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Extended Remarks Upon  
Which Intervention Is Based

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I thank the Chair. The United States actively promotes sustainable rural development at home and abroad. It has done so for many years, and will continue to do so for many more. Why? Because we realize, as do so many other countries, that sustainable development of rural communities is vital to the environmental, social, and economic viability of nations. And in keeping with our overall message during the CSD 17 cycle, we also recognize the importance of investing in science and education, in empowering local organizations and communities, and in tapping the power of new information technology tools to promote sustainable rural development – be it in our American heartland or in other countries around the world.

Clearly, one of the fundamental challenges and opportunities that face rural communities is outmigration of talented young people. Said slightly differently, we must find ways to reduce the disparities in the quality of life between urban and rural areas so rural areas are considered attractive and vibrant places to live and work, and to build a future. They must offer quality jobs, sound health care, and appropriate recreational opportunities. This requires that we all work to create interesting and viable opportunities for current and future generations so that rural poverty is not only reduced, but reversed, and so that the rural environment attracts people.

Over time, the United States has identified a few key lessons in promoting rural vitality. These include:

- 1) Empower rural people and communities to manage their own social and economic destinies;
- 2) Expand access to essential services and infrastructures so that rural health, education and productivity are enhanced;
- 3) Build the supporting infrastructure and utilities for improved lifestyles, business development and employment opportunities that integrate rural areas into the rest of the economy;
- 4) Link rural agricultural producers to both rural and urban markets, and equip them to respond to consumer preferences and market demand;
- 5) Restore and strengthen the connections between rural communities and the surrounding environment through sustainable stewardship of natural resources;

- 6) Address special vulnerabilities of rural people to economic recessions;
- 7) Strengthen the resilience of rural people to recover from extreme weather and other systemic shocks; and,
- 8) Ensure that the special needs and expectations of rural men and women are met equitably.

Each of these lessons contributes to sustainable rural development. They are described in more detail below.

**1) Empower rural people and communities to manage their own social and economic destinies.**

Such empowerment does not happen automatically. Several factors play a role –

- Rural authorities and local grassroots organizations are entrusted with appropriate powers, rights and responsibilities, and then are held accountable;
- Strengthen the incentives of people to invest in the land and avoid undercutting these incentives or fostering dependencies on external assistance;
- Serious efforts are made to ensure that rural voices, opinions and input influence relevant public policy and budget decisions;
- Rural organizations devoted to building the capacity of youth, women and the elderly are supported; and
- Information systems are both available in rural communities and are designed to support them.

Please see Boxes 1 and 2 for examples of relevant programs.

### **Box 1. U.S. Assistance Programs: Empowering People and Communities**

**Reforming Laws** - In Ethiopia, USAID helped reform property rights laws, and trained judges and government officials on a new land registration system. Parcels benefiting 146,000 households were registered. Field evaluations indicate the programs increased investments, improved the management of natural resources, and led to increased household incomes.

**Research that Empowers** – USAID’s Sustainable Agriculture and Natural Resource Management Collaborative Research Support Program (SANREM CRSP) promotes stakeholder empowerment and improved livelihoods in countries such as Uganda, Kenya, Zambia, Ecuador, Bolivia, Peru, Mexico, Indonesia, Philippines, and Vietnam.

**Women’s Property Rights** – USAID programs in Kenya and Tanzania focused on strengthening women's property rights to help them defend and keep their property when challenged by men. In Rwanda, the new land policy includes special protections for women and procedures to facilitate registration of their property.

**Access to Justice and Land Rights** – With financial support from Millennium Challenge Corporation (MCC), the Government of Benin has enacted new legal procedural codes that replace archaic laws, and has constructed 9 new courthouses. MCC is also helping people in 54 communities in Benin gain rights to their land, and is helping to formalize land rights procedures in 190 villages.

**Making the Rule of Law Work for Rural Poor** - With support from USAID/Guinea’s Expanded Natural Resources Management Program (ENRMP), the Government of Guinea established National Forest co-management relationships with local communities. The program helped local communities organize democratically-elected Forest Management Committees that were responsible for ensuring that laws were followed and that fines were paid. When privileged individuals tried to use their position to harvest illegally, the local Forestry Agent confiscated the illegally-cut teak logs.

**Empowering Farmers** - To enhance Honduran farmers’ entrepreneurial skills and decision making, MCC is helping to provide pricing data via cellular phones and to identify market opportunities.

## **Box 2. U.S. Domestic Programs: Empowering People and Communities**

Cooperatives - In the United States, USDA's Cooperative Programs promote understanding and use of the cooperative form of business as a viable organization option for marketing and distributing agricultural products. A cooperative is a business or service organization that is owned and democratically controlled by the people who use its services. Rural cooperatives can provide a variety of different functions and benefits to the community such as marketing products, supplying needed inputs, and providing services such as cotton ginning, storage, or trucking. Rural utilities may provide electricity, water, and telecommunications to rural settings. Cooperatives may also provide health care, child care, insurance, credit and housing for rural communities.

Supporting Rural Development - USDA's Rural Development (RD) promotes economic development by providing loans to businesses through banks and community-managed lending pools, while also assisting communities to participate in community empowerment programs and cooperatives. USDA RD encourages collaborative efforts and partnerships by providing financial and technical assistance that contribute to the efforts of others engaged in strategic economic development activities. At present, RD assistance emphasizes community-level renewable energy and energy efficiency activities that help mitigate the impact of climate change. RD supports several external internet websites (AgMRC and ATTRA) which provide a wealth of information on value-added agriculture and sustainable development activity across the U.S.

Youth Development - USDA's 4-H program was developed so that young people can enjoy university-based youth programs and projects for diverse interests. 4-H engages nearly seven million young people nationwide with exciting, hands-on learning adventures that enable rural and all youth to become productive members of tomorrow's society and work force.

## **2) Expand access to essential services and infrastructures so that rural health, education and productivity are enhanced.**

Compared with urban populations, rural populations have significantly lower access to health care services such as antenatal care, lower access to improved drinking-water sources and sanitation, and greater exposure to home indoor air pollution that contribute to an overall higher disease burden.

For example, the lack of clean water, combined with the lack of basic sanitation and hygiene education, is one of the largest – but avoidable – obstacles to social progress and development in rural areas. Each year overseas, water-related illnesses such as malaria, cholera and diarrhea claim the lives of many children and adults. Rural communities need protection of their water supplies from contamination by improper handling of household water supplies, household waste, and poor sanitation. While access to safe water is a health and nutrition issue overseas, it is also a critical economic issue. Villagers far away from rivers, lakes and streams struggle daily to get water. Long hours collecting water keeps women from other productive activities. Moreover, scarcity of water has often led to conflict over competing needs.

We have found that the following elements are key to successfully strengthening rural social services and infrastructure.

- Aiming for urban and suburban standards of access to preventive health- and nutrition-care, especially antenatal care for mothers and comprehensive care for care for children under two, as well as access to safe drinking water, sanitation, and clean household energy.
- Building capacity and investing in human resource development – especially youth education – for a physically and intellectually capable workforce. This requires primary, secondary and tertiary schools that prepare rural youth to job needs and opportunities.

Please see Box 3 for examples of relevant programs.

### **Box 3. Access to Essential Services**

Hygiene Improvement - USAID/Indonesia set up a comprehensive hygiene improvement and diarrheal disease prevention program encompassing access to infrastructure (water supply systems, sanitation facilities, etc.); hygiene promotion (communication, social marketing, etc.); and, enabling environment (policy improvement; financing, cost recovery, public/private partnerships, etc). Lesson learned: Community ownership and participation are critical for sustainability; Involve women; Changing behaviors is must focus on whole community, not just individuals; and, Integrated interventions (total sanitation strategies) are most effective.

Water Supply and Sanitation - USAID is working within the Okavango watershed in southwestern Africa to support local efforts to improve water supply and sanitation services, improve management of the riparian ecosystem, and protect biodiversity. USAID provides training, heightens awareness on transboundary management methods, and otherwise supports local groups in their effort to implement integrated water resources management to protect the health of the ecosystem and the multiple uses of water in the region.

School Feeding - The McGovern-Dole International Food for Education and Child Nutrition Program helps promote education, child development, and food security for some of the world's poorest children. It provides for donations of U.S. agricultural products, as well as financial and technical assistance, for school feeding and maternal and child nutrition projects in low-income countries.

Universal Sanitation - In Ethiopia, the USAID Hygiene Improvement Project (HIP), together with the World Bank Water and Sanitation Program, is supporting the Government of Ethiopia's efforts to achieve universal sanitation coverage by 2012 in the Amhara region of 20 million. Ethiopia offers key lessons for an integrated scale approach with a national hygiene and sanitation strategy, multi-sectoral collaboration facilitated by the signing of a memorandum of understanding by three line ministries (health, water, and education), multiple implementation partners, and a comprehensive and strategic approach with training and tools for working in households and communities. A regional water, sanitation, and hygiene (WASH) movement has been created to mobilize stakeholders, build district and village level capacity and support implementation at the district level using a Total Sanitation approach. The program will launch activities in a minimum of 10 districts to achieve "open defecation-free communities." Hygiene and sanitation behavior change is also reinforced using "MIKIKIR," an approach for negotiating improved behaviors that uses existing health extension workers; a school WASH program, building knowledge and practice and encouraging school to community

**3) Build the supporting infrastructure and utilities for improved lifestyles, business development and employment opportunities that integrate rural areas into the rest of the economy.**

Strengthening rural-urban growth linkages will require physical capital investments – particularly, water, electricity and roads – to a scale that can accommodate expanding economic investments in rural areas. For example, clean water and reliable power will be necessary for processing and refrigerating agricultural products to meet increasingly rigorous food safety standards. Such investments can be very costly and require high levels of management and skilled maintenance. Where suitable, smaller-scale dams, for instance, can avoid costly irrigation systems while generating labor-intensive employment.

Depending on location, there may be alternatives that make use of off-grid, mobile or scale-neutral technologies at lower cost. Once initial fixed investments are made, such as a satellite tower, other costs can be borne by users alone or partly financed through user fees. Rural development offers an excellent opportunity to invest in sustainable green technologies that are more affordable for rural communities and customers in the long run.

**Box 4. Promoting Rural Infrastructure**

**Overseas**

Roads, Electricity and Water – MCC is supporting the government of Armenia in the rehabilitation of 943 kms of rural roads. The Lifeline road network will ensure that every rural community has access to major roads and markets. MCC is also supporting the construction of 18 irrigation schemes in Armenia which will increase the land under irrigation by 40 percent. An MCC project in El Salvador will help build roads connecting the northern third and poorest parts of the country to markets and communities throughout the country as well as 115 kms of electrical lines and 250 solar panel systems to bring electricity to this region. Water sanitation systems are also being built with project funds.

**At Home**

Energy - USDA provides grants and loan guarantees to agricultural producers, businesses and cooperatives located in rural communities to purchase renewable energy systems and make other energy efficiency improvements, to increase the economic viability of biomass projects, and to finance energy technology.

Housing - Access for rural Americans to homeownership opportunities is provided by the USDA along with programs for home renovation and repair. USDA also makes financing available to elderly, disabled, or low-income rural residents of multi-unit housing buildings to ensure they are able to make rent payments.

Information – “eXtension,” is the new national Internet resource of the Cooperative Extension Service in partnership with the USDA’s Cooperative State Research, Education, and Extension Service (CSREES).

Loans and Grants - In January, 2009, Agriculture Secretary Tom Vilsack announced that utilities in 13 American states have been selected to receive \$18.1 million through USDA Rural Development's Rural Economic Development Loan and Grant program. "Providing capital to support small business development and improve the quality of health care in rural communities is a key part of USDA Rural Development's mission," Vilsack said.

Internet access is equally important to connect remote rural people and communities to the rest of the country and the world. As one option, establishing broadband internet services via satellite offers internet and telephone access, eliminating the need to build a fixed-line network.

The lessons we have learned include:

- The presence of “hard” infrastructure (a sunk cost) makes a given rural community more attractive to potential investors, an argument in favor of publicly supported sites and services.
- Deploying wireless infrastructure can rapidly connect previously unconnected communities.

Please see Box 4 (above) for examples of relevant programs.

**4) Link rural agricultural producers to both rural and urban markets and equip them to respond to consumer preferences and market demand in terms of quality, quantity and affordability.**

Markets for rural products and services are critical for development. Reliable markets allow rural people to specialize in fewer goods and services, thereby improving productivity and incomes. Participation in well-performing markets puts rural communities on a path to prosperity.

This requires making the smart investments that reduce the economic differentials – such as production costs, labor productivity, communications, transport, access to capital and technology – that are the root causes of the income gap between rural and urban sectors. By reducing operating costs in the rural sector, linking enterprises and institutions, and increasing the mobility of capital and labor between urban and rural areas, rural people can receive and respond to market signals like people elsewhere. Only then will they become an integral part of a unified integrated economy.

Often, such integration includes extending market conditions, policies and protections that are in effect in urban areas to rural areas – appropriate transparent public policies and regulations; property protection and contract enforcement; expanded access to information and financial services; technical know-how and capacity for innovation; conditions that facilitate trade and competitiveness; and access to training, technologies, assets and other business development support systems that help people make beneficial and profitable economic choices. These conditions will create jobs and increase incomes in the private sector.

The lessons we have learned include:

- Economic activities in rural areas must be broadly diversified to facilitate growth linkages and smooth market fluctuations. Add value locally to capture additional revenues and expand linkages with agriculture;
- Ready access to dependable sources of fuel, finance and transport to reduce economic isolation;

- Before designing a program, take stock of what rural people and communities are already doing to improve their conditions. Work with those who have already invested in productivity;
- Align activities to build on, replicate and intensify people's own innovations and technologies that have already demonstrated sustainability;
- Be careful not to undermine local incentives. Rather, encourage local initiative and enthusiasm. Reward entrepreneurship; and,
- Help rural communities anticipate and manage the impacts of the dynamic changes in local and regional markets outside their usual areas.

Please see Boxes 5 and 6 for examples of relevant programs.

### **Box 5. U.S. Assistance Programs: Building Agricultural Value Chains**

**Agricultural Inputs** - Following an assessment showing that Zambia's smallholder farmers were poorly served by the agricultural inputs industry, the USAID-funded Production, Finance and Technology (PROFIT) project decided to revitalize the agricultural inputs industry using a value chain and market facilitation approach. PROFIT's strategy focused on improving the way in which input firms understood, planned, and marketed their products to smallholders by redesigning input firm business models and by shifting from a product focus (selling inputs) to a service focus (selling services and advice). As a result, the retail cost of agricultural inputs decreased by as much as 50 percent; over 700 new jobs were created by the expansion of retail agricultural input suppliers; a private sector-driven extension system is in place and growing; and, the number of third party service providers (such as oxen-plowing, weeding, harvesting and transporting) in cotton out-grower schemes is on the rise.

**Promoting Value Chains** - MCC has invested over US\$ 500 million in promoting value-chain agriculture in Armenia, Burkina Faso, Georgia, Cape Verde, El Salvador, Nicaragua, Morocco, Madagascar, Mali, Mozambique, Ghana, and Honduras.

**Understanding Value Chains** - In India, USAID asked Michigan State University to demonstrate how a better understanding of value chains by farmers could help them capture greater value: from learning how quality grades and product presentation determine price, mango producers adopted better orchard-level hygiene, began grading (sorting out best-quality fruit) and packing in bruise-limiting crates. Within two years farm profit was increased 50 percent.

**Small Holders** -In both Kenya and Indonesia, USAID agri-marketing initiatives helped groups of small vegetable farmers adapt to supermarket and exporter demand by working cooperatively to achieve quality standards and economic scale, thus greatly improving market access and incomes.

**Producer Groups** - In Senegal, USAID's *Wula Nafaa* (WN) Program enabled Producer Groups to become democratic, legally-recognized entities run according to business principles, and linked these groups to private sector buyers. As a result, rural producers currently receive twice the former price for Baobab fruit. To receive premium prices from a fruit company, the Producer Groups had to provide high quality fruit, at a particular pick-up place and on-time. This meant that Producer Groups had to make rules for the first time about when and how to harvest. This experience demonstrated that their bargaining power was substantially higher as members of a well-managed group than as individuals. It also showed that natural product value chains are substantially stronger when producers are active stakeholders rather than passive producers of primary products.

**Banking** - USAID/Mali's OHVN Program (Upper Niger River Development Program) supported, *inter alia*, the development of democratic Producer Groups run on business principles. A structural problem facing these Groups was the lack of credibility and trust between them and urban-based banks and commercial interests. Under the this program, business and financial management training were given to build the skills to develop business plans and bankable loan applications.

**Cacao Producers** -The U.S. State Department and the Humane Society International are helping small cacao producer cooperatives in Costa Rica, Guatemala, and Nicaragua satisfy environmentally-friendly certification requirements to produce high quality cacao using sustainable methods.

### **Box 6. Building Markets in the U.S.**

Farmers Markets - USDA's Agricultural Marketing Service operates the Farmers Market Promotion Program (FMPP), created through a recent amendment of the Farmer-to-Consumer Direct Marketing Act of 1976. The grants, authorized by the FMPP, are targeted to help improve and expand domestic farmers markets, roadside stands, community-supported agriculture programs, agri-tourism activities, and other direct producer-to-consumer market opportunities. Approximately \$5 million is allocated for FMPP for Fiscal Years 2009 and 2010 and \$10 million for Fiscal Years 2011 and 2012. The maximum amount awarded for any one proposal cannot exceed \$75,000. Entities eligible to apply include agricultural cooperatives, producer networks, producer associations, local governments, nonprofit corporations, public health corporations, economic development corporations, regional farmer market authorities and Tribal governments.

Business Assistance - USDA's Agriculture Innovation Center Program was authorized by the Farm Security and Rural Investment Act of 2002, better known as the 2002 Farm Bill. In 2003, ten grants were awarded to centers around the country to provide technical and business development assistance to agricultural producers seeking to enter into ventures that add value to commodities or products they produce.

Promoting Cooperatives - The mission of USDA's Cooperative Services Program is to promote understanding and use of the cooperative form of business as a viable organizational option for marketing and distributing agricultural products. The program serves cooperative members, directors, management, educational institutions, organizations, rural residents, and all others with an interest in the cooperative form of business.

### **5) Restore and strengthen the connections between rural communities and the surrounding environment through sustainable stewardship of natural resources.**

Modest funding from USAID has catalyzed a transformational change in the way that rural farmers manage their land in Niger, Mali and Burkina Faso. Adoption of farmer-managed natural regeneration (FMNR) and complementary improved soil-water conservation measures (SWC) have helped smallholders increase productivity, diversify income and convert "useless" lands to highly productive lands by capturing rainwater instead of letting it run off. These measures also raised ground-water levels in a number of places and allowed people to practice dry-season irrigation. They also helped farmers reduce risks, especially capricious rainfall, and manage the impact of drought better than non-adopters, selling fuelwood and fodder from trees in their field for income to purchase grain.

Most notably, farmers are investing in these practices on their own – the true measure of sustainability – driven by an enabling environment created by policy and institutional reforms, farmer-to-farmer visits and strategic technical assistance. In particular, policy changes awarding the right of farmers to manage trees on their own fields were closely associated with the take-off of FMNR. In the long-run, neither FMNR nor SWC alone is sufficient for farmers to reap the land's full potential. But, they form the foundation for the next step in agricultural intensification.

It is no surprise that environmental and economic sustainability are closely linked. Elements of success in this area include:

- Promoting community-based land use planning, together with access to land and clear and secure land rights;
- Redistributing natural resource authority and functions to fairly share oversight, planning and implementation;
- Recognizing environmental procedural rights of rural people that are supported with technical assistance;
- Strengthening market incentives for natural resource management; and
- Engaging rural residents in sustainable development partnerships.

Please see Boxes 7 and 8 for examples of relevant programs.

#### **Box 7. U.S. Assistance Programs: Engaging Rural Residents in Partnerships**

Eco-Tourism – In three years, incomes have almost doubled in a five-village area of the community-based conservation and ecotourism “*payment for ecosystem services*” (PES) site in Tmatboey, Cambodia. The Wildlife Conservation Society project combines payments for nest and egg protection for two critically endangered species – Cambodia’s national bird, the *Giant Ibis*, and the even rarer *White-shouldered Ibis* – with tourism micro-enterprise development, paying villagers for tour guiding, lodging, food, and other services.

Protecting Forests - A USAID-supported project in Madagascar's Makira forests is combining certified "avoided deforestation" carbon sequestration payments with biodiversity conservation and livelihood development, through local land use zoning in the 400,000 hectare buffer zone surrounding and connecting three national parks and three special protected areas. An intermediary foundation was set up to receive funds directly from international voluntary carbon markets. Fifty percent of the receipts go directly to the Community Management Committees, and another 25% is used to support on-the-ground jobs to implement and monitor the project, and to further develop alternative incomes through tourism and natural products. Only 15% of the carbon revenue goes to the government.

Watershed Management – An MCC initiative is building the capacity of the Cape Verde government to manage its watershed resources, including the building of torrential correction dikes, dikes to capture subsurface runoff, and water reservoirs.

Community Conservancies. In Namibia, one of USAID's most successful conservation programs devolved the management of wildlife resources to local authorities, resulting in significant financial benefits for participating communities. Direct incomes from these "community conservancies" rose from \$165,000 in 1998 to \$5.5 million in 2007, with overall returns to the Namibian economy totaling almost \$34 million in 2007. With a financial incentive to conserve biodiversity, wildlife conservancies in northwest Namibia have seen dramatic increases in important game species. There is also evidence that such wildlife-based economic activity may be more adaptive to climate change than traditional livestock and agriculture-based activities in this region.

Community Fisheries Management - USAID's investments in wetland protection in Bangladesh reversed dramatic declines in inland fisheries. Eighty wetland sanctuaries were conserved through habitat restoration and community fishery management, which resulted in a rebound of both the quantity and diversity of fish as well the return of the wintering bird populations. The value of the fisheries catch more than doubled to about \$7.7 million in three wetland areas alone; this paralleled an increase in the food protein supply for local people.

### **Box 8. U.S. Conservation Programs**

“Coordination among federal, state and local agencies, non-governmental organizations and private landowners who share the goal of conserving the natural resources and enhancing the environmental quality of our nation’s agricultural lands is the most effective way of expanding the multiple environmental benefits of USDA’s conservation programs. The U.S. Fish and Wildlife Service works closely with USDA Natural Resources Conservation Service and the Farm Service Agency and other national, regional, state and local levels to help deliver a variety of Farm Bill conservation programs in ways that benefit the nation’s fish and wildlife resources. One example is new conservation practices under the Conservation Reserve Program, which benefit waterfowl and grassland birds in the Prairie Pothole Region and species at-risk associated with longleaf pine habitats in the Southeast.” (From speech by H. Dale Hall, Director, U.S. Fish and Wildlife Service, Agricultural Outlook Forum, 2008, [http://www.usda.gov/oce/forum/past\\_programs/2008\\_program.pdf](http://www.usda.gov/oce/forum/past_programs/2008_program.pdf)).

### **6) Address special vulnerabilities of rural people to economic recessions.**

Those who live in the rural setting experience many of the impacts of downturns, sometimes severely, and often without the benefit of distant social welfare programs or safety net protections. For example, the incidence of households affected by the global food and fuel crisis depends on indicators such as:

- household composition and demographics (availability of resident labor);
- distance to market centers (level of market participation);
- prevalent production technology (use of purchased inputs and/or mechanical traction);
- status as net seller or net buyer (and seasonality of market activity);
- access to banking and financial services (integration into the cash economy and/or dependence on remittances from urban areas); and,
- food consumption pattern (predominance of local or imported foods in the diet).

In short, the transmission of higher food and fuel prices depends on the degree to which the given rural area is woven into the global economy.

In the United States, the average farm family derives 85 percent of income off the farm. General economic conditions and public policies affect rural along with urban and suburban people. Consequently, general economic recessions affect farm and non-farm household receipts. Rural economies tend to be tied strongly to the farm economy, both upstream and downstream, meaning rising farm, fuel and food prices have ripple effects across the rural economy.

In our international and domestic programs, we have found that the following considerations must be taken into account:

- Programs designed to protect against detrimental effects of economic downturns or price shocks must take into account the special concerns and needs of rural residents and communities;
- Rural residents need to maintain control of productive assets during periods of economic stress to maintain livelihood resilience and avoid a downward cycle of poverty; and,

- Design locally appropriate social protection measures, such as safety nets and guaranteed employment schemes for the rural needy.

**7) Strengthen the resilience of rural people to recover from extreme weather and other systemic shocks.**

As with economic conditions, rural communities and residents often suffer severely from extreme weather and other unexpected disasters that undermine their livelihoods. Even the threat of this risk can constrain investment, technology adoption and access to finance. To better manage risk, we have found that the following are useful approaches:

- Promote better needs assessment methods, disaster prevention and preparedness planning, adaptive methods and risk reduction programs and practices;
- Use scientific and technological advances for early warning and monitoring systems, coupled with indigenous knowledge systems, that watch for predicted impacts in rural settings;
- Take advantage of abundant factors of production – especially labor – when designing recovery programs. Scale up labor-intensive systems that preserve labor and production incentives before promoting capital-intensive programs; and,

**Box 9. U.S. International Programs: Strengthening Community Resilience**

**Warning Systems** - The SERVIR initiative integrates satellite observations, ground-based data and forecast models to monitor and forecast environmental changes and to improve response to natural disasters. Endorsed by governments of Central America and Africa, SERVIR is supported by NASA and USAID. It has been used in 18 cases to provide early storm warnings, anticipate and respond to flood events, mudslides, and wildfires, and monitor toxic algal blooms that impact the fishing industry and public health.

**Risk Management Programs** - While insurance markets are still nascent in many countries, USAID’s BASIS Assets and Market Access project is conducting several pilots to explore how best to promote the use of indexed insurance in different development contexts. For example in Peru, USAID is partnering with a local insurance company and an international re-insurer to pilot an area-based yield insurance product for cotton farmers. In Northern Kenya, an indexed insurance product will be used as a productive safety net for pastoralists. The impacts of these pilots will be closely monitored and findings shared with stakeholders, policy makers and the development community.

**Farmer-managed Natural Regeneration** - FMNR is based on farm management of natural tree regeneration. A 2007 study showed that Nigerian farmers who practiced FMNR were substantially better protected from the effects of the 2005 drought than those who did not practice it. It has been estimated that FMNR has spread from a few hectares in 1984 to over 5.0 million hectares today. The factors behind its success include:

- Rights to manage on-farm trees conveyed to farmers from the state;
- Role of state agents changed from police to partner; and,
- Right of farmers to sell fuelwood on open market.

**Reducing Risk** - People facing severe climatic variability have successfully used NRM strategies to reduce risks while increasing productivity and diversifying household incomes. For example, in the Sahel, disenfranchised women and others converted hundreds of thousands of hectares of “useless” hardpans (*glacis*) into productive fields by using soil and water conservation technologies. By trapping nearly 100% of the water where it falls instead of letting 75% or more run-off, farmers not only reduced risks of catastrophic crop failures and increased yields, but they allowed ground water tables to build up during the rainy season.

- Facilitate development of risk management instruments such as indexed insurance products that help protect farmers, pastoralists and other rural residents.

Please see Box 9 for specific examples of relevant programs.

In the United States, numerous federal agencies work with state and local partners to assist in the recovery from natural disasters and other events. For example, last year after extraordinary rainfall and flooding in the Midwest, the U.S. Department of Agriculture's National Agricultural Statistics Service (NASS) assessed the impact on the 2008 crop acreage. The USDA Rural Development Agency makes funds available for disaster assistance to restore rural housing, community facilities and businesses in the wake of floods, fires and other natural disasters. The USDA Food and Nutrition Service distributes emergency food assistance as needed.

**8) Ensuring that the special needs and expectations of rural men and women are met equitably.**

Quite often, women are the backbone of rural communities. They are farmers, caregivers and homemakers. They often work harder and longer but earn less than men. And yet, their needs are just as often disregarded socially and culturally, as well as legally. Empowering them, listening to them, and addressing their needs are key elements of successful sustainable development efforts.

Basic education and access to micro-finance can unlock productive energies of women and provide some measure of financial independence. A next step is to improve the business management skills of women and develop their entrepreneurial talent (Box 10).

### **Box 10. U.S. Assistance Programs: Empowering Women and Youth**

Cooperatives: USAID is supporting several programs that empower rural women. In Senegal, the Koba Club, a female-run business cooperative, is using USAID support to obtain *fonio* (a traditional cereal crop) processing machines and to remodel workshops for improved hygiene. As result, the Club's revenues have increased by several fold, and Koba members are able to send children to school and pay for their medical bills.

Strengthening Leadership Skills - In Eastern Afghanistan, USAID's Alternative Livelihoods Program is helping to strengthen women-owned poultry, vegetable, forestry and agro-processing enterprises in rural communities. USAID's South Caucasus Water Program provided training to women from rural communities in Armenia, Georgia and Azerbaijan in effective water resource management and community mobilization so that they could more fully participate in local, water use decision making processes. And in Sri Lanka, USAID helped rural women regain their livelihoods after the tsunami by quickly helping to purchase and distribute 500 spinning units and bales of coir (coconut husk) used for rope production.

Women and Youth - USAID-funded programs in Senegal, Botswana, and Mali provided women and youth with pathways to power by strategically targeting them for enterprise and financial management training. After acquiring these specialized skills, members of these formerly-disenfranchised groups assumed key financial management roles in community-based enterprises. In each case, their performance boosted benefits for the whole community and demonstrated the wisdom of actively engaging women and youth. For these villages, the lesson was that to be competitive in today's economy, rural groups had to capitalize their whole talent pool, not just that of traditional leaders.

In the United States, women's needs have been addressed through the programs of the Cooperative Extension Service and the Food, Nutrition and Consumer Service. Historically, extension programs addressed the needs of farm women for improved sanitation, nutrition, and farm household management. As the years have passed, needs of rural entrepreneurs have been targeted and programs provided to address family financial management, child development, and technology transfer.

In conclusion, our vision of rural sustainable development is to make rural life economically more rewarding and socially more fulfilling. Necessary conditions include empowering rural people and communities – with greater responsibility for their natural environment and sustainable use of rural resources – and building the necessary infrastructure and policy environment that enable sustainable economic growth, create jobs and reduce urban-rural disparities. This requires systematic planning and foresight to develop stimulating and viable opportunities for present and future generations so that each investment contributes to building an attractive way of life.