

# *Women in Agriculture*

Remarks by  
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I would like to start by thanking the Ministry of Labor and Social Affairs of Spain for inviting me to speak today on behalf of the US Agency for International Development.

Agriculture is one of the highest priorities for USAID's Administrator. As Andrew Natsios has stated, "You cannot deal with food security, hunger and malnutrition unless you invest in agriculture... [And] agricultural productivity dramatically increases when women get the same resources as men." To demonstrate his commitment to agricultural development, the Administrator has reorganized the Agency to create a Bureau for Economic Growth, Agriculture and Trade.

**Women are key to addressing the food security** and nutrition goals that are central to US and international commitments **to cut hunger in half by 2015**. In parts of sub-Saharan Africa, women grow 70% of food for family and local

consumption.<sup>i</sup> We must ensure that the concerns and needs of rural women are systematically brought into every stage of agricultural development programs. Attention to gender and to the impacts of development interventions on rural women will improve the effectiveness of our programs and facilitate the achievement of our development objectives.

Today, in many parts of the world, there is an increasing trend towards what has been termed the **“feminization of agriculture.”**<sup>ii</sup> Conflict, the search for paid employment in the cities, and the HIV/AIDS epidemic have all contributed to a rapid decline in the male population in rural areas in Africa. **As men’s participation in agriculture declines, the role of women in agricultural production increases.** In Mozambique, for example, for every 100 men working in agriculture, there are now 153 women.<sup>iii</sup>

As rural women are becoming increasingly responsible for household food production, development programs must adapt to this changing demographic so that rural girls can have access to education and rural women can acquire the necessary training on new productivity-enhancing techniques and technologies.

AIDS greatly diminishes agricultural production and threatens food security in a number of ways. First of all, **much of the burden for the care of the ill falls on rural women.** This increased burden of caring for ill husbands and relatives means that rural women, many of whom are HIV-positive themselves, have **less**

**time to devote to agricultural tasks, childcare and income-generating activities.** The HIV/AIDS epidemic highlights the urgent need for access to information and improved technology for production and processing so that rural women farmers and agro-food processors can better manage this added burden.

Access to science, technology and information improve life for rural women and help to reduce food insecurity. This is especially important in light of the devastating impact that the HIV/AIDS epidemic has had on rural Africa and is currently having in Asia. **In social and economic terms, the HIV/AIDS epidemic hits women hardest, increasing substantially the vulnerability of poor rural women.**<sup>iv</sup>

At USAID, the Bureau for Economic Growth, Agriculture and Trade, the Office of Agriculture, and USAID Missions are committed to bringing the benefits of agricultural development to women. The Office of Women in Development's mandate is to play a **catalytic role in our efforts to enhance the quality of life of rural women and their families.** The WID Office has been instrumental in supporting cutting edge research on the role of women in agriculture and providing seed money for innovative pilot projects that will directly benefit rural women. For example, the WID Office has supported:

- the International Food Policy Research Institute's (IFPRI) research on the linkages between food security, nutrition and the well-being of rural households;

- a pilot project with the International Institute for Tropical Agriculture (IITA) in Nigeria to promote the micronutrient enhancement of maize as an income-generating activity for rural women;
- a West Africa Regional Program to reduce the constraints that women traders face so they can expand their businesses and increase the family income.

Today, I want to address **4 critical elements to cutting hunger**, and highlight the important roles that women play in attaining these:

- I. Increasing agricultural productivity
- II. Decreasing the risks of famine
- III. Improving nutrition
- IV. Improving Livelihoods through Global Trade

## **I. INCREASING AGRICULTURAL PRODUCTIVITY<sup>v</sup>**

In order to meet the development challenges and food needs of the new millennium, and to achieve the goal of cutting hunger, **agricultural producers in developing countries must significantly increase the current productivity** of their land, labor, and water resources. But farmers cannot do this simply by working harder.

In order to **raise productivity** at the farm and sector level, the following elements must come together:

1. Science and technology
2. Capacity building or training
3. Property rights and credit<sup>vi</sup>

And **rural women need to be a central part of this process**. Programs must address the constraints rural women face to access technology, training opportunities, productive resources and credit if these efforts are indeed to cut hunger and improve the standard of living of rural families.

### **1. Making Science and Technology Work for Women Farmers**

Investments in science and technology drive agricultural development. Studies have shown that application of modern science to the agricultural sector raises factor productivity more than similar investments in the industrial sector, and that **agricultural growth has a greater effect on the reduction of poverty than does industrial growth.**<sup>vii</sup>

Advances in **biofortification and appropriate technology** are two areas that **can be especially beneficial for rural women**. Without the increase in factor productivity that these advances bring, there cannot be agricultural development and we cannot hope to attain our objective to cut hunger.

Some **examples of making science and technology work for rural women** are:

- A. Development of **improved crop varieties**
- B. **Appropriate Technology** for Production and Processing
- C. Appropriate Technology for Irrigation

#### **A. Improved Crop Varieties**

**NERICA** (New Rice for Africa) varieties have been developed in West Africa in cooperation with local farmers, and combine the best qualities of African and Asian rice varieties. Since their introduction in the 1990's, **these varieties have increased yields, improved food security, and raised incomes** for farmers, many of whom are women.

NERICAs, which are higher in protein than other rice varieties, can increase yields by up to 50% without fertilizer, and up to 200% with the use of fertilizers and improved techniques. **This improved productivity could save West and Central African countries \$88 million in rice imports by 2005.**

- Kpassa Albertine, a woman farmer in Zaguiguia, in western Cote d'Ivoire, said farmers in her area cultivate many varieties of rice, but **during last year's drought, "only the NERICAs would grow."** Now all the farmers in the region want to grow the NERICAs, but not enough seed is available.

The problem of lack of seeds is being addressed by the West Africa Rice Development Association (WARDA), which will invest more than \$15 million over the next 5 years to distribute the new rice among farmers in 7 pilot countries in the region. Assistance came from a broad range of development partners, including USAID, UNDP, the World Bank, FAO, African Development Bank, Rockefeller Foundation, and others.

### **B. Appropriate Technology for Agro-food Processing**

Innovations in science and technology **are improving not only agricultural production, but also the post-harvest handling and processing of agricultural products through the development of appropriate technology.**

For example, oilseed farmers, many of whom are women, earn little money for the sale of their unprocessed seeds. They **often lack the processing capability** at the village level. As a result, incomes are low, and the price of cooking oil remains prohibitively high.

To address this problem, USAID has provided funds to develop and market manually operated oilseed presses in Africa. **These efforts provide real economic opportunities for these small oilseed farmers while filling a vital nutritional need.** Traditionally, women are left out of new technologies since machinery is often designed to process high volumes of products. By supporting the development and marketing of appropriate technology for the small and

medium scale processing of locally consumed products, USAID is ensuring that new technology also benefits rural women.

Over 9,000 oilseed presses have been sold in Africa, **allowing many rural women to begin profitable, employment-generating oilseed processing enterprises.**

These women are **adding value to their products and increasing their earnings.** This is significant because studies have shown that in rural households, **income in the hands of women has up to four times the impact on child survival and nutrition** as the same income in the hands of men.<sup>viii</sup>

### **C. Appropriate Technology for Irrigation**

In addition to progress in agro-food processing, appropriate technology is also bringing about innovations in irrigation systems for small-scale agriculture around the world. USAID is supporting efforts to improve conditions for millions of farmers through the development and marketing of treadle pumps in Asia and Africa. Through mass-marketing campaigns, **over 1.2 million treadle pumps have been sold to promote irrigation for small farms.**

The introduction of **this technology relieves many of the time and labor constraints that women farmers face** in the cultivation of crops. Use of these pumps has increased the value of harvests by over \$100 per year in Asia, and

over \$400 in Africa. **Treadle pumps will generate over \$130 million in annual income for small-scale women farmers.**

## **2. Capacity-building for Women Farmers**

Human capacity is key to the adoption of new production technologies in agriculture. Basic education for women has been shown to have significant impacts on agricultural production. In **Kenya, where education levels for women are low, a year of primary education provided to all women farmers would boost maize yields by 24 percent.**<sup>ix</sup>

USAID is working to increase agricultural productivity is by ensuring that farmers have the necessary information and skills to adopt new technologies and techniques. **We are focusing on involving women by:**

- A. Training more women agricultural experts**
- B. Closing the gap between research institutes and women farmers**

### **A. Training More Women Agricultural Experts**

USAID, in collaboration with USDA, helped to address the need to train women agricultural experts by supporting the African Women Leaders in Agriculture and the Environment (AWLAE) program. From **1992-2000, USAID supported AWLAE to increase the number of professional African women with expertise in agriculture.** This program functioned under the premise that food security and resource management policies in Africa could be improved if more

women with the appropriate levels of education and experience were in policymaking and agricultural science related positions.<sup>x</sup>

**A new generation of African women from 17 countries was trained as leaders in the agricultural and environmental sectors.** Leadership courses were conducted, reaching over 300 women leaders in the agricultural and environmental sectors who then went on to train others and shape the policy dialogue in their respective countries. The creation of gender teams in the Ministries of Agriculture, Environment, and Planning in Uganda is one example of their impact.

#### **B. Closing the Gap between Research Institutes and Women Farmers**

Productive, competitive agriculture requires an integrated approach to research, training, and extension. **Most developing countries have parts of this “knowledge triangle” already in place, but the linkages between them are incomplete, and rural women’s access to this information is extremely limited.**

USAID is piloting efforts in key countries to make this agricultural knowledge triangle work for local farmers, with an emphasis on women farmers.

As I mentioned earlier, USAID is currently working with the International Institute for Tropical Agriculture (IITA) in Ibadan to promote the micronutrient

enhancement of maize as an income-generating activity for women in Nigeria. The participating women are processing enhanced varieties of maize using improved milling equipment and developing innovative products such as a nutritious weaning food for infants and a food supplement for adults. **By closing the gap between IITA's scientific researchers and the women farmers and agro-food processors of Nigeria, this activity will help to improve nutrition at the household level and raise rural women's incomes.**

USAID is also launching a new program called Technology Applications for Rural Growth and Economic Transformation (TARGET) in order to **increase access to and use of technology to support household food security in rural communities.** The purpose of this program is to shorten the timeframe between the development of profitable, productivity enhancing agricultural technology and its use by small holder farmers and rural enterprises. This will include the expansion of technology transfer programs in target countries and the creation of a **Technology Access Fund** to support partnerships between research centers and groups providing technology based services at the rural community level.

### **3. Securing Property Rights and Access to Finance**

**Rural women are responsible for much of the food production in developing countries yet control only a small proportion of assets.<sup>xi</sup>** In Kenya, less than 4% of women have land registered in their names. Fewer than 10% of women farmers in India, Nepal and Thailand own land.<sup>xii</sup> In Nepal, 91%

of the women in the labor force are involved in agricultural production, yet until March of this year they had no legal right to own property, a situation that a small grant from USAID helped to correct.

This is significant because ownership and control of assets shapes progress.

The **distribution of resources determines the multiplier effects of economic stimulus**. Efficiency and economic growth improve when the poor have a larger share of control over assets and benefits.<sup>xiii</sup> Evidence has demonstrated that **when women and men have relatively equal access to resources and rights, economies tend to grow faster, the poor move faster out of poverty, and the well-being of men, women and children is enhanced.**<sup>xiv</sup>

**The lack of access to productive resources—often upheld by existing laws and social norms—is one of the most serious constraints that women face** in their efforts to improve their living conditions and those of their families.<sup>xv</sup> **In much of the developing world, women do not own or inherit land.** Without this collateral, their access to credit is extremely limited.

As men are usually the legally-recognized landowners, it is they who provide the collateral.<sup>xvi</sup> Due to conflict, the search for jobs and the AIDS epidemic, **the male population in rural Africa is falling rapidly, while the female population remains relatively stable.** In Malawi, the rural male population plummeted by 21.8% from 1970 to 1990. During the same 20-year period, the rural female

population declined by only 5.4%.<sup>xvii</sup> This trend has resulted in **an increase in the proportion of rural households headed by women.** Approximately 1/3 of all rural households in sub-Saharan Africa are now headed by women.

Yet, **even in cases where women are heads of their household, they are denied the legal status that would allow them to secure loans.** This limited access to rural financial services hampers women's efforts to improve or expand their farm activities and other income-generating activities.<sup>xviii</sup> An analysis of credit schemes in Kenya, Malawi, Sierra Leone, Zambia and Zimbabwe found that women receive less than 10% of the credit awarded to small landholders and only 1% of the total amount of credit directed to agriculture. In Jamaica, women account for only 5% of loans granted by the Agricultural Credit Bank.<sup>xix</sup>

## **II. DECREASING THE RISKS OF FAMINE**

**Disaster preparedness is an important part of ensuring food security.**

Providing options for risk management through famine early-warning systems, food aid, conflict prevention and resolution mechanisms, can help avert famines and mitigate the effects on the most vulnerable populations.<sup>xx</sup>

The **Famine Early Warning Network (FEWS-Net)** is a partnership of US and African institutions. FEWS-Net works in 17 drought-prone countries to continuously assess remotely sensed data and ground-based meteorological, crop, and rangeland conditions for **early indications of potential famine areas.**

In response to information gathered through FEWS-Net, women in Niger have set up cereal banks to ensure food security in times of drought.<sup>xxi</sup> This is one example of how critical it is to **ensure that rural women have access to the technology and the skills to utilize it.**

### **III. IMPROVING NUTRITION**

Improving nutrition addresses the qualitative aspects of food security.<sup>xxii</sup> Each year, common illnesses threaten the health and lives of millions of people in developing countries simply because they lack adequate vitamins and minerals in their diets.

In 1995, the World Health Organization concluded that **56% of all deaths in children had malnutrition as an underlying contributing factor.** More importantly, mild-to-moderate malnutrition was identified as contributing to at least three-quarters of those deaths. USAID is working with rural women in a broad array of agriculture and nutrition programs to ensure that our interventions **improve availability, access and usage of nutritious foods among vulnerable populations.**

Experience has shown that **enhancing the micronutrient content or bioavailability** in commonly consumed foods through food fortification **is a cost-effective and sustainable strategy** for reducing micronutrient deficiencies in vulnerable populations.

**Fortified foods, in addition to improving nutrition and diets, also provide good opportunities for women to add value to production and to generate income.** <sup>xxiii</sup> USAID is supporting research on biofortification, including "golden rice", high beta-carotene (vitamin A) mustard oil, orange-fleshed sweet potatoes, and cereals (rice, maize, wheat) with higher levels of iron and zinc.

In FY 2000 and 2001, USAID supported a research program to specifically address women's prominent role in the production and marketing of beans and cowpeas. This program helped women in Africa and South America to **develop improved varieties and nutritious bean products, including weaning foods.** The initiative also supports improved **processing and storage methods and** particular attention was placed on the training of women agronomists, thus addressing the need to bridge the knowledge divide between research institutes and women in agriculture.

USAID has also launched a program to strengthen linkages between policymakers and stakeholders in agriculture, nutrition and gender at the policy level in five African countries. This initiative is currently underway in Nigeria, Ghana, Uganda, Kenya and Mozambique. It focuses on reducing food insecurity and malnutrition in the target countries by sensitizing and mobilizing policymakers and stakeholders on the importance of collaboration on these issues.

#### **IV. IMPROVING RURAL LIVELIHOODS THROUGH GLOBAL TRADE**

Although the primary focus of our efforts to cut hunger will be agriculture, our work must also encompass the broader goals of increased economic opportunities. **The U.S. is committed to supporting interventions to strengthen women's participation in markets**, which will raise their incomes and enhance the well-being of their families.<sup>xxiv</sup> Examples include:

- The **Partnership for Food Industry Development (PFID)**, for example, created an alliance between industry, universities, and public and private agencies in developing countries to assist farmers in the marketing of their products. PFID will soon be expanded from two commodities to four, including cereals and herbs, areas with significant involvement by women farmers.<sup>xxv</sup>
- USAID will also support interventions to **expand opportunities for women agricultural producers and processors by providing training on compliance with new sanitary and phytosanitary standards and other standards for food safety and quality**. To this effect, the Agency will soon launch a program that targets women in West Africa and the Eastern Caribbean to help them participate more fully in local, regional and international markets. This technical assistance program will provide **training on issues such as quality control, compliance with SPS and private standards**, product eligibility for various international trade

agreements, product packaging and labeling, and forward and backward market linkages. In the Caribbean, a particular emphasis will be placed on improving market access and complying with standards set by the local hospitality industry.

## CONCLUSION

The goals of the agencies of international cooperation and of USAID in particular are to cut hunger and reduce poverty, and to do that, it is essential to involve rural women as key players in the planning and implementation of our development activities. The success of our programs depends on our continued commitment to the full integration of rural women in ways that sustain their livelihoods and improve the quality of life for their families. This is our commitment, and this is what we will continue to strive for.

On behalf of the US Agency for International Development, thank you very much.

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<sup>i</sup> International Population Center, Food for the Future. UNFPA. ([www.unfpa.org/modules/intercenter/food/womenas.html](http://www.unfpa.org/modules/intercenter/food/womenas.html)). 2001.

<sup>ii</sup> FAO website, "Gender and Food Security"

<sup>iii</sup> FAO website "Gender and Food security factfiles"

<sup>iv</sup> FAO website, "AIDS: a Threat to Rural Africa"

<sup>v</sup> Position Paper for World Food Summit

<sup>vi</sup> USAID Interim Agricultural Strategy, p. 2

<sup>vii</sup> John Mellor presentation at Agriculture Stakeholders' meeting, USAID, April 2002  
16<sup>th</sup>, 2002

<sup>viii</sup> From World Bank, "Engendering Development" p. 160. And World Bank press release, Dec. 6, 2001 in "Women Key to Effective Development"

<sup>ix</sup> IFPRI, "Women: the Key to Food Security." October 2000.

<sup>x</sup> "U.S. Implementation of the US Action Plan on Food Security and World Food Summit Commitments: 200-2001 Update."

<sup>xi</sup> Position Paper for World Food Summit, p. 8

<sup>xii</sup> FAO website, "Gender and Food Security"

<sup>xiii</sup> Position Paper for World Food Summit, p. 8

<sup>xiv</sup> World Bank Mainstreaming Gender, p 1

<sup>xv</sup> IFAD, "Gender Perspective: Focus on the Rural Poor," p. 7

<sup>xvi</sup> FAO website, "Rural Economies"

<sup>xvii</sup> FAO website, "Agriculture"

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- <sup>xviii</sup> FAO website, "Rural Economies"  
<sup>xix</sup> FAO website, "Rural Economies"  
<sup>xx</sup> Position Paper for World Food Summit, p. 5  
<sup>xxi</sup> FEWS Net Niger Center website, May 2002  
<sup>xxii</sup> Position Paper for World Food Summit, p. 5  
<sup>xxiii</sup> USAID Interim Agricultural Strategy, p. 11  
<sup>xxiv</sup> Position Paper for World Food Summit, p. 7  
<sup>xxv</sup> USAID Interim Agricultural Strategy, p. 11