either men or women.
- Work with partners to provide loan guarantee programs or to increase capacity of banks in the region to extend credit for small and medium term enterprises operating across borders and support their capacities to manage credit and do business in the region.
- Support institutional environments that encourage women’s land ownership combined with an educational campaign aimed at changing attitudes.

- Promote knowledge generation through technical assistance or other to provide information on expected impacts of climate change on key sectors, impacts on vulnerable locations and groups, and to identify adaptation and mitigation responses that are gender sensitive and effective. Use this information to develop a gendered adaptation protocol for the region.
- Support gender-sensitive agricultural research in regional and international agricultural institutions. Regional level technical assistance and knowledge management responses are critical in areas such as biotechnology, epidemiology and crop-climate modeling. Decisions of what crops or animals to focus on and their characteristics should include women farmers and their needs and preferences.
- Conduct a review of gender and water laws and rights to water in the region, with special attention to water markets, irrigation, and intra-basin water systems and cross-border lakes. The impact of climate change on water resources and the importance of the gendered impact led us to include water in this report.
- Promote clean energy use and management with a gender focus. Energy is a key sector that will increasingly have cross-border management implications. It relates to climate change in two ways—energy production will be impacted by climate change, and energy production if not clean can be a major GHG source. The climate change impacts have strong poverty and gender implications, but mitigation of climate change by using clean energy technologies has the potential to create new private sector opportunities and to reduce labor demands on women.
- Promote sustainable landscapes to enhance carbon sequestration, but carefully. The proposed REDD+ program and carbon market can have unintended negative impacts on women. However, women’s groups in East Africa have had large successes with tree planting. These lessons could inform program to ensure access of tree and land resources, and to promote fair sharing of benefits.
- Disseminate information on climate change, vulnerability and adaptation responses Provide capacity building of the media, NGOs and governmental institutions; promote linkages between research, governmental and media outlets to raises awareness of gender vulnerabilities, and improve the ability of institutions and communities to adapt and respond appropriately.

Recommendations for capacity building to analyze and implement gender considerations in regional programming activities

- Provide gender technical assistance to regional trade groups and marketing institutions, including liaising with existing gender focal points in agriculture and environment regional programs.
- Support gender awareness training for regional stakeholders to ensure gender-equitable representation and participation in regionally-based producer groups, microfinance institutions, and private companies operating in several countries.
- Support the education of women and men scientists to conduct research and contribute knowledge of climate change, and adaptation and mitigation

responses. Particular needs are for climatologists, climate modeling, crop and hydrology-climate modeling, and environmental engineering.

- Provide capacity building of NGOs and governmental staff of the expected impacts of climate change, and how to identify and implement effective adaptation strategies that address gender issues.
- Offer capacity building to regional groups working on gender and climate change (see Annex 4) to enhance their knowledge, skills and voice to engage in climate change program debates from the local to the international arena.

Gender is a developmental issue.... existing gender imbalances and inequalities in the society prevent [it] from realizing its full potential in all the activities of development in economic, social, and political dimensions.

The Tanzania National Website (<http://www.tanzania.go.tz/gender.html>)

I. INTRODUCTION

This report reviews the gender implications of the activities of the United States Agency for International Development/East Africa (USAID/EA) Regional Economic Growth and Integration (REGI). The effort was supported by USAID/ Office of Women in Development Indefinite Quantity Contract (WID IQC) (see Annex 1) through DevTech Systems, Inc. The assessment was prepared by Deborah Rubin (Cultural Practice LLC), Jennifer Olson (Michigan State University), and Elizabeth Edna Wangui (Ohio University). The desktop study is the first phase of a four part program to build capacity in and to design gender responsive programs that will likely include, at a later date, field work in East Africa and a gender training program

This desktop study offers an overview of the growing development literature on gender and climate change reflected in works by key donors, universities, and research organizations that describes current research priorities in gender and climate change. More specifically, it provides a brief gender assessment of USAID/EA's program activities, with special attention to those that are part of Feed the Future (FTF) activities and the planned Landscapes, Energy, and Adaptation Program (LEAP). The report is intended to assist in identifying and developing gender-responsive programs in the regional East Africa economic growth portfolio. The report looks most closely at the regional programs implemented in the five countries of Uganda, Kenya, Tanzania, Rwanda, and Burundi.

There is an emerging consensus within the donor community that the effects of climate change on men and women will be different, and that awareness of the consequences of these differences can and should be incorporated into program design and implementation. The differential impacts will affect men's and women's time labor, access to other productive assets, and will require site-specific responses as well as gender-sensitive policies.

The regional missions face challenges in finding the time, resources, and expertise to design and implement gender responsive climate change programs. Improving gender integration strategies will be particularly important in the new activities planned in the FTF and the LEAP initiative. By building on the findings in this assessment and conducting more targeted gender studies in some climate change areas, the mission can both support women and girls or "most at risk populations" through targeted climate change activities and also begin to address institutional structures and policies that create and maintain disparities between men and women and which may limit their ability to participate in market-led growth, assure their own food security, or exacerbate potential problems related to climate variability.

Methodology and Approach

There are two components to the methodology used by the team to conduct this report, concerned the data collection process and the gender analysis. The team initiated the gender and climate change desk study with a review of a wide range of scholarly, institutional, and development literature on climate change and gender relations in East Africa, including reports completed by development practitioners (so-called “grey literature”) and work on organizational websites. There is already a fairly significant body of work available on gender issues in climate change and food security in East Africa, if not always labeled in that way (see Annex 2). The team also reviewed USAID/EA, Feed the Future, and LEAP project and strategy documents and recent guidance on gender integration from USAID. In addition to identifying and prioritizing regional gender equality issues and resources, the desk study makes recommendations to be incorporated into multi-year regional strategies for the Global Climate Change (as conceived in REGI’s Landscapes Energy and Adaptation Program) and Feed the Future initiatives.

The gender analysis process applied to the data collection followed the lines of the Gender Dimensions Framework developed for USAID and used across several sectors. We are building on the framework and several decades of increasingly sophisticated research and practice to understand the roles of men and women in East Africa and elsewhere, and how these are differentially impacted by laws, policies, social norms and through development efforts. Although biological categories of male and female (“sex”) may be universally understood, the way that different cultural patterns link perceptions of biology to the social roles and responsibilities that are at the heart of economic systems are both varied and constantly changing (“gender”). Gender is the term that labels these socially and economically significant associations about women and men.

Nor is the term “gender” restricted to women. An increase in the participation of women and girls in agriculture, for example, has become a priority not simply because of their importance to global food systems but because women, more so than men, are still impeded in their opportunities by formal and informal gendered systems of access and control of productive resources. There may be cases, however, where the gender constraints that need attention might involve special programs for men as well, e.g., encouraging men to study in the food sciences and nutrition, disciplines more commonly chosen by women.

Attention to gender differences in agricultural development and climate change responses involves acknowledging that there are differences in men’s and women’s opportunities. Sex-disaggregated data collection identifies what differences exist, and gender analysis ascertains their relevance to the project at hand—how the project may affect gender roles, and how gender roles may affect the success of the project. Qualitative data collection and analysis, including participatory approaches, that illuminate social norms and expectations about men and women’s opportunities helps to identify locally appropriate pathways to support shifts towards more equitable interactions.

USAID has built a requirement for gender analysis into its operations manual, the Automated Directive System (ADS 201.3.9.3). It requires that all USAID operating units –

whether at headquarters or in the field -- examine two key questions with regard to gender issues:

1. How will the different roles and status of women and men affect the work to be undertaken?
2. How will the anticipated results of the work affect women and men differently?

To answer the first question, it is necessary to examine the different roles of men and women in the regional and/or sectoral areas in which a program will be implemented. This includes the relationships between men and women and how government or institutional structures and policies shape those relationships. Information is collected by exploring such questions as: Who does what, including when and where tasks are performed? Who has what types of access to, control over, and ownership of important assets? Who makes decisions and what is the decision-making process? Are there laws that encourage or discriminate against men or women in different situations? The second question involves considering the consequences of project implementation or policy change on gender relations. It requires that a baseline is established and that the project indicators measure shifts in gender relations. The second question is meant to ensure that those designing and implementing projects consider how both women and men can benefit from development interventions.

Past research has documented that the following gender-based constraints need to be considered in programs such as FTF and LEAP and the recommendations in the report are organized around these three topics:

1. Limited access to productive assets that inhibits growth-enhancing investments;
2. Restrictive social norms and attitudes limiting women's opportunities and mobility; and
3. Discriminatory laws, policies and institutions.

In addition, a fourth category of recommendations addresses incorporation gender issues into knowledge management/ regional services.

These will be addressed in the "key issues" sections at the end of each of the report's substantive chapters, and again in the summary recommendations.

Structure of the Report

The final report has five sections. It opens with this brief introductory section outlining the past and present context of USAID support to gender and climate change research. The second section describes key cross-cutting issues for both FTF and LEAP, including labor, resource tenure, water, pastoralism, and education and capacity building. The third section provides a gender analysis of Feed the Future program activities, focusing on issues in key agriculture-related activities and investment areas. The fourth section is a regional gender analysis of GCCI/LEAP program activities, examining adaptation programs in agriculture and water, and mitigation programs in clean energy and sustainable land use. The final section presents the team's summary recommendations.

II. CROSS-CUTTING GENDER ISSUES

Both the FTF and LEAP programs are providing development opportunities in rural areas in East Africa, though with different approaches and practices. The gendered analysis of these programs revealed, however, some critical, underlying issues in East Africa that could potentially affect their success to produce equitable, sustainable development outcomes. The issues are: 1) labor, 2) land, tree, and other resource tenure, 3) water management, 4) gender and pastoral livelihoods, and 5) education and capacity building. These issues, related to community-level gendered roles, rights and responsibilities, can result in unintended consequences of the programs. They can, however be successfully addressed with appropriate planning and implementation. Due to their importance in planning the FTF and LEAP programs at the regional level, their local manifestation and regional program implications are described below. The subsequent FTF and LEAP sections of the report refer to these issues in less detail.

Labor

In East Africa, gender divisions of labor are clearly defined and closely guarded. Because activities associated with FTF and LEAP will be performed in this context, careful attention will need to be paid to the specifics of existing gender roles. Accurate knowledge of gendered patterns of work will promote participation during planning and implementation cycles of the project. Increasing food production will rely heavily on the labor of women. Sequestration of greenhouse gasses may introduce altogether new gendered activities or modify existing ones. Gender profiles exist only at the national level (e.g. Creighton and Yieke 2006, Pitambar and Hamza 2005). These need to be scaled up and harmonized across the region. The Inter University Council of East Africa (an institution within the East African Community) could be a useful partner in this process.

Women and girls across the region have many competing responsibilities for their time. The 2006 Tanzania Time Use Survey reports that 76 percent of women collect water, compared to 33 percent of men, and that women spend more time doing it. Fetching water for domestic use is a high priority that will take more of their time in areas projected to become drier as a result of climate change. This may limit their ability to participate in agricultural production, school, and other activities. Although providing safe drinking water is not a direct priority for FTF and LEAP, the success of both programs will hinge on its availability. Assessments of safe water availability in the context of climate change are needed and Ministries of water in the region should work together to highlight gaps that need attention. The capacities of regional bodies such as the Lake Victoria Basin Commission that are experienced in addressing cross-border water issues should be enhanced so they can take the lead in safe water assessments.

Land, tree, and other resource tenure

Tanzania, Uganda, and Kenya have over the past fifteen years made strides towards revising national land laws. Other governments in the region should also be encouraged to re-evaluate their land tenure policies with a view to making them gender sensitive. Current statutory laws permit women to own land. However, most adjudicated agricultural land is owned by men. Women gain access predominantly through male family members, with whom they have to negotiate this inequality. Married women sometimes lose access upon the

deaths of their husbands, with serious implications for food security and family income. The resource tenure system is often complex, with men owning the land and timber from trees, and women owning the some of the crops or plants on the land (Rocheleau and Edmunds 1997). This complexity needs to be recognized across the region. Research aimed at uncovering underlying reasons for women's low ownership rates and proposing ways of addressing the issues should be supported. Gender sensitive policies must necessarily incorporate overlapping resource and land rights. The capacity of existing legal institutions and frameworks to incorporate this complexity and support women land ownership needs to be enhanced. Since the land question is highly sensitive in the region, we recommend a two tiered approach to this issue. First, is the short term goal of creating an institutional environment that supports women's land ownership. This would be implemented concurrently with activities that support the longer term goal of changing mindsets that limit land ownership among women. This would need to be done through informational/educational campaigns. Achieving this long term goal requires high level political support and will need to begin with bringing top level stakeholders together in order to design a general framework that would work across the region.

As the selection of targeted staples continues, there needs to be an awareness of which crops are controlled by men and which are controlled by women. New market-oriented approaches can wrest control of crops traditionally controlled by women away from them (Schroeder 1999; Carney and Watts 1991) while simultaneously delivering results when examined at a regional or national scale. This is more likely to occur where marketplaces are far from homesteads, requiring relatively long absences from home and interfering with care-giving duties. Helping women to link directly to markets by forming producer and marketing associations to build stronger horizontal and vertical linkages in the value chain may overcome this problem. Regional investments in road, telecommunication infrastructure, as well as streamlining border control points to minimize travel delays will also benefit both men's and women's marketing strategies. The East Africa Development Bank (EADB) supports telecommunication, roads and infrastructure development within the East African Community. USAID should enhance the capacity of EADB and other institutions like it in this endeavor.

Mobile phone technology is well available in the region and could be tapped into to create, maintain, and enhance links to markets. Mobile phone technology is already being used by farmers in Kenya and Tanzania to access market information and conduct some banking within each country. Men tend to own phones more often than women, and literacy rates among men are higher. Texting is thus less accessible for older or less well-educated women. There are few places where mobile phones can be charged in arid and semi-arid areas, and sometimes people must walk several hours to reach a charging station. In such instances, men are more likely to have access to charged phones because of their greater levels of mobility. Any efforts to utilize mobile technology should consider providing charging points in order to avoid introducing new forms of gender inequality. There is a need to evaluate other ways in which access to mobile technology is gendered, and implement policies to correct any ensuing imbalances. Regional institutions such as EADB that invest in telecommunications together with private providers (e.g. Safaricom, Vodacom, Zain) should be supported in working together to ensure that across the region, mobile phone technology does not exacerbate gender imbalances.

Gendered tree and land tenure issues come into play in consideration of how to best implement a sustainable landscapes program. There is a danger that the benefits of a program such as **Reducing Emissions from Deforestation and Forest Degradation (REDD+)** would come mostly to men and to wealthier households because they more often have formal rights over land and trees, whereas women and poorer households may have only informal user rights over land or for collecting tree products. A REDD+ type approach may lead to unintended consequences of land being converted from food crops or more mixed use to mono-cropped trees with little utility for women.

Introducing carbon markets will similarly require a careful analysis of what form the “carbon” will take, on whose land it will be produced, and with whose labor. Regional, national and community carbon parks could be established where natural vegetation would be less disturbed. This will require regional level land cover analysis to identify potential sites for such carbon parks. Stakeholders need to be brought together to identify potential opportunities and constraints for carbon parks in the region. Since there is no history of establishing carbon parks, policies need to be carefully thought out and harmonized across the region. Special care should be taken not to repeat the mistakes made with the establishment of wildlife parks that left local people disenfranchised. Where carbon farms are introduced on land already under crop production, specific attention should be paid to whose crops (household or individually controlled) will be replaced by the carbon crop. Other important considerations include what the implications of low tillage are for household food security and who stands to benefit financially from the carbon markets. Sequestering carbon in the soil also has land tenure implications that are highly gendered. Additional carbon sequestered in soils may improve soil productivity and thus have a beneficial impact on food and other crops; the gendered consideration is whether the land management practices leading to this requires new, large labor requirements met by women, and who would benefit.

Water

Women play the dominant role in ensuring that families obtain adequate safe domestic water supplies. In rural areas, they walk long distances to fetch water. In urban areas, they spend long hours queuing for water. Women are also the primary caregivers and will be the ones to care for family members who fall sick due to water related causes. Women play a dominant role in agriculture and related agricultural water use. USAID should work closely with partners implementing FTF and LEAP to ensure that women are included at all levels where decisions on water management are discussed.

The management of water resources is critical in ensuring that agriculture can endure the impact of climate change. The **Intergovernmental Panel on Climate Change (IPCC)** estimates that by 2020, rain-fed agriculture in Africa will decrease by half. Food production will therefore need to rely on irrigated agriculture. Currently, only about 6% of Africa is under irrigation. FTF mentions irrigation as one of its strategies to increase food production. This will require careful management of water resources especially since the IPCC estimates that 250 million Africans will face water stress as a result of climate change. If poorly managed, increased irrigation has the potential to increase competition for domestic water, increasing the labor burden for women and girls. Irrigation projects need to be implemented only after a careful assessment of what the impacts would be on domestic water supplies.

Such an assessment should begin with a regional analysis of current and future water sources for irrigation purposes. USAID should support such an assessment by bringing together hydrologists and climate scientists with experience in the region, institutions experienced in managing trans-boundary water bodies such as the Lake Victoria Basin Commission, as well as institutions with experience working with small scale irrigation schemes in East Africa such as the International Water Management Institute (IWMI).

A recent study has recommended that irrigation should target smallholders rather than the current model of large irrigation schemes (Ngigi, 2010). This would be a significant policy shift as throughout the region, irrigation projects tend to be large and run by governments. Large scale irrigation schemes have been associated with poor governance, insecure land tenure and most importantly, poor yields and low water use efficiency. On the other hand, smallholder irrigation schemes have strong community based governance, low start-up and operational costs and diverse sources of water and irrigation methods. USAID needs to support efforts to identify, rehabilitate and improve existing smallholder irrigation schemes. This can be achieved through collaboration with institutions such as IWMI.

Farming and pastoral communities in the region are already living with climate change and they are already adjusting their water management activities in order to adapt to the changes. USAID needs to support research on ongoing adjustments, with a view to a better understanding of what works and what doesn't and how adjustments are gendered. Adjustments that work, can then be appropriately modified and scaled up. The International Livestock Research Institute (ILRI) and the World Agroforestry Center, (ICRAF) are two examples of potential partner institutions that have the capacity to carry out this kind of research.

Gender and pastoral livelihoods

Pastoral livelihoods have faced numerous policy and climatic challenges in past decades. All over the region, pastoral livelihoods are becoming increasingly constricted as grazing areas are converted to farming, wildlife conservation, and other uses. It has been shown that constricting pastoral livelihoods can lead to increasing work burdens for pastoral women and girls (Evangelou 1984; Wangui 2003). This is further complicated by increased conflict over water with farming communities. Given that pastoral livelihoods often cross international boundaries and that they are highly vulnerable to climate change (CLIP Policy Brief 2008), policies that promote pastoralism both as a livelihood and a viable economic option need to be implemented across the region. Where draft national policies already exist (e.g., in Kenya) they need to be updated based on the most current regional climate projections. Where policies do not exist, the capacities of governments, NGOs and community based civil societies in the region to contribute to the formulation and harmonization of the policies should be supported.

All over East Africa, livestock ownership and use rights are varied and complex. In some places men own complete exchange rights over all stock and at other places they control only larger stock. Men can also hold exchange rights of stock for which women hold use rights. Understanding and evaluating this variety and complexity is an important step towards implementing gender sensitive projects. This evaluation will need to involve assessments that cover different scales (from regional to community) in order to capture the

complexity. As noted above, programs that target increased livestock trade need to be aware of such arrangements in use and exchange rights of livestock and livestock products.

Additionally, when women's products gain large commercial value, control can shift to men. This is illustrated in milk production among Masai communities in Southern Kenya. Milk and milk products are usually controlled by women among the Masai. Women can choose to sell these products or exchange them as gifts that strengthen social networks. Increasing milk output considerably changes the way milk outlets are accessed (from small local outlets reachable on foot, to larger markets requiring bicycle or automobile transport), thereby shifting milk control from women to men (Mitzlaff 1994; Kipury 1989; Talle 1994). The multi-scale assessment of gendered use and exchange rights of livestock and livestock products would limit the potential for such shifts that serve to further marginalize pastoral women.

In the past, the general attitude of livestock development officers in the region was that the labor for livestock production was predominantly supplied by men (Grandin 1982). However, researchers are now finding that with ongoing adjustments and adaptations of the pastoral livelihood, women's contributions to livestock production have increased in significant ways (Hodgson 2000, 2001; Niamir-Fuller 1994). Pastoral sedentarization has occurred concurrently with increased cultivation as pastoralists take up farming to replace herds lost to drought. Although initially meant as a temporary drought coping strategy, cultivation has become increasingly permanent and pastoralists now consider it a critical part of their livelihood diversification strategies. Such new livelihood activities as cultivation are predominantly done using the labor of men. Men are therefore not available to participate in their traditional duties of herding livestock. Boys and young men are equally unavailable to herd livestock on a regular basis as they have been enrolled in formal schooling. The labor for livestock production is now predominantly coming from women (Wangui 2003). This information on new divisions of labor has not yet been incorporated in livestock/pastoral development policies in the region, an oversight that has produced unintended negative consequences (Hodgson 1999; Wangui 2008). There is a serious need to improve the available data on current gender roles in livestock production and how these are likely to be affected by future adjustments and adaptations. Armed with the data, FTF and LEAP implementers can more accurately evaluate labor availability and avoid shortfalls of past projects. For example, the Masai Livestock and Range Management Project in Tanzania failed to meet most of its objectives partly because of a misguided gendered image of pastoralists that directed project components to men, ignoring women (see a detailed analysis done by Hodgson 1999). The Kenyan Livestock Development Project encouraged privatization of the rangeland, a factor that decreased the accessibility of dry season pasture and hence reduced mobility of pastoral herds during significant parts of the year. This had the subsequent impact of increasing the work load of women as the herds were kept close to homesteads and under women's care for most of the year. Ongoing projects favor the introduction of improved breeds into pastoral herds. Improved breeds have higher meat and milk yields, but they tend to be less drought and disease resistant, and sometimes need to be stall-fed. Stall-fed animals are particularly labor intensive for women as they are the ones to collect fodder and fetch water for the livestock. A more detailed analysis of development interventions and their unintended implications for women's labor in southern Kenya has been done by Wangui (2008).

The recommended assessments of gender roles among pastoralists combined with overlapping land and crop/plant ownership and use rights will be particularly useful in the proposed inclusion of well-managed rangeland in the calculation of carbon credits. Knowing who owns what and whose labor is used where will help avoid the potential that women (because of existing gender roles) would contribute labor to manage the rangeland, while men (because of existing land tenure arrangements) collect the income from carbon credits.

Conflict in dryland areas has been identified as one of the barriers to regional trade in livestock. Women in pastoral communities have been shown to play important roles in conflict resolution and their help should be sought (Elmi et al 2000). The role of women in conflict resolution may include both organizing peaceful demonstrations in Somalia and assisting with livestock retrieval after a raid. Examples of women organizations working in conflict resolution among pastoralists include Save Somali Women and Children and Wajir Women for Peace. Additionally, in order to effectively integrate livestock and livestock products into national and regional markets, FTF proposes to bring leaders of pastoral communities and policy-makers together in organized forums. To ensure that both women and men are included in these fora, it is recommended that concerted effort should be put into developing guidance for gender-equitable selection procedures, including women leaders from community-based civil society organizations in the region.

Encouraging the participation of women is particularly challenging in pastoral communities. Despite recent emphasis in empowering women and mainstreaming gender, pastoral women have remained highly marginalized. For example, women in Masai communities do not own livestock, they have limited opportunities to access education and in many instances do not have the power to make decisions about their own lives. Including pastoral women requires careful negotiation and a deliberate attempt to meet with women in their spaces and at the convenience of the patriarchal structures within which the women live. We recommend working with strategic partners who would have the time and space flexibility to comfortably accommodate the special circumstances of pastoral women. The partner would also be an advocate who would work to protect the interests of pastoral women. Pastoral and Environmental Network in the Horn of Africa (PENHA) is a good candidate for a strategic partner.

Education and capacity building

Gender mediates access to education. Poverty and socio-cultural reasons keep girls at home as boys attend school (Hodgson 2000). Since education is linked to higher incomes, it has the potential to improve food security and increase the willingness of low and middle income families to pay for clean energy fuels (KIPPRA 2010). Strategies targeting food security and increased use of clean energy should therefore incorporate attempts to increase the enrolment of girls and women in formal education.

More men than women access agricultural extension services, yet women produce most of the food and supply most of the labor in agricultural production. FTF recognizes that many smallholders, including women, lack the knowledge to use technology and other inputs effectively. Existing extension workers tend to prioritize commercial farming, which is usually controlled by men. They should be trained to also value the priority crops of women farmers, which tend to be crops that serve both food and cash needs. Extension workers should also be trained to support new agricultural livelihood strategies associated with new

adaptations to climate change. For example, Masai farmers do not receive information on proper crop farming techniques since they are still predominantly viewed as pastoralists. Yet many in southern Kenya took up farming after the 1984 drought and they have been farming since (Campbell et al 2005). These recent farmers are hungry for information on cheap drip irrigation technologies currently being demonstrated on far-away Kenya Agricultural Research Institute (KARI) plots. All around the region, there is a gap between agricultural researchers and farmers that needs to be bridged. Oftentimes agricultural research of direct benefit to farmers does not reach the farmers because existing forms of dissemination do not include taking information back to farmers. USAID should ensure that their partners in the region recognize the need to include feedback workshops in their research and that such workshops are well funded.

Current proposed efforts at capacity building focus on formal institutions. Consider expanding this to include short term training of community women leaders and women groups. This could be one way of getting around the limited extension service that women access. In addition, financial and institutional support needs to be extended to allow women to take advantage of international trade agreements within and beyond the region (e.g., East African Community, Africa, Growth and Opportunity Act).

Accessing credit provides agricultural communities with a means to increasing production through purchase of tools, inputs and labor. Overall, men have higher access to credit than women do. It has been argued that if women in sub-Saharan Africa had access to the same inputs as men do, food production would increase by 10-20%.¹ Men and women access financial assets differently, with women dominating the micro-credit landscape and men the macro-credit. There needs to be meaningful access to macro-credit for women as well as meaningful access to micro-credit for men. A gendered analysis of institutional constraints to accessing credit needs to be performed. USAID should work with regional banks (e.g., East Africa Development Bank) in order to increase the bank's capacity to extend loans for small and medium term enterprises, and support activities that build women's capacities to manage credit and do business.

Key Issues and Gaps

Limited access to productive assets that inhibits growth-enhancing investments

- Women have low rates of land and animal ownership
- Improving women's access to extension information related to new techniques for climate smart agriculture

Discriminatory laws, policies and institutions

- Access to mobile phone technology is gendered and hence creates gendered inequality in the way market information is accessed.
- Gender is not clearly mainstreamed in agricultural research, extension, and policy
- Women are less able to access micro-credit and other financial assets

Knowledge management/ regional service

¹ http://www.usaid.gov/our_work/cross-cutting_programs/wid/WID_FACTSHEET_Gender_Food_Security.pdf

- Improving regional data repository on gender and specific livelihoods, e.g., the changing role of women in livestock trade and production; cataloguing the gender aspects of local adaptation strategies,

Data needs

- Sex-disaggregated data on labor, resource tenure, and time allocation
- Multi-sectoral regional gender profiles covering sectors that are relevant to FTF and LEAP.
- Assessments of domestic and irrigation water availability in the context of climate change.
- Research on reasons for women’s low land ownership rates
- Livelihoods in the region are already adjusting to climate change. Yet these adjustments are not clearly documented or analyzed. Support research in this area.
- Analysis of institutional constraints to accessing credit
- Changing gender divisions of labor among pastoralist in the context of existing adaptations to climate change.

III.REGIONAL GENDER ANALYSIS OF FEED THE FUTURE PROGRAM ACTIVITIES

Feed the Future program activities

This section offers an overview of issues, gaps, and recommendations to ensure that gender disparities are addressed and reduced in the course of the East Africa regional FTF and other REGI program implementation efforts. The key points are summarized at the end of the section.

The FTF program is USAID’s response to the donor commitments made during the G8 Summit in L’Aquila, Italy to “act with the scale and urgency needed to achieve sustainable global security” (Feed the Future 2010d: 1). As currently envisioned, FTF has two primary goals—to accelerate inclusive agricultural sector growth and to improve nutritional status—and both of these are to be achieved through a process that adheres to five guiding principles of country ownership, strategic coordination among actors, leveraging of multilateral investments, institutional accountability, and implementing a comprehensive approach. Both broad goals are also to be achieved in a way that is sensitive to the impact of climate variability (short term) and climate change (long term) on agricultural production. Some predict that the climate impacts could reduce yields in some areas in Central and West Africa by up to 50% and revenues by an even larger percentage because of higher risk of drought and higher temperatures, among other factors. In some places, e.g., in the Ethiopian highlands or in parts of Mozambique, the climatic shifts might even create areas of higher productivity (Below et al. 2010: 3-4).

Within its broad effort to target and enhance the productivity and market engagement of smallholder producers, the FTF initiative acknowledges that “it is critical that interventions address gender roles and relationships and monitor changes” in these relationships (FTF 2010b: 8). The initiative also includes support to women and families as one of its key areas of focus across the core investment areas (FTF 2010b: 10, 29). FTF efforts specifically target women or girls to overcome the disparities they have historically faced. Typical phrasings

within the implementation plans state, e.g., that USAID will “promote women’s leadership of women at all levels through the agricultural sector” or conduct “assessments of women’s participation at all stages of staple food value chains” and identify “best practices for getting appropriate technologies ... to women farmers to increase their productivity and link them to markets” (FTF 2010b: 14).

This attention to targeting women is important should be supported. However the regional and country implementation documents also need to provide more specificity about the form these interventions will take and to explain how concrete actions can become part of the contract and grant agreements. For example, using the example in the preceding paragraph, exactly how will women’s leadership roles be promoted? Some possible avenues are to develop clear guidance on selecting training candidates, to initiate women-only programs, or to provide support to women studying in agricultural science disciplines where they have been historically underrepresented. The plans need to spell out the actions that will achieve the gender equity goals. Some recommendations for such actions are included in this section.

In addition to targeting women, it is equally important to address directly gender inequalities in laws, policies, and institutions and to promote equity in the organizational arrangements that structure access to key factors of production. New programming can support gender-equitable governance in regional associations, offering guidance on bringing more women into association leadership positions and supporting programs to attract women-owned and women-managed enterprises into business associations.

The East African Sub-Regional Support Initiative for the Advancement of Women (EASSI) has been leading efforts across the five member states of the East Africa Community to push for an “East African Protocol on Gender and Development.” The intention is to have a single document that spells out the gender implications of the provisions of the East African Community treaty on the formation of a customs union, common market, monetary union, and free movement of persons. In a statement earlier this year, Lydia Wanyoto, the chairperson of the Gender Committee of the East African Legislative Assembly (EALA), suggested conducting a gender audit of the East African Community’s four stages of integration process, to determine if national and international legal requirements of gender parity are being met. USAID/East Africa could play an important role in supporting the conduct of such audits as well as the adoption of this regional protocol.²

The regional and country FTF implementation plans should state the baseline data to be collected against which monitoring could be conducted or that could help to identify gender-based constraints to be addressed to increase production, productivity, and market linkages. The chosen data points should be those relevant to future programming, such as sex-disaggregated data on income earned from sales of agricultural products, not only absolute increases in women’s assets (e.g., land and farm equipment, use of improved seeds and fertilizers), but also relative increases in asset ownership compared to men; increases in the quality of women’s contributions in the governance of mixed sex producer and marketing associations as well as the increase in their membership numbers, and the increase in

² www.eassi.org

women-owned businesses in trade associations. Measures of these levels would indicate whether or not women's economic participation was improving across the region.

Gender issues in the FTF core investment areas

Regional trade

A major component of FTF activities in East Africa is to increase regional trade, with particular emphasis on commercializing staple crops, to shift grains from surplus to deficit areas (FTFb 2010:7). In addition to some processed foods, maize, beans and pulses, cassava (and other roots and tubers), horticultural crops, livestock, and livestock products have all been named as among the target crops (FTFb 2010: 15, 17), each of which has different gender implications for increasing production and for marketing.

One of the partners mentioned in the FTF East Africa implementation plan for ensuring equitable opportunities for women is the Federation of National Associations of Women in Business in [the] Common Market for Eastern and Southern Africa (FEMCOM).³ It was created as an arm of COMESA's Women in Business unit to integrate gender issues in COMESA activities.⁴ According to its website, FEMCOM is both an apex organization that seeks to increase the involvement of women into regional trade and development activities, but also a representative body linking to COMESA member States, regional organizations, and international organizations. FEMCOM has chapters in the following member countries (Burundi, Djibouti, Democratic Republic of Congo, Egypt, Eritrea, Kenya, Libya, Malawi, Madagascar, Mauritius, Rwanda, Seychelles, Sudan, Swaziland, Uganda, Zambia, and Zimbabwe) and is administered through a board of nine country members.

BOX 1: GENDER GOALS OF ASARECA and COMESA

ASARECA: "The dichotomy between the predominantly male extension service and mostly female farmers has impeded effective advancements in agricultural development. Economic growth is dependent on increased production in anticipation that it will lead to hunger and poverty reduction. Research contributes to economic growth through increased technology uptake that is conditioned by the consumers needs. Knowledge of the principal users needs thus improves targeting of research agenda and enhances efficiency in research. This can only be achieved through effective addressing of gender concerns in agricultural research through the strategy of gender mainstreaming" (Kilambya and Namono 2010).

COMESA: "In its vision for the 21st Century, COMESA recognizes that women and men, in their different roles, have unequal access to resources and benefits, different types and levels of involvement and responsibility in development and different perspectives on defining and solving problems. Because of these deep-seated disparities, COMESA affirms the need to create an environment where both sexes get equal opportunity to fulfill their potential. Integrating gender perspectives into the mainstream of all aspects of the work of COMESA is, therefore, an important goal of the COMESA vision and strategy into the 21st Century" (COMESA Gender Policy).

East Africa's regional support to FTF can work both to strengthen both the Women in Business Unit (WIB) and FEMCOM on their own, but also help to create stronger linkages between FEMCOM and the other COMESA programs. The WIB unit has identified a lack

³ www.femcom.org

⁴ COMESA Gender Policy, <http://www.chr.up.ac.za/undp/subregional/docs/comesa2.pdf>.

of capacity and of funding as its two major constraints to providing gender mainstreaming support to its twenty member states, while FEMCOM has also noted its own lack of resources and lack of skills among its members (COMESA gender policy 17-19).

In addition, FEMCOM can be encouraged to work with other regional trade organizations mentioned in the East Africa FTF Implementation Plan, e.g., the East Africa Grain Council, to help these “mainstream” agricultural and trade organizations to address issues of gender equity in their own organizations as well as in the topical areas in which they work. For example, the East Africa Grain Council does not seem to have its own gender policy and few women or women-owned firms are listed as active or affiliated members (10 out of 78).⁵

To help women engage more fully in national and regional trade, women entrepreneurs need to acquire capital both for initial investments to start businesses as well as operating and expanding their businesses. Although, in theory, a range of finance options exists for men and women entrepreneurs, from microfinance institutions to formal banking institutions, in practice, the ability to access the different options may present greater difficulties for women. Credit institutions are often wary of lending to agricultural enterprises because of their perceived volatility and risk and they often want guarantees or collateral that women are unable to provide. Credit remains the leading constraint facing women entrepreneurs worldwide. Networks and cooperatives or associations face additional difficulties in obtaining financing.

One program working in the region is the Growth Oriented Women Enterprises (GOWE) Program, a program of the International Finance Corporation, the International Labor Organization, and financed by the African Development Bank. GOWE provides a partial loan guarantee and advisory services in a program that links loans and business development services for established women entrepreneurs in Kenya. The ILO and ADB are also supporting similar efforts in Ethiopia, Tanzania, and Uganda. The program hires local business development service providers to offer trainings that are based on a curriculum created by ILO. The Rwandan government has also established a credit guarantee program for women. A similar loan guarantee and advisory services model targeted to women’s producer and/or marketing associations could help them expand, e.g., from local level marketing into real regional players. The regional mission could also help to develop a M&E system for these loan programs as part of a larger data collection effort.

Rwanda has already taken steps to assist its women entrepreneurs to engage more effectively in regional and international trade. It identified as its objective a goal of supporting women farmers and entrepreneurs by addressing the following policy efforts to expand and enhance equal participation of men and women into trade:

- (1) Integrating gender issues in trade policy formulation, implementation and in trade negotiations at national, regional and international levels;
- (2) Increasing awareness among women of emerging trade opportunities at national, regional and international levels;
- (3) Identifying sectors where women are currently employed in large numbers and design trade policies that enhance production and trade

⁵ http://www.eagc.org/members_directory.asp

opportunities in such sectors/products, including through the improvement of infrastructure to facilitate access to markets, removing of customs obstacles and other barriers to export; and encouraging entrepreneurship in such sectors;

(4) Increase access for women to training in entrepreneurial skills, including managing and financing, and training for women entrepreneurs in rural areas.

USAID/East Africa could build on the Rwandan approach by supporting a regional program to harmonize these policy innovations among other countries.⁶

Reducing Trade Barriers

Studies have estimated that most of the cross-border informal trade in Sub-Saharan Africa (SSA), perhaps as much as 70%, is conducted by women, and that income from these activities underpins the formal economy with which they interact. A literature review on gender and trade in SSA suggests that rather than clamping down on informal trade, there should be more effort to reduce trade barriers so that more traders, especially women, can grow their small, informal businesses into larger, more profitable ones, e.g., by removing requirement for certificates of origin and/or payment of customs tariffs on small loads.⁷

Harmonizing trade policies across the region can thus help improve the flow of goods across borders, and easing gender disparities can increase trade further. One area of concern recently summarized in a EAC brief is the lack of clarity on the need for national identity cards to cross the border. Border guards and customs officials can take advantage of ambiguities in these kinds of regulations to extort bribes and/or sexual favors from women traders.⁸ More systematic data collection and review of the extent of harassment of women at the borders would be helpful. In addition to harmonizing regulations and publicizing the new procedures (and penalties), regional trainings on gender-equitable treatment of traders is recommended another step towards establishing openings for behavior change.

Other areas of gender disparity in cross-border trade that have been identified by the EAC gender office include: women's relative lack of information related to trade, illiteracy, lack of access to markets, lack of access to credit, low profit margins and lack of product standards.⁹

Formalization of trade processes and increasing use of electronic systems for obtaining export licenses need to be reviewed to ensure that the systems are equally accessible to men and to women. Where men and women are limited by their level of skills, the system should include opportunities for the use of agents to submit required forms and charges according to a reasonable and non-discriminatory fee structure. FTF can consider establishing regional programs to assist men or women entrepreneurs with discounts or to provide training programs enabling them to gain needed skills.

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www.intracen.org/womenandtrade/documents/Export_Round_Table/Gender_Dimension_in_Aid_for_Trade.pdf

⁷ www.tradeknowledgenetwork.net/pdf/beyond_barriers_gender_south_africa.pdf

⁸ www.uneca.org/atpc/Briefing_papers/01.pdf

⁹ www.uneca.org/atpc/WorkshopJun09/EAC.ppt

Increased Productivity

Agriculture is expected to be the sector most affected by climate change in East Africa. Regional level responses are critical in knowledge generation of the expected impacts, and the identification and sharing of technologies that would help farmers adapt to climate change trends, variability and the more frequent climate extremes.

The expertise of regional and international research and training institutions (see Annex 4) can assist in more specific analyses on which technologies or approaches would work in specific locations and how they could be scaled up. USAID/East Africa can support regional agricultural research organizations, such as ASARECA, to ensure that they are targeting research toward crops that will be more productive but that can also reduce women's time and labor burdens in production, harvesting, and processing.

BOX 2: FINDING ALTERNATIVE CROPS FOR CHANGING CLIMATIC CONDITIONS

Farmers in Chibelela, Tanzania, including members of a women's group there, are experimenting with drought resistant varieties of sunflower and grape vines to diversify their farming systems as part of the Climate Change Adaption in Africa project. They are attending farmer field schools supported by DFID and IDRC to learn about cultivation techniques and new markets. They intend to supply local oil processors and wine producers. Sunflower can provide food, oil, and fuel needs.

Source: http://www.idrc.ca/ict4d/ev-137443-201-1-DO_TOPIC.html

To increase agricultural production under conditions of climate change will require adaptive strategies, several of which are listed below and additional ones are discussed in the next section of the report on climate smart agriculture. The gender aspects of these strategies are highlighted to make clear what regional agriculture research institutions should build into their efforts to develop new crop varieties and production techniques:

- Using new (or more resilient) crop varieties and/or changing the crop mix

Adaption to climate variability and climate change increasingly involves trying out new crop varieties with greater resistance to drought or increased tolerance of moisture or higher temperatures, depending on the location (See Box 2). The introduction of new crops can be advantageous to women, when they can be integrated into existing gender roles or can create new ones. Crops which have higher values and do not require large tracts of land or large investments in labor or inputs or which can grow on marginal lands are especially promising. Farmers say they are experimenting with traditional crops or varieties, with crops from lower (warmer and drier) elevations, and cultivating maize for the market in the highlands due to the effects of climate change (Olson et al. 2008). This can lead to a shift to lower-value crops or to crops with less marketing potential. It can particularly affect women farmers since they have fewer alternative income sources, and often are culturally proscribed to cultivate low-return or crops for home consumption. In Uganda, for example, plots owned by men are more likely to be planted with banana, maize, and coffee, whereas plots owned by women are more likely to be planted with the lower-value sweet potato, sorghum, beans, and peas (Peterman et al. 2010).

Improved seeds are an important contributor to higher productivity. Enlisting women's organizations into community seed production can help to increase women's income and enhance the volume of improved seeds into regional seed distribution systems. Key constraints to the distribution of improved (certified) seeds include limited supply of improved seeds for the local environment, difficult transport conditions, and uncertain demand (Nathaniels and Mwijage 2000:1). As a result, input suppliers are often reluctant to invest in the purchase of improved seeds. Limited mobility and lower levels of income mean that women will on average have greater difficulties in purchasing certified seed than men, but the rate of use of certified seed is in general low among smallholders.

At the same time, new, higher yielding crop varieties, crop mixtures or agricultural techniques often require higher levels of labor, fertilizer, manure, capital or other inputs. These technologies are not gender or wealth neutral because of the differential access to inputs. Plots cultivated by women in East Africa often use fewer manure, fertilizer and labor inputs, and have lower returns (Peterman et al. 2010, Olson et al. 2004).

- Shifting from plant crops to livestock products

Research has suggested that in mixed crop/animal production systems in South Africa, farmers have responded to dry periods by reducing investments in plant crops and turning to higher investments in animal management (see Thomas et al. 2007 cited in Below 2010:7). Depending on how this shift occurs, it could have either positive or negative implications for gender differences in agricultural related income. Shifts away from cereals and towards small ruminant and poultry production and marketing could benefit women-controlled income. In many East African communities, cash income from cereals is managed primarily by men in their roles as heads of households. They allocate some portion of that income to their wives for managing household expenses and food purchases. Women, however, often control income from local milk sales and sometimes the income earned from sales of goats, sheep, and/or poultry.

- Providing production, market, and/or weather information to producers

Regional programming is well-suited to support the development or expansion of regional market and of weather-related information systems. Several studies have documented that there are important gender-related preferences for different communication channels. A study by Archer in South Africa (2003, cited in Below 2010: 9) reports that men are willing to listen to radio programs that broadcast at a fixed time to obtain weather information, while women prefer to receive information on a more flexible schedule in face to face encounters with agricultural extension agents, where they are able to ask questions as well as receive information. Progress toward more equitable staffing in extension systems has not solved the problems of access by women to extension information. In some cases, the information offered by extension agents, which is linked to the agricultural research priorities of national research institutions, is not as relevant to the crop mix that women farm. Research in Tanzania in the 1990s reported 35 percent of men interviewed preferred to work with extension agents who are men; 40% of women interviewed preferred to work with extension agents who are women; and that 34% of the respondents had no preference as to the sex of the agent (Due et al. 1996: 10). "Farmers often stated that what was important was an extension agent who would assist them and not the gender of the agent. A district extension officer stated, "Character is more important than gender in assisting farmers""

(Due et al. 1996:11). Even in the U.S., where, in 2009, 64% of farms now have access to the Internet, recent studies show a continued preference for obtaining extension information from people (family, friends, neighbors, and extension agents) rather than from the Internet (see Howell and Habron 2004; Licht and Martin 2007; USDA 2009). Willingness to listen to weather and climate forecasts is also linked to farmers' ability to use the information; the supply of information alone is not sufficient, but must be linked to the ability to access land, credit, and other productive resources (Luseno et al 2003). Over the past decade, shifts in the 'for whom,' 'how,' and 'what' of agricultural-related information on production, marketing, and climate have been extensive. Public sector services have been replaced or supplemented by private services, and face to face visits are rapidly ceding to electronic technologies via mobile phones and knowledge station kiosks. There are few studies of gender differences in the use and access to these new technologies and more information on gendered communication channels for production, market, and weather information is sorely needed.

Developing gender-equitable opportunities in regional value chains requires identifying and reducing the presence of gender-based constraints. Rather than seeking women-only value chains or limiting women's involvement to their current overrepresentation providing agricultural labor for crop production, support should be provided for new analyses to help build competitive value chains that offer both men and women opportunities to participate as actors throughout the chain and to overcome gender-based constraints to their full involvement. Gender-based constraints refer to those restrictions on men's or women's access to resources or opportunities that are based on their gender roles or responsibilities. The term has two aspects: the measurable inequalities that are revealed by sex-disaggregated data collection and gender analysis (e.g., women holding formal land titles to 5% to men's 55% of agricultural land) as well as a statement about the processes that contribute to the identified condition of gender inequality (e.g., in the case of land titles, above, the cause might be discriminatory legislation or poor implementation of the legislation). The table below shows how key general constraints to agricultural productivity may also be associated with specific gender-based constraints that need to be addressed (Rubin et al. 2009: 90-95, 124).

Further integration of gender and nutritional goals into the FTP programs is needed. Increasing the participation of women into regional value chain development can be complementary to nutritional goals, since a significant body of research over the past two decades has provided evidence showing that increasing women's income is positively associated with improvement in children's nutrition (Quisumbing 2003). Continued support to regional agricultural research institutions such as ASARECA as well as other CGIAR centers to develop nutritionally enhanced crops is one avenue for combating malnutrition; integrating women into agricultural value chains by increasing their connections to markets is another. Wage labor in packing and processing plants may also be advantageous for women, especially if provisions can be made to support childcare facilities and flexible work schedules.

Table 1: Identifying Gender-Based Constraints to Increasing Agricultural Productivity

General constraints to increasing agricultural productivity in East Africa¹⁰	Gender-based constraints to increasing agricultural productivity in East Africa¹¹
<ul style="list-style-type: none"> • Low asset base • Small farm size • Low soil fertility • Low yielding crop varieties • Low investments in improved inputs (e.g., purchase and use of improved seeds, fertilizer, and farm equipment) • Limited access to agricultural extension services • Limited access to market and price information • Trade barriers (e.g., conflicting policies, regulations, standards, and procedures) • Lack of knowledge about effective practices to address climate variability 	<ul style="list-style-type: none"> • Women typically control smaller plots of land and are less likely to legally hold title to agricultural land • Women are constrained by their typically lower incomes from purchasing inputs such as improved seeds, tools, and fertilizer • Women are constrained by social beliefs about property rights from sharing in profits from crop and livestock sales, reducing their incentive to invest time and money in increasing production • Women may be constrained by illiteracy, lack of time, low income, and/or social beliefs from meeting with agricultural extension agents, using mobile phones, or finding information on improving agricultural productivity • Women may be disproportionately affected by conflicting trade policies because of lack of knowledge or income • Women’s relative lack of access to resources and their generally higher time inputs into household and farm labor constrain their ability to implement new practices with high labor or investment needs.

Increased Capacity

Regional FTF programming is implemented through regional partnerships with African institutions, such as COMESA on trade and ASARECA on agricultural research, and building the capacity of these institutions is one of the FTF’s goals. In fact, both ASARECA and COMESA have already identified a need for greater attention to gender issues in their organizations, and have articulated an important role of women in regional activities (Annex 3).

In East Africa, USAID support can build on these institutional policies to achieve significant results in gender integration. Specifically, it can support efforts to collect sex-disaggregated data on women’s involvement in regional and international markets in important sectors and

¹⁰ Feed the Future (2010) “East Africa Feed the Future Implementation Plan”

¹¹ Rubin et al. (2009) “Promoting Gender Equitable Opportunities in Agricultural Value Chains” Washington, D.C.: USAID.

subsectors, such as manufacturing, regionally operating, agricultural value chains, and service delivery, among others. A second analytical effort to clarify the causes of the gender disparities, e.g., where there are discriminatory policies, would also be useful. USAID/East Africa can also develop programs to work with regional organizations to enhance technical capacity in the Ministries of Agriculture which are now limited by their inability to conduct substantive gender analysis in agriculture. Support is needed develop clear policies and strategies to both promote women's advancement in agriculture and to retain staff who can capably contribute to more sophisticated gender analysis in the sector.

Increasing the pipeline of women scientists encouraging both men and women to address the scientific issues that can enhance women's agricultural productivity can also be a primary component of regional capacity buildings. This is the goal of the CGIAR Gender and Diversity Program as well as the AWARD program. One offers support to women scientists in the CG institutions while the latter provides critically needed fellowship support to women scientists while they are still studying as well as after they have started their careers. Overall, women are relatively poorly represented in the degree programs at agricultural universities in the region. At Sokoine University of Agriculture, as an example, the last years of the 1990s actually saw a decline in women's enrollment from 22.3% (1997) to 19.6% (1999) at a point where the overall enrollment was otherwise increasing. Among the enrolled women, over one-third studied home economics and nutrition rather than in agricultural sciences and agribusiness (Mkude, Cooksey, and Levy 2003: 86-89). Although the numbers are improving, concern remains that overall interest in science among all students is declining. Regional attention to job creation in the agricultural sciences can motivate students to continue in the field.

Issues, Gaps, and Recommendations related to Feed the Future programming

Issues and/or Gaps related to	Recommendations for action
<p>1. Limited access to productive assets that inhibits growth-enhancing investments</p> <ul style="list-style-type: none"> • Lack of credit to (i) advance small businesses into larger ones better able to engage in regional and national trade and (ii) to support the formation and maintenance of apex organizations and networks at the regional level is lacking 	<ul style="list-style-type: none"> • Support the expansion of efforts such as the ILO and IFC-funded “Growth Oriented Women’s Enterprises” program to expand loan guarantees to larger, regional trade organizations and associations • Provide a grant fund to regional associations to enhance the entry of women’s enterprises into regional and international value chains as innovators of new products, as creators of backwards linkages into packaging for wholesale or retail sales, as transporters and/or manufacturers
<p>2. Restrictive social norms and attitudes that limited women’s opportunities and mobility</p> <ul style="list-style-type: none"> • Harassment of women traders by border guards and customs officials • Negative attitudes towards women’s leadership in regional organizations • Attitudes among agricultural research staff, extension agents, and/or input suppliers or processors that women are less capable economic actors, are “not the real farmers,” etc., that limit women’s opportunities to start of build their agribusinesses 	<ul style="list-style-type: none"> • Provide training to guards and officials to initiate behavior change • Provide training through regional women’s trading associations to inform them of their legal rights as informal and/formal traders
<p>3. Discriminatory laws, policies, and institutions</p> <ul style="list-style-type: none"> • National level trade policies are not sensitive to gender disparities • Governance policies or memberships requirements of regional trade and/or marketing associations limit women’s leadership or participation of women’s organizations • Lack of knowledge about the EAC’s adherence to national and international legal requirements on gender parity and gender integration • Inconsistent border policies that enable immigration and customs officials to solicit bribes and/or sexual favors from women traders 	<ul style="list-style-type: none"> • Develop program to assist governments in the region to write gender-sensitive trade policies, like that of Rwanda • Work to develop guidance for regional partners on gender-equitable governance in trade and business associations such as helping them to establish gender policies • Review policies on cooperative formation to ensure that fees and by-laws are equitable and do not create barriers or disincentives for women’s groups. • Support efforts to track EAC members progress on moving towards achieving passage of the proposed “East African Protocol on Gender and Development” • Harmonize and publicize border regulations on identity cards and other trade-related licenses and certificates
<p>4. Knowledge management</p> <ul style="list-style-type: none"> • Inadequate sex-disaggregated data on the number and size of women-owned business operating or with the potential to operate in the region or their representation in regional associations • Lack of knowledge on gender issues in regional value chains targeted in the East Africa FtF implementation plan • Lack of knowledge on gender preferences for communication channels on marketing and weather information • Lack of knowledge on gender differences in the use and access to technologies related to climate smart agriculture 	<ul style="list-style-type: none"> • Develop a registry for women-owned or managed firms capable of participating in regional trade and investment • Support development of a knowledge management effort to consolidate information on gender and agriculture in East Africa related to regional trade priorities • Prepare in-depth gender analyses to identify and overcome relevant gender-based constraints in targeted value chains for regional trade. • Create a regional data base on gender differences in communication and technology adoption for climate smart agriculture

IV. RESPONDING TO CLIMATE CHANGE: A GENDERED ANALYSIS OF ADAPTATION AND MITIGATION

In East Africa, elsewhere and indeed at the international level, there is an unmet need to incorporate gender dimensions into climate change programs. Currently most climate change negotiations and adaptation programs do not explicitly address gender issues, yet their implementation could potentially exasperate existing inequalities and their success may depend on incorporating gender issues. This is despite the common recognition that those who are already poor and marginalized will experience the impacts of climate change most acutely but they will have the least capacity to adapt, and that women and girls make up a disproportionate number of the poor or marginalized (Demetriades and Esplen 2009).

A difficulty with planning effective climate change programs is the lack of knowledge, understanding and uncertainty regarding climate change, especially in developing countries where higher resolution climate modeling results are rarely available. The section below provides a brief summary of the best available information of recent and projected future climate trends for East Africa, then discussed the gendered impacts of climate change and gender implications of possible regional-level climate change response programs as identified in the USAID/EA LEAP plan of adaptation (especially the agriculture and water sectors), clean energy technologies, and sustainable landscapes.

Climate Change in East Africa

An increasingly important limiting factor for increased food production in East Africa is climate, particularly low or erratic precipitation. Global climate change is already significantly affecting temperatures and is projected to continue to alter regional precipitation patterns in the future. Efforts to increase food security and improve livelihoods need to consider these expected changes as they affect agricultural productivity, and water and other natural resources.

Statistical analysis of observed data (meteorological station and satellite imagery) indicates the following trends for East Africa particularly since the 1970s (Olson et al. 2008; Mongi et al. 2010; Moore et al. 2010; Qi et al. 2010)¹²:

1. Temperatures everywhere have gotten warmer (between 1-2 degrees C) paralleling global temperature rises. Temperatures began to significantly increase starting in the 1970s. Highlands and coastal areas are getting warmer faster.
2. Northeast Kenya has been getting wetter especially in the December-January-February months but remains semi-arid. Analysis of satellite imagery indicates that biomass production has risen in this area, and the change in precipitation may be leading to a change in plant species composition towards more bush and herbs. There is some indication of an increase in average annual rainfall along the Indian Ocean coast, probably due to the effects of land cover change.
3. Elsewhere in the region, analysis of satellite imagery indicates that there has been either no statistically significant change or a decline in biomass production despite no change or an increase in precipitation. Modeling indicates that this is due to the

¹² See <http://eaclipse.msu.edu> and <http://clip.msu.edu>

combination of the rise in temperatures causing higher evapotranspiration without sufficient precipitation to offset the demand.

4. Elsewhere there is little change in average annual rainfall. However, inter- and intra-annual variability has been increasing. Seasonal precipitation shifts are occurring with some areas (e.g., northern Tanzania) experiencing more frequent failure of the long seasonal rainy season, and northeast Kenya receiving rainfall in a more bi-modal pattern. Across the region:
 - a. Rainfall is coming in fewer, larger storms;
 - b. The timing of the start of rainy seasons is increasing variable;
 - c. Droughts in many areas are becoming more frequent.

Coupled, process-based crop, ecosystem and hydrology-climate simulations conducted by the Climate-Land Interaction Project (CLIP) group suggest a continuation of these trends in temperature and precipitation (Olson et al. 2008, Moore et al. 2010). Different general circulation models (GCMs) provide somewhat varying futures for East Africa, but in general East Africa is expected to become warmer and, especially in the northern part of the region, wetter. CLIP results suggest the critical importance of sub-regional factors (e.g., land use change, topography, soils) in simulating changes in climate and resulting impacts. Some areas such as northern Kenya are projected to continue to get wetter whereas other areas will have little change in average annual precipitation or get drier. The regional modeling indicates the impact will be a general decline in agricultural productivity, but an expectedly large degree of local variation. For example, maize yield projection results are opposite for adjacent zones in Kenya. In the Highlands, maize yields are expected to significantly increase due to warmer temperatures at the expense of cool-temperature crops of tea and coffee, whereas maize yields in nearby lowland sub-humid and semi-arid zones are expected to decline by at least 20 percent by 2050 as the rising temperatures combined with little or no increase in precipitation leads to more frequent crop failure. Sorghum is less favored by the rise in temperatures in the Highlands and yields are expected to decline across most of the region. Other crops, such as dry beans and tubers, will respond differently to altered moisture, temperature rises and carbon dioxide enrichment (Moore et al. 2009; Thornton et al. 2009, 2010) (See Figure 1).

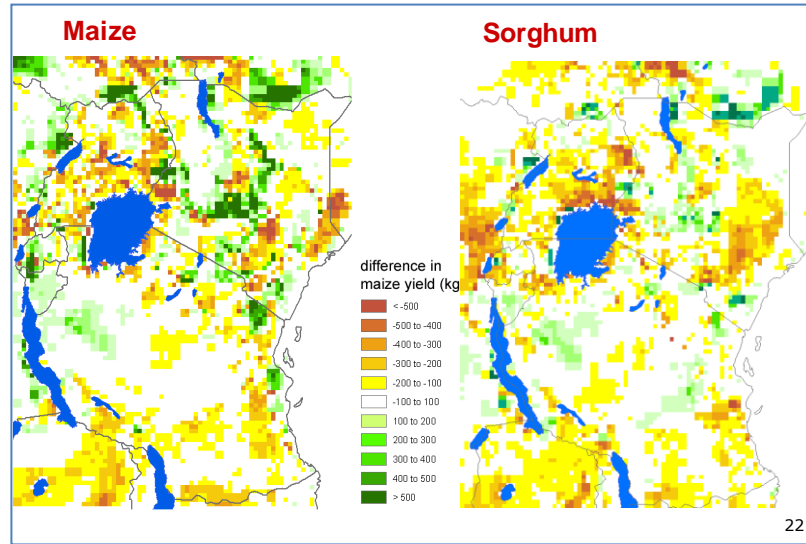


Figure 1. Simulated change in maize and sorghum yield from 2000 to 2050. Result of CLIP coupled modeling (RAMS with CCSM v.4 SRES A1B and land use/cover change forcings, WorldClim, DSSAT CERES).¹³

The impact of increased inter-annual and seasonal precipitation variability, and drought intensity and frequency, is also critical. Increases in frequency and severity of droughts and floods are expected to occur in some locations more than others, and to be locally specific (occur in different areas of the region depending on the year). The rise in temperatures and fewer, more intense storms are expected to lead to rapid runoff and then declining surface water flows particularly during dry seasons. The decline in water availability will affect household water access, irrigation and livestock raising with longer distances required to find water especially in the semi-arid and arid areas. Natural vegetation will also be affected with declining productivity in large areas where the evaporative effect of warmer temperatures will not be offset by increases in precipitation.

Ecoregions in East Africa particularly vulnerable to climate change are the wetlands (higher temperatures, reduced surface water) despite an increasing level of demand by people, livestock and wildlife, the coasts (more and intense storms, salt water intrusion, erosion), mountains (rising temperatures, reduced humidity) and arid and semi-arid lands (more rainfall variability, higher temperatures, declining plant productivity). Climate change in combination with land use change is already affecting wildlife numbers and reproduction behavior (Ogutu et al. 2010), and is expected to lead to continued changes in wildlife migration patterns as water sources change and droughts are more frequent. Our research suggests that the intensity and geographic distribution of zoonotic diseases such as trypanosomiasis will change as preferred habitat for the vector shifts (Moore and Messina 2010). This is similar to what has been projected for malaria. In general, the increase in temperatures and in many places humidity will favor viral and other diseases, and insect pests. The impact of climate change on vegetation will lead to a geographical shift in natural and agricultural ecosystems generally to higher elevations (e.g., maize replacing coffee), and lower elevations becoming warmer and experiencing more water stress during the growing seasons.

¹³ Source: Olson et al. 2010

Gender Dimensions of the Impact of Climate Change

The nexus of vulnerable locations and vulnerable groups requires particular attention at the international and regional levels. Climate change will affect progress towards several of the Millennium Development Goals including poverty reduction, sanitization, environmental sustainability, and access to water. Climate change is expected to particularly affect resource-poor households unable to invest in or take advantage of alternative income sources or new agricultural strategies, and less able to recover following droughts, floods, diseases or other shocks. Resource-poor households and communities in marginal areas dependent on rain fed agriculture (isolated or semi-arid zones) will be particularly affected by the effects of climate change and variability. More frequent failures of the cropping season, or more frequent loss of livestock during droughts, may be the tipping point beyond which they cannot recover.

Women in rural households will be negatively affected particularly due to their roles in providing natural resource products and producing agricultural products for their families' wellbeing. Examples include declining availability of surface water, fuel wood, livestock fodder and other natural resources, and declining crop yields. If men out-migrate more because of increases in droughts and floods or due to reduced agricultural production, the remaining women-headed households are typically resource poor. The result of climate change impacts could thus be increasing demands on women's labor, and reduced income and food security particularly for women and poor households. Women and poor men also often lack the information, the economic and social resources, rights, or clout with institutions to access or adopt adaptation strategies, leading to a gender-climate change-poverty nexus (Demetriades and Esplen 2008).

At the *regional* level in East Africa, the impacts of climate change that have a gender dimension include:

1. Increased demand for regional trade in agricultural commodities (grains, pulses, livestock products) due to more frequent or severe droughts and floods affecting localized areas, and due to declining or shifting production. This has implications for crop choice at the national to household level with implications for women farmers. If the choice tilts towards cash crops considered to be men's, women may lose land available for their crops and be expected to work on the man's crop, potentially reducing food and income available for the woman and children.
2. Increased movement of livestock across national borders as livestock keepers seek water and forage during low rainfall events and over a larger area. This movement is usually done by men, leaving women as heads-of-household for long periods of time with few sources of income or food.
3. Higher infection rates of some human and livestock diseases, and more pests and diseases in crops, with a risk of diseases spreading across borders. In poorer households such as those headed by women, diseases and pests tend to have a larger negative impact because of the use of fewer inputs or medical care.
4. Increased need for regional and national level grain and water storage for use during drought and flood years.
5. Increased planning for relief activities due to more frequent droughts and floods.

6. Reduced availability but higher local and regional demand for water during “normal” rainfall years and particularly during droughts. This can lead to more competition for and conflict over water sources, and increased privatization/nationalization of water supplies. Since collecting household water and watering livestock is often a woman’s responsibility, this can have an extremely large negative effect on women.
7. Dislocation of families during drought and flood events, refugees crossing borders. This can lead to the separation of the husband and wife, and dissolution of the family with negative impacts on the wife.
8. Migration away from areas negatively affected (e.g., central Tanzania), and towards areas with increased potential (e.g., northeast Kenya), with potential competition over land and water resources.
9. Need for regional approach to climate, hydrology, agricultural, health and socioeconomic research since climate change impacts are regional, research efforts would be combined and more cost-effective, and many response strategies will be most effective scaled up to the regional level. High resolution modeling of the impact of climate change on different crop varieties and the potential for various management practices to help mitigate the impact of climate change is critical.
10. International negotiations in relation to climate change are often conducted regionally or with multiple countries. Negotiations on REDD, for example, have gender implications. Both forest and tree management and afforestation require a gender-based approach for effectiveness and sustainability, and to ensure compliance with international and national commitments on gender equity and equality.

Regional Responses and Their Gender Dimension

The expected impacts of climate change and their potential gender dimension as described above call for a gender analysis of potential USAID/EA adaptation and mitigation responses to climate change. Some of the possible responses are discussed below, with their main gender related aspects. Many of the adaptation and mitigation responses to climate change would be implemented at the community or national level, but regional level programs have the potential to have a large impact on their success and impact due to the particular importance of policy and regulatory frameworks, knowledge generation and capacity building, scaling up potential, and cross-border issues such as trade, migration and natural resources management.

A summary of regional responses to climate change impacts in East Africa is presented in Table 2 below. The basic goal is to promote the recognition of the specific vulnerability of women and other marginalized groups to climate change impacts, and promote policies and programs to reduce these vulnerabilities. USAID would thus engage with a variety of stakeholders including the media, governmental agencies, NGOs, and national, regional and international academic and research organizations. At the project level, the framework developed by USAID for planning adaptation to climate change projects (USAID 2007) provides a useful approach (from identification of vulnerability to evaluation of adaptations) that can be adopted within economic development projects and for climate change-specific projects. A regional response to climate change as discussed in this report is also critical

because of the size of the problem, the lack of knowledge about climate change and how to respond that countries and projects cannot address individually, and the cross-border implications of the impacts. Many of these activities fall within the realms of policy support and harmonization, knowledge generation, capacity building and cross-border or international activities such as trade. Please note that the gender dimensions of specific adaptations (e.g., clean energy technologies, afforestation, insurance, water conservation practices) are not discussed in detail in this report.

Table 2: Regional responses to climate change in East Africa.

Regional Response	Example Activities	Gender Dimension
Promote knowledge generation in climate change trends and impacts	Work with academic and research institutions to address knowledge gaps: Regional level climate modeling to provide higher resolution results; coupled crop-climate and hydrology-climate modeling to identify impacts; analysis of economic and trade implications, regionally-specific climate hazard risks; landscape carbon analysis; agronomic research on climate-resilient crop varieties, epidemiological-climate research on changing distribution and severity of diseases, and identification of vulnerable locations and groups.	Addresses critical gaps in knowledge of impacts of climate change on vulnerable locations and groups. Women's responsibilities for crop production, water & fuel wood collection, etc. mean that they are particularly vulnerable. Women often have unequal access to information, especially scientific; this could be addressed.
Promote education and capacity building to support the above	Assist East African academic and research institutions in obtaining international-level training in modeling, GIS and data analysis; assist them to develop computing infrastructure; promote south-south training and infrastructure development; provide capacity building for USAID staff and partners in how to address climate change vulnerabilities and adaptation in project design and implication that incorporate gender concerns.	Regionally-specific data and information generation and uptake could lead to a higher likelihood of locally appropriate and effective, gender sensitive programs. Need to ensure that capacity building for climate change projects incorporate gender issues and incorporate women at all levels.
Promote analysis of the aggregate potential of adaptation strategies, and develop an adaptation protocol	Conduct an evaluation of potential adaptation strategies, their effectiveness to reduce vulnerabilities of groups and locations, gender implications, and their aggregate effect on the regional economy. Use this information to develop and test an adaptation protocol for the region.	Informs the planning and design of programs that would identify & target vulnerable groups in an effective manner and design adaptation strategies that address gender roles and responsibilities, and ensures women's participation and benefiting.
Improve potential success of flexible agricultural responses to climate change	Identify policy, regulatory and institutional distortions affecting a diverse and flexible agricultural sector, and the reforms needed for adaptive responses. Identify regional & international markets for alternative agricultural commodities.	Women often responsible for food production and have less access to markets. This response if designed correctly could provide new commodities and markets resilient to climate change for women farmers.
Disseminate information on climate change, vulnerability and adaptation responses	Provide capacity building of the media, NGOs and governmental institutions; promote linkages between research, governmental and media outlets.	Raises awareness of gender vulnerabilities; improves ability of institutions and communities to adapt and respond appropriately. Women often do not have access to info, this could help.
Address regional and cross-border climate change impacts	Analyze and develop responses to regional & cross-border impacts such as increased trade in agricultural commodities, increased movement of people and livestock across borders, watershed management for hydropower and other water resources, etc (see list above).	Informs programs to prevent the worst impacts of climate change on vulnerable groups
Promote the integration of climate change into regional and national sectoral policies, including into poverty reduction strategies	Analyze potential policy responses. Support regional fora to promote linkages between sectors, information on effective sectoral and cross-sectoral policy responses. Some sectors (e.g., energy, water, wildlife, trade) require a regional policy approach.	Provides new and effective policy and programmatic ideas for climate change adaptation that addresses gender vulnerabilities and adaptation responses (for example, gender differences in land tenure and use of communal or public forests).
Ensure the monitoring and dissemination of disaster risk information, including broader early warning systems	Promote knowledge generation of short and medium-term risk of poor rainy seasons, drought and floods and impacts on water availability, hydropower production, crops, livestock and diseases, e.g., through improved yield forecasting and a broader FEWS-Net approach; promote effective linkages among research, governmental, media and other outlets; develop role of ICT in risk management and in adaptation.	Prevents out-migration, family dislocation and other disaster responses that particularly affect women and children.
Promote the planning and implementation of disaster risk management	Provide information and promote regional programmatic responses that address particular impacts on vulnerable groups.	Potential prevention of the worst impacts, and improvement in access for poor & women.

Climate smart agriculture

Agriculture is expected to be the sector most affected by climate change in East Africa. Adaptation to climate change will by necessity need to focus on agriculture because of the level of expected impact, the large number of vulnerable people dependent on agriculture, and the potential impact on national and regional economies. Regional level responses are critical in knowledge generation of the expected impacts, and the identification and sharing of technologies that would help farmers adapt to climate change trends, variability and the more frequent climate extremes. Several of these issues are addressed in the FTF section above. The expertise of regional and international research and training institutions (see Appendix) would assist in providing a more effective analysis including what technologies and other approaches would be appropriate where, how they would assist different groups, and what technologies could be up-scaled. Economies of scale provided by a regional level are particularly necessary for research such as in biotechnology, epidemiology and climate modeling that requires a high level of expertise.

Recent climate research indicates that climate change impacts in East Africa are highly localized thus permitting no generic, one-size-fits-all agricultural response. Other research has shown that any changes to the agricultural system and new technologies are rarely gender-neutral. Therefore adopting a general principle such as developing “no regret” adaptation measures that would lead to higher productivity in the short to medium term no matter how climate changes, would be helpful. For example, approaches that reduce risk of complete failure and increase income flexibility at the household level, and resilience at the community to regional level in the face of climate variability, would lead to positive results. Dual-use agricultural technologies related to climate change are those that both improve productivity and reduce GHG emissions or increase carbon sequestration, such as low-till agriculture or agroforestry. Some of these options are described below. Participatory agricultural research for these approaches that explicitly incorporates women and indigenous knowledge would have a higher degree adoption rates, and improved flexibility and resilience to climate variability.

In terms of agricultural adaptation options, the CLIP analysis suggests the need for more heat and drought tolerant crop varieties and management practices that conserve and make most of the available rainfall. A shift in bean cropping to higher elevations and other shifts in crop choice, for example, would be appropriate. Depending on the location, shifting crops can reduce impacts due to high temperature, erratic rainfall, and pests and diseases. Farmers say they are experimenting with traditional crops or varieties, and with crops from lower (warmer and drier) elevations. These shifts, often from higher to lower value crops, can have large income, nutrition, labor and other impacts that can disproportionately affect women and other vulnerable groups. New, higher yielding crop varieties, crop mixtures or agricultural techniques often require higher levels of labor, fertilizer, manure, capital or other inputs, but such technologies are rarely gender or wealth neutral because of the differential access to labor, manure or capital inputs. USAID/EA support for biotechnology or other agronomic crop breeding research can have important adaptation benefits, but decisions of what crops to focus on, and their varietal characteristics, should include women farmers and their needs and preferences.

Other agricultural climate change adaptation practices do not require large capital inputs. They include changed planting dates, agro-diversity and soil and water conservation practices such as conservation tillage, mulching, shading, terracing and agro-forestry. They can, however have high labor demands and require conducting activities normally in the men's domain (e.g., tree planting), so supporting communal approaches such as women's groups may help. A mixed crop-tree-livestock system is an old approach to reducing risk in a highly variable climate. Diversification of production activities can promote synergies (e.g., fodder crops can improve the soil), reduce pests and disease, and improve income stream, nutrition and food security. These are systems where women often have clear rights and responsibilities. However it is difficult to conduct traditional agricultural research to improve these mixed systems, they can require high levels of labor compared to the income generated, and their technologies can be difficult to scale up. Agricultural research in these systems that works with women and includes indigenous knowledge has been shown to do well (Snapp and Pound 2008).

A commonly promoted adaptation technology is irrigation. Its use is growing in semi-arid East Africa as a response to drought and to rainfall variability, and to produce high value commodities for the urban or overseas markets (Campbell et al. 2005). Irrigation technologies such as wells, pumps and pipes are capital intensive and economically feasible only when the prices of the commodities is high and access to markets is easy. Traditional technologies such as channeling streams still require labor and a strong social organization. Capital or labor intensive approaches have often not benefited women's plots, however, but women are often expected to work in them (Wangui 2008). It is a classic agricultural technology with a strong gender bias. Since irrigation has important climate change adaptation potential, USAID would need to address this bias with an integrated social approach acceptable to both men and women.

Livestock add flexibility and reduce dependence on rain fed crops in the face of climatic variability, and would thus be a useful adaptation strategy to increase resilience to climate change (Thornton et al. 2010). In semi-arid areas, however, more frequent or intense droughts and declining surface water flows may already be the tipping point leading to the inability of some agro-pastoral households to restock following droughts, and to increasing poverty. The changes in many agro-pastoral systems towards diversifying income sources and out-migration of men is already significantly affecting demands on women's labor (see pastoral section above), and climate change impacts would exasperate this. In general, more isolated areas further from alternative income sources, and those already marginal for cropping or livestock are expected to be the most vulnerable to climate change. A USAID/EA adaptation program to strengthen the economies in the arid and semi-arid lands could address some of the cross-border migration and trade implications of climate change, thus have important potential to reduce poverty and negative effects on women. Recognizing the vulnerability of women and how their roles are changing towards more responsibility for livestock and households is key to designing effective programs.

Information Communications Technologies (ICT) such as the RANET project have potential to reduce the risk associated with increasing climate variability, and improve information flow in rural areas in topics such as commodity prices, markets or vendors, or suggested planting dates. Women, however, have been shown to have less access to mobile phones than men (Furuholt and Kristiansen 2007; Mercer 2005). A program using these

tools would need to address this gender gap, and consider the use of local language and techniques that don't require high literacy rates.

Water use and management in face of climate change

Although water is not explicitly mentioned in the LEAP program, the impact of climate change on water resources and the importance of the gendered impact led us to include water issues in this report. Impacts of climate change are expected to exasperate the already growing problem in East Africa of lack of water available for household use, livestock watering, irrigation and hydropower. Climate change is expected to lead to large increases in evaporation, evapotranspiration and glacier melt due to rising temperatures, and to fewer, more intense rainfall events causing rapid surface runoff and soil erosion (Alagarswamy et al. 2010). More frequent floods will overwhelm already challenged water supply and sanitation systems, particularly in coastal cities. Surface water in lakes, streams and wetlands are expected to decline; perennial streams will become seasonal, and seasonal become intermittent. The reduction in available water will affect women and children particularly since they are usually responsible for collecting water for the household, washing, and often watering animals. Distances to collect water will lengthen especially in the dry season. The lack of water is already a significant problem in many areas of East Africa, and competition and conflict over water in semi-arid areas is common. During the recent drought, for example, an increase in privatization of water sources in northern Tanzania was notable.

Not only is climate change expected to reduce water availability, but use of remaining water resources is expected to rise due to human population growth, concentration of livestock and wildlife in the fewer remaining water sources, and to offset the impacts of climate change by using technologies such as irrigation and hydropower. Despite the critical nature of the problem, there are large information gaps related to the impact of climate change on water resources in East Africa, as identified during a recent workshop in Nairobi (Huq and Reid nd):

1. impact of climate change on inland waters
2. hydrological modeling (surface and ground)
3. water harvesting and storage potential
4. transboundary management of water resources
5. impacts of liberalization of water governance
6. improving irrigation
7. impacts of climate change on traditional irrigation systems
8. climate induced land use change and impacts on river basins
9. impact on aquatic biodiversity
10. early warning system for flooding
11. water quality for drinking.

Water management programs to reduce the negative effects of climate change include improved flood risk management, watershed management, ground water extraction, surface water harvesting, water storage, water transfer, soil and water conservation, and more efficient water use in irrigation and farming practices (Mileham 2010). These all have regional and national legal, economic, cultural and communications implications that can affect gendered access to the water, and the efficiency and sustainability of the strategy.

Issues such as rights over water, water markets and pricing, and how water and watersheds are managed all have a gendered aspect.

Policymakers can also use legal, economic and communication strategies to improve water efficiency (see Table 3). Economic incentives such as pricing can help to conserve water, and educational projects can improve awareness of the likely impacts of climate change on water supplies. They risk reducing access for women and the poor, however.

Table 3: Economic, legal, and communication strategies to improve water security in the face of climate change. Adapted from Mileham 2010.

Strategy	How it improves water security	Gender dimension
Rights to water	Clarifies legal entitlement to access water resources. Will become increasingly critical as water supplies decline.	Can improve access for poor & women
Water markets	Reallocates water to highly valued uses.	If priced too high, can reduce access
Water metering and pricing	Reduces water use and encourages water conservation. Can increase efficiency in shortages.	If priced too high, can reduce access
Reduce tariffs on efficient technologies	Promotes adoption of efficient water management technologies and reduces water use	Potential improvement in water access and quality
Watershed management	Balances demand and supply across sectors within catchment, increasing efficiency of use for agriculture and hydropower. Critical adaptation to climate change	Potential improvement in access for poor & women, and for improved ag. productivity
Providing risk information	Increases understanding of the impacts of climate change on water and enables better planning and use of water management strategies	Critical for continued access in short term (e.g., drought) and medium term.
Providing adaptation information	Increases knowledge of effective technologies and social organizational responses to declining water resources.	Potential for more effective programs that would reduce impacts on women
Seasonal forecasting	Promotes productive agriculture and more efficient water use, and allows better planning.	Provides information for women farmers; prevents disaster-related problems
Education and policy support	Increases understanding of the impacts of climate change on water and enables better planning and use of resources.	Would improve possibility of continued access even as shortages worsen.

Clean energy technologies to reduce GHG

Energy is a key development sector in all countries of East Africa. It relates to climate change in two ways—energy production will be impacted by climate change, and pollution from energy production can be a major greenhouse gas (GHG) source. The impacts of climate change on energy have strong poverty and gender implications, but mitigation of

climate change by decreasing emissions of GHG using clean energy technologies has the potential to create new private sector opportunities and to reduce labor demands on women.

Many of the clean energy technologies at the regional level have an indirect gender dimension. Promotion of appropriate policies and programs at the national and local levels has the potential to significantly improve the wellbeing of resource poor and women in rural areas. Table 3 summarizes potential regional-level strategies.

Table 4. Regional clean energy technology strategies related to climate change.

Strategy	Example activities	Gender dimension
Support knowledge generation of the impact of climate change on the energy sector	Hydrological-climate modeling of the effects of climate change and climate extremes on surface water for hydropower, climate-land modeling on biomass production for fuel wood, and climate modeling for wind production.	Indirect as it promotes more clean energy technologies that reduce labor required for collecting fuel.
Support improved clean energy production and efficiency policies, and regionally harmonized codes	Conduct a policy and regulatory review and provide suggestions for reforms that promote clean new or renewable energy production. Conduct analysis of the potential for more energy-efficient power stations.	Indirect.
Technical assistance on reducing GHG emissions through small-scale clean energy technologies	Identify and analyze for East Africa the energy efficiency, cost-effectiveness, potential production capability and societal implications of various clean energy technologies (e.g., solar, stoves, windmills, and biogas). Promote training in and development of their production.	Technologies can reduce work load for women (e.g., fuel wood collection) and have health benefits. Solar power for lighting & other uses can promote business.
Promote trade in small-scale clean energy technologies	Identify policy and regulatory barriers to production and trade in clean energy technologies, and reforms needed to make technologies more affordable and to promote local entrepreneurship. Identify markets for the technologies.	Use of technologies can improve lives of women and children, and the business of producing and marketing technologies can improve livelihoods of the vulnerable.
Promote cross-border clean energy electrical power generation (e.g., hydropower) and trade	Conduct regional level analysis of future energy requirements, and potential clean and/or more efficient energy solutions. Clarify legal, economic and environmental implications of new hydropower and other clean energy production.	Can improve access to energy for poor & women
Cross-border watershed management	Promote management through regional organizations since critical for sustainable hydropower production, and has potential to improve irrigation potential and carbon sequestration. Critical adaptation to climate change	Potential improvement in access to energy and water for poor & women, and for increased food productivity.

Some small-scale, clean energy technologies have a direct gender dimension. These include efficient wood or charcoal burning stoves, alternative energy technologies for heating water or cooking, labor-saving devices such as maize mills, or power for businesses such as lighting

and mobile phone charging. Past small scale energy projects have shown that the technologies need to be designed to meet the needs and preferences of women and their families and communities, fit with cultural preferences for cooking and taste, be economically viable and scale-appropriate, and indeed save labor. The low value often placed on women's labor and time has often led to non-adoption in the past of efficient wood burning stoves, for example. The need for families to purchase technologies to do what had previously been done by women for "free" has been a common barrier. Past failures of such projects would thus point to the necessity of economic, social, cultural gendered analysis of the program, working with women to design the technologies and consider how they would be used, possible subsidies, and viable mechanisms to upscale any economically successful technology.

Promoting Sustainable Landscapes

Promoting sustainable landscapes can be critical activities for East African countries to reduce greenhouse gas emissions and to enhance carbon sequestration. These activities can include reducing deforestation and forest degradation as in the proposed REDD+ program of the Copenhagen Accord of the UNFCCC, or participating in the international carbon market. At the regional level, the program would involve policy design support, knowledge generation and capacity building of scientific technologies such as remote sensing analysis of changing biomass and the societal implications of these technologies. There are important implications for USAID/EA of REDD+ to address at the regional level by promoting policies, programs and regulations to promote fair and equitable distribution of costs and benefits.

A critical aspect of REDD+ and carbon market proposals is related to land and tree tenure, and questions of who would benefit from international payments. A concern is that women, young people and poorer households rarely have land titles or other formal tenure rights over land, although they often have informal user rights or rental agreements. A program promoting tree planting that provides cash benefits only to the person with a land title could result in the land being converted to trees, with little chance of the benefits going to those who used the land previously. Typically wealthier men who have better access to markets and policy brokers would be in a better position to benefit.

Often in East Africa, tree tenure can also be complex. The "owner" of the tree can depend who planted it (rather than on whose land it is on), and different tree products can have different owners. For example, fruit and fodder can be harvested and sold by the wife, but the timber can belong to the husband. Women particularly depend on tree products such as fuel wood harvested from others' or communal land. A program such as REDD+ could prevent sharing of such resources and have significant impacts on women.

Gender and other equality issues related to REDD+ were discussed during the 2009 Copenhagen meetings (Gurung and Quesada 2009). Challenges seen were insecure tenure, inequitable governance, unfair compensation and weak capacities to participate in an international market. A committee adopted a set of standards for REDD+ (Standards Committee 2010) that included eight principles with associated criteria and indicators that

addressed these issues.¹⁴ It is as yet unclear how the Standards will be incorporated into the formal REDD+ program, but they would support USAID's gender equality goals.

International and regional gender and conservation NGO's have also expressed concern over the potential negative effects of REDD+ on gender and equity. The International Union for the Conservation of Nature, Women Organizing for Change in Agriculture and NRM, UNEP and UNDP have formed an alliance to promote policies that would ensure gender and equity concerns are addressed in the formal negotiations at the Copenhagen and subsequent conventions. They particularly promote the inclusion of women in the planning and execution of all rural activities (Aguilar and Sasvari 2009).

However, women's groups in many areas of the world especially in East Africa have had large successes with developing and maintaining communal woodlots and privately owned trees. As groups with local and regional legitimacy, they have been able to work around the limitations imposed by formal, individual land and tree tenure rights. Lessons learned from these and other experiences could inform REDD+ policies and program to ensure continued access of tree resources by women, and to promote fair sharing of cash benefits within the community.

Sustainable land management practices such as terracing for erosion control or watershed management have different gender issues than those associated with REDD+ or carbon markets. These are discussed above in the climate smart agriculture and water resources sections.

Key Issues

In East Africa, there is a need to incorporate gender dimensions into local, national and regional climate change programs and discussions. There is a common recognition that the poor and marginalized will experience the impacts of climate change most acutely and that they have the least capacity to adapt, and that women and girls make up a disproportionate number of the poor or marginalized. Addressing this gender-climate change-poverty nexus in East Africa is challenging because of the high level of social and environmental heterogeneity. The impact of climate change varies widely across the region; and the role of women, and the levels and root causes of poverty vary widely. Climate change technological and other responses will need to be flexible, multiple and locally specific. Adaptation and mitigation projects could potentially exasperate existing inequalities, and their success depends on addressing potential issues.

A large knowledge gap exists, however, in how climate change is expected to impact key sectors in East Africa, including agriculture, water and energy. Supporting regional scientists to work with U.S. or other international scientists to address this would provide large benefits to the region. An even larger knowledge gap exists in what adaptation and mitigation strategies would be successful, where, and for whom. USAID/EA could contribute to reducing the second gap by supporting science-based, gendered analyses of potential strategies, and their economic and social effects. For example, because of the strong gendered impacts of climate change and differences in how women and men can take advantage of programs, there may be a need to develop gender-specific climate change

¹⁴ See <http://www.climate-standards.org/REDD+/> and <http://www.gender-climate.org/index.html>

projects. It could be, however, that by incorporating gender issues into program design and implementation it is not usually necessary have separate strategies but rather design them to address identified group needs and opportunities. Past experience has shown that a high level of participation among different groups at various levels in planning and implementing programs would better ensure that gender and inequality issues are addressed, and the likely success of the projects. This would involve capacity building of women and men to have the knowledge, skills and voice to engage in climate change program debates from the local to the international arena, and developing institutional mechanisms to encourage this integration.

Particular activities in technical assistance, knowledge management, education and capacity building, and policy initiatives that would address gender issues and be implemented at the regional level are mentioned in tables above. In sum, regional level responses are critical in climate change programs because of the scale of the problem, the international dimension of the response, and the level of expertise needed to address the lack of knowledge to respond effectively. It will require not only local, national and cross-border adaptation projects, but regional and national inter-sectoral policies and programs.

V. SUMMARY OF RECOMMENDATIONS

Addressing gender issues at the regional scale is uncommon and challenging. We recommend the following activities:

- USAID/EA should hold a regional gender strategy workshop that brings together institutions working towards gender equality in East Africa. Gender focal points, gender advisors, representatives from government ministries and key international organizations working in thematic areas relevant to FTF and LEAP should be invited. The objective of the workshop should be to work towards the creation and harmonization of gender mainstreaming policies in the region. It could address the harmonization of laws on equal opportunities, tenure security, gender-based violence, personal mobility, customs procedures, and developing indicators to monitor the impact of these laws. The regional workshop would be a first step towards establishing regional cooperation between international organizations working on gender issues relevant to FTF and LEAP. The cooperation would allow joint programming, pooling of resources and promote cross-institutional learning.
- USAID/EA should promote a network of practitioners from the above workshop and with others. The regional mission might consider establishing a regional IT platform to house a database (or to support another organization to) on gender, livelihoods, climate smart agriculture, and climate issues. The mission could produce an online/electronic newsletter to share information on lessons learned, best practices and new challenges.
- USAID/EA should work closely with partners designing and implementing the FTF and LEAP programs to ensure that gender specific indicators are included during monitoring and evaluation. The indicators must necessarily be identified beforehand and as much as possible harmonized across the region.

Particular recommendations include the following:

- Support a regional effort to develop model, harmonized gender policies in national trade policies.
- Create guidance for partners on gender-equitable governance in trade and business associations.
- Support efforts to pass the “East African Protocol on Gender and Development.”
- Conduct studies of women’s trade patterns and the extent to which border harassment is a constraint to trade and mobility of men and women.
- Work with FEMCOM so that it can more effectively work with other regional trade organizations help these “mainstream” agricultural and trade organizations to address issues of gender equity in their own organizations as well as in the topical areas in which they work.
- Develop guidance for gender-equitable cooperatives and associations (formation and operation) across the region to ensure that fees and by-laws are equitable, that women are appropriately represented, and that they do not create barriers or disincentives for either men or women.
- Work with partners to provide loan guarantee programs or to increase capacity of banks in the region to extend credit for small and medium term enterprises operating across borders and support their capacities to manage credit and do business in the region.
- Support institutional environments that encourage women’s land ownership combined with an educational campaign aimed at changing attitudes.
- Promote knowledge generation through technical assistance or other to provide information on expected impacts of climate change on key sectors, impacts on vulnerable locations and groups, and to identify adaptation and mitigation responses that are gender sensitive and effective. Use this information to develop a gendered adaptation protocol for the region.
- Support gender-sensitive agricultural research in regional and international agricultural institutions. Regional level technical assistance and knowledge management responses are critical in areas such as biotechnology, epidemiology and crop-climate modeling. Decisions of what crops or animals to focus on and their characteristics should include women farmers and their needs and preferences.
- Conduct a review of gender and water laws and rights to water in the region, with special attention to water markets, irrigation, and intra-basin water systems and cross-border lakes. The impact of climate change on water resources and the importance of the gendered impact led us to include water in this report.
- Promote clean energy use and management with a gender focus. Energy is a key sector that will increasingly have cross-border management implications. It relates to climate change in two ways—energy production will be impacted by climate change, and energy production if not clean can be a major GHG source. The climate change impacts have strong poverty and gender implications, but mitigation of climate change by using clean energy technologies has the potential

to create new private sector opportunities and to reduce labor demands on women.

- Promote sustainable landscapes to enhance carbon sequestration, but carefully. The proposed REDD+ program and carbon market can have unintended negative impacts on women. However, women's groups in East Africa have had large successes with tree planting. These lessons could inform program to ensure access of tree and land resources, and to promote fair sharing of benefits.
- Disseminate information on climate change, vulnerability and adaptation responses. Provide capacity building of the media, NGOs and governmental institutions; promote linkages between research, governmental and media outlets to raise awareness of gender vulnerabilities, and improve the ability of institutions and communities to adapt and respond appropriately.

Recommendations for capacity building to analyze and implement gender considerations in regional programming activities

- Provide gender technical assistance to regional trade groups and marketing institutions, including liaising with existing gender focal points in agriculture and environment regional programs.
- Support gender awareness training for regional stakeholders to ensure gender-equitable representation and participation in regionally-based producer groups, microfinance institutions, and private companies operating in several countries.
- Support the education of women and men scientists to conduct research and contribute knowledge of climate change, and adaptation and mitigation responses. Particular needs are for climatologists, climate modeling, crop and hydrology-climate modeling, and environmental engineering.
- Provide capacity building of NGOs and governmental staff of the expected impacts of climate change, and how to identify and implement effective adaptation strategies that address gender issues.
- Offer capacity building to regional groups working on gender and climate change (see Annex 4) to enhance their knowledge, skills and voice to engage in climate change program debates from the local to the international arena.

ANNEX I: SCOPE OF WORK

Scope of Work

Regional Gender Analysis, Field Work, Report and Training, USAID/East Africa
Regional Mission, Nairobi, Kenya (September 2010)

SUMMARY

USAID/East Africa (USAID/EA) recognizes the need to increase its capacity to develop truly gender responsive programs in the East Africa portfolio. This Scope of Work is intended to ensure that gender implications of all Regional Economic Growth and Integration (REGI) programs are identified and addressed in a comprehensive manner. The assessment envisions four components:

- a thorough desk study to include recommendations on two upcoming program designs;
- field work that will build on the desk study and address areas where sufficient information was not found during the desk study and recommend basic gender program design elements that should be considered when working in East Africa;
- a sharing of results from the field work through a written report and workshop; and
- gender training for USAID/EA staff and partners in Nairobi.

Recommendations from this SOW are intended to ensure that all activities, particularly new activities, in REGI have a balanced impact for women and men. Upcoming activities include a new global climate change activity—Landscapes, Energy, and Adaptation Program (LEAP)—and the overall USAID/EA Feed-the-Future (FTF) Implementation Plan, which comprises many activities valued at approximately \$20 million/year. Taken together, these deliverables will address the Mission’s unique regional role and will provide concrete examples of successful gender analyses and gender integration in programming at a *regional level*.

BACKGROUND

Although assistance extends to many other countries in central and southern Africa, USAID/EA focuses most of its regional activities in the five EAC member states of Uganda, Kenya, Tanzania, Rwanda and Burundi. The rationale behind these regional programs is simple: in addition to attacking development problems at the country level, the integration of regional economies and policies is of paramount importance for these activities as the problems faced are increasingly regional in nature. Poverty, sickness, discrimination, and the factors underlying these realities do not respect national borders, and neither should their solutions. In this sense, increasing the integration of cross-cutting issues, such as gender equity, across country borders is essential. Participants in USAID/EA programs include government officials, intergovernmental bodies, the private sector and non-governmental organizations.

The consideration of gender issues in development programming is consistent with USAID policy. USAID’s Gender Plan of Action articulates a commitment to consider gender in all policies, programs, and activities, towards improving women’s status and promoting gender equity. The Agency has recently strengthened [ADS requirements](#) for

gender analysis in program planning and implementation, and multiple Presidential Initiatives, including the Global Climate Change Initiative (GCCCI) and [Feed the Future](#) (FTF), offer explicit focus on facilitating equitable access to programs by incorporating knowledge of local gender roles.

While the Mission has always met Agency requirements in this area, efforts to include equitable access to development activities and their benefits in past REGI programming has been limited to sex disaggregation of data and small WID activities, such as entrepreneurial programs designed exclusively for women. The Mission recognizes room for improvement in gender analysis and the design of programming that provides equitable access to both sexes. It has therefore decided to give its staff the tools needed to be proactive in working with partners to understand and respond to persistent regional gender imbalances in access to development activities. The Mission acknowledges that these tools are critical to its response to the Agency's re-invigorated gender-focused program planning requirement. They will also help effectively address gender in implementation planning and activity design for high-profile initiatives such as GCCCI and FTF.

OBJECTIVES OF WORK

- 1) *Identify and prioritize issues (economic, social and political) that must be addressed in order to increase equitable access to USAID/EA's economic growth programs.* Two new programs focused on global climate change, (LEAP) and agricultural productivity/food security (FTF), require special attention in this regard. For USAID/EA, many activities are implemented through regional development partners that work through/with governments and organizations at the nation-state level. Recommendations for the regional program must take into consideration our limited ability to have impact at the ground level. The analysis should, however, identify two sets of issues: those that must be addressed at the national level as well as institutions and organizations at the regional level that can work in collaboration with bilateral missions to affect change. The issues identified must give priority to those that are in the manageable interest of bilateral and regional development partners. This objective is intended to be met by the work proposed in Phase I and Phase II below.
- 2) *Expand the mission's knowledge base on gender issues in the EA region.* USAID/EA is aware of the need to include approaches for enhancing active participation of men and women in all of REGI's program areas, but wishes to build on this awareness. USAID/EA desires to identify areas where gender roles will impact program implementation and results, or conversely, where program implementation may potentially impact gender roles. This work will also identify issues that can be addressed at both the national and regional level, particularly those issues pertinent to new global climate change and agricultural production/food security programs. This objective is intended to be met through work proposed in Phases I, II and III below.
- 3) *Develop the capacity of USAID and partner organization staff to analyze and implement gender considerations in regional programming activities.* This objective is intended to be met by the work proposed in Phase IV below. It will be done through training modules that will:

- a. Advance staff and partner understanding of the key challenges to gender mainstreaming in development programming
- b. Introduce approaches/tools/methodologies which can readily be used in mainstreaming gender analysis across all program areas.

PHASED METHODOLOGY FOR COMPLETING THE WORK

USAID's Women in Development office (WID) will implement and fund Phase I of this work, while USAID/EA will be responsible for supporting the work necessary to successfully complete the other objectives. All work will be shared and reviewed in collaboration with other interested offices in Washington including USAID/Africa's offices of Development Planning and Sustainable Development as well as USAID's office of Economic Growth, Agriculture and Trade, as appropriate.

PHASE I—Desk Study to Guide Gender Analysis for Upcoming Program Designs

WID will conduct a desk study of the subject for the East Africa region. A tremendous amount of work has been done on gender analysis and programming, and USAID/EA wants to enhance and build upon what has been done to date. While the Mission desires and is mandated to respond to these issues from a regional perspective, we realize the foundation for any regional work must be built up from the country level. The team will need to include assessments of regional policies and regional partner organizations on gender and related activities. This is to ensure that proposed activities overcome potential gender-based obstacles to achieving developmentally sound and progressive program results.

In addition to identifying and prioritizing regional gender equality issues, the desk study will make recommendations to be incorporated into multi-year regional strategies for the Global Climate Change (as conceived in REGI's Landscapes Energy and Adaptation Program) and Feed the Future initiatives. A review of available studies, reports, and other "grey literature" should be followed up with interviews by email or by phone. The consultants should contact key regional organizations involved in climate change, agriculture, trade, and food security (e.g., UNEP, the CGIAR, COMESA, ASARECA) to ensure that information is current. The purpose of addressing climate change and food security programs distinctly is to ensure that sufficient attention is given to two upcoming REGI activities and to enable future program/activity design teams to incorporate the findings of persons knowledgeable and experienced in gender analyses.

WID will also be expected to help identify institutions and individuals located in East Africa who could be called upon for field work in Phase II. This information can be communicated independent of the final desk study.

Deliverables:

An outline of the methodology for the study should be sent to USAID/East Africa for review within one week of the time the study is started followed by a draft report (maximum 20 pages) circulated for review and comments after four weeks. Comments and suggestions will be returned to the authors in ten days. The final report will be due one week later, or by November 10 at the latest.

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ANNEX 3: ASARECA GENDER INDICATORS

Result 1: Performance driven gender sensitive governance and management structures and systems established and operational

Gender indicators

- ASARECA gender sensitive governance structure and procedures established and operational by end of 2009
- Gender mainstreaming strategy and plan developed and operational by mid-2009

Result 2: Generation and uptake of demand driven agricultural technologies and innovations facilitated

Gender indicators

- Number of gender responsive technologies/innovations generated by 2012
- 50 % of generated demand-driven technologies/innovations made available to uptake pathways by 2012

Result 3: Policy options for enhancing the performance of the agricultural sector in the ECA sub-region facilitated.

Gender indicators

- Policy framework to guide ASARECA programmes and units on how to effectively integrate gender into the R4D initiatives developed by mid -2009
- Number of policy options that enhance access to and use of resources by women, men and the youth recommended to policy makers by 2012

Result 4: Capacity for gender responsive agricultural research for development in the ECA region strengthened

Gender Indicators

- Concepts and operating principles of IAR4D reviewed to incorporate gender perspectives by end of 2009
- Capacity strengthening needs relating to the implementation of R4D reviewed for gender compliance by end of 2009
- No. of gender sensitive R4D programmes implemented by ASARECA

Result 5: Availability of information on agricultural innovation enhanced

- Stakeholder information and communication needs reviewed and gender compliant by mid-2009
- Number of information delivery pathways identified and used by 2012 (At least 1 for private sector, one for public and one for civil society organizations including men, women and youth groups)

ANNEX 4: ORGANIZATIONS WORKING ON GENDER, AGRICULTURE, AND CLIMATE CHANGE IN EAST AFRICA

This list describes organizations that operate at the national or regional level in East Africa that may be partners for USAID/EA in implementing future programming related to climate change and agriculture as well as organizations which could provide gender expertise to those organizations or on those topics. Some national gender groups are listed because they might be partners who could become members of new regional networks or provide services for them. NEPAD, ASARECA, and others are not listed since USAID is already working closely with them.

1. Climate and environment-oriented

African Centre for Technology Studies (ACTS)

This is an independent African think-tank on the application of science and technology to development. Conducts research, policy workshops and training on emerging new technologies and issues to do with Biotechnology, Biosafety, Climate Change and the Climate Change and the Environment.

Contact person: Prof. Judi Wakhungu, Executive Director. <http://www.acts.or.ke/>

African Centre for Technology Studies

Gigiri Court, Off United Nations Crescent

P.O Box 45917 00 100

Nairobi, Kenya

Tel: 254 020 7126895 or 254 710 607210

Fax: 254 020 2339093

Email: info@acts.or.ke

Climate Change Adaptation in Africa (CCAA) supports small research projects, capacity development through fellowships and support to attend conferences. It is a joint IDRC, Canada and DFID, UK program working across Africa and has active projects in East Africa. It also promotes networking and information sharing through a list serve, newsletters, workshops and a website. IGAD (see above) assists with networking in East Africa. CCAA is based at IDRC in Ottawa. Website: <http://www.idrc.ca/ccaa/>.

Contact: Victor Orindi, Program Management Officer

[CCAA - Climate Change Adaptation in Africa - ESARO](#)

Liaison House, 2nd and 3rd Floors, State House Avenue

PO Box 62084, Nairobi, Kenya. Phone:(+254+20)271-3160/61 Fax:(+254+20)271-1063.

Climate Change, Agriculture and Food Security (CCAFS)

This is a CGIAR-wide climate change challenge program, This is a new initiative to conduct large scale research on climate change impacts on agriculture (crops, livestock, fisheries, water) in developing countries. It is in the process of writing proposals and seeking funding, and has brought together research that is being conducted in individual centers. Bruce Campbell (b.campbell@cgiar.org), Director, based at the University of Copenhagen. ICRAF hosts some CCAFS activities.

Contact: Lou Verchot (l.verchot@cgiar.org) or Philip Thornton (p.thornton@cgiar.org).
Email: info@acts.or.ke

The **Global Change System for Analysis, Research and Training (START)** is a program that funds small scale research by developing country scientists and fellowships to assist countries in building the expertise and knowledge needed to identify the drivers of and solutions to global and regional environmental change. It has developed a network of African scientists that have conducted research on global change issues. It is funded by several multi- and bi-lateral institutions including the World Bank (which hosts the headquarters in Washington) and U.S. government agencies. The pan-Africa regional office is based in Dar es Salaam. Website: <http://pass-africa.org>.

Contact: Prof. Pius Yanda, Director, Institute of Resource Assessment
University of Dar es Salaam
P.O. Box 35095, Dar es Salaam, Tanzania
Tel:(+255) 22 2410144, Fax:(+255) 22 2410393
Email:yanda@ira.udsm.ac.tz.

The **Assessment of Impacts and Adaptation to Climate Change** in Multiple Regions and Sectors (AIACC) is a fairly new organization that has been managed by START with funding from UNEP and GEF. It has funded a few research projects in East Africa on the impacts of climate change on agriculture, diseases and water.

Website: <http://www.aiaccproject.org/>.
Contact: Mahendra Kumar, Task Manager for AIACC
Climate Change Enabling Activities
Division of Policy Development and Law
United Nations Environment Program
P.O. Box 30552, Nairobi, Kenya
Phone: (254 20) 623489, Fax: (254 20) 624324 / 622788
Email: mahendra.kumar@unep.org

The **Greenbelt Movement** was founded in 1977 by 2004 Nobel Prize winner Wangari Maathai to promote tree-planting in Kenya through the establishment of tree nurseries tended by community groups, mostly comprised of Kenyan women. It currently operates in nine districts across Kenya and has expanded its tree-planting efforts to include programs such as safaris, biodiversity preservation, and other environmental activities.
Contact:

Address: P.O. Box 67545-00200, Nairobi, Kenya.
Phone: +254 20 2211842 or 2220159; Email: jkaruga@greenbeltmovement.org

Institute for Resources Assessment (IRA), University of Dar es Salaam

IRA has become an Eastern and Central Africa regional center for climate change research, graduate level training, and capacity building of policy makers. It has biophysical, socioeconomic and agricultural scientists. It has a large research project related to REDD+, is doing policy workshops in 4 countries, hosts the Pan-Africa START program and the Swedish Environmental Institute, and is training students from 9 African countries with funding from NORAD, GEF, MacArthur Foundation, the US National Science Foundation and the Government of Tanzania. It has been conducting research and doing training since the 1970s on issues related to land degradation, biodiversity, water management and others.

Contact:

Prof. Pius Yanda, Director

Email yanda@ira.udsm.ac.tz

Tel: + 254-22-241 0144.

Institute of Resource Assessment

University of Dar es Salaam

P.O. Box 35097, Dar es Salaam, Tanzania

The **International Livestock Research Institute (ILRI)**, international headquarters in Nairobi. ILRI is an international agricultural research institute, member of the CGIAR, conducting basic and applied research on livestock (diseases, feed/ forage, mixed crop-livestock systems, environmental linkages including climate change, etc.). ILRI is another long-established institution in Nairobi with most projects in East Africa. It hosts ReSAKKS, CIAT, Beca (a large biosciences laboratory for African scientists) and other agricultural research institutions.

Contact John McDermott (j.mcdermott@cgiar.org),

Deputy Director General, Research.

ILRI, P.O. Box 30709, Nairobi, Kenya

Tel: +254 20 422 3207

International Water Management Institute (IWMI)

The IWMI is a member of the Consultative Group on International Agricultural Research (CGIAR). It is a large institution with offices in Africa and Asia. IWMI works in three regions in Africa, one of which is East Africa. The East Africa region comprises of 13 countries, although it is mainly active in Kenya, Uganda, Tanzania and Ethiopia. IWMI works at regional, subregional and country levels in the areas of improved irrigation and management, multiple water use and development systems, small scale land and water management interventions and the Nile basin water resource management.

Contact C/o ILRI-Ethiopia Campus, Wereda 17, Kebele 21, Addis Ababa, Ethiopia.

Mailing Address: P. O. Box 5689, Addis Ababa, Ethiopia

Telephone: +251-11-6172196 , +251-11-6457222-3 (direct),

Fax: +251-11-6172001

Email: IWMI-Ethiopia@cgiar.org

Website: www.iwmi.org

Inter University Council of East Africa

This is a regional inter-governmental institution of the East African Community. IUCEA aims to promote collaboration among East Africa's universities and between the universities and other public and private institutions. It also works towards coordinating research collaboration and maintain comparable academic standards across the region. IUCEA has its headquarters in Kampala, Uganda. Its foci include agriculture, **gender**, environmental management, education and forestry. One of its ongoing research programs focuses on wealth creation and ecological restoration in the Lake Victoria basin.

Contact: The Inter-University Council for East Africa (IUCEA)

3rd Floor, EADB Building, Plot 4 Nile Avenue. P.O. Box 7110, Kampala, Uganda.

Tel: +256-414-256251/2

Fax: +256-414-342007

Email: exsec@iucea.org OR info@iucea.org

Website: <http://www.iucea.org>

IGAD Climate Prediction and Applications Centre (ICPAC) provides seasonal weather forecasts on expected droughts and floods, and short-term climate change trends (e.g., El Nino) for climate risk management for seven member African countries (Djibouti, Eritrea, Ethiopia, Kenya, Somalia, Sudan, Uganda, Burundi, Rwanda and Tanzania). It works with FEWSNET, UNEP and other international and regional organizations, and has developed an effective regional network of meteorologists that work with agricultural researchers. It is based at the University of Nairobi.

Contact: Prof. Laban Ogallo, Director, laban.ogallo@meteo.go.ke.

IGAD Climate Prediction and Applications Centre (ICPAC).

P.O. Box 10304, 00100 Nairobi, Kenya

Tel.: 254 20 3514426

director@icpac.net Website: www.icpac.net

Lake Victoria Basin Commission (LVBC)

LVBC is an institution within the East African Community that is responsible for the coordination of sustainable development in the Lake Victoria Basin. The Lake Basin is defined broadly to include the Mara River Basin and Mount Elgon Ecosystem. LVBC interests include agriculture, telecommunication, energy, infrastructure, environmental management, HIV/AIDS in the region, and water and sanitation issues. The five countries involved in LVBC are Kenya, Uganda, Tanzania, Rwanda, Burundi.

Contact: Lake Victoria Basin Commission

East African Community, 6th Floor Reinsurance Plaza

Oginga Odinga Street, P.O Box 1510

Kisumu, Kenya

Email lvbc@lvbcsec.org

Tel +254-57-2026344/2023873/2023894, +254-57-2026324

Website www.lvbcom.org

The **MS-TCDC** is a training centre for development cooperation in Eastern and Southern Africa. It provides short-term training on a variety of development-related topics, including gender, agriculture and climate change, as well as topics such as organizational financial management, cross-cultural training, and languages. It organizes special training sessions as well as its standard curriculum, and hosts conferences. It caters to African and international NGOs and government organizations including volunteer organizations. It has excellent facilities on a campus near Arusha in northern Tanzania. It is non-profit, partly subsidized by the Danish government. Contact the Program Assistant, mbwambo@mscdc.or.tz.

MS Training Centre for Development Cooperation

P.O. Box 254 - Arusha - Tanzania

Tel. +255 27 254 1044/6/8 and 254 1052 or +255 754 651715

E-Mail: mstcdc@mstcdc.or.tz. Website <http://www.mstcdc.or.tz/sw37442.asp>.

Pastoral and Environmental Network in the Horn of Africa (PENHA)

PENHA is a regional NGO operating in Eritrea, Ethiopia, Somalia/Somaliland, Sudan, and Uganda. It focuses on fostering sustainable pastoral livelihoods by influencing policies at community and regional levels. PENHA was formed in the region by pastoralists from the region and members therefore have a strong sense of ownership. One of PENHA's objectives is to empower pastoralist to participate fully in their own development. Their activities include providing training to institutions so as to improve service delivery to pastoralists. They also participate in action research in partnership with academic institutions and they have had some of the research published. They are strong in the areas of agriculture and food security and women's economic empowerment.

Contact: Dr. Zeremariam Fren, Director

PENHA, PO Box 494,

1 Laney House, Portpool Lane, London EC1N 7FP, UK

Tel +44 (0)20 7242 0202: Fax: +44 (0)20 7404 6778

<http://www.penhanetwork.org/>

Regional Center for Mapping of Resources for Development (RCMRD) is a long-standing institution based in Nairobi that has had ties with NASA, UNEP and the AU. It is an inter-governmental organization with 15 member countries in eastern and southern Africa. It conducts training programs on analysis of remote sensing products and GIS, and conducts analysis and prepares maps itself. Website: rcmrd.org. Contact Dr. Hussein Owman Farah, Director General, email farah@rcmrd.org. Kasarani Rd (off Thika Road), P.O. Box 632-00618, Nairobi, Kenya. Tel: +254-20-2680722.

Regional Strategic Analysis and Knowledge Support System (ReSAKSS)

The node of this research and analysis program for Eastern and Central Africa is based at the International Livestock Research Institute, Nairobi. This is an information and data management program supporting agricultural and rural development programs. It develops databases, provides information and analytical support, conduct capacity building on data management and analysis, and designs and conducts monitoring and evaluation.

Dr. Joseph T. Karugia
SAKSS Coordinator,
International Livestock Research Institute (ILRI)
P.O. Box 30709-00100
Nairobi, Kenya
Tel: +254-20-4223000
Fax: +254-20-4223001
E-mail: ReSAKKSECA@cgiar.org

The Regional Universities Forum for Capacity Building in Agriculture (RUFORUM)

is a consortium of 25 universities in Eastern and Southern Africa (COMESA countries) hosted by Makerere University in Kampala. It was established in 2004 with funding from the Rockefeller Foundation to promote agricultural-related research and graduate-level training in universities. Contact: Prof. Adipala Ekwamu, Director.

RUFORUM Secretariat P.O. Box 7062 Kampala – UGANDA

E-mail: secretariat@ruforum.org, Tel: +256 414 535939

Website: <http://www.ruforum.org/>.

The **Small Grants Program (SGP)** was launched in 1992 and supports activities of non-governmental and community-based organizations in developing countries works in critical biodiversity sites through the country including the Mt. Kenya region and Arabuko Sokoke forest on near the Kenyan coast. Funded by the Global Environment Facility (GEF) as a corporate program, SGP is implemented by the United Nations Development Program (UNDP) on behalf of the GEF partnership. The maximum grant amount per project is US\$50,000, but averages around US\$20,000. Grants are channeled directly to CBOs and NGOs. In Kenya, SGP has focused its efforts on biodiversity conservation and abatement of climate change.

Address: UNDP Drylands Development Centre, Off UN Avenue, Gigiri; P.O. Box 30218-00100, Nairobi, Kenya. Tel: +254 20 7624474; Web: www.ke.undp.org/gef-sgp

World Agroforestry Centre (ICRAF)

This CGIAR center has its international headquarters in Gigiri, Nairobi. It focuses on agroforestry and sustainable agriculture. ICRAF is a long-established institution in Kenya; many projects are in Eastern Africa. It conducts basic and applied research to improve agricultural productivity using trees. It has a long-standing interest in environmental issues such as water management, soil erosion and climate change (e.g., carbon), and a stronger socioeconomic basis, including gender, than most agricultural institutions.

2. Agriculture-related

African Seed Trade Association (<http://www.afsta.org/objectives.asp>): There are no gender goals articulated, but this could be an important point of collaboration for FTF across the region.

Alliance for a Green Revolution in Africa (<http://www.agra-alliance.org/>): Articulates a commitment to women smallholder farmers.

East African Trade Union Confederation (http://eatuc.info/?page_id=310): Addresses gender in its programs.

East African Business Council (EABC) (<http://eabc.info/>) No articulated gender goals, but this could be an important point of collaboration for FTF across the

East Africa Farmers Federation

EAFF is a non-political, non-profit and a democratic apex organization of all Farmers of Eastern Africa. Its role is to voice legitimate concerns and interests of farmers of the region with the aim of enhancing regional cohesiveness and social-economic status of the farmers. The Federation, apart from voicing views and demands of the farmers on crosscutting issues will also endeavor to promote regional integration of the farmers through trade. The Eastern African Farmers Federation was formed in 2001 and its chapter registered in member counties. One of their articulated services is to “Enhance the role of women and youth in agriculture and rural development.”

Website: eaff.org

3. Gender-oriented organizations

African Centre for Gender and Social Development

A subgroup within the Economic Commission on Africa (ECA), the center has several program, including an East Africa Enterprise Development Facility to support women entrepreneurs and its offers regional advisory services to member states. It has also launched the African Gender and Development Index (AGDI)

Contact: Ms.Thokozile Ruzvidzo, Director

African Center for Gender and Social Development (ACGS)

United Nations Economic Commission for Africa

P.O. Box 3001, Addis Ababa, Ethiopia

Tel: 251-11- 544 33 00/ 01: Fax: 251-11- 551 27 85

truzvidz@uneca.org

Website: <http://uneca.org/acgd/main.htm>

Eastern African Sub-regional Support Initiative for the Advancement of Women

The Eastern African Sub-regional Support Initiative for the Advancement of Women is sub-regional Civil Society Organization made up of committed individuals, NGOs, coalitions and networks driven to transform gender relations and especially in the Eastern Africa sub-region.

EASSI was formed in 1996 as a mechanism to facilitate systematic follow up of the implementation of the platforms for action emanating from the Fourth World Conference on women held in Beijing China in 1995. EASSI is a collaboration between individuals, NGOs, coalitions and networks in the Eastern Africa sub region committed to the advancement of women. EASSI covers eight countries of: Burundi, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, Tanzania and Uganda. EASSI prioritized the 12 critical areas of concern for women of the Beijing and African (PFAs). It was expected EASSI would enhance national and regional processes. Of its three programs, the one most relevant to the USAID gender and climate changes issues is probably the “Women’s Rights and Gender Equality” program which is lobbying for passage of the East African Declaration on Gender Equality.

Energia: International Network on Gender and Sustainable Energy. ENERGIA-Africa is the regional chapter of ENERGIA in Africa. Established in 2000, ENERGIA-Africa is a network of men and women whose common goal is to create equal opportunity and access to relevant energy resources for the poor. ENERGIA-Africa is the key player in gender and energy in the region. The network focuses on: information exchange, research, capacity building and policy-influencing actions that aim to result in gender-sensitive energy programs and policies. It works in Botswana, Ghana, Kenya, Lesotho, Mali, Nigeria, Senegal, South Africa, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe.

<http://www.energia.org/where-we-work/>

Contact: [Ms Nozipho Wright](#) (Regional Network Coordinator)
Botswana Technology Centre (BOTEC) - ENERGIA-Africa Regional Secretariat
Private Bag 0082, Gaborone, Botswana. Tel: +267.3914161; Fax: +267.3974677

Environment, Human Rights Care, and Gender Organization (ENVIROCARE)
Envirocare is a Tanzanian NGO that was formed and registered in 1993. Based on the belief that human rights abuses, environmental degradation, and poverty are linked, it works to raise awareness about the cultural norms, values, and practices that create gender-based constraints and limit women’s effective participation in development. Envirocare received a USAID/EGAT/WID grant in 2001 to enhance legal literacy for men and women in Tanzania.

Contact: Main Office: Mlalakuwa Road, Dar es Salaam
Address: P.O. Box 9824
Dar es Salaam, Tanzania
Phone: 255 22 2775592
Fax: 255 22 270 1407
E-mail: envirocare@cats-net.com

Gender and Diversity Program

Contact: Vicki Wilde, Director
Email: v.wilde@cgiar.org
CGIAR Gender and Diversity Program
World Agroforestry Centre
United Nations Avenue, Gigiri
PO Box 30677, Nairobi, 00100, Kenya
Tel: 254 20 7224000

Global Gender and Climate Alliance

This group was launched at the UN Climate Change Conference in Bali in December 2007. The GGCA works to ensure that climate change policies, decision-making, and initiatives at the global, regional, and national levels are gender responsive. The GGCA has grown to include 25 institutions among United Nations and civil society organizations and has been recognized as a unique and effective partnership that is bringing a human face to climate change decision-making and initiatives.

Email: info@gender-climate.org
<http://www.gender-climate.org/>

Kenya Women and Energy Network (KWEN)

KGEN currently has 62 members drawn from Civil Society, Government, Research Institutions, Community Based Organizations Private Sector and Media. The network is working to achieve the following broad aims:

- To enhance levels of awareness and motivation among NGOs and energy access delivery actors to disseminate and finance energy technologies to benefit women and men.
- To enhance capabilities of KGEN members and Partners to mainstream gender concerns into energy and development projects.
- To inform and influence national energy institutions to incorporate gender into the design of sector policies, budgets, practices and poverty reduction strategies

Contact Person: Ms Lydia Muchiri
Practical Action East Africa
P.O. Box 39493-00623, Nairobi, Kenya
Tel: +254.20.2713540
Fax: +254.20.2710083

Online Women in Politics: “Engendering Climate Change”

<http://genderinclimatechange.wordpress.com/about/>

Pastoral Women’s Council (PWC)

PWC is a Tanzanian NGO that was formed in 1997 to address issues facing Maasai women. The NGO focuses on three key issues: increasing property ownership for women, encouraging women’s political participation and improving education opportunities for girls. To address these issues, PWC has implemented a variety of strategies including a revolving livestock program similar to the heifer program, small-scale agriculture, paralegal training, political education, securing the rights of indigenous communities to their natural resource base and providing tuition and counseling to girls and young women. PWC is community based, works only locally, and it has most of its international experience working with bilateral missions.

Website <http://www.tanzaniapwc.org/>

The **Tanzania Gender Networking Program (TGNP)** started operations in 1993 as a part of the preparation for the Fifth International Conference on Women held in Beijing, China in 1995. A registered NGO, it has become a well-known advocacy group promoting gender equality and social equity through the empowerment of women and other marginalized people. TGNP works in four areas, including: Training, Capacity Building, and Outreach; Information Generation and Dissemination; Activism, Lobbying and Advocacy, and Program Support and Management. TGNP offers a wide range of training courses, houses an extensive library on gender issues, and runs a publication program.

www.tgnp.co.tz

P.O. Box 8921, Dar es Salaam, Tanzania

Gender Resource Centre, Mabibo Road, adjacent to National Institute of Transport

Tanzania National Gender and Sustainable Energy Network (NGSEN)

This organization works through the Tanzania Traditional Energy Development and Environment Organization (TaTEDO). The network will conduct a gender and energy demand and supply analysis. Through this activity NGSEN will be able identify distinct energy issues around cultural, social and economical defined roles and tasks that women and men assume both within the family and household system and in the community. This will lead to identify gender gaps, which will set foundation for NGSEN lobbying and advocacy. It will also undertake a gender and energy supply and demand analysis study.

Contact Person: [Ms Gisela Ngoo](#)

[TaTEDO](#) P.O. Box 32794, Dar es Salaam, Tanzania

Tel: +255.22.2700438

Fax: +255.22.277 4400

Uganda Women's Network (UWONET)

Women of Uganda Network (WOUGNET) is a non-governmental organization initiated in May 2000 by several women's organizations in Uganda to develop the use of information and communication technologies (ICTs) among women as tools to share information and address issues collectively. WOUGNET's mission is to promote and support the use of ICTs by women and women organizations in Uganda, so that they can take advantage of the opportunities presented by ICTs in order to effectively address national and local problems of sustainable development. Indeed, access to information about best practices, appropriate technologies, ideas and problems of other groups working on similar concerns have been identified as critical information and communication needs of women organizations in Africa.

Plot 55 Kenneth Dale, Off Kira Road, Kamwokya

Website: www.wougnet.org/cms/content/view/436/58

E-mail: info@wougnet.org

Telephone: +256 41 4532035; Fax: +256 41 4530474

UNEP Gender and the Environment

In order to implement the GC decision 23/11, an UNEP-wide gender action plan was prepared, and a Survey was developed in 2006 to investigate the status and methods of gender mainstreaming in governmental environmental policies, programs and institutions. After a worldwide consultation beginning 2006, four project proposals were developed (gender-conflict-environment; case studies women-environment – A Legacy of Knowledge; a mentorship program to enhance young women's leadership in environment; CEDAW and women's environmental rights). At UNEP's website a section on women and environment has been included; and at International Women's Day 2006 the online database 'Who's who: Women in Environment' that gives visibility to women leaders in environment, was launched.

Website: http://www.unep.org/gender_env/About/index.asp

Women for climate justice: "Gender CC"

A global network of women and gender activists and experts from all world regions working for gender and climate justice

Website: <http://www.gendercc.net/network/links.html>

Women's Climate Initiative

This is a joint private/public partnership seeking to empower women as leaders and active agents in adapting to, mitigating, and reducing the adverse effects of climate change.

Contact: Nancy Orem Lyman, Founder and Executive Director

Email: Nancy@womensclimateinitiative.org

Website: <http://www.womensclimateinitiative.org>

4. Other

East Africa Development Bank (EADB)

This is an institution within the East African Community that supports development in the region through lending money, providing advice and partnering with other development institutions. EADB works with both public and private enterprises in agriculture and agro-processing, education, fisheries, telecommunication, infrastructure development and service provision. EADB supports sectors that are critical to regional development even when these are seen to be too risky by other financial sector players. EADB has its main office in Kampala, Uganda and branch offices in Kenya, Tanzania and Rwanda.

Contact: The Director General

East African Development Bank,

4 Nile Avenue, P O Box 7128, Kampala, Uganda,

Tel: +256-41-4230021/5; Fax: +256-41-4259763,

E-mail: admin@eadb.org; Website: <http://www.eadb.org/>

For more information, contact:

US Agency for International Development
EGAT/WID RRB 3.8-005
1300 Pennsylvania Ave., NW
Washington, D.C. 20523

www.usaid.gov/our_work/cross-cutting_programs/wid/

DevTech Systems, Incorporated
1700 North Moore St.
Suite 1720
Arlington, Virginia 22209

www.devtechsys.com/services/gender.cfm