integrating gender

gender matters

achieving results

Independent External Evaluation of EMPOWER Program for USAID/Ethiopia

December 2003

DevTech Systems, Inc.
USAID Contract #: GEW-I-01-02-00019-00

The Women in Development (WID) IQC
Chemonics International, Inc. • Development Alternatives, Inc. • Development & Training Services, Inc. • DevTech Systems, Inc. • Juarez and Associates, Inc. • Management Systems International/The Futures Group

The WID IQC contract is funded by the Office of Women in Development, Bureau for Economic Growth, Agriculture, and Trade, U.S. Agency for International Development

Ethiopian Management of Participatory Opportunities for Women in Extension and Research (EMPOWER) Program

TABLE OF CONTENTS

ACKNOWLEDGEMENTS

The Independent External Evaluation Team wishes to acknowledge the valuable assistance extended to them during the process of planning and implementing this End of Project Evaluation of the EMPOWER project. Both the Winrock International staff and the USAID/Ethiopia staff were extremely generous with their time, resources and support. A very tight timeline was available, but the processes of document review and fieldwork were expedited by the efficient leadership of Dr. Woz Wudnesh Hailu, Program Coordinator at Winrock International Ethiopia, Yesef Abdella, Program Officer in the Agricultural and Natural Resource Division and Yeshiareg Dejene, Gender Specialist at USAID/Ethiopia. These three individuals and their many colleagues made the work of the team enjoyable and profitable. A special thank you is appropriate for the EMPOWER project staff at the four project sites—Yem, Gimbo, Enebssie Sar Midir and Libokemkem, at the Regional Office in Bahir Dar and at Headquarters in Addis Ababa. We appreciated your helpfulness, your willingness to be available to us and your open hospitality in introducing us to the many partners and beneficiaries with whom you worked. Our entire team extends their very best wishes to the many project participants, collaborators and contributors who shared their opinions and experiences so that we could better understand and assess the project. THANK YOU!

External Evaluation Team:
Dr. Mary Andrews (Team Leader)
Dr. Michael Bamberger
Hadera Tesfay
Senait Seyoum

ACRONYMS AND ABBREVIATIONS

ACA	Awassa College of Agriculture
ADS	Automated Directives System
ANRS	Amhara National Regional State
AT	Appropriate Technology
AWLAE	African Women Leaders in Agriculture and the Environment
BBF	Broad-Based Furrow
BBM	Broad-Based Makers
CEDAW	Convention on the Elimination of All Forms of Discrimination Against Women
CRDA	Christian Relief and Development Association
CSP	Country Strategy Plan
DA	Development Agent
DAC	Development Assistance Committee
D&G	Democracy and Governance
EAWLAE	Ethiopian Association of Women Leaders in Agriculture and the Environment
EMPOWER	Ethiopian Management of Participatory Opportunities for Women in Extension and Research
EOP	End of Project
EOPR	End of Project Report
ERA	Equal Rights Act
FAO	Food & Agriculture Organization of the United Nations
FTA	Free Trade Agreement
FY	fiscal year
GBI	Gender Budget Initiatives
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome
HTP	Harmful Traditional Practices
ICT	Information and Communication Technologies
IDB	Inter-American Development Bank
IDRC	International Development Research Centre (Canada)
IFES	International Foundation for Election Systems
IG	Income Generation
ILO	International Labor Organization
IPED	Institute of Private Enterprise Development
IPM	Integrated Pest Management
IR	Intermediate Result
IT	Information Technology
IUCN	World Conservation Union
LFC	Leadership for Change
MOFED	Ministry of Finance and Economic Development
MoJ	Ministry of Justice
NDI	National Democratic Institute
NDS	National Development Strategy
NGO	Non-Governmental Organization

NRDC	National Resource and Documentation Center for Gender and Development
NRM	Natural Resource Management
OA	Office of Agriculture
OECD	Organization for Economic Co-operation and Development
OFPEP	ONFARM Productivity Enhancement Program
OSU	Oklahoma State University
PA	Peasant Association
PLWHAs	People Living With HIV/AIDS
PRA	Participatory Rural Appraisal
RFA	request for assistance
RFP	request for proposal
RHPP	Rural Household Production and Productivity
SME	Small and Medium Enterprises
SNNPRS	The Southern Nations, Nationalities, and People's Regional State
SO	Strategic Objective
TIFI	Trade, Industry, Finance and Investment
UN	United Nations
UNICEF	United Nations Children's Fund
UNDP	United Nations Development Program
UNIFEM	United Nations Development Fund for Women
USAID	United States Agency for International Development
VAW	Violence Against Women
WHO	World Health Organization
WI	Winrock International
WID	Women in Development
WTO	World Trade Organization

Executive Summary

The EMPOWER project was an agriculture technology transfer and gender mainstreaming project focused on food security and enhanced gender relationships in the small-holder sector of rural Ethiopia. The project had an overall goal to improve household level agricultural production and productivity in order to enhance food security, reduce vulnerabilities and improve income generation. It also hoped to create more enabling environments for women to fully participate in the processes of development. The cornerstone of the EMPOWER project was capacity building. The project was managed by Winrock International (WI) and funded by the United States Agency for International Development (USAID), Ethiopian Mission (USAID/Ethiopia). It operated for five years, from 1998-2003, in four sites within two regions of the country—Southern Nations, Nationalities and Peoples Regional State (SNNPRS) and the Amhara National Regional State (ANRS).

The End-of-Project Independent External Evaluation was commissioned by USAID/Ethiopia and conducted by DevTech Systems, Inc. of Arlington, Virginia. A four member evaluation team was organized to conduct the external review using participatory and multidisciplinary inputs. Field work was concentrated in the month of December, 2003. The three most dominant methods used in the evaluation were:

- Document reviews—project agreement documents and amendments, PRA baseline studies, annual and periodic reports, end-of-session evaluations, seminar and training proceedings, phase-out strategy documents and end-of-project cumulative reports.
- Semi-structured interviews and focus-group interviews—with target and non-target beneficiary farmers; local, regional and federal level partner agency representatives; wereda officials and administrators; Leadership for Change (LFC) participants and trainers; scholarship holders; University administrators and Winrock staff at local, regional and headquarters levels.
- Field visits and observations—visits to project offices, field demonstration plots, partner farmer homes and fields, weather stations, natural resource project sites, university campuses and wereda and regional agency offices.

Both quantitative and qualitative data were used in addressing the questions that guided the evaluation. The field work capitalized on verifying project claims and reports and in understanding project components and contributions. Project achievements were summarized from quantitative data reported in end-of-project reports and estimates of economic impact were derived from research and situation-specific examples and then generalized to the population as a whole. The following is a brief summary of the evaluation findings, conclusions and lessons learned articulated by the evaluation team.

The EMPOWER Project Model

Ethiopia has widespread food security problems. The Food and Agricultural Organization (FAO) World Food Program estimates that over 40% of the country's rural households do not produce enough food or income to meet basic nutritional needs (this

figure is much higher in the areas served by the EMPOWER project).[1] Degraded soils, rudimentary rural roads and infrastructure, insufficient access to land, widespread rural poverty and the lack of agricultural inputs, information and technologies creates vulnerabilities that over the years have been enhanced by war and droughts. It is well accepted that rural women contribute more than 50% of the labor to operate and manage farm production, but their contributions go unacknowledged and their access to training, credit and productive assets lag behind that of men. No rural development or agricultural enhancement program could succeed without the active participation of women—and yet few projects proactively work to remove the barriers that prevent women from contributing to development goals. EMPOWER was conceived to do so. But EMPOWER was not a women's program. It carefully targeted both men and women and mainstreamed each gender as appropriate in various components of an integrated approach. The EMPOWER Project can be characterized as *supporting improved household production and food security while creating an enabling environment for both men and women to effectively work to insure and sustain future food security*.

The EMPOWER Project included the following components or strategies:

- ONFARM technology testing, adaptation and dissemination to enhance food production;
- Income generation through credit to diversify/increase agricultural production;
- Training in various technologies and gender awareness to capacitate the rural community and various extension workers/institutions;
- Scholarships to upgrade the credentials of women professionals to serve decision-making and leadership roles in the agriculture and rural sector; and
- Integration and institution building to sustain women's voice in development.

A.1. ONFARM

The ONFARM technology transfer component used basic principles of agriculture extension applied to a specific set of communities. Worldwide, most extension programs are criticized for their ineffectiveness in moving research-based innovations into the smallholder sector. But EMPOWER *proved that small and often poor subsistence level farmers, even farmers of female headed households and those from very remote and isolated communities can fully participate in the processes of adoption and diffusion.* WI empowered farmers to manage the innovation testing process and make their own decisions as to what was worth adopting using a farmer-led approach. This farmer centered approach created confidence and enthusiasm for the innovation-testing process that created curiosity and led to peer dissemination and natural diffusion. Diffusion rates

[1] Project Proposal, 1996.

of 3-5 times are recorded in the project documents and the personal testimonies of interviewees indicate even greater penetration into the non-partner population. Thus the project can be considered a good example of the technology transfer model of extension.

For those 3,914 farmers (57% female) able to participate in demonstrations (target or participating farmers/households) the results were significant and impressive. Even if farm households only participated in one of the many agricultural interventions introduced, they realized important productivity gains (20-50%) that stretched their access to food for two or more months. If combined with income generation activities, farm households could make significant gains in both income and food security. Across the years these gains could be expanded and solidified to improve their resilience and progress toward their food security and quality of life goals.

These projected gains are especially noteworthy in face of the fact that project staff were extremely stretched. The scope of the geographic areas to be covered, the inaccessibility of communities and the scarcity of local resources provided almost impossible working conditions. Luckily the WI staff established rapport and good working relationships with their allied Office of Agriculture peers and created strong linkages with the academic and research community. These networks were important assets creating access to the farm community in a timely fashion and in backstopping the technology access and transfer process. Limitations of reliance on these systems included accepting the associated opinions of farmers about past interactions with "extension," relying on the research community to recommend crop varieties and innovations that may or may not be appropriate to local needs, and investing in training and capacity building in systems with high turnover. In spite of these limitations, these relationships were important in the long run to stretch the capacity of WI staff to reach remote areas, to reinforce the importance of the work WI was undertaking and to institutionalize and sustain project impacts.

An overall weakness of the program as perceived by Regional Officials was its limited penetration capacity in terms of numbers of farmers directly involved. The WI hired Development Agents (DA) served as many farmers as the government DAs, and in the north served many more. And the WI program was more intense and required more contact and follow-up with farmers. But the resources of the project were extremely limited. On the supportive side, WI provided transportation for their DAs (motorcycles or mules) and had a strong backup system that provided financial and technical support and allowed a great deal of flexibility for agents to make decisions on their own. These conditions created an enhanced work environment that empowered staff and created internal rewards to sustain their heavy workloads. But the scope of the potential audience that needed their help was overwhelming, and the pressures from wereda officials to expand because they lacked resources themselves, was continuous. These were

unfortunate pressures and realities that diminished the project in the eyes of some regional leaders.

A second weakness voiced about the project was its short-lived presence. Even if the anticipated continuation of the project timeline had been received, these were four-five year commitments. True development gains take longer to stabilize and institutionalize. These ONFARM strategies could easily have continued and expanded to additional communities and weredas and thus maximize the lessons learned and high start-up costs. But the termination decision seemingly removed WI staff before either farmers or OA personnel were ready to takeover. In every community visited, farmers and officials lamented the fact that a second wave of activities would not be available to involve more farmers directly in the training and loan activities. Similar concerns were voiced concerning the training and scholarship dimensions.

A.2. Income Generation

The Income Generation (IG) component can generally be considered very successful. It created income-generating opportunities for over 2,000 poor farmers, around 80% of whom were women. It was successfully implemented in all four project areas and at least 10 different agriculturally related income generating activities were taken-up by farmers, most of which exceeded their numerical targets in terms of the number of participants.[2] The project was also able to make credit available to women, in most cases for the first time. This was done either by providing resources to existing service and production cooperatives, which had previously catered almost exclusively to men, to allow women to participate and to borrow; or by establishing new savings and credit cooperatives exclusively for women. The creation of credit sources for women must be considered a major achievement of the project, particularly given the difficult history of cooperatives in Ethiopia.

It is difficult to assess the economic impacts of the income generating component at this early stage as many families were still consuming most of their own produce (which, in itself is an important outcome). However, under favorable circumstances the IG activities were able to generate earnings equal to 50% to 100% of typical household earnings from traditional agricultural production. This was achieved by a combination of sale of crops or animals produced with the loan, own consumption of produce and use of earnings to accumulate assets increasing future earnings.

[2] The following figures show actual number of participants as compared to original targets. Yem: poultry 103% and beehives 151%. Gimbo: poultry 123% and beehives 247%. Enebssie and Libokemkem combined: poultry 194%, beehives 92%, oxen 100%, sheep 117%, fishing 132% and irrigation pump 90%. Source: End of Project Report (draft) November 2003, Tables 10, 11 and 12. These are the only activities for which the achievement percentages are given.

A number of challenges and issues were identified. One of the potential weaknesses of the project was the lack of marketing support. This omission would be especially troublesome if the project attempted to scale-up participation. Also, despite the excellent progress made in providing credit, a potential weak link is the credit mechanisms. The project ended before all of the credit programs had been completely legalized and before there was time to work with the different organizations to complete the first and second cycle of loans to women and thus work out any operational problems.

On the positive side, the IG Component can be credited with significant social impacts:

- Provided women with credit, which permitted them to purchase the inputs to start their own business and gave them recognition as productive contributors to the household and community economy;
- Women were able to reinvest part of their earnings in productive assets so that they increased their control over resources and their own lives; and
- Women's economic empowerment gained them recognition as equal partners with men in farming activities and gained them the right to participate in community decision-making.

A.3. Introducing Appropriate Domestic/Non-farm Technology

A total of seven new labor and fuel reduction technologies were introduced. The technologies most widely adopted by women were: "mirt" mud stoves (872 adoptions); fireless cookers (794 adoptions); and enset decorticators (670 adoptions). The technologies most widely adopted by both men and women were: iceless coolers (438 women and 240 men) and improved grain storage (354 women and 330 men). All of these technologies were widely accepted although there were a number of specific criticisms, such as the fact that the mirt stove took up more room than the traditional stove and could be damaged if something dropped on it.

Winrock's four-step introduction and dissemination methodology proved effective through:

- Acquisition and demonstration by the DAs along with hands-on familiarization;
- Identification of volunteers to test/adapt the technology in actual working settings;
- Close contact between DAs and volunteers to provide help and obtain feedback on problems and improvements; and
- Informal dissemination by the volunteers.

The system worked well and most volunteers were very enthusiastic disseminators. Some women noted that 24 or 26 other women had built an improved stove with their help. The enset decorticator saved so much time and human energy that it was quickly adopted and used to transform the workweek for many women. The fact that the technologies had impressive advantages such as fuel savings of three to five times over open fires, and grain loss reductions of 40-60% for storage devices, helped to create demand in these poor struggling households.

A.4. Short-term Training

The training component can be characterized as focusing on four types of training—

- Technical training accompanying the introduction of various technologies and credit systems to ensure that the necessary knowledge and skills needed for successful adoption and maintenance of innovations are available to participants.
- Development agent and supervisor training to improve technical skills, enlarge abilities to support female farmers, and develop experience with participatory methods to encourage a broader participation of both men and women in program planning and implementation.
- Gender awareness and sensitivity training to rural women, community leaders and agency professionals to enlarge understanding of the barriers to women's status and participation and encourage actions to minimize these barriers including reducing the adherence to harmful traditional practices. Complementing this awareness level training the project provided specific management and leadership training for select rural women leaders to help them become more assertive and involved in public affairs and outreach to women.
- "Leadership for Change" training for professionals working in the zonal, regional and federal level agricultural and rural agencies to improve their confidence, risk-taking ability and leadership in support of women's full participation in development.

Nearly 1,400 individuals were involved across these types of training.[3] All of these various forms of short-term training have been amazingly well-received and effective. As a result of the dialogue and skills developed through training, women's involvement at the household, farm, and community level has achieved widespread support. One of the goals of EMPOWER was to change the institutions and environments that affect rural populations to create more supportive environments for men and women to address development challenges together. By all intent and purpose a great deal of progress has been achieved in the project sites. However, the needs for training are never-ending. Even during the implementation period the training component seemed thin. Larger numbers of community agency representatives and emerging women leaders needed to be trained in order to be available to train and influence the very large populations that waited to be reached. Likewise, ongoing training programs need to be institutionalized in communities to provide updating and higher order skill development to be able to respond to future needs. Great strides have been made, and the types of training have been judged very appropriate and relevant. The only criticism is that not more is being done.

[3] Source: End of Project Report, (draft) November 2003, page 77.

A.5. Scholarships

The scholarship component of the project enlarged the pool of professional women with upgraded academic credentials and thus qualifications in the agriculture and rural sector by 92 individuals. This is a critical mass for any sector and is even more impressive in that 90% of these individuals are currently concentrated in two regions of the country. Ethiopia's professional ranks are slim and for so many females to be in critical decision-making positions in the Bureau of Agriculture and related agencies that affect rural populations is outstanding.

This component of the EMPOWER project was a long-term capacity building and institutional change effort. Throughout the world a dearth of females are evident in the professional and leadership ranks of agricultural and rural development institutions. Some experts associate this lack of female voices in the planning and implementation of programs and policies as directly and adversely affecting the ability of these programs and policies to address the needs of women. EMPOWER hoped to change that relationship and bring more women into positions of influence so that their experiences, sensitivities and ability to relate to other women's realities could be incorporated into the work of their institutions.

There is no doubt that access to upgraded credentials has had impressive consequences for the lives and futures of these women, and indirectly to their work and to the status of women in general.

- Almost all of the scholarship returnees received job promotions. Economically, 50%-75% salary increments were associated with these job promotions. But these job promotions were not just lucrative; they presented opportunities for women to exercise increased responsibilities for supervision, planning and policy involvement that will improve their ability to address issues affecting women and men in the rural sector. One female scholarship holder noted, "*My first day back on the job I was invited to a high level policy meeting. I had never been invited to such a meeting before. Not only was my presence acknowledged, but they listened to my opinions and accepted my ideas."*
- The increased skills, capabilities and confidence of these women encouraged them to assume new roles, take risks and act more assertively in dealing with people and institutions. These women are challenging the status quo and advancing new strategies and initiatives within their realm of responsibilities. A senior expert in a regional Bureau of Agriculture remarked, "*I am working with a project to provide income generating opportunities for poor rural women. There are a lot of obstacles to overcome, but I know that the changes that are needed will be important. We can make this work."*
- Both the fact that such scholarships existed and the evidence of the resources represented by these returnees has improved attitudes toward women. More colleagues are believing in the capabilities of women and accepting them as equals, a reality that did not exist prior to the project. In fact, women commented that they "*felt like part of the fixtures—overlooked and underestimated by the male decision-makers in their units*." Not only have these women gained status

> and respect from their peers and colleagues, even external agencies and community leaders are calling upon them to serve leadership and expert roles. They have become role models for other females and students/daughters as well. Because of their achievements, they have motivated others to excel and now peers, spouses and children are seeking higher degrees or raising their aspirations.

Another aspect of the scholarship component has already had impacts on the research and scholarship available regarding rural issues. As part of the BSc degree, domestic students were engaged in a research or extension project as part of their coursework. Likewise, MSc and PhD candidates were required to conduct original research. All of these scholarly assignments created an opportunity to expand the knowledge of rural issues, especially issues affecting rural women. Topics of these research projects included nutrition and child growth, domestic violence, the biochemical characteristics of various food products and processes, crop production enhancements, animal production, the process of introducing new technologies, promotion of new food products, household technology adoption and forestry introductions. Of particular note is the practicality of these studies, providing relevant information for extension applications; and the gender sensitivity of these topics, investigating problems of immediate concern to women. These studies enlarged the knowledge base in Ethiopia about rural issues and contributed substantially to understanding smallholder adoption patterns. A criticism of this research component is the limited availability of these papers/reports. A more systematic collection, inventorying and dissemination of the papers are needed. A secure library should be identified to house the collection and make the results accessible electronically, if possible.

Finally, a sustainability strategy was planned to provide an ongoing networking and advocacy support system for these and other professional women in the agriculture and rural sector. The strategy involved the creation of a professional association—The Association of Women in Agriculture and the Environment (AWLAE). A great deal of effort has been expended to create the organization and secure legal status for it as a domestic NGO, but it is not yet functional as a peer support system. The termination of the EMPOWER project is also unfortunate as the organization still relies heavily on the WI staff for leadership. Given the high levels of commitment of its members, however, its prognosis is positive.

B. Assessing the EMPOWER Model

The External Evaluation Team was asked to try to identify what was unique about EMPOWER. Was it the types of technologies introduced or how they were introduced? Was it the working relationships established between project staff and participating families? Was it the differences in how WI functioned and how government extension functions? Was it the gender components? What made the program work?

Some of the unique and critical features of the approach as articulated by the evaluation team include:

- *Women's empowerment and gender mainstreaming*. The project combines a focus on gender equity and women's empowerment (through scholarships for women professionals, creating credit mechanisms accessible to women, etc.), with a gender mainstreaming strategy focusing on both female and male farmers and adapting conventional economic and social roles to ensure both sexes can maximize their contribution to household welfare. The approach also promotes equal participation of both sexes in household, community and local government (*wereda*) decision-making.

- *Close cooperation with government* at the wereda, zonal and regional level to give ownership of the program and capacity to government agencies who will be responsible for its continuation. This includes a commitment from units in original agreements for cooperation and eventual take-over, an official "phase-over document" designed by both farmers and officials delineating take-over strategies, the extensive training and involvement of government functionaries in project activities to ensure familiarization, and the step-by-step turning over of project resources and responsibilities at the end of the project. All of these efforts were designed to maximize the likelihood that government agencies would be willing and able to continue the activities of the project and use the methodologies for other efforts.
- *Adapting national technologies* to the ecological, economic and cultural conditions of the farms and households in each region, rather than bringing-in foreign technology. The EMPOWER approach involves working with farmers in a farmer-led process to adapt technologies developed by government agencies and national research institutions so as to make them affordable and to ensure their compatibility with local conditions. In the process this establishes ownership and the capacity to innovate in the future.

An important feature of the EMPOWER model is the emphasis on the integration of the different components through:

- A systematic focus on women's empowerment and gender mainstreaming in all of the project activities;
- Maximizing the role of women in agriculture by supporting agriculturally related income generation activities that reinforced women's contributions to agriculture and household welfare;
- Combining the impact of ONFARM and income generation to illustrate a potential strategy to break the "cycle of low price seasonal sales" that is a serious bottleneck to poverty reduction in rural areas;
- Reinforcing the new capacities of recent academic graduates with leadership training to ensure risk-taking and proactive support for change; and
- Having a sustainability strategy that combined self-sustaining elements with phase-over plans to transfer responsibilities to appropriate government agencies.

Are any one of the EMPOWER components more important than others? That would be hard to answer. Each has its individual merits and yet each contributed to the project goals as a whole.

C. Estimating Project Impacts on Food Security, Gender Relationships, and Institutional Capacity

C.1. Food Security

Best estimates would suggest that food availability gains of 20%-50% were feasible. Translated into food security, these gains would provide two or more months of additional food availability (based on baseline estimates of 6 months). The partner families in the south reported similar estimates when quarried directly about increased food security. Ninety percent of families noted that they had food available for 9 months or more at the end of the project, when estimates at the beginning of the project were for 6 months.[4] No similar data were collected in the north where food security was more tenuous. The 20-50% gains are extrapolated from the following data:

- Improved varieties of basic food crops with 22%-125% yield advantages, suggesting that farmers could produce at least 20%-50% more grain in any one season;
- Post-harvest storage techniques that extended storage times by 3 or more months provided reduced crop losses and the ability of farmers to sell gain at more advantageous times (see example in the ONFARM chapter of earnings of 100 birr per family); and
- Income generation activities that increased incomes on the average of 150 birr per household; which, when compared to an average earnings of 730 birr per year, is a 21% increase in income.

Any one of these innovations would allow a family to increase food availability beyond the 20% targeted in original project documents.

C.2. Gender Relationships

No data are available to estimate how many families or communities experienced improved gender relations, but a number of qualitative indicators suggest substantial progress:

- At all project sites, male farmers spoke enthusiastically about what their wives had accomplished;
- At all project sites, women were sitting alongside men and speaking freely in group meetings;
- At all project sites, reports were told of single women getting married partly because of the assets and status that they were able to bring to a union;

[4] Baseline data estimates seem to have been secured from PRA studies, not directly from partner families, although end-of-project data were collected from project families (Gimbo staff interpretations).

- At all project sites, local community and religious leaders praised the project for building gender awareness and changing attitudes towards women;
- In all communities involved in EMPOWER activities, women are now available to participate in leadership and public affairs roles; and
- In all communities involved in EMPOWER, leaders are speaking out against harmful traditional practices.

C.3. Institutional Capacity

Again, no data exists to document the change in institutional capacity because of the EMPOWER project. However, the following indicators suggest enormous impacts:

- Nine new savings and credit associations/cooperatives established in the SNNRPS and 7 in ANRS;
- 290 professionals trained in participatory planning/programming from grass roots agencies;
- 149 development agents and supervisors from Offices of Agriculture trained in various agricultural techniques associated with ONFARM activities;
- 92 women professionals with upgraded credentials taking decision-making roles in agricultural and rural organizations, 90% concentrated in two regions of the country.
- 110 male and female professionals from two regions trained in leadership skills and willing and able to train others; and
- A new department and BSc major in *Rural Development and Family Sciences* available to train development workers at Awassa College of Agriculture.

These indicators would suggest that the EMPOWER project made substantial inroads on the food security, gender relationship and capacity building goals set before it.

D. Prognosis for Program Sustainability and Replication

Another goal of the external evaluation was to estimate the degree to which sustainability strategies incorporated into the project would ensure that the project continues, that impacts would be sustainable or that benefits would be expanded to others in the future. The prospects for the sustainability and replicability of the project can be summarized as follows:

- While Winrock had defined and implemented a systematic strategy for the progressive take-over of the projects by the *weredas*, there is a risk that local government support for the project will gradually erode. One reason is that the high turnover of government DAs means that many of the staff who have been trained by Winrock and who have the greatest commitment to the project will be

transferred, and there is no mechanism in place to train their replacements. The negative feelings created in many agencies by what they perceived as the sudden termination of the program may also discourage these agencies from continuing to support the program. And an unforeseen consequence of the national decentralization policy is that the program may have relatively little chance of being supported at the regional level as it is perceived that these are *wereda* level decisions and programs.

- Evidence from the first two years suggests that most families will probably be able to continue to operate the innovations secured through ONFARM, the Income Generation Component and the Appropriate Technology introductions without external help. The activities were carefully designed to be implemental within the economic and cultural contexts of each project location and most families are able to manage the activities on their own. However, there are several external factors, which may affect the sustainability and expansion of the activities. The first is the lack of access to markets beyond the small, local markets (many of which are quite inaccessible to families in the more remote communities). The second issue concerns the sustainability of the credit programs, some of which had not yet been legalized when the project closed; and others of which are breaking new ground by providing credit and other services to women. And lastly, some of the introduced varieties will need replacement stock as the genetic pool will gradually erode. In all cases the maintenance of these institutional and technological innovations will depend on various government agencies to ensure continuation and replication.
- Training was the cornerstone of all EMPOWER activities. The biggest threat to training is staff turnover. Already major changes in staffing at the OA have removed a number of trained DAs and supervisors from the ranks of those who could continue to support ONFARM and IG families and involve additional families. The WI staff have created written documents, supplied training manuals in local languages and have invested heavily in train-the-trainer approaches to create a legacy for future institutionalization and replication. But heavy time demands on those trained and changing organizational priorities will ultimate affect commitments for sustainability.
- The scholarship component and associated professionalization of women is most at risk for continuation and replication. The individuals trained will certainly continue to serve in leadership roles and exert an influence on the status of rural programs. But the continual availability of scholarships and scholarly works for additional women is questionable. The political will to sustain this effort is not evident within government or external donors. The brightest hope is in the academic institutions that train the next generation of rural functionaries. Today's scholarship holders will continue to serve these training institutions for years to come, and their students will serve the needs of rural populations.

E. A Summary of Lessons Learned

The EMPOWER project was a very complex and multifaceted program. The external evaluation team was admonished to try to identify lessons learned from the EMPOWER

experience to help learn from their experience but also to assist in showcasing the program to other development agencies. Thus the following lessons learned have been articulated by the evaluation team. These are only tentative suggestions. The actual EMPOWER staff, who know the program more intimately, might have more detailed suggestions.

E.1. Lessons Learned from ONFARM

1. Agricultural innovations of value to farmers are available from research centers within Ethiopia. But they need to be tested and sometimes adapted to fit farmer-managed and local situations.
2. Agricultural productivity gains are possible even among smallholder farming households, female-headed households and those in isolated and remote communities with limited access to information and services.
3. Farmer participation in the demonstration/testing/adoption/diffusion process is invaluable. It creates capacity for experimentation and learning, generates natural curiosity and dissemination potential and provides confidence and hope to farmers who have few support services.
4. Significant female participation in agricultural innovation testing and adoption is feasible given a supportive environment for their involvement.
5. More than one innovation is needed to generate food security. The combination of access to improved seeds, production practices and post-harvest storage techniques together create significant productivity gains that contribute to food security or increased income.
6. The Income Generation component coupled with the ONFARM component in the same household holds great promise to overcome the cycle of low price seasonal sales.
7. Investments in natural resource management techniques to reduce soil and water loss can generate enthusiasm and hope in a community that can complement agronomic innovations.

E.2. Lessons Learned from Income Generation

8. Agricultural-focused income generation helped raise women's esteem and recognition as being "farmers" and equal partners with men in farming activities.
9. Women's successful involvement in both economic activities and the testing and adoption of innovations helps to change perceptions among men and especially local leaders about the capabilities and decision-making potential of women. This results in women being invited to community meetings, being asked to serve on local committees and being viewed as contributing members of society.
10. Access to credit is essential, but institutional credit is a weak link. Investments in farmer-operated savings and credit cooperatives can be an alternative.
11. Women's participation in credit cooperatives has important effects beyond the provision of credit. It offers a way for women to participate, often for the first time, in formal organizations and group processes. Also, the presence of a

collective body creates opportunities for women to exercise their voice in public affairs.

12. Enhanced economic status gains women greater equality within the household and community.

E.3. Lessons Learned from the Introduction of Appropriate Technologies

13. Farmers, male and female, are willing and able to adopt new technologies if affordable and useful to their daily routine.
14. Training is essential with all technology introductions.
15. An informal dissemination process can work well to spread the adoption of appropriate technologies as initial adopters are usually enthusiastic and motivated to share their experiences, and neighbors are eager to learn.
16. Development agents need to maintain close contact with adopters to provide on-the-ground support and feedback on problems or improvements.
17. Adoption and dissemination worked particularly well for technologies such as the enset decorticator, which were used by women working in groups.
18. It is important to document the reactions of adopters to appropriate technologies so as to be able to share information about strengths and weaknesses and to judge the benefits generated. Of particular importance is collecting estimates of reduction in women's time and energy burden, as these are especially onerous constraints to women's participation in development activities.

E.4. Lessons Learned about Training

19. Training in leadership skills can help participants become more confident and willing to take risks.
20. Training in gender and cultural barriers can bring about relative attitudinal change in rural areas as manifested by support given to women by spouses and the progress being made to do away with harmful traditional practices.
21. Local officials and agency staff need training in tools and skills to be able to support women's participation in development programs and community activities.
22. Empowered women become role models and change agents in their communities.
23. Gender awareness training needs to be provided intensely and repeatedly so that the gender agenda can remain in the forefront of community conversation.
24. There is never enough gender awareness training, but training with skill building is essential to create action.

E.5. Lessons Learned from the Scholarship Component

25. Existing academic programs designed for traditional students do not serve non-traditional students well. Specially designed programs that focus on mature learners, concentrate coursework to reduce total time, and provide support services better meet their needs.
26. Scholarships targeted exclusively for any group will raise concerns, but the goals of the effort must be considered and weighed against other competing goals.
27. Infusing a substantial number of newly upgraded mid-career professionals to any sector should have an immediate and lasting impact. The strategy to quickly creating a critical mass of trained and credentialed women professionals in the Bureau of Agriculture and Women's Affairs Offices at the regional and federal levels in Ethiopia is producing substantial attitude change and recognition/respect for women and their potential.
28. Selecting training sites in-country not only reduces costs, but may contribute to retention.
29. On the other hand, international training creates opportunities for developing new networks, information streams, and access to critical resources.
30. Newly trained individuals need continuing contact with each other and with stimulating activities to maintain enthusiasm.

E.6. Lessons Learned about Project Design

31. The majority of rural populations have multifaceted problems brought about by chronic poverty. Therefore, projects need to be integrated and multifaceted to bring about meaningful results.
32. Projects that address women need to involve both men and women to avoid restrictions/conflicts and to maximize benefits.
33. Monitoring data should include sufficient information to estimate effects of interventions, such as gains in productivity, income or time, even if only captured on a sampling of participants.
34. The processes of phase-over and institutionalization need to start at the project design stage and fully involve those affected line agencies and organizations from the beginning. It is important for projects to incorporate self-sustaining features in the design of activities to the extent possible (e.g. train-the-trainer, local capacity building, peer dissemination).
35. All externally funded projects need a "champion" within government or community bureaucracies to assist during project implementation and to oversee post-project commitments for sustainability.

F. Summary

The EMPOWER project has met the goals and most of the specific targets articulated in the project plan. There is no doubt that the program and the model has proven that significant increases in agricultural productivity can be achieved and that seemingly insurmountable obstacles to raising women's status and participation can be overcome.

Serious sustainability questions remain, however, primarily because of the termination of the project when many processes and activities were unfinished or immature. Replication is also questionable, not because of the relevance and value of the program, but because of the political will of funding and operational units.

INTRODUCTION

A. Origin and Purpose of the EMPOWER Project

The *Ethiopian Management of Participatory Opportunities for Women in Extension and Research (*EMPOWER) *Project* was conceived in 1996-97 and became operational in January of 1998 with funding support from the United States Agency for International Development (USAID) Ethiopia Mission. Winrock International (WI) managed the project under a cooperative agreement with the Federal Democratic Republic of Ethiopia. The project was originally conceived as an extension of two well received and successful programs operated by Winrock International in Africa:

- African Women Leaders in Agriculture and the Environment (AWLAE): an integrated approach to stimulate the leadership qualities and actions of women in various organizations and communities and to create more gender sensitive environments for women's participation in development; and
- ONFARM Productivity Enhancement Program (OFPEP): a technology transfer approach that builds local capacity to innovate and spread the benefits of relevant technologies for long term agricultural productivity enhancement.

Ethiopia has widespread food security problems. The Food and Agricultural Organization (FAO) World Food Program estimates that over 40% of the country's rural households do not produce enough food or income to meet basic nutritional needs (this figure is much higher in the areas served by the EMPOWER project).[5] Degraded soils, rudimentary rural roads and infrastructure, insufficient access to land, widespread rural poverty and the lack of agricultural inputs, information and technologies creates vulnerabilities that over the years have been enhanced by war and droughts. It is well accepted that rural women contribute more than 50% of the labor to operate and manage farm production, but their contributions go unacknowledged and their access to training, credit and productive assets lag behind that of men. No rural development or agricultural enhancement program could succeed without the active participation of women—and yet few projects proactively work to remove the barriers that prevent women from contributing to development goals. EMPOWER was conceived to do so! But EMPOWER was not a women's program. It carefully targeted both men and women and mainstreamed each gender as appropriate in various components of an integrated approach. The EMPOWER Project may have originally had an exclusive focus on women (as its title reflects), but through modifications in the project design the resultant project can be characterized as *supporting improved household production and food security while creating an enabling environment for both men and women to effectively work to insure and sustain future food security*. As it was finally implemented, the project included the following components or strategies:

- ONFARM technology testing, adaptation and dissemination to enhance food production
- Income generation through credit to diversify/increase agricultural production

[5] Project Proposal, 1996.

- Training in various technologies and gender awareness to capacitate the rural community and various extension workers/institutions
- Scholarships to upgrade the credentials of women professionals to serve decision-making and leadership roles in the agriculture and rural sector.
- Integration and institution building to sustain women's voice in development

B. The EMPOWER Project Transitions

The original project was designed to run for 5 years (1998-2002), some aspects encompassing capacity building at the federal level and ONFARM productivity enhancement in two project areas in The Southern Nations, Nationalities, and People's Regional State (SNNPRS). Two amendments were incorporated into the design in 1998 and 2001 to realign project outputs to better conform with USAID mission priorities for food security, and to expand the project to a second region of the country, the Amhara National Regional State (ANRS). Correspondingly the end date was extended to December 2003. Also the project incorporated a pilot effort to understand the coping mechanisms of HIV/AIDS on food security in the ANRS area in 2001.[6] Further in mid-2003 the mission redirected a substantial portion of project funding ($700,000) to relief activities and confirmed the need for project phase-out as scheduled, despite hopes for an extension to consolidate work in the ONFARM component. Thus in reality the project functioned fully for five years at the Regional and Federal level in gender training and in Yem Wereda in the south for ONFARM. It only functioned three years in Gimbo Wereda in the south (SNNRPS) and significantly less than 3 years in Enebssie Sar Midir and Libokemkem Weredas in the north (ANRS).

It must be noted that from the onset, EMPOWER was a multifaceted project. The EMPOWER project focused on building agricultural productivity and food security while directly addressing gender barriers to agricultural production and food management. In addition to providing access for both men and women farmers to appropriate technologies and agricultural innovations, the project worked through training and awareness activities, to foster an enabling environment that would promote effective working relationships between men and women in the rural communities, institutions and structures that affect agriculture.

C. Project Objectives and Strategies

The EMPOWER project, in the short and intermediate term, invested in the introduction of appropriate technologies and innovations to build resiliency at the household level and capacity at the institutional level to deal with bottlenecks to food security. It also had a longer-term focus in strengthening academic institutions, providing training and scholarships to upgrade the credentials of professional women, and creating more

[6] Although some preliminary work began on the HIV/AIDS agenda with the completion of a first wave prevalence study, the actual household survey of coping mechanisms was cancelled in 2002 with the removal of funds by the mission.

supportive environments within the institutions affecting rural communities and women's access to and involvement in development activities.

The EMPOWER project worked cooperatively with a number of government and non-governmental partners.

- Wereda Administrations
- The Bureau of Agriculture at all levels
- Women's Affairs Bureaus at all levels
- Ethiopian Agricultural Research Organization
- Christian Relief and Development Association (CRDA)
- Ministry of Education and Institutes of Higher Education, such as:
    - Debub University—Awassa College of Agriculture (ACA)
    - Alemaya University Agricultural Extension Program
    - Mekelle University Agricultural Extension Program

In addition, the project organized a number of new structures to support women:

- The Ethiopian Association of Women Leaders in Agriculture and the Environment (EAWLAE), 2001
- Women student's mentoring programs in Awassa
- Establishment of women's savings and credit cooperatives, Yem and Gimbo

D. The End-of-Project Independent External Evaluation

The original project agreement called for both a mid-term and an end-of-project external evaluation. However, due to the changes introduced at mid-stream and the termination decision by the mission in the final year, no such plans were implemented. To compensate, WI Ethiopian office commissioned an external consultant to review the work in the SNNPRS in September 2003. A report of that external evaluation is available.

However, prior to the decision to terminate, a proposal for a participatory evaluation was designed (in March 2003). That document formed the basis of a search for funding for a comprehensive and independent external evaluation. Within the USAID system, monies are allocated to various organizations and consortia to provide services to the missions on various pre-determined themes. One such *indefinite source contract* was held by DevTech Systems Inc. of Arlington, Virginia to provide services on Women in International Development related areas. The Ethiopian Mission contacted DevTech to see if an evaluation team could be formed before year's end to implement the evaluation design. DevTech agreed to organize the independent external evaluation.

D.1. Objectives of the Independent External Evaluation

The independent external end-of-project evaluation can be characterized as an External Review using participatory and multidisciplinary inputs. The draft scope of work developed in March 2003, "*An Ethiopian Management of Participatory Opportunities for Women in Extension and Research (EMPOWER) Program: A Proposal for Participatory*

Evaluation," was accepted as an appropriate starting point for the evaluation. Based on clarification discussions with Ethiopian USAID Officials John McMahon, Yesuf Abdella and Yeshiareg Dejene and with initial interactions with WI Program Coordinator Dr/Woz Wudenesh Hailu, the following outcomes for the external evaluation were identified. The independent external evaluation would:

1. Serve as a general verification process to review and confirm project claims for achievements and deliverables and to estimate the degree to which project objectives and related modifications were necessary and productive in moving toward agreed upon goals.

2. Gather expert opinion as to the unique elements of the EMPOWER model and their individual or collective influence on project achievements with the intent of identifying operating principles or lessons learned for replication to future endeavors:
    a. Assess the assumptions, strategies and achievements of the individual EMPOWER components and their integrative aspects to determine if expectations have been met and whether any adjustment are merited:
        i. ONFARM
        ii. Income Generation with Credit
        iii. Training
        iv. Scholarships
3. Estimate quantitatively and qualitatively the degree to which project activities and achievements have left a legacy of improved food security, gender relationships and capacity in the participating institutions and individuals that would endure and be sustained beyond the project period.

4. Identify specific success stories, principles and lessons learned to contribute to the showcasing of the project to the donor/government/stakeholder community.

D.2. The Evaluation Team

An interdisciplinary team of four members were selected to serve as the independent external review team. Two members of the team were expatriates and two members were Ethiopian. The team worked individually, in pairs and as a total group. The team met periodically to compare observations and insights and to focus upcoming interviews for maximum impact.

- Mary Andrews, Evaluation Specialist and Trainer with Michigan State University Extension. Dr. Andrews is experienced with international projects, active in WID networks and experienced with evaluating extension and rural development initiatives.
- Mr. Michael Bamberger, Gender and Program Evaluation Specialist with long-term World Bank experience. Michael is experienced in gender analysis, program evaluation, and cross-cultural training.
- Ms. Senait Seyoum, Agricultural Economist and Research Analyst for IFPRI and a Hubert Humphrey Fellow. Ms Seyoum has a strong history of consultancies in

both a research and evaluation mode covering a range of topics related to agriculture and rural development.

- Mrs. Hadera Tesfay, Communications Specialist and Gender Consultant. Mrs. Tesfay is experienced in designing projects and evaluations in areas of women's affairs, women's rights, resettlement, micro-finance and leadership development.

D.3. Project Components and Assignments

Elements of the EMPOWER project were allocated to individual team members for concentrated attention.

1. Training in leadership and gender awareness for rural leaders and officials with the provision of tools to encourage women's participation in grassroots programs (participation methods)—Hadera Tesfay.
2. Scholarships to upgrade women for leadership positions in Ag and Rural sector—Mary Andrews.
3. Introduction of improved agricultural and household practices—Michael Bamberger.
4. Credit for income generating activities that diversified production—Michael Bamberger
5. Food security/household resiliency gained/sustained—Senait Seyoum.

D.4. Timeline

A very quick turn-around time loomed before the evaluation team. The team leader would arrive in Addis Abba just prior to the U.S. Thanksgiving holiday and the second expatriate member would arrive just after the holiday, giving the team less than one month to complete their field work before the Christmas holiday season. Complicating this tight schedule was the fact that many of the WI staff members had already taken new positions in preparation for the December 31 closing of the project. The remaining staff were busy preparing final documents, actively handing over responsibilities to local authorities and finalizing project activities. In spite of these complications, a very smooth and productive evaluation was conducted. The USAID Mission staff, the WI Ethiopian and WI United States staff were extremely gracious and responsive, providing extensive documentation, clarification and logistical support.

The actual timeline for the External Evaluation was as follows:

26 November-2 December, 2003	Document review, evaluation planning, interviews with key stakeholders in Addis area.
3-17 December	Field work: individual and group interviews.
18-22 December	Analysis and development of tentative conclusions; debriefing with stakeholders and report planning.

22 December	Departure of Expatriate Members of the Evaluation Team.
1-10 January, 2004	Preparation and finalization of External Evaluation Report.

D.5. Evaluation Methodology

The evaluation was anticipated to be participatory—involving participants and stakeholders in both actively shaping the evaluation focus and in gathering and reviewing the data and findings. A variety of evaluation tools were expected to be used to garner both quantitative and qualitative information. And of utmost concern was that the team and their approach be gender sensitive.

The evaluation evolved into a program review formatted as a rapid rural assessment. Participation was evident in the strong Mission and WI staff involvement in determining the scope and focus of the evaluation. Intensive briefings prior, during, and at the end of the data-gathering portion of the evaluation insured strong stakeholder participation in shaping and clarifying the evolution of outcomes. But participant involvement was confined to the input stage. A wide variety of participants were interviewed individually or in groups, and their opinions and stories were very evident in the reams of monitoring data and annual documents reviewed by the team (a list of documents is presented in the appendix).

The three methods used to gather data were 1). Review of Documents—program agreement documents and amendments, Participatory Rural Appraisal studies, annual and periodic reports, end-of-session evaluations, seminar/training proceedings, phase-out strategy documents and fresh off the press end-of-project cumulative reports; 2). Semi-structured interviews and focus group discussions—with target and non-target beneficiary farmers, with local, regional and federal level partner agency representatives, with development agents and their supervisors in targeted weredas, with wereda officials and administrators, with Leadership for Change participants and trainers, with scholarship holders, with University administrators and with WI staff at local, regional and the headquarters level; and 3). Field visits and observations—to project offices, field demonstration plots, partner farmer homes and fields, weather stations, natural resource project sites, university campuses and wereda and regional agency offices (the full schedule of visits and interviews is presented in the appendix).

A debriefing was held with both the USAID Mission staff and with the WI headquarters staff in Addis prior to the departure of the expatriate team members. These debriefing sessions were informal and interactive, suggesting conclusions and soliciting feedback and clarification. A PowerPoint presentation was prepared for the USAID Mission debriefing. Handouts of the full presentation were distributed, but only a small portion of the program was actually presented as priority was given to answering questions and focusing on the interests of the audience. A rich and productive discussion ensued with

elaboration of the potential of the EMPOWER model to contribute to future mission priorities and strategies.

D.6. Limitations of the Evaluation

Three of the most obvious limitations and threats to the objectivity of the independent external evaluation were:

1. The fact that the WI staff organized all the visits and interviews thus selecting the settings to be observed
2. The quick turn-around for the evaluation limited the extent to which data and documents could be analyzed with WI staff to ensure accurate interpretation and summarization. It became evident early-on that the various documents provided by WI contained inconsistencies. Not only were different datasets available at different sites, but the presentation formats prevented quick assessment across the years. Thus although the team struggled to summarize figures and generalize annual data to end-of-project impacts, the quality of the information presented limitations.
3. The timing of the external evaluation was unfortunate. Repeatedly the team received admonitions not to terminate the project. Although many officials and participants recognized that the team was not responsible for the decision to terminate the project, they still held out hope that the team could influence that decision. As a result any inquires concerning the capacity of families or agencies to continue or sustain project activities was met with comments such as, "*We have the training and awareness to continue, but we don't know what will happen in the future. We need the project to continue for some time yet." "We are just starting to see things differently, if WI leaves, our progress will end." The line officers have the power of oversight to see that things continue, but I am not sure that they will act. They have other things to do." "It is too early to pull out. Impacts are not large enough. It is too early to talk about diffusion." "More people are waiting to join the project. If WI leaves, they will not get a chance to be helped*."

Realizing that these limitations existed and that the team would need to rely heavily on internal inputs, a triangulation process was used to the extent possible. As information was received, either through observation, interview or documentation, a process of confirmation or clarification from more than one source ensued. Thus when questions arose within the team or hypotheses/rationales were questioned, further investigation was undertaken. Not until at least two sources provided the same interpretation did the team accept the information. In some cases, questions remained unanswered or inconsistencies in interpretation were just accepted. The team realized that the stakeholders for this evaluation wanted confirmation about the accuracy of impacts and claims. But given the limitations of the monitoring data, summary statistics were hard to secure. The estimates provided in this report should be accepted with these reservations.

The additional limitation for the evaluation caused by the announcement that the project would be terminated was a fact that the evaluation team just needed to be sensitive about.

Many local officials and even partner farmers were reluctant to suggest that they could proceed without the project. Many of these officials were also quite bitter about what they considered to be the premature and unjustified way in which the project was terminated, particularly in the North, and this may have affected the opinions they gave on how the project was implemented and its long-term benefits. Over and over again the team was told that additional time was needed or that the project was needed to continue the benefits that were started. This single minded attempt to influence the termination decision through the evaluation team created a serious dilemma and challenge to our ability to estimate project impacts concerning sustainability.

D.7. Summary

The independent external evaluation was an attempt to quickly assess a very complex project. The fast pace and broad-brush approach that resulted has its limitations, but also its strengths. It is definitely an independent appraisal. And because of its broad mandate, it focused on the larger picture—not the specifics of implementation but on the strategies and their usefulness. Ideally more impact data would be available to use in judging effectiveness, but the broad based qualitative inputs helped to supplement the limited outcome data. Likewise, although the evaluation team was dependent on the WI staff to facilitate the fieldwork, enough flexibility existed to add interviews or to return to issues from multiple perspectives. The entire WI team was open and available to the evaluation team. They tried to be responsive, not directive. Repeatedly the team came to them with questions for clarification or for access to additional information. They responded quickly and positively. Likewise, the USAID staff was extremely positive and helpful, making the work of the team pleasurable.

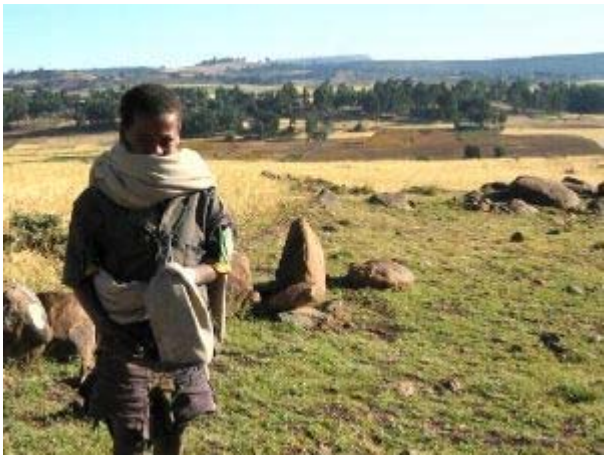
Evaluation team in the field, interviewing Government Office of Agriculture supervisors, partner farmers and local religious and community leaders.

Chapter One: ONFARM Component

A. Objectives and Focus

Agriculture is the dominant industry in Ethiopia. With 70% or more of the population dependent on agriculture, improvements in agricultural productivity, especially in the smallholder sector, can have a significant impact on reducing poverty and fostering economic growth. Farmers in Ethiopia face serious constraints to increasing agricultural production. These constraints include low soil fertility and land degradation, poor quality seeds and access to high yielding crop varieties, inappropriate farming techniques, crop pests and diseases, shortage of agricultural inputs (e.g. seeds, fertilisers, farm implements and oxen), large post harvest losses and poorly functioning markets. Consequently with small landholdings, a large percentage of subsistence farmers have insufficient production and/or income to sustain the family throughout the year. Food security is a serious problem, especially in drought-prone areas. The EMPOWER project included an ONFARM component designed to address the needs of the smallholder sector to increase agricultural production and productivity, reduce crop losses and diversify incomes, with a view of ensuring sustainable production and improved food security.

A key element of the ONFARM component was the introduction and diffusion of technical innovations through a train-the-trainer and a peer dissemination approach. A first group of farmers and extension development agents were trained or associated with specific activities, such as the introduction of new crop varieties or improved agronomic practices. Members of this group, in turn, trained other farmers or shared the knowledge they had acquired in informal ways, thereby extending the knowledge to a larger number of farmers.



Young herdsman watching our arrival in rural Enebessie Wereda (ANRS).

This farmer-led adoption and diffusion process empowers farmers to experiment with new techniques and make their own decisions concerning adoption. Such an extension approach creates local capacity and more sustainable practices as farmers themselves evaluate and adapt technologies to fit their needs. Formal extension organizations become catalysts and serve introduction and backstopping functions, but farmers themselves are the agents of change--serving innovation and diffusion functions.[7] This approach is especially relevant in light of the realities of smallholder productivity around the world. Charles Anholt noted in a 1994 World Bank Technical Paper, "It is likely that

[7] Scarborough, Vanessa, Scott Killough, Debra Johnson and John Farrington (Ed.), 1997. Farmer-led Extension, Overseas Development Institute and World Neighbors, London.

future gains in agriculture productivity through technical innovations will have to be more incremental, locally specific and directly geared towards specific farmer constraints."[8] ONFARM can be characterized as demonstrating all of these attributes.

Winrock's ONFARM activities that involved food, agriculture, processing, marketing or environmental techniques were open to both men and women. However special efforts were exerted to involve women. The percentage of women participating was quite high, for instance ranging from 43% in Enebssie to 70% in Yem. This is especially commendable as when most projects mainstream gender, female participation remains at very low levels. Not only do traditional cultural norms impede women's participation, but also the broad time demands on women for both household and farm-related tasks create constraints on her availability to participate. In the EMPOWER project, special efforts were made to encourage men to bring or send their spouses to training sessions and field days; associated introductions of fuel and labor saving devices freed women's time for other pursuits; development agents were sensitive to the needs of women and skilful in making them feel comfortable in a group, and community-wide awareness of the goals of the project to involve women helped to create a more open and responsive environment for their participation.

A.1. The ONFARM Process of Technology Transfer

As a technology testing, adaptation, adoption and diffusion model, ONFARM used the following steps.

1. ONFARM staff first acquired promising agricultural technologies from federal and regional agricultural research centers and development agencies (e.g. Ethiopian Seed Enterprise, NGOs like GTZ-IFSP South Gondar, and wereda offices of agriculture). All of the technologies introduced through EMPOWER were available in Ethiopia.
2. Improved technologies and practices thus recommended by researchers were then brought to the project's intervention sites and tried or demonstrated. Crop varieties and practices were screened on demonstration plots on public property, nurseries or on rented land. Other technologies were loaned out to actual farmers to use and critique.
3. ONFARM staff worked with farmers to evaluate and adapt promising innovations. The process of selection or adaptation used local capacity, materials and production methods.
4. Demonstration plots were established on target farmer's fields (250 sq meter plots) to compare new varieties to existing varieties or to alternative new varieties. The project provided the seed and fertilizers needed for these trials while the farmers provided all of the labor and management. Farmers then could observe the entire crop cycle including pest resistance and drought responses, as well as final yields.
5. Records of the varietal and fertilizer trials across farm plots were summarized and evaluated by both farmers and extension staff. These results were also returned to

[8] Anhold, Charles. 1994. *Getting Ready for the Twenty-First Century: Technical Change and Institutional Modernization in Agriculture*, World Bank Technical Paper 217. World Bank, Washington D.C.

the appropriate academic and research centers. Mechanical technologies were also evaluated and their strengths and weaknesses shared.

6. Farmers decided based on their own criteria whether or not to continue to grow a specific variety, or use a specific technique. Those with training in seed multiplication independently decided whether or not to multiple seeds or access seeds from neighbors for specific varieties. Further demonstrations of promising varieties were propagated on demonstration sites for display to the general public and to be discussed during farmer field days held in various PAs.

Training in the process of managing field trials and evaluating innovations was an integral part of this entire process. Thus, innovation testing was very participatory, farmer centered, responsive to local realities, and designed to build local capacity for ongoing sustainability.

B. ONFARM Activities Supported by the Project

Excluding income generation and appropriate technology program components which are dealt with separately in other chapters, Winrock's ONFARM activities included the following introductions and involved over 2000 farmers. WI implemented these activities in partnership with staff from the wereda Offices of Agriculture (OA) and other relevant institutions in selected Peasant Associations (PAs) of the four weredas of intervention.

- *Crop/Variety demonstrations*: the introduction and testing of improved crop varieties of wheat, barley, teff, field peas, haricot bean, fava bean, chickpea, flax, Irish potato, linseed, forages, and finger millet. Differing varieties were introduced depending on the site. All were open pollinating varieties, not hybrids. Project sites were specifically chosen to be able to test crops appropriate in the highlands, middle-altitudes and in some places, the lowlands.
- *Demonstrations of improved agronomic practices*: (i) soil fertility management demonstrations with either artificial fertilizer or compost application treatments on selected crops; (ii) Integrated Pest Management (IPM) i.e. demonstration of natural crop protection measures against pests, diseases and weeds, and storage pest control experiments using botanical pesticides; and (iii) demonstration of improved agronomic and cultural practices such as timely harvesting, alley cropping (Libokemkem), optimum drying, threshing and cleaning of crop products. Closely associated with this were demonstrations of improved farm implements such as the mould board and winged plows, broad-bed makers (BBM),[9] row and winged weeders, and budding knives.
- *Small Scale Seed production and multiplication*: This activity was a self-sustaining strategy aimed at enabling farmers to have adequate and continuous access to improved crop varieties. Farmers and development agents in the project sites

[9] BBM was introduced in Enebssie Sar Midir where over 60% of soils in the 13 PAs of Winrock intervention were vertisols. In these PAs, insufficient internal and surface drainage was the major limiting factor to crop production. With the Broad Bed Furrow (BBF) technology introduced by the project, it was possible to increase average wheat yields in the area from 30 quintals per hectare to 43.2 quintals per hectare i.e. to get a 44% increase in wheat yield (Enebssie Sar Midir Wereda Project Site, On Farm Annual Progress Report. April 2003).

received training in seed multiplication. Farmers selected crop varieties they preferred for multiplication using their own criteria (including, but not restricted, to yield advantage). Initially, the project signed contractual agreements with a few farmers to multiply seeds used for ONFARM demonstrations. After the seeds they produced underwent quality checks and were cleared by experts of the wereda OA, farmers involved in seed multiplication were able to sell the seeds to the project office or on the open market. Later on, farmers engaged independently in seed multiplication using their own seeds and fertilizers, and handled clearance by the OA and marketing themselves.

- *Natural Resources management*: This activity focused on awareness creation about the value of soil and water conservation measures and the actual construction of model physical conservation structures such as bunds, earthen terraces, checkdams, cut-off drains, contour plantations to stabilize bunds, gully control and water harvesting units on both private and common land. Grass, forage and forest seedling production and distribution were also undertaken in selected PAs of the four weredas targeted by the project.
- *Capacity Building*: The introduction of any new technique or technology was accompanied by appropriate hands-on training. These training sessions were organized by Winrock staff, but often used the expertise of local OA experts or specialists from the research centers. Both WI and OA development agents and supervisors were invited to participate so that they could in-turn teach others.
- *Support Activities*: A variety of support activities were organized to provide a more informed basis for agricultural investments. In most weredas these included meteorological stations, soil surveys, crop adaptation/demonstration sites and forest nurseries. In addition, the project organized group exposure visits, field days and a variety of participatory planning and phase-over committees/meetings involving both farmers and local officials.

C. Assessing Impacts of the ONFARM Component

C.1. Problems in Assessing Impacts

Winrock attached a high priority on documenting project implementation. Apart from the PRA reports done prior to project launch, annual ONFARM progress reports and plans were produced for each project site, reporting on the status of crop demonstrations (yield data for variety and fertilizer trials), farmer level seed multiplication, the introduction of appropriate technologies, natural resource conservation, capacity building/training, and lateral acquaintance and diffusion of technologies. When the project closed down, at the end of 2003, site-specific End of Project Reports (EOPR) were produced, giving detailed accounts of ONFARM and other activities it had undertaken during the project's life.

Winrock project staff was very conscientious in collecting and reporting ONFARM data, and involved government DAs and DA supervisors in data gathering, analysis and evaluation, especially in the collection of data on the number of non-target farmers acquainted with and adopting various ONFARM technologies. Annual progress reports

and plans compiled for each project site, on the basis of data submitted by field staff, were also made available to the Administration and OA of the respective weredas in which the project was operating.

In spite of this comprehensive monitoring, it is difficult to assess the impact of the ONFARM component of the project for two reasons. First, in the northern project sites, Enebssie Sar Midir and Libokemkem, where project activities were launched in 2001, the project closed down without full documentation of the results of trials or lateral diffusion. This problem was compounded by the occurrence of drought in these two sites during the second year of operations which affected the performance of all crop varieties.

The second problem with assessing impact relates to the fact that the amount and quality of data generated by the project, though impressive, had several limitations, including the following:

- While the number of individuals who participated in different ONFARM activities is well documented, including gender and marital status differentiation, there is little systematic evidence of results. No aggragatable data are available to document how target farmers, who tried selected components of ONFARM packages, actually used them especially after their participation in ONFARM demonstrations and what the consequences of adoption have been with respect to their household food production, food security or income. For instance, some evidence is presented as to the extent of further adoption, but unspecified as to the size of plots of land or over repeated seasons.
- Lateral diffusion and acquaintance with technologies introduced by the project was carefully reported for non-target farmers in all four project sites. This was accomplished by asking each participating farmer to report on how many other farmers they had shared information/inputs about the technologies/innovations, and if just awareness was created or actual trial/adoption. However the specifics of that transaction were lost in the actual reporting. Thus the data represent only broad dissemination estimates that cannot be linked to specific innovations to estimate productivity gains.
- Data collection and recording methods differed across sites, so it is difficult to aggregate data and make comparisons. Added to this, there are differences in the units used across sites to measure ONFARM accomplishments, for example number of households, number of participants or number of practices. A combination of these units is needed to estimate the impact of innovations on farming households, but creating these estimates is difficult with the existing data.

Given the above limitations, the following impact assessment of the ONFARM component of the project should be considered as tentative.

C.2. Estimates of Impacts of ONFARM Project Component

The overall goal for the ONFARM component was 20% increases in food production and/or increase in the number of households having adequate access to food for 9-12 months. At the project onset, based on the PRA surveys, households only had access for home produced grains for up to six months on the average (7-9 months in the south). Thus 20% increases in consumable grains would increase food security by 2.4 months.

C.2.1Crop/Variety demonstration

In Table 1.1 a summary of ONFARM activities is presented. Included are the number of varieties that were introduced by the project, passed through adaptation and ONFARM/demonstration trials, were multiplied by farmers and showed yield advantages over local landraces. The data also identify the number of farmers who participated in ONFARM demonstrations and the percentage of female participants in the four project sites. Since not all crop varieties could be included, only totals and sub-totals for selected field crops are reported. The choice of crops and varieties included in Table 1.1 is based on their importance in demonstrations conducted in each project site (a more detailed table identifying all field crops and varieties is presented in the appendix).

Table 1.1. Number of Crop[1] Varieties Introduced, Passed through Adaptation and Demonstration Trials, Multiplied by Farmers and Showing Yield Advantages over Landraces by Project Site

Project site, project period and crop type	#crop types	#vars intro-duced	#vars passed adaptation trials	#vars tested on farm (dem. Plots)[3]	#vars multip-lied by farmers[3]	Varieties showing yield advantage over local		# farmer participants in demonstration trials	
						#vars w. yield adv.	Percent yield adv. Range	Total no.	% female[4]
Yem 2000-03	12	42	26	nag.	5	22		922	66
-Wheat		10	5	n.a.	n.a.	5	28-47	169	n.a.
-Teff		5	4	n.a.	n.a.	2	4- 23	171	n.a.
-Maize		2	2	n.a.	n.a.	2	17-66	113	n.a.
-Field pea		1	1	n.a.	n.a.	1	52	150	n.a.
-Lentil		2	2	n.a.	n.a.	1	40	90	n.a.
Gimbo 2000-03	16	58	57	21	16	15		1243	66%
-Teff		6	4	5	3	3	1–107	n.a.	n.a.
-Wheat		5	5	1	1	1	25-125	n.a.	n.a.
-Haricot bean		5	5	3	2	3	2 –175	n.a.	n.a.
-Field pea		1	1	1	1	1	52-64	n.a.	n.a.
-Chick pea		5	5	2	2	2	27-108	n.a.	n.a.
Libokemkem 2001-03	13	80	54	56	16	9		1089	46%
-Teff		4	2	4	2	-	-	151	44
-Barley		4	3	4	3	-	-	131	44
-Wheat[2]		21	15	11	3	3	10-22	121	49
-Maize		6	0	6	-	1	35	105	54
-Rice		2	1	1	-	-	-	152	56
-Chickpea		5	3	5	3	-	-	98	47

Enebssie Sar Midir 2001-3	9	67	59	37	11	7		660	45%
-Teff		6	5	3	1	1	8	99	47
-Wheat[2]		19	16	14	3	2	21-22	104	48
-Field peas		5	4	5	1	1	31	16	24

Notes:
n.a. = Not available
[1]Only selected field crops (cereals and legumes) of importance are considered in this table (see appendix table XX for more details). For Yem, Libokemkem and Enebssie Sar Midir crop varieties that involved 75%, 70% and 75% of farmers respectively in ONFARM demonstrations have been kept. For Gimbo, crop varieties that required the largest volume of seeds have been kept.
[2]For Libokemkem and Enebssie Sar Midir the number of wheat varieties cited is the sum of bread and durum wheat varieties.
[3]In Yem, introduced and most adapted crop varieties were identified in the EOP report, but there was no specific information on varieties which went through ONFARM demonstration or were multiplied by farmers.
[4]The Yem EOP report does not have any information on the number or percent of female participants in ONFARM demonstrations by crop variety. The EOP report for Gimbo does not have any list of partner farmers who participated in ONFARM demonstrations by crop variety. Hence figures reported in this column for these 2 sites represent total number of farmers who participated in ONFARM demonstrations.

Source: Compiled on the basis of lists found in End of Project Reports for individual project sites.

As shown in Table 1.1, the number of varieties introduced varied from 42 (12 crop types) in Yem to 80 (for 13 crop types) in Libokemkem. Varieties introduced are mainly for cereals (e.g. wheat, teff, maize, barley and rice), although field peas (*Tegegnech),* chickpeas and lentils have also been actively promoted. The evaluation team was told that the original list of varieties came from recommendations of regional and national research institutes. There is no evidence in the PRAs or earlier project documents of farmer involvement in the initial selection of crops or varieties introduced, although farmer evaluations of varieties tested on demonstration plots is an integral part of the ONFARM component. There does appear to have been some discrimination with respect to identifying improved crop varieties on the basis of agro-ecological suitability and soil adaptability, but no data were found to suggest that agro-ecological recommendation domains were used to promote or target technology packages.

Out of 42 varieties (12 crop types) introduced in Yem, 22 varieties (11 crop types) showed yield advantages over local landraces, and 5 varieties (of 5 crop types) were multiplied at the farmer level. In Gimbo, out of 58 varieties (16 crops) introduced, 15 varieties (8 crops) showed yield advantages over landraces and 16 varieties (of 7 crops) were multiplied. In Libokemkem, 80 varieties (13 crop types) were introduced, 9 varieties (5 crops) showed yield advantages over landraces and 16 varieties (8 crops) were multiplied by farmers. In Enebssie, 67 varieties of 9 crops were introduced, 7 varieties (5 crops) showed yield advantages and 11 varieties (7 crops) were multiplied by farmers.

About 52% of varieties introduced in Yem showed yield advantages over local landraces, the equivalent percentages for Gimbo, Libokemkem and Enebssie being 26%, 11% and 10% respectively. The number of varieties multiplied at the farmer level ranged from 5

in Yem to 16 in Libokemkem and Enebssie. This implies that 12 to 28% of varieties introduced were eventually multiplied by farmers. One reason for not multiplying more varieties[10] may be related to the high price of fertilizer, required for almost all introduced varieties, which may have been unaffordable by farmers.

In spite of the greater number of varieties introduced in the northern, compared to the southern sites, the number of varieties showing yield advantages over landraces was lower in the north, in both absolute and percentage terms. This may be due to the fact that a major drought occurred in the north during the second year of trials, or perhaps a variety of factors influenced results in this more vulnerable agro climate. It can also be seen that in Libokemkem, farmers multiplied a greater number of varieties than were showing yield advantages over landraces, suggesting that yield maximization was not the only consideration in farmers' choice of varieties.

The data in Table 1.1 also document the percent yield advantages of the various varieties demonstrated. Within each site, yield advantages emerged for at least two or more crops. For wheat, farmers could realize 22%-125% increases in productivity, for teff, in the south, rates of 23% to100% increases and for maize, 35% to 66% increases. Field pea registered yield advantages of 31%-108%. *Thus farmers could easily improve their productivity and food availability by 20% to even 100% through one or more introductions.*

C.2.2.Improved agronomic practices

Fertility demonstrations were conducted at all project sites. The evaluation team was informed that Ethiopia has one of the lowest rates of fertilizer utilization in Africa. All chemical fertilizers are imported and more recently the government subsidies for

[10] Assuming agro-ecological suitability of varieties.

fertilizers have been stopped. In the north especially, the increasing cost of fertilizer vis-à-vis the low market price of food crops has made farmers and development agents to be curious about fertilizer use. Although farmers can access loans to purchase seeds and fertilizers from the government service cooperative, only a small percentage of farmers do so. As a result, smallholder yields are further constrained.

The objective of the fertilizer trials in ONFARM were twofold—to assess the effects of various rates of fertilizer application (both below and above recommended rates) on both local varieties and those new varieties with high promise, and to demonstrate the effect of no fertilizer at all so that farmers could observe the impacts of fertilizers for themselves and not just believe what they have heard. For even if farmers did not think they could afford chemical fertilizers, if they believed in their value, they would be more likely to seek alternatives. Fertilizer trials were thus conducted in Yem for three seasons and in the other weredas for two seasons. Generally the strategy was to demonstrate four application treatments at the ratio of 100kg DAP and 100kg urea per hectare (1:1; 1:0.5; 1:0; and 0:0) for each crop. Maize or barley, wheat and teff were the primary cereal crops involved and field pea, lentils and linseed crops were demonstrated with two treatments (1:0; and 0:0). The 0:0 ratio would mean no fertilizers were applied. *Results varied per crop and per site, but generally the demonstrations provided clear evidence that fertilizer treatments of 1:1 and 1:0.5 provided yield advantages ranging from 20-170% over the control (0:0).* By increasing the rate of application beyond these levels, however, only small yield advantages were shown. Thus farmers could clearly create a recommendation rate and not expend resources where they are not needed. In the north, both chemical and organic fertilizers were tested in vegetable trials. In these trials, compost applications had better results than artificial fertilizers.

In addition to fertilizer trials, other demonstrations of compost preparation and utilization, weed control and seed rate practices where conducted. Integrated Pest Management (IPM) was also widely reinforced. WI capitalized on the indigenous knowledge of farmers and local experts to assess a variety of botanical substitutes for chemical pesticides. For instance in Libokemkem, farmers used *a botanical maize stalk borer control technique that resulted in yield advantages of 37-64%.* Farmers were also taught to modify cultural practices to make environments less favourable to pest reproduction and/or survival. In Gimbo, where post harvest grain losses are severe, farmers often sell their grain shortly after harvest in order to prevent insect losses. Through the project a botanical pesticide was tested. *When added to the stored grain, it increased storage times by 50% without damage.* For the group of 377 farmers who used this technique and sold their maize after six months when prices were high, they earned 38,024 birr for their 388 quintals (*an estimated 100 birr per family*)[11]. Moisture and high temperatures also increase pest and fungi damage. The introduction of the improved grain storage devices improved moisture conditions significantly. Not all of these experiments, however, provided clear alternatives, but they did motivate farmers to continue to experiment.

[11] Estimates based on a survey in Gimbo wereda where 388 quintals of maize were sold after six months of storage. Three hundred seventy-seven farmers used this storage alternative.

A variety of mechanical technologies were introduced and tested on farmer's fields. The improved mould board plow was widely distributed as well as various weeding devices. But of significant value was the broadbed maker (BBM) or broadbed furrow (BBF) technique. In Enebssie, in particular the heavy vertisol soils created water logging during the wet season, and thus reduced yields. To facilitate dissemination of the broad bed maker, 30 implements were made available to partner and non-partner farmers. Twenty-six farmers producing wheat tested the effects of this device in forty-three demonstrations. The device improves internal and surface drainage by creating deep furrows across the fields giving the appearance of raised beds. *This technique increased yields by 44%!*

C.2.3. Small Scale Seed Production and Multiplication

In all project sites, farmers were trained in small scale seed multiplication techniques. Access to high yielding, improved seeds is a nation-wide challenge. Thus the ability to produce additional seed from the improved varieties demonstrated ONFARMers' plots would reduce dependence on external sources, speed diffusion and provide an important capacity at the local level to sustain the benefits of ONFARM after project withdrawal. Within the training for this activity farmers were encouraged to use standardized plots and cultural practices, carefully select seeds for germination, maintain product purity throughout the growth, harvest and storage cycles and work with the OA for certification. The project facilitated marketing by purchasing some of the multiplied seed for demonstrations within the project sites and encouraged farmers to sell their seeds in the open market. A great deal of swapping occurred as farmers traded seeds to have access to their choice of varieties. Across sites, 213 farmers have been formally trained in seed multiplication (47% women). The seed multiplication component became a significant income generation option both in seed sales and in product sales using the multiplied seed. In Gimbo, for example 23,713 birr were earned from the sale of a variety of seed by 86 farmers (*275 birr per farmer*). Many of these farmers used their earnings to buy sheep, heifers, oxen and chickens to further diversity their assets.

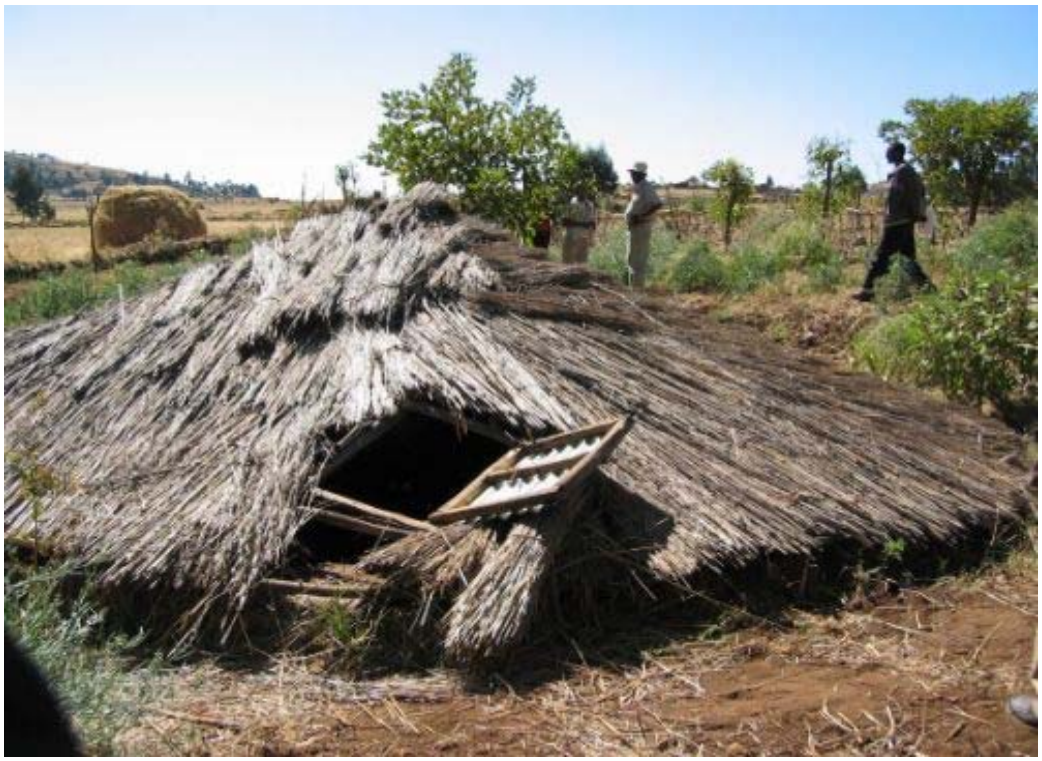
C.2.4. Natural Resource Management

The overall goal of the project was to train and support farmers in creating 30 km or more of soil and water conservation structures and to distribute and plant 100,000 seedlings. This component, natural resource management, was added after the original project started. Local officials strongly advocated for the effort, although it would not have immediate effects on food security per se. The actual results far surpassed the targets.

In Yem, where the rugged and hilly nature of the terrain created severe soil erosion, the focus of WI and OA efforts was to construct soil bunds, check dams, cut-off drains and plantations of soil retaining root plants (trees, bushes and grasses). Gimbo concentrated on earthen terraces and contour ridges. Training and awareness building was a major effort, using every opportunity to engage farmers and local leaders in dialogue about the soil erosion problems and the effectiveness of various alternatives. Specific hands-on training where farmers worked along-side development agents in constructing the various structures was also highly instrumental in developing the confidence needed for independent action. The nurseries that were established produced various grasses and

seedlings (over 30 types) to make available for these purposes. In both Yem and Libokemkem, public lands were rehabilitated as well, helping to stabilize degradation or provide an income generating alternative for PAs. Also in the north, conservation structures were constructed during mass mobilization campaigns sponsored by government and NGOs using food for work resources. At Michael Debir PA in Libokemkem, farmers trained in these techniques identified a local watershed and constructed 50 km of conservation structures in collaboration with land owners and village residents. A total of 1375 individuals (461 female) were involved that benefited 177 households directly and prevented the devastation from invading the PA grazing commons. The other public effort mentioned earlier in Libokemkem concerned an eroded hillside owned by the PA. By contour plantings of select tree species, the erosion was halted and a plantation of over 40,000 trees will support 53 homeless youth households in the future.

An innovative but smaller effort undertaken by the project was the construction of demonstration water harvesting structures. Similar structures were being disseminated by government OAs, but the WI effort complemented the vegetable production strategy and thus contributed directly to the food security goals. These structures were basically underground storage units to collect and preserve run off water during the rainy season and make it available for irrigation at other times. A unit in Yem helped to support the women's vegetable production cooperative. In other places, it was placed on private lands to support commercial scale vegetable production. Both tin roofed and thatched roofed structures were observed.



D. Summary

A variety of crop production and management techniques were tested in the various weredas to create alternatives to improve agricultural productivity. *The most significant result of these efforts was proof that productivity increases were possible.*

Table 1.2. Summary of Productivity Gains from Various Introduced Innovations

Innovation	Gains
Promising varieties of wheat	22%-125%
Promising varieties of teff (in the south, only)	23%-100%
Promising varieties of maize	35%-66%
Promising varieties of field pea	31%-108%
Fertilizer applications at recommended rates	20%-170%
Botanical maize stalk bore control technique	37%-64%
Botanical grain storage application	50% longer storage
BBM for improved drainage on lowland wheat	44%
Seed multiplication and sale	275 Birr per family

Whether through access to improved varieties, the use of fertilizers, cultivation or pest reduction techniques, improved storage or natural resource management—productivity gains could be achieved at rates well above 20%. Did the partner farmers achieve these gains? Yes, but at the present these gains can only be estimated based on the advantages of individual innovations. Adoption rates for specific crops or techniques are not available but from testimonial data, appear very impressive. And lateral dissemination rates of from 3-5 times or as in the example from Gimbo of 312% for awareness and a lateral adoption rate of 47%, is significant for a pilot effort with limited time in the field. Thus there is reason to believe that farmers exposed to these new technologies will, in fact, have significant productivity gains in the future. Food security has been extended even with just the demonstration efforts, and applied to larger landmasses, could be considerable. In the entire set of project sites visited, farmers praised the project and the innovations that they tried. They shared stories of increased yields, more variety in the household diet, sales of produce, profits of which were used for school fees, shoes, clothing and housing improvements. They had plans for future agronomic improvements and felt confident that the downward slide of decreasing incomes could be reversed. Comments such as, "*we had only heard about some of these things, now we have them (i.e. BBM);" "we can see the results ourselves and know that we can do these things (i.e. soil conservation);" "we are disappointed that WI is leaving; only now seeing the results of their work; others are waiting to become involved;" "WI has accomplished in three years, what our office (OA) has been trying to do in the past 10 years (Government DA);" "WI has been successful; we only regret that they will not be able to spread out to more PAs (wereda official)."*

E. Lessons Learned

1. Agricultural productivity gains are possible even among smallholder farming households, female-headed households and in isolated and remote communities with limited access to information or services.
2. Agricultural innovations of value to farmers are available from research centers within Ethiopia. But they need to be tested and sometimes adapted to fit farmer-managed and local situations.
3. Farmer participation in the demonstration/testing/adoption/diffusion process is invaluable. It creates capacity for experimentation and learning, generates natural curiosity and dissemination potential and provides confidence and hope to farmers who have few support services.
4. Significant female participation in agricultural innovation testing and adoption is feasible given a supportive environment for their involvement.
5. More than one innovation is needed to generate food security. The combination of access to improved seeds, production practices and post harvest storage techniques together create significant productivity gains that contribute to food security or increased income.
6. The Income Generation component coupled with the ONFARM component in the same household holds great promise to overcome the cycle of low price seasonal sales.
7. Investments in natural resource management techniques to reduce soil and water loss can generate enthusiasm and hope in a community that can complement agronomic innovations.

F. Recommendations

1. End-of-project data should be completed in the north where baseline data for the ONFARM component exists, so as to have the capacity to assess change and thus impact over time.
2. Future projects should design indicators of outcomes and impacts as well as participation data, even if documentation is on a sampling basis rather than across the full population of participants.
3. Critical indicators should be available across project sites, to aid end-of-project summarization. Likewise the units of measure and their definitions should be consistent.
4. If projects were to more carefully identify and prioritize constraints within specific groups of target farmers to be served, including women, the selection of improved technologies for introduction could be matched for more effective program implementation. Within EMPOWER, there was great uniformity in the OFARM components across project sites, the emphasis being on the introduction of improved crop varieties, less on improved agronomic and cultural practices or the introduction of improved farm implements which may have been of critical importance in some areas. In Enebssie, for example, more emphasis could have been given to BBF technology. Similarly in Gimbo, more emphasis could have been given to the reduction of pre- and post-harvest crop losses (i.e. improved

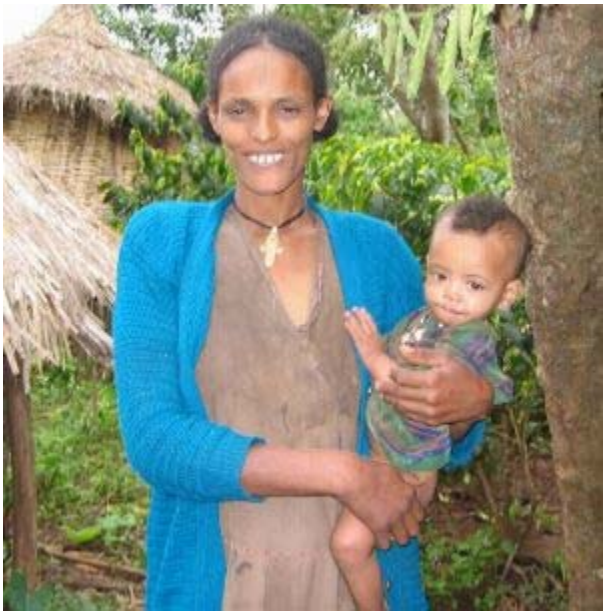
grain storage devices and IPM techniques which have resulted in significant increases in crop yields and sales, and consequently, in improved household food security).

5. Attempts should be made to assess the financial costs and returns of introduced packages at the farmer level to be able to use such information in both estimating impacts but also in communicating to potential adopters.
6. In situations such as in these weredas where farmers can't afford fertilizers and lack access to any but local markets, projects should address these concerns more directly in the project design.
7. In Enebssie and Libokemkem wheat varieties HAR 604 and 1685, and field pea variety Tegegnech (teff, fava bean and linseed also promising) have found wide acceptance among farmers and should be promoted more aggressively in future.
8. The ONFARM approach of technology testing/adoption/diffusion is an important introductory level strategy in any community. Added to that approach, a Farming Systems approach would help to funnel sets of appropriate techniques and technologies to maximize the potential of each farming household.

Chapter Two: Income Generation (IG) Component

A. Objectives and Focus

The Winrock baseline and PRA planning studies found that most families in the project areas were not able to cover their basic annual food requirements from the very small plots and poor quality land that they cultivated.[12] The problem of food insecurity was particularly severe for female-headed households who often lacked labor and faced additional cultural and economic constraints on their ability to farm. Consequently, the EMPOWER project included an income generation (IG) component designed to provide additional sources of food and to help families, particularly women, to diversify their production and accumulate productive assets to increase their resilience to stress and to promote sustainable improvements in their quality of life.



The IG component was also designed to strengthen the economic and social empowerment of women. Prior to the project, women were not considered to be farmers and most decisions concerning choice of crops, seeds, farming methods and purchase of agricultural inputs were made by the husband or other male household members. Most women also had little or no access to credit or productive assets. Meetings with wereda officials also confirmed that prior to the project very few women came to public meetings and even fewer expressed their views in the meetings.

A major input to start IG activities was credit. Consequently, the project had to develop ways to make credit available to women, either by making it easier for them to join the existing cooperatives, or by creating new savings and credit cooperatives targeted to the specific needs of women. Training was also critical and courses on IG activities were provided to families and to the partner government agencies who would continue to provide support to the families after the termination of the project. Experience from other developing countries showed that it was critically important to design IG activities and particularly credit mechanisms which would be accessible to women without alienating men and creating domestic conflicts.

[12] Estimates from PRA studies concluded that families had on the average of 6 months of food security at the beginning of the projects, with slightly more likely in the south.

B. Income Generating Activities Supported by the Project

The income generation activities directly supported by the project included:

- *Vegetable production*: Demonstration vegetable gardens were organized for groups of women who then took up cultivation of some of the varieties on their own land. The results were disseminated by inviting neighbors to the demonstration sites and by providing information in the market. The project was targeted to women but male family members were encouraged to participate and around 10% of loans went to men. Training was provided on vegetable cultivation, diet and food preparation and credit was provided both to individuals and for group projects.
- *Beekeeping*: The project initially introduced improved beehives from Kenya and improved methods of beekeeping and honey production. This model had been introduced earlier by Government, but most farmers found it too expensive. Winrock worked with an experienced beekeeper (Ato Arega) who had migrated from the North where beekeeping techniques were more advanced, and who had already been experimenting on his own to adapt the Kenya model. With his help a cheaper model was developed, tested and disseminated in both Yem and Gimbo. About 75% of the participants came from Yem and Gimbo. Beekeeping equipment (gloves, masks, etc.) was provided, and training was given on all aspects of beekeeping and the production of honey. Some participants were able to generate additional income through the manufacture and sale of beehives. Men received one third of loans and male household members tended to be actively involved even when the loan was given to the woman.
- *Poultry production*: Many women already had experience with raising poultry and the project focused on introducing new breeds, brooding chicks, rearing chicks and improving egg production. Training and credit (over 92% of the loans went to women) were also provided. The project was made more affordable by providing day-old chicks, with training on how to raise them, at a fraction of the price government agencies charge for more mature birds (3 birr vs. 17 birr per bird).
- *Sheep and goats*: The intent of this activity was to purchase either breeding stock for reproduction purposes or to purchase animals for fattening and sale. These are traditional women's activities and the loans and training on improved animal husbandry techniques were provided exclusively to women.
- *Coffee*: Coffee production was only supported in Yem and Gimbo. Seedlings were distributed and training was provided on improved methods of cultivation and disease control. Although coffee plants require several years to mature, some income was generated by the cultivation and sale of seedlings. Men were actively involved and over 40% of loans were given to men.
- *Oxen*: Although oxen were one of the popular secondary investments that families made with the earnings from vegetables, poultry and other products obtained with the credit, only in Enebssie were loans given directly for the purchase of oxen. The disease Trypanosomiasis also limited the adoption of oxen in the Southern sites. Access to oxen not only provided a way to prepare one's own land but they could be rented out for additional income generation as well.

- *Fruit seedlings*: These were distributed to large numbers of target and non-target farmers with one third of the loans given to men. Although several years are required before fruit can be sold, some revenue was generated through the cultivation and sale of seedlings.
- *Irrigated cultivation*: A pump was provided for a group irrigated rice production project in Libokemkem. Training was given on operation and maintenance, and a group credit (50% men) was provided through a revolving fund.
- *Fishing*: Training, technical assistance, credit and marketing assistance was provided to a group fishing project in Libokemkem. This involved teams of men and women (25% women) involved in lake fishing and in the processing of fish, which was sold to a wholesaler with assistance from the wereda.
- *Rice dehulling*: Training, equipment, technical assistance and credit were provided to one group of women as a rice dehulling project in Libokemkem.

C. Assessing Impacts

C.1. Economic Impacts

C.1.1. Problems in assessing impacts

Many of the income generating activities had only been operating for two years or less at the time the project closed. Therefore, it really is too early to provide a firm assessment of project impacts. Although WI staff attached a high priority to the careful monitoring and documentation of project implementation and outcomes, information collected on the income earned by every participant is difficult to interpret. Most of this information was collected during visits to each family and the quality of the information is quite good. However, there are several factors limiting the utilization of the data for comparative purposes:

- There is no standard method of data presentation for the four project areas so it is difficult to aggregate data or to make comparisons across sites.[13]
- The tables present the number of new families starting IG activities in a given year and how much they earned during that year. Unfortunately, no information is provided on, for example, the earnings in 2003 of the families who entered a particular IG activity in 2002. Consequently, it is not possible to estimate how much families earned from a given activity over the life of the project.
- Data is given separately for each IG activity and it is not possible to estimate the total family earnings from all of the IG activities in which they were involved.
- As no baseline data is available, it is not possible to estimate how much family income has changed over the life of the project. It is likely that many of the families were earning some income before the project began so that the impact of the project will be less than the earnings reported in the tables.

[13] For example: in Yem (EOP Table 5) and Gimbo (EOP Table 12) the number of new participants and their earnings from each activity are given for each year; in Enebssie (EOP Table 6) and Libokemkem (EOP Table 6) the total number of participants is given for 2002 and 2003 but the number of participants is not given for each year.

C.1.2. Estimates of direct income generation

Over the course of the project, slightly over 2,000 families participated in one or more IG activities, with the average family participating in 2.5 activities.[14] It is difficult to estimate the total income generated because of the way in which the data are presented, but over the life of the project IG activities generated at least 380,000 birr and probably considerably more.[15] This represents approximately 180,000 birr in a typical year (Table 2.1).[16] There are considerable variations in the average family earnings per activity in each project area, ranging from an annual 120 birr per activity in Yem to 502 birr in Libokemkem (Table 2.2) mainly because of the lucrative rice irrigation project. The average earnings for all project areas from a typical IG activity are 150 birr per year.[17]

Table 2.1: Preliminary Estimates of the Number of Male and Female Beneficiaries and the Earnings from Income Generation Activities

	Project areas[a]	Total participants in each activity	% women	Total earnings during project [birr]	Annual earnings [birr]	
					Total for all projects	Weighted average for participating households[c]
Vegetable production	All	1704	88	100,952	38,592	59
Beekeeping	All	442	64	7,554	3,105	17
Poultry production	All	600	92	47,752	18,213	80
Sheep and goats	All	947	99.7	82,786	35,964	87
Coffee	Y, G	654	67	3468	1156	9
Fruit seedlings	Y,G,E	190	65	1984	950	10
Sale of improved seed	Y,G	79	49	53,324	17,774	675
Sale of maize from improved storage	G	377	46	38,024	12,674	101
Irrigated cultivation	L	18	50.0	44,748	44,748	2,486
Fishing	L	33	27.2	4,620	4,620	140
TOTAL		5044	79.0	385,212	177,796	150
Total families[b]		2057				

Notes:
[a] Projects: Y=Yem, G=Gimbo, E=Enebsie, L=Libokemkem
[b] Families involved in the IG program participated on average in about 2.5 activities.
[c] See Technical Notes for description of the methodology.
Source: End of Project Reports for each project.

[14] The total number of families involved in at least one IG activity is obtained from the list of participating families given in the annexes to the four End of Project Reports. The average number of activities per participating family is obtained by dividing the sum of families involved in each IG activity by the number of participating families.
[15] The tables only present the earnings of new families starting an activity during a particular year and do not report the earnings of families who started an activity in an earlier year.
[16] This is obtained by dividing total earnings by the number of years that each activity was operating in each project area.
[17] This is estimated as the weighted average for all project sites of the number of new participants involved in a typical year. It should be noted that the figure of 2057 refers to all participants involved throughout the life of the project and this figure must be adjusted according to the number of years each project has been operating to estimate the number of new participants involved in a typical year.

It is difficult to compare earnings from different IG activities as many activities were still very new and families were still consuming most of their produce. Also, activities such as coffee and fruit trees do not start to produce revenue for a number of years. With these reservations in mind, the activities which are currently generating the greatest earnings to households in all project areas are listed in Table 2.1. The highest earnings currently come from the irrigated agriculture and fishing cooperatives, which are only being implemented in Libokemkem.

Table 2.2 Estimated Average Earnings from Income Generating Activities in each Project

Project	Total estimated annual earnings from income generating activities	Average annual earnings per activity[a]
Yem	20,059	120
Gimbo	62,583	131
Enebssie	38,208	178
Libokemkem	59,946	502
Total for all projects	177,796	150

[a] This is a weighted average of earnings from all IG activities in each project.

The earnings potential of poultry, beekeeping and goats/sheep to a typical family once these activities are fully operational is illustrated below. For a typical family poultry can generate 70-100 birr/per year, goats/sheep can generate 100-600 birr and beekeeping can generate 400-1400 birr.

2.3. Illustration: Potential Earnings from Different Income Generation Activities

The following figures, based on information from Yem and Gimbo, indicate the potential earnings which typical families can earn from different income generating activities.

Poultry: During a year a typical family might sell 50-100 eggs (4 eggs = 1 birr) and a maximum of 4-5 birds (around 15 birr per bird). *Potential annual earnings*: 70-100 birr.
Bees: There are two production seasons per year. A typical family will own 2-5 hives, each of which produces 10-15 kg per season (20-30 kg per year). The average family consumes at least 20% of their total production so that 35 – 120 would be sold. *Potential annual earnings*: Assuming a sale price of 12 birr/kg families can earn between 400-1440 birr.
Goats: An average family would sell 1-2 goats per year at prices ranging between 100-300 birr depending on the season and the size of goat. *Potential annual earnings*: 100-600 birr.

C.1.3.Estimated household consumption of produce

No precise data is available on the proportion of the produce consumed rather than sold. However, the End of Project reports and the evaluation field visits both confirm that home consumption accounts for a significant proportion of the output. For example:

- In Gimbo farmers consumed approximately 25% of eggs produced.
- In Libokemkem families consumed about 20% of vegetables produced.
- In Enebssie families consumed about 12% of vegetables and fruit.
- In Enebssie farmers consumed 89.5 kg of honey.
- During the field visits it was also confirmed that families consume a significant proportion of eggs, poultry, coffee, fish, sheep and goats.

Given the fact that home consumption is probably under-reported, it is reasonable to assume that on average households have been consuming at least 20% of their production from income-generation activities. The proportion is probably higher for many of the poorest families. Thus, although these products are not available for sale, they do represent a considerable contribution to improved nutrition and health. A goal of the project was to diversify production both as a risk-diffusion technique but also to improve dietary habits. Families reported growing and eating more vegetables, and of having access to eggs and meat which was not possible earlier.

C.1.4. Investment of earnings in productive assets

Most households try to re-invest a proportion of their profits in productive assets. Families showed their willingness to make sacrifices to keep these assets during the hungry season (June/July to October/November) but inevitably some or all will be sold or consumed. Illustration 2.4 documents the significant accumulation of assets by families involved in vegetable and poultry production in Gimbo.

2.4. Illustration: Using the earnings from income generating activities to accumulate productive assets in Gimbo

In Gimbo, the EMPOWER monitoring reports were able to document the significant accumulation of productive assets with the earnings from the income generating activities:

1. *Using earnings from the sale of vegetables, 256 farmers bought 80 sheep, 59 goats, 18 cows, 76 heifers, 15 oxen, 1 lamb, 5 chicks and 9 calves.*
2. *Using the earnings from the sale of poultry, 158 farmers bought 52 sheep, 37 goats, 1 heifer, 2 cows, 3 oxen and 11 chicks.*

A typical pattern is to use the profits from vegetables or poultry to buy goats or sheep and then to sell these to cover part of the cost of an important asset such as a cow or an ox.

Illustration 2.5 presents the story of a widow with two small children who used the profits from poultry acquired with a Winrock loan to purchase an ox and to recuperate the land she had previously rented as she did not have labor to farm it. This is one of several cases where improved economic status enabled a woman to remarry.

2.5. Illustration: Using income generation earnings to accumulate assets and acquire a husband

A widow with two small children previously had to rent out her land for a very small share of the harvest as she was not able to farm it herself and she was too poor to hire a laborer. She obtained loans from the EMPOWER project to buy poultry. Over time, with the earnings from poultry combined with other assets, she bought an ox. With her ox and that of a neighbor she could farm her own land. With the increased harvests she sent her children to school and attached a metal roof to the house. She has now reached an agreement with her neighbor, and they rent out the pair of oxen to other families. With the earnings from the oxen she has been able to make the first two payments on the four-year loan, and her improved social standing created an opportunity to remarry. Although she consults with her husband on farming matters, the ox and the land are registered in her name.

Source: Interview conducted in Enebssie Sar Midir by Evaluation team.

C.1.5. Covering other basic household expenditures

The most frequently cited benefit of additional income was being able to send children to school and to buy the necessary clothing and books. Probably the second most frequent benefit was housing improvement or the construction of a new house. In addition to better health and an improved quality of life that the house represents, the improved security is important given the frequent reports of robbery of property and grain. One of the respondents had recently had a donkey stolen and many complained about the theft of grain, vegetables and chickens.

C.2. Assessing the Total Economic Impacts of the Income Generating Activities

While the data currently available does not permit precise estimates of the economic impacts of the IG activities, there is sufficient information to estimate the potential impacts on a typical family. The estimates are based on the following assumptions:

- In Gimbo, the only project for which this information is available, the average IG participant was involved in 2.5 activities.[18] Assume conservatively that for all projects the average IG participant is engaged in at least 1.5 projects.

[18] Calculations based on Gimbo End of Project Report, Annex Table 2.

- Assume, based on the limited data given in the End of Project reports, that households consume at least 20% of their own production of vegetables, poultry, goats/sheep, honey, etc.
- Data from Gimbo shows that the average IG participant used the proceeds from vegetable and poultry sales to purchase at least two animals. Assume that all IG participants generate an additional 100 birr per year from using their earnings to purchase animals.

Using these assumptions, the potential economic impact of the IG activities on an average participating household could be estimated as:

- Average annual income from a typical project: 150 birr/year (see Table 2.1).
- Assume families participate in 1.5 activities: 150 birr x 1.5 = 225 birr.
- Assume additional 100 birr income from using IG earnings to purchase animals: 225 + 100 = 325 birr.
- Add 20% for value of own consumption: 325 + 65 = 390 birr.

It should, however, be emphasized that these figures are only based on the experience of the small proportion of households who participate in the projects. It is likely these families will have more initiative; resources and probably more access to local markets, so it should not be assumed that the same level of impacts could be achieved if a much larger proportion of farmers were involved.

As a reference point for assessing the significance of these figures, Winrock estimates that in the North a farmer can expect to earn an average of between 1 and 2 birr per day from agricultural activities (350 – 700 birr per year) while in Yem and Gimbo the average is probably around 2 birr per day (700 birr per year).[19] Consequently, the projected *potential earnings from IG activities are equivalent to between 50 and 100 per cent of normal earnings from agricultural production.*

D. Providing Credit for IG Activities through Savings and Credit Cooperatives

A key element of the project was the provision of credit. This was particularly important for women, most of whom had previously had no access to credit. During the Derg regime the concept of cooperatives had become discredited as many cooperatives were politically inspired and poorly managed and there were many examples of misuse of funds or of farmers being pressured to join. The cooperative movement has been slow to become reestablished and in the project areas there was still very little experience with cooperatives and considerable confusion concerning rules and regulations. This created very specific barriers for the provision of credit to women.

In Gimbo the cooperative development office in the wereda denied that it was legally possible to organize a cooperative exclusively for women, and the process of legalization of the new women's savings and credit cooperatives was paralyzed for some time.

[19] These figures are consistent with the estimates given by farmers in the discussions with the Independent Evaluation team.

Although the misunderstanding has been resolved, most of the cooperatives are still completing the legalization process. The current status of the credit and savings cooperatives is summarized in Table 2.6. In the two Southern projects, the existing service cooperatives were found to be unwelcoming to women and were not deemed reliable to the women in EMPOWER. Consequently, Winrock helped create new savings and credit cooperatives exclusively for women.

Table 2.6 The Status of the Savings and Credit Cooperatives in the Four Project Areas

Yem

Five women's credit and savings cooperatives with 524 members (95% women) had been created in seven Peasant Associations. Loans had been given for all of the different kinds of income generation activities and 25,399 birr of savings had been generated. Legal certification had been obtained from the Regional Government Service Cooperative Promotion Bureau.

Gimbo

Women's savings and credit cooperatives with 587 members (95% women) have been organized in six Peasant Associations. The associations are still in the process of legalization. A problem that exists is that they lack of a safe means to carry funds that have to be taken for deposit to a bank in Jima 150 Kms away. The project has provided a safebox, but these funds are still vulnerable.

Enebssie

Three savings groups have been organized in four Peasant Associations and 289 loans have been approved for beekeeping, sheep, poultry and oxen. Many of the approved loans had to be cancelled due to the cutback of the budget and the early closing of the project. As the savings groups are organized through the service cooperatives, women must join to be able to borrow. This is a constraint as the registration fee, and in some cases the monthly savings contributions, are too expensive for many women.

Libokemkem

Nine savings groups with 410 members have been organized in seven Peasant Associations. Each group has opened an account in a local bank. Training was provided by Winrock who also contributed resources for a revolving fund to be used exclusively to provide loans to women. The same issues concerning service cooperatives exist.

Source: End of Project Reports for Yem, Gimbo, Enebssie and Libokemkem and Summary EOP for all projects.

In the North, the decision was made from the beginning to work through the existing government cooperatives. Funds were transferred to these units to create the revolving funds needed to support loans to EMPOWER participants.

Although these processes of securing access to credit were long and tedious, almost all of the 2,000 participants in the IG activities were able to obtain at least one, and often several, loans. The provision of these credit mechanisms was absolutely essential to the success of the IG activities.

E. Assessing the Social Impacts of the IG Component

The interviews conducted during the Independent Evaluation confirmed the findings of the EMPOWER reports that the project had a significant impact on women's economic and social empowerment. The following are some of the key indicators:

The project opened up opportunities for women to earn income, start their own businesses and accumulate productive assets:

- The IG activities provided women with new income earning opportunities. Prior to the project women had almost no opportunities to earn income while in other cases the project greatly enhanced their earnings.
- The project provided women with credit so that they were able to purchase seeds, plants and animals and the required inputs to launch a small agriculture enterprise.
- Women were able to reinvest part of their earnings in the accumulation of productive assets such as goats, cows and oxen and hence create a base of long-term improvement in their economic situation. The acquisition of oxen proved particularly critical as this enabled women to farm land which they had previously rented or share-cropped to male farmers.
- The way in which the project was organized gave women control of the enterprises and the assets while at the same time ensuring that the activities had the approval and the active support of male household members.
- Training provided women with the necessary skills, as well as the psychological support to launch their businesses.

Women's economic empowerment also gained them recognition as equal partners with men in farming activities:

- The income earned by women gained them the recognition that they were equal partners with men in the household economy. This made it much easier for women to become actively involved in ONFARM activities such as seed trials and decisions on agricultural production. Previously, women had not been recognized as farmers and had not been consulted on farming decisions.

The recognition of women's role as farmers also gained them the right to participate in community decision-making:

- Women's successful involvement in both economic activities and household technologies changed the perception of wereda officials about the capabilities and decision-making roles of women. As a result, they began inviting women to wereda meetings for the first time, in many cases. Also, the gender awareness and technical training provided to wereda officials created greater acceptance of the need for women to be involved in various agricultural and economic development programs.
- Women's participation in credit cooperatives had important effects beyond the provision of credit. For many women this was the first time that they had been involved in any kind of formal organization. The EMPOWER project training that they received about managing credit also included gender awareness and assertiveness training. In several cases the women encountered opposition from

the wereda or cooperative officials who opposed the creation of special cooperatives for women. In these cases the women had to fight hard, often with the support of the Women's Affairs Office, to establish their rights to create the cooperatives. This process of organization and lobbying provided a very valuable experience for them. Another benefit of this activity was changing attitudes among these poor households about saving. Wereda officials mentioned the spread of a "culture of saving" as being one of the important outcomes of EMPOWER.

Women's enhanced economic status gained them greater equality within the household and community:

- Women's economic empowerment also enhanced women's attractiveness as marriage partners and the evaluation team met with several women who specifically claimed that their ownership of an ox (an important asset in the farming community) raised their status and thus remarriage prospects.
- The gender awareness training which complemented the skills training and provision of credit also made women and men more aware of harmful traditional practices such as child marriage, female circumstances, kidnapping women to force them to marry and domestic violence. Many examples were cited where women, with strong support from male family members, organized to oppose practices such as female circumcision.

F. Assessing the Implementation of the IG Component

Almost all of the farmers visited had a generally positive attitude to the income generation projects and to the way they were organized. The wereda officials also had a generally favorable attitude. The major criticism encountered in every meeting was that Winrock is withdrawing before most of these activities have had time to become established and there was a general concern that many of them might collapse without Winrock's continued support. Support was needed not just to help with specific technical issues but also to provide moral encouragement to continue with what are very new and challenging activities for many farmers, and particularly for many women. Some of the most positive aspects of the activities include:

- The participatory methods used to identify and implement the projects.
- The close personal contact Winrock staff have maintained with the target and non-target families.
- Making available new technology (for example bee-hives) while at the same time being willing to adapt this to local conditions and making maximum use of local materials to reduce the costs.
- The provision of practical training in support of all income generation activities.
- The provision of credit to permit families to invest in these activities.
- The creative way in which training per diems were used to generate investment resources for these activities.
- To date the informal promotion and dissemination of the different income generating activities has worked well. The project has created "champions" in the

communities who have promoted the different activities with almost missionary zeal.

Some of the criticisms heard include:

- The withdrawal of Winrock is by far the most serious problem as many groups are concerned that they do not have the experience or confidence to address the many problems which are likely to arise in the early stages of their projects. One example is the concern of the irrigation group in Libokemkem about how to arrange for the repair of their pump.
- Very little assistance was provided on marketing. This refers both to the selection of enterprises for which there was limited demand, and also the lack of assistance in bringing products to market. Many of the communities are very remote and in some cases farmers have to carry their produce for six hours over very difficult terrain to get to market. The lack of access to markets forces farmers to sell to traders at very low prices, or in local markets with limited demand.
- The arrangements made for the continued provision of credit to most of the participants is uncertain.

G. Assessing the Sustainability of the IG Component

Most of the project activities, particularly in the North, are still at an early stage, so it is only possible to present a very preliminary assessment of potential sustainability.

Some of the *positive indicators* of sustainability are the following:

- Over 2,000 families have successfully launched income generating activities.
- At least 10 different activities have been successfully implemented so that families are able to choose from a variety of income generating activities. The range of options also makes it easier for families to start more than one activity.
- Many of the activities are very simple and use skills and resources with which most families are already familiar. This makes it possible for women who have no experience with income generation to start with a very small and simple activity and then gradually work up to larger and more complex activities.
- After receiving the initial training most families have been able to continue the projects on their own without the need for continued assistance. Activities were designed to be self-sustaining and to not require external support
- Participants have been able to find markets for their produce (keeping in mind that the quantities they are selling are still very small).
- The program has developed effective gender mainstreaming strategies; thus, male family members have been very supportive and often actively involved in the activities started by women. The Independent Evaluation Team was not able to detect any evidence of the activities having created domestic conflicts. This is a very positive sustainability indicator because in many African countries husbands often feel threatened when their wives begin to earn money and they may oppose, sometimes violently, the wife's economic initiatives.

- Field visits also revealed that most women are able to retain control of the productive assets and the income that they generate (again in contrast to other African experiences).
- Mechanisms were established for providing credit, and almost all of the IG participants received loans. This was a critical element as most women previously had no access to credit.
- Winrock offered training to local government development agents (DAs) on the IG activities and Winrock DAs worked closely with their government counterparts in the design and implementation of these activities. Consequently, there are government DAs in all of the project areas with the experience to continue to support these activities.
- As part of the phase-over agreements in each project, specific agencies made commitments to continue to manage the IG, as well as the ONFARM components. Funds were transferred to the local cooperatives to provide revolving funds to continue to provide credit to women for future IG activities.

Despite all of these conditions conducive to the continuation and sustainability of the IG activities, there are a number of potential issues and challenges:

- The project ended before most of the IG activities had been operating long enough to become well established.
- The high turnover of government DAs means that many of the staff who have received training and on-the-job experience will soon move to other areas. Since there is no mechanism for training new staff, much of the experience and institutional memory will soon be lost.
- A potential weak link is the continuing status of cooperatives, which remain women's only source of credit. In Gimbo, opposition to the creation of a special cooperative for women delayed the set-up of the credit mechanism and some of the cooperatives had still not been fully legalized when the project closed. In other areas the IG activities were a new departure for the established government cooperatives and it is not yet certain whether they will continue to provide support or whether they have incentives to continue to give priority to women borrowers.

F. Summary

The income generation component had a very successful beginning and helped large numbers of people, mostly women, to start and manage new IG activities which significantly increased family income and diets. Families were able to manage the activities on their own and there are strong indications that most families will continue to manage these activities successfully. The component also had an effective strategy for involving the wereda officials and other local agencies (such as cooperatives). The gender mainstreaming strategy also ensured strong support from male household members, creating a very favorable environment for the continued operation of the activities. The main challenge is that due to the termination of the project (particularly in the North) the activities did not have time to become institutionalized. And despite having done everything possible within the project timeframe, the continued operation of the credit mechanisms remains in doubt.

Chapter Three: Appropriate Technology (AT) Component

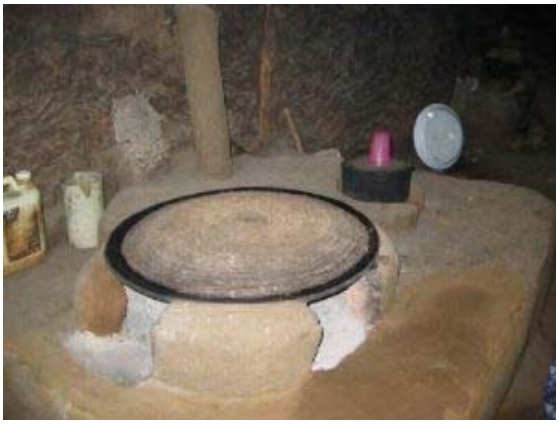
A. Objectives and Focus

A variety of appropriate household and farm technologies were introduced through the EMPOWER project. In Ethiopia most agricultural development activities have been directed mainly to increase productivity of crops, livestock and soil with limited attempts to develop and introduce improved tools, storage, time and labor saving technologies for food processing and storage.[16] Most technologies are designed outside of the communities and there is little attempt to use the knowledge of these communities or to adapt the technology to local needs and available resources. Women, in particular have been largely excluded from the selection, adaptation and introduction of appropriate technologies. The purpose of the appropriate technology (AT) component in EMPOWER was to reduce time, labor and fuel requirements so as to free up time, particularly women's, for production purposes. These technologies help farmers to increase production, reduce post-harvest loss, diversify their sources of income and improve their standards of living. The approach adopted is to identify promising technologies from research institutes and other sources and to work with farmers to adapt them to local conditions and cultural practices. To ensure sustainability, the devices use local materials and production methods. A key element of the component is to use informal dissemination techniques to ensure spillover to other families who can then benefit from the new technologies. The component focuses on both men and women, sometimes together and sometimes separately.

The key objective is to ensure sustainability and to promote replication so that the introduction of a new technology is only the first phase of the process.

B. New Technologies Introduced by the Project

The project offered the following new technologies:



- *Improved "mirt" mud stoves*: The original Mirt Stove was a molded cement shell meant to enclose the fire, hold a single cooking pot and redirect the smoke away from the person preparing the food. Within the EMPOWER project, however, participants adapted the stove by constructing it from mud, either using molds provided by the project (south) or freehand (north). They also usually constructed a two-vessel stove, enclosing the injera pan and making a hole available for a second cooking vessel. Some designs also included a partial

[16] End of Project Report of the EMPOWER Program, November 2003, WI, Addis Ababa.

smoke stack and place to slow-cook a dish from residual heat. All participants learned how to construct stoves in the training sessions or from other users. One of the main advantages of the stove is the fuel savings, estimated to be from 3-5 times less than required from an open fire. This reduces women's time burden for collecting fuel and also benefits the environment. A second major benefit is safety by removing the threat of an open fire from children and others.

- *Fireless cooker*: This technology is basically a "hay box," an insulated container that traps residual heat, allowing lentils and other foods to cook slowly over a long period of time without a continuous source of heat.

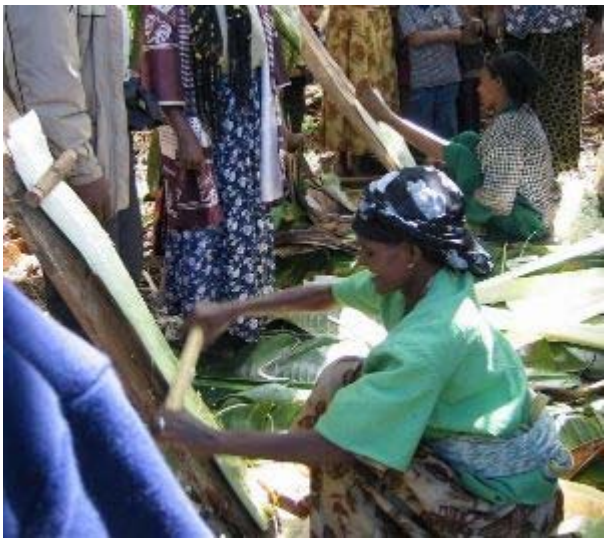
- *Local shelf*: The shelf is a simple scrap-wood and mat construction that allows hearth cooking utensils, supplies or clothing to be managed more sanitarily and with less space utilization.
- *Improved grain storage*: This raised, outdoor storage container is constructed from wattle and thatch, but its unique feature is the "rat guard" metal sheathing protecting each pole. This devise reduces the loss of grain to rodents and their dropping and also provides better airflow to reduce losses from humidity. This device can increase the number of months that grain supplies will last by three or more.
- *Enset processing devices*: In the South, enset is a major food crop especially valuable in supplementing diets during the lean months. Its processing is the responsibility of women. The traditional methods of processing are tedious, time-consuming and pose serious threats to women's health, due to leg and back strain. The decorticator device introduced by the project needed to be adapted considerably to meet the women's needs, but along with a mechanical squeezer, significantly reduced the time and energy required to process enset.
- *Iceless cooler*: This simple device is basically the local shelf equipped with cloth or mat sheathing allowing water to evaporate and thus cool the interior without electricity. It was especially useful for vegetable production cooperatives. The shelf life of delicate vegetables is increased by up to three additional days.
- *Rural model house*: Each project site in the south constructed a wood saving model house to demonstrate some important health and sanitation improvements. These houses made of mud brick include labor, time and fuel saving technologies like improved mud stoves, fireless cookers, shelves, seats, beds etc. Some of the advantages of the house are the separation of cooking and sleeping areas from the main communal room, the separation of animals from the human habitat, the containment of cooking and serving utensils to improve sanitation and the reduction in logs needed in construction, thus reducing pressures on the forests.

- *Improved plow and other farm implements:* These technologies are discussed in the ON-FARM chapter.

C. Implementation and Impacts

Of the seven household technologies demonstrated to farmers, the most widely adopted are presented in Table 3.1:

- *Mud stoves*: 712 adoptions (99% women). The feedback was generally positive and they used at least three to five times less fuel than traditional methods, a significant savings where wood is becoming increasingly scarce. Some of the complaints concerned the fact that the stove could be damaged if something dropped on it. The standard model with two cooking spaces also takes up more space. With the traditional open fire, the njera pan could be easily moved and placed against the wall when not being used, a convenience noted by some.
- *Enset decorticator*: 670 adoptions (100% women). These were only used in the South as enset is not traditionally grown in the North. The decorticator was very popular in Yem (638 adoptions) but the adoption rate was lower than expected in Gimbo, because of the relatively low enset cultivation rates in the project areas. The design was very cheap and reduced the time required for stripping the plant to one third. They also saved energy and reduced the strain on the back and legs.



- *Improved grain storage*: 572 adoptions (52% women). These were widely used by both women and men in Yem and Gimbo where they were considered to have significantly reduced grain loss to rodents, and to termites and other insects. Estimates suggest 40-60% reductions in grain losses. They also reduced the effects of humidity, thus reducing fungi problems. In combination with botanical pesticides, storage was extended for 3-6 months. In some areas the tin protectors put on the legs were difficult to obtain and families experimented with making their own cruder versions or using other options. The adoption of the grain storage was much less in the two Northern projects (only 56 adopters compared to 471 in the South). The main reason given was the high incidence of theft from outside grain storage units.
- *Fireless cookers*: 148 adoptions (98% women). This easy to build and use hay-box saved fuel by relying on residual heat. When used regularly for lentils and beans it provided an estimated savings of ½ of the daily fuel demands for cooking.

- *Iceless cooler*: 71 adoptions (64% women). About one third of the coolers were adopted by men as they were found useful for extending the shelf-life of vegetables and fruit which were being sold. It was estimated that they extended the self-life of vegetables by at least three days.
- *Local shelves*: 105 adoptions. These were quite popular as they are simple and economical to make and improved the efficiency of space utilization in the small houses in which most participants live.
- *Mud brick houses*: Although more than 1100 farmers and wereda officials in Yem and Gimbo visited the model houses, the project reports to not provide information on how many families adopted the design for their own houses. During their fieldwork, the Independent Evaluation Team visited several families who had built their own houses using a modified version of the model design. In fact some women improvised and actually built raised sleeping platforms, sofas and other conveniences into their homes. But it does not appear that the houses were widely adopted. The model house in Yem is being used by the women's vegetable production cooperative as their headquarters and thus provides continuous visibility to the principles illustrated through the house.

Table 3.1 Numbers of Men and Women Adopting Different Appropriate Technologies

	Mud stove	Fireless cooker	Iceless cooler	Enset decorti-cator (some times combined with kocho squeezer).	Improved plow	Improved grain storage	Mud brick house	Local shelves
Total	712	148	71	670	18[1]	527	See note 2	105
% women	99	100	64	100	Not avail	52		100

Notes:
[1] Information on plows is only reported for Yem and it is not clear whether they were also introduced in other projects.
[2] Over 1,100 farmers and wereda officials visited the model houses in Yem and Gimbo but there is no information on whether any, or how many, families built similar models.
Source: End of project reports for each of the four project areas. Note the figures are sometimes inconsistent with the figures given in the summary EOP report but it was assumed that the more detailed figures for each project area would be more reliable.

C.1. Dissemination Process

A four-stage dissemination process was used. First the technology was demonstrated by the development agents and in most cases hands-on training was provided. Second, volunteers were then identified to test out the technology which was given to them free of charge or made during the training sessions. Third, the development agents maintained regular contact with the adopters and obtained feedback on any problems or suggested improvements. Fourth, adopters were encouraged to disseminate their experiences to other farmers.

Although the informal feedback was generally positive on most of the technologies introduced, the project did not carry out any systematic studies on the amount of time or energy saved so it is not possible to estimate the quantitative benefits produced by the technologies. This is unfortunate because time burdens are often one of the major

constraints on women's ability to engage in productive activities, so it would have been very useful for Winrock to have documented the time savings. It would also have been useful to have studied the utilization of the saved time, and to have checked whether in fact women were able to use this time to produce more food or to earn more income.

D. Lessons Learned

- The choice of technology has to be adapted to the specific characteristics of each project area. For example, the Enset decorticators were only used in the South, and almost 90% of the grain storage units were introduced in the two Southern projects. This makes the development, testing and diffusion more difficult and expensive as different technologies often have to be developed for each project area.
- The informal dissemination process worked well in most cases as the initial adopters were often very enthusiastic and very motivated to share their experiences with neighbors. One of the primary forums for sharing ideas was church gatherings and Peasant Association meetings.
- It is essential for the development agents to maintain close contact with adopters to provide on-the-ground training and to obtain feedback on problems or improvements.
- Adoption and dissemination worked particularly well for technologies such as the enset decorticators which were used by women working in groups.
- The appropriate technology component would have benefited from improved monitoring and evaluation. It would have been useful to have more complete information on the number of families adopting each technology as well as more feedback on the opinions of users on the strengths and weaknesses of each technology. There are also inconsistencies between the information on the number of adopters given in the summary End of Project Report and the more detailed information on the same indicators given in the End of Project Reports for each of the four project areas.
- Given that one of the principle objectives of the appropriate technology component was to reduce women's time and energy burden, it is very unfortunate that no information was collected on the (probably very significant) amount of time saved by the introduction of the enset decorticator. This omission is particularly unfortunate given the fact that women's time burden is very extensively discussed in the gender literature.

E. Sustainability and Replication

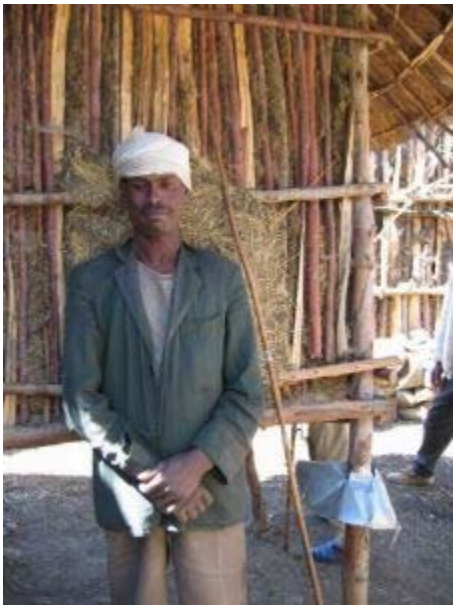
All of the technologies are designed to be locally produced and self-sustaining. In communities where a significant number of families already have experience with the technologies over a period of at least one year, most if not all should be sustainable.

While the process of dissemination and adoption is well understood by the government development agents who have worked in cooperation with Winrock, there is a danger that much of this experience will be lost due to the rapid turnover of staff. Of particular

importance is hands-on building of the devices during training, not just demonstration or informing trainees of their uses. The adoption and dissemination process is also very staff intensive, so replication will depend on the level of commitment and motivation of government agencies as well as the availability of staff.

F. Summary

It can be concluded that the appropriate technology component of the EMPOWER project has been valuable. Although estimates of savings in time, money, energy or labor is not feasible given the data available, testimonial data suggest that the process of adapting and adopting these technologies has had subtle but pervasive impacts. Women gained confidence and esteem from the mere process of constructing their own fuel saving stoves. Male spouses commented proudly about how many neighbors came to see their stove and ask for help in construction one of their own. One DA noted that a lot of information about nutrition, child care, HIV/AIDS, family planning and harmful traditional practices was exchanged during the time women spent together constructing stoves and shelves. The opportunity to gather created a forum for education. By being a source of help to other women, volunteers grew in stature and renown, reinforcing their emerging leadership development. Thus the process of introducing and disseminating appropriate technologies created a climate to view women as innovators and contributor to not only the household, but to the community.



The farmer in photo to the left experimented with producing his own, homemade rat guards. The production of such technologies needs to be developed as a cottage industry in rural areas.

The farmers above in Enebessie joined together in a savings and credit association to ensure that credit would be available to their group.

Chapter Four: Short-Term Training Component

A. Objectives and Focus

The EMPOWER project was concerned with capacity building. Training was a major element in all project components. Although the EMPOWER project particularly focused on improving household food security, it did so by addressing the gender barriers to agricultural production and food management. Clearly over half of the participants in any of the agriculturally related trainings were women, nearly 80% in the income generation activities and 100% in the scholarship component. These data would suggest that EMPOWER was a gender focused project. But in reality it was a gender mainstreamed project. Male participation was widely accepted and encouraged and carefully managed to promote changes in attitudes and practices whereby creating effective working relationships among men and women to jointly address rural issues. Food insecurity is an intractable problem that needs the talents of both men and women to make inroads in reducing its devastating effects on families and communities.

The overall objective of the training component was to train men and women working at the household, wereda, zonal, regional and the federal level, often in a variety of agriculture and rural organizations, so that all stakeholders could play active roles in increasing production and productivity in the smallholder sector and insure future food security. The Training Component supported the ONFARM activities by identifying key gender barriers to agriculture productivity and offering different training programs for men and women farmers and professionals to enhance gender awareness. In assessing gender barriers to agricultural productivity, some of the constraints discovered through discussion and information gathering were:

- Low level of skills and gender awareness on the part of development agents;
- Lack of gender oriented training and training of trainers techniques;
- Lack of participatory research techniques (PRA) that focus on farmers participation;
- Low levels of awareness on the part of female farmers;
- Women at all levels are not adequately mobilized to actively participate in community affairs;
- Male farmers prefer their wives to stay in-doors;
- Lack of information on saving and credit and financial support; and
- Prevailing harmful traditional practices in communities.

The training philosophy of WI was that all training should be participatory, planned and implemented in order to meet the needs of the trainees and with the intention of putting the knowledge acquired into practical deeds. Formal follow-up was done in all cases to assess the value of the training and training methodologies, determine if changes in the training should be incorporated and provide reinforcement for continual application of the training concepts.

In addition to the extensive training provided associated with the introduction of innovations, the EMPOWER program sponsored a variety of capacity building training activities to create the following project outcomes: [17]

- Professionals/decision-makers engaged in gender sensitive, participatory planning and programming;
- Professionals with train-the-trainer skills to promote the transfer of information and skills;
- Trained professionals in the rural sector able to assume leadership and promote change;
- Trained female farmers able to be successful in agricultural production activities; and
- Women farmers who can assume leadership roles and participate in public affairs.

As can be noted above, these training outcomes were important and achievable. The results surpassed all expectations in the enthusiasm and commitment generated and the actions undertaken. However, considering the vast populations and concerns to be addressed, the training component can also be considered thin.

A variety of training courses were organized to promote gender understanding and attitudinal and behavior change:

- At the local level, "Gender Awareness" and "Gender/Traditional Cultural Barriers" training was organized for professionals and leaders working at the grass roots level; "Management and Leadership Training for Rural Women Leaders" was organized to mobilize capable rural women for change agent roles. Many of these same women participated in savings and credit cooperative training and other technology trainings. And a set of skill trainings in "Participatory Training Methodologies and Train-the-Trainer Techniques", "Participatory Rural Appraisal Techniques" and "Monitoring and Evaluation" were organized for local line agency representatives to allow them to be better prepared to incorporate women in local programming.
- "Gender Assertiveness" training was organized as a workshop for the academic institutions in the SNNPRS.
- And the inspirational "Leadership for Change (LFC)" training was brought from Kenya to serve as the foundation for changing the vision and commitments of professional men and women toward more assertive actions in behalf of women. Most of the participants in this training came from regional and federal level institutions.

In this chapter, those training programs conducted in relation to gender concepts and issues for local leaders, management and leadership for rural women, gender assertiveness training for academic units and Leadership for Change (LFC) will be presented and discussed.

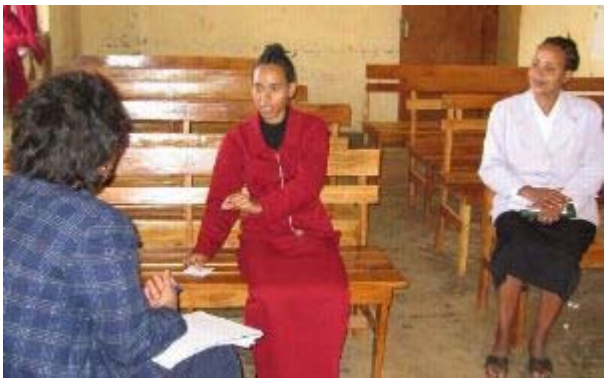
[17] Although data are provided for the targets and accomplishment concerning these outcomes, the system of collecting the data is unknown, therefore this evaluation will not rely on the EoP data presented.

B. Gender Training for Local Officials and Leaders

B.1.Gender Awareness and Gender Understanding

Since EMPOWER's inception in 1998, a series of gender awareness training programs were conducted in the Yem Special wereda and Gimbo wereda in the SNNPRS as well as Enebssie Sar Midir and Libokemkem weredas in ANRS. Those who participated in these programs were DAs, woreda agriculture office experts, other persons drawn from relevant rural organizations and a few farmers. According to the end of project reports, gender awareness or gender understanding training was extended to 214 women and men at different times and venues, the majority of the participants being women (54%).[18]

It is worth noting that in the traditional and patriarchal society of Ethiopia, women have been for years in a disadvantaged position, being looked down upon and considered inferior to men. Women have been subjected to all sorts of inequalities and injustices and the situation has been most evident in the rural areas, where about 85 % of the population lives. Therefore, endeavors to bring about more positive attitudes towards women, recognizing their talents and contributions and removing barriers are crucial for any social and economic development. And these training sessions reinforced these principles in practical and specific ways.



During the field visits conducted by the evaluation team, a number of local officials commented on the importance and value of these trainings. They noted that great change had occurred in their communities by bringing these subjects to the forefront and speaking out about them. Few venues exist for dialog about these sensitive issues. So the training sessions provided by WI were well received, especially by the representatives of the Women's Affairs Units who have responsibilities in these areas. Repeatedly staff of these units noted how important these trainings were to mobilize local commitment and provide tools and strategies for local action. Not all officials however, had caught the spirit. Stories were told of resistance to the development of women's cooperatives that came from a local administrator and other concerns from the savings and credit unit head. In the north, resistance emerged through onerous interpretations of credit rules that hinder female participation in these government programs. Generally however, positive comments were received suggesting that those who attended the awareness training programs had acquired a better understanding of gender issues and were willing to both share those ideas with others and act upon them. In Gimbo wereda of the SNNPRS, a female expert at the Office of Agriculture said the following about the impact of training on herself:

[18] There are inconsistencies in the various reports; therefore these numbers must be taken at face value.

"*I had a conflict with my husband for so many years since he was dominant and abusive. I had no knowledge or the power to seek legal assistance to take him to justice. In our area, it was a taboo to level a charge against your husband, since a woman is expected to bear every act committed by the man, irrespective of its humiliating and disgusting consequences. It was after I attended the gender awareness training, that I developed the guts and confidence to take my husband to court and retained my legal rights to divorce him and secure half of the property we acquired during our marriage."*

B.2. Gender and Cultural Barriers

"Gender and Traditional Cultural Barriers" training involved 99 men and women participants drawn from the project woredas of the two regions. Out of the total number of participants, 50% were females. Attendees were comprised of DAs, Peasants Associations (PAs) Officials, community leaders as well as project beneficiaries. This training differs in content from the above awareness training, as it mainly focuses on traditional and cultural barriers, which hamper women from participating in, and benefiting from full participation in society. Some of the objectives of the training are to address Harmful Traditional Practices (HTPs) existing in the respective woredas, share experiences in this regard and render assistance to participants in mapping out strategies for combating the practices.

Some of the HTPs prevalent in the project areas are early marriage, female genital mutilation (FGM), extraction of milk teeth of children, abduction, prohibiting girls from going to school and women to community meetings, negative funeral rituals and excessive spending on celebrations. As a result of this sensitization training, most participants actively speak out against these practices that are considered hazardous to the health and well being of society, but of women (and the girl child) in particular. HIV/AIDS, family planning and domestic violence were also noted as subjects of discussion during these training sessions and of targets for behavioral change.

Both the WI documents and the field interviews documented the strong positive reception of participants to these training sessions that galvanized consensus about the negative impacts of these gender and cultural barriers and mobilized commitment to work to change attitudes and practices. In fact many participants became enthusiastic change agents --disseminating the knowledge they acquired in the different workshops to other groups and using any forum available, such as church gatherings, traditional social institutions, PA work sites, and women's groups to promote dialogue and action. This has been confirmed by project officers and beneficiaries who noted that many families have started to abandon the harmful practices, such as early marriage, FGM, etc., and have also been motivated to send their daughters to school.

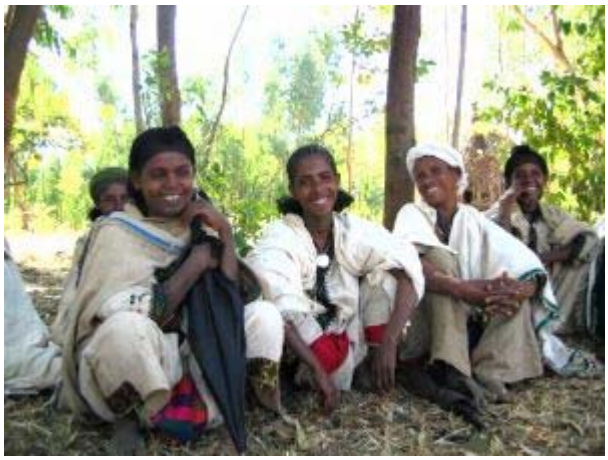
W/o Yeshiworq Tesfu, a project beneficiary of Libokemkem Woreda said the following in this connection: "*The training given by WI has enabled me to differentiate the beneficial and harmful traditional practices in my area. I am the chairperson of the local women's association in my PA and I use different forums to educate members on the*

effects of HTPs such as early marriage and FGM. It is noticeable that many parents have started to consider doing away with the harmful practices. However, these practices could not be totally eliminated in a short period of time, since they have been with us for so many years." On the other hand, one woman in the community interviews in Enebessie noted that because of her persistent advocacy, 91 girls have been saved from female genital mutilation and many more female children are being sent to school in her PA!

B.3. Project Management Skills Training

A variety of training courses were organized for decision-makers, planners, supervisors and development agents at the wereda and zonal levels to enhance their skills in project planning and management, especially as related to gender involvement. Trainings such as "Participatory Training Methodology/PTM-TOT", "PRA Techniques", and "Monitoring and Evaluation" reaching 128, 211 and 43 participants respectively. Line agency professionals in rural areas have few opportunities to receive training. Therefore the trainings offered by EMPOWER were readily received and appreciated. Not only were the skills and approaches highlighted in these trainings useful for general management purposes, they had special meaning when trying to involve a broad cross section of people in programs (including women) and when data for planning and evaluation purposes need to be disaggregated to better understand the dynamics of programs. The general "participatory" model of involving participants in all aspects of programming was not just an EMPOWER philosophy; it was adopted officially by the Offices of Agriculture and thus agency staff needed to develop skill in applying the concepts. Both training and follow-up sessions were offered on many of these skill-building topics. And because participatory methods were used in the trainings, participants became familiar and skilled in using them. An added value was the relationship building and networking that emerged as staff from partner agencies and NGOs worked together in the training sessions.

B.4. Management and Leadership for Rural Women Leaders



A major contribution to the rural landscape was training in management and leadership for rural women identified as having leadership potential. Most of these women were identified while participating in other EMPOWER training activities such as savings and credit management or appropriate technology training. Across the two regions, 214 individuals participated in this training, 100% female. This training integrated various gender awareness topics along with a strong emphasis on assertiveness, public speaking and community participation.

During the training, women participated in developing skills in problem solving and seeking alternatives to overcome gender barriers. After the training, women noted their increased confidence in themselves and their ideas, their ability and willingness to speak out in public meetings and their assertiveness in questioning and challenging the status quo. Three women in Enebssie ran for and were elected to wereda council posts, many volunteered to serve on committees and some have become active promoters for various health and education campaigns. Some of these rural leaders have been assisting other women to organize to have a greater voice in local affairs or to secure services such as the legalization of women's savings and credit cooperatives in the south. Within the family, women have influenced their spouses and neighbors on the benefits of savings and participating in income generating schemes.

B. 5. Summary

These various gender sensitization efforts have been incredibly successful in changing attitudes in these conservative rural communities, enabling women to participate more fully in the family and community. Not only did these changed attitudes support women farmers to have the confidence to participate in the various EMPOWER project interventions but these changes have empowered women to think of themselves differently and to take a stand on issues that affect themselves, their families and children and their communities. Furthermore, local planners and decision makers have been sensitized through training programs to review their work and to more purposefully create opportunities for female participation. A wereda council member and agriculture office expert noted, "*although promotion of gender equity/equality is a government's priority, it was only after our attendance in the WI training workshops that we gained the skills and strategies do something about gender issues in the different projects and programs we implement.*"

C. Gender Assertiveness in Higher Education

The EMPOWER project also conducted a one-day gender assertiveness training workshop in Awassa College of Agriculture (ACA). The participants were comprised of 34 females and 15 males drawn from the student bodies and teaching staffs of the Debub University, ACA as well as Dilla and Wondo Genet Colleges. The main objectives of the workshop were to create a forum for encouraging female students' assertiveness in higher institutions of learning, to encourage and institutionalize gender understanding and female mentoring practices in colleges and universities, and to promote policy formulation for support to be given to female students by university and college authorities. The resulting outcomes included plans for surveying female dropouts to determine conditions leading to that decision, monitoring of male student behavior for harassment, and the creation of female student mentoring programs.

Table 4.1. Summary of Gender and Management Training Participants (1998 to 2003)

Type of Training	Region	No. of Trainees		Total
		Female	Male	
Gender Awareness	ANRS SNNPRS	54 62	56 42	110 104 214
Gender & Cultural Barriers	ANRS SNNPRS	23 27	26 23	49 50 99
Project Management Skills Training	ANRS SNNPRS	38 53	174 117	212 170 382
Gender Assertiveness	SNNPRS	34	15	49
Management and Leadership	ANRS SNNPRS	102 112		102 112 214

*Source: WIE End of Project Reports, September & November 2003.

D. "Leadership for Change" (LFC) Training

The Leadership for Change training was the most impressive training provided by EMPOWER that also made the most impact. It was targeted to professional women and men drawn from the two regions, relevant federal ministries and other institutions directly impacting rural communities. The main purpose of the training was to develop a critical mass of women leaders and advocates in the agricultural sector in order to influence policies and programs that would benefit rural women farmers. A secondary goal was to organize task forces that could address issues related to women, female students and the girl child.

In the four rounds of programs conducted in Debre Zeit Management Institute and in Gonder Town, some 110 professional women and men attended the intensive training which is conducted for a period of 10-12 days. About 84.5% of the trainees were females.[19] As indicated in the reports, the first round of training relied on trainers recruited from the WI headquarters in the United States, Kenya and other countries. However, LFC trainees were used as trainers for later training sessions thus maintaining and expanding the capacity to replicate the training in-country. All of those selected as trainers were outstanding participants and leaders themselves. The participants of LFC training were mainly drawn from relevant sector organizations, such as agriculture, environment, education, health as well as women's affairs offices (see the following table). The program has been received with enthusiasm and both the WI documents and interviewees noted the importance of this experience in enabling participants to be more confident, aware of their talents and able to take risks.

Table 4.2. Summary of Leadership for Change Training Participants (1999 To 2002)

Name of organization	Educational level	Sex	
		Female	Male
Ministry of Agriculture	**MSC**	**4**	**1**
" "	**BSC & BA**	**3**	**1**
" "	**DVM**	**1**	
" "	**Diploma**	**1**	
Ministry of Education	**MA**	**1**	
" "	**BA**	**1**	

[19] The total number of LFC trainees does not correspond with the data contained in the end of project reports. As the result of counter checking with the WI Office, it was realized that there was a double counting of WI staff and trainers as participants of the workshops conducted.

Name of organization	Educational level	Sex	
		Female	Male
Ministry of Finance and Eco. Development	MSC	2	
" " "	BA	1	1
Ministry of Information	MA	1	
" "	BA	1	
Ministry of Trade and Industry	BA	1	
Ethiopian Environment Authority	MSC	1	
" "	BA	1	
Bekoji Agricultural College	BSC	2	
Sheno Agricultural Research Center	BSC	3	
Institute of Biodiversity	MSC	1	
National Artificial Insemination	DVM	1	
" " "	BSC	1	
Ethiopian Civil Service Commission	BA	1	
Central Statistical Authority	BA	1	
Women's Affairs Office	MA		1
" "	BA	2	
CERTWID	MA	2	
Forum of African Women Educationalist	MA	1	
" " "	BA	1	
Regional Council, ANRS	BA	1	
Women's Affairs Bureau, SNNPRS &ANRS	BSC & BA	5	2
" " "	Diploma	2	
Awassa College of Agriculture, SNNPRS	PHD		1
" " "	MA	1	
" " "	BA	1	
" " "	Diploma	1	
Bureau of Agriculture, SNNPRS & ANRS	MSC	5	
" " "	BSC	9	
" " "	Diploma	6	
Bureau of Health, SNNPRS & ANRS	Diploma	3	
" " , ANRS	BSC	1	
Bureau of Information and culture, SNNPRS	BA	1	
Bureau of Labor and Social Affairs, ANRS	BA	1	
Bureau of Planning and Eco. Deve't, SNNPRS	BA		2
Bureau of Trade and Industry, ANRS	BA	1	
Bureau of Education, SNNPRS & ANRS	BA	4	
Addis Ababa University Students	BSC	4	
USAID	MSC	1	
Ethiopian Agricultural Research Organization	MSC	1	
" " "	Diploma	3	

Name of organization	Educational level	Sex	
		Female	Male
Disaster Prevention and Preparedness Comm.	BA	1	1
Investment Office, SNNPRS	BA	1	
SARAR	BA	1	
Radio Fana	Diploma	1	
WIE Head Office	PHD	1	1
" "	MSC	1	
" "	MA		1
" "	BSC & BA		2
" "	Diploma		1
" Yem Project Officer	"		1
" ANRS Project Coord.	MSC		1
" " Training Officer	BSC	1	
		93	17

*Source: List of Participants Submitted by WIE Training Coordinator

As shown in the table above, the majority of the LFC training participants were degree holders and most of them specialized in agriculture and related fields. Significant impacts have been reported within the individuals, their families and their organizations. Some interviewees noted that LFC was the best training that they had ever attended because it not only gave them skills to use in their work settings, but it so dramatically affected their own feelings of self that it transformed their personal values and aspirations. Others noted that the methodology used was especially appreciated. The group work and participatory methods forced individuals to stretch their thinking and skills, which resulted in increased confidence and risk-taking. As part of the commitment to this train-the-trainer program, participants are expected to share their experiences and formally incorporate elements of the training in other training forums. All reports suggest that this was enthusiastically carried out and continues as individuals are recognized for their skills and called upon from peer agencies and community organizations to provide training for others. Participants are also viewed as "experts" in leadership development and "advocates" for women, and thus are being asked to serve on critical committees and planning efforts.

A unique EMPOWER strategy was to involve as many scholarship holders as possible in the LFC. Academic training alone cannot be expected to generate leadership and risk-taking. The combination of upgraded credentials and leadership training provided a powerful boost to the confidence of these returned scholarship holders. They not only took on new responsibilities, they sought out opportunities to create change and model new behaviors. Many wanted to share their knowledge and achievements with others, but didn't know how. The LFC training gave them tools and confidence, a peer support network and opportunities to work on projects that could make a difference in women's lives.

One of the project ideas generated in LFC was mentoring for female high school and college students to encourage more girls to pursue careers in science. The ACA is now

viewed as being at the forefront of this movement by setting up a task force to mentor female students in the college and in a nearby high school in the town. During the field visit to Awassa, the coordinator of the task force, who is a lecturer at the college and LFC trainee, shared her experiences about the service given to female students and how important these services have been to the students.

Similarly, the task force set up in the Bekoji Agricultural College has conducted an assertiveness training for staff and students and also assessed the situation of female students in the college. The task force at the Ministry of Finance and Economic Development (MOFED) conducted a one-day workshop on gender understanding and made a survey on gender of relevant staff. These endeavors are testaments to the commitment of the professionals who attended the LFC training to be catalysts for change.

W/o Amarech Agidew, who was a scholarship holders and LFC trainee said the following: "*Due to the interest and commitment I displayed during the training, I have been recruited to be a trainer in a workshop by WI. I have developed more confidence and become a risk taker, as the result of the training I am sharing the knowledge acquired to different groups. In light of the relevance of the subject matter, I am endeavoring to effect the integration of the LFC principles in the newly established Institute of Management Training of the SNNPRS.*"

Apart from the regular LFC training, follow up and refresher-training programs have been conducted at various venues and different times. These workshops have provided an opportunity to observe the extent of changes made in the attitudes and actions of participants, as they speak out about their experiences in sharing sessions. In general, the gender and LFC training have been critical in bringing about hope and optimism in tradition-minded agencies and programs. Participants have modeled behaviors that give confidence to others and help others become better prepared to take-on challenges. These optimistic, upwardly mobile professionals have great potential to influence change now and into the future.

E. Findings

- Those trained in Leadership for Change have been become more confident and risk takers. The LFC training participants have become committed to gender issues and determined to contribute towards the improvement of the lives of poor women.
- Training in gender and cultural barriers has brought about relative attitudinal change in the project areas as manifested by support given to women by spouses and the progress being made to do away with HTPs.
- The combination of gender awareness training, management and leadership skills and participation in income generating undertakings create rural women with powerful experiences and insights to be role models and leaders in their communities.

- Gender aware planners and DAs in the project areas have been giving support to the participation of women in development endeavors and have started considering their issues in projects/programs.

F. Lessons Learned

- Women professionals are able to efficiently and effectively perform many tasks, when equipped with skills and free from cultural and traditional biases/barriers.
- Asset building or economic empowerment raises the status and decision-making roles of women at the household and community levels.
- Economic incentive coupled with gender training has empowered women to be active participants in the development process.
- Gender training alone cannot bring women to the forefront to participate in development endeavors or to emancipate themselves from injustices. It takes a community working together to do so.
- The careful involvement of males can foster a supportive environment for change and empowerment of women.

G. Sustainability and Replicability

- Those trained in Leadership for Change seem to honor the commitment they entered during the workshops to disseminate what they have learned and to train others in leadership skills.
- Those rural women who attended training in gender and cultural barriers and benefited from other interventions are a continuing source of training and inspiration to others in rural communities.
- Those planners and decision makers trained in gender awareness will continue to consider gender issues in the policies and programs they design.
- It is uncertain whether the enthusiasm and active dialog about gender will continue without the presence of the EMPOWER program and staff. Reinforcement is needed to support professional and lay leaders.
- The Offices of Women's Affairs have championed these gender awareness and action agendas and will be a continuing source of reinforcement, training and support. However, as staff changes emerge and individuals enter these agencies without training, it is questionable whether they can sustain these efforts.

H. Recommendations

- The majority of rural women have multifaceted problems brought about by chronic poverty. Therefore, projects need to be integrated and multifaceted also, to bring about meaningful results.
- Projects to address gender need to involve both men and women, so that marginalization and restrictions by male spouses, in particular, can be minimized.
- Gender awareness training needs to be provided intensively and repeatedly so that the gender agenda can remain in the forefront of community conversation and negative attitude towards women and other deep-rooted traditional and cultural

practices affecting the health and well being of women, children and the society at large can be eliminated.

Phase-over committee members in Enebssie.

Chapter Five: Scholarship Component

A. Objectives

The intent of the scholarship component was to increase the number of women in positions of leadership in the agricultural and rural sector, especially in positions that would directly impact services to rural populations. Prior to the project inception, only 1-2% of the employees in the Bureau of Agriculture, for instance, were female. Repeatedly, the reason given for not having women in critical roles was that no female candidates were available. Thus upgrading the academic credentials and thus qualifications of women was of high priority within the project. The project was designed to provide scholarships to:

- Upgrade the skills, capabilities and credentials of women in organizations that impacted the rural sector;
- Increase the confidence and status of women so that they could influence programs and policies affecting rural women;
- Create exposure to the realities of rural life to motivate women professionals to direct their research and training to address the conditions directly affecting food security.

The project was successful in creating substantial change in the lives and futures of the women who received scholarships and who succeeded in acquiring additional educational credentials. Additionally, strong signs of changes in the attitudes and behaviors of peers and supervisors in the institutions affected provide hope that these newly trained and empowered women will have opportunities to create substantial change in the functioning of these units. Based on the information gleaned during the external review:

- Upgraded credentials created job promotions with accompanying salary increments of 50-75% (although project documents suggest even higher average increments), increased responsibility for supervision, planning and policy involvement, and increased ability to address issues affecting women and men in the rural sector.
- Increased skills, capabilities and confidence allowed these women to take on new responsibilities, assume new roles, take risks and act more assertively in dealing with people and institutional realities.
- Improved status evolved for these professional women, especially among peers and male counterparts and supervisors. Scholarship holders gained respect for their achievements, became role models for peers and even students/daughters, improved the status of their own families (education, income, role in community), and were looked upon as leaders/experts by the community.

B. Scholarship Allocations

WI awarded 135 scholarships to Ethiopian women to upgrade their academic credentials and thus better position them for leadership positions in their organizations and in society. One hundred twenty-five (125) of these scholarships were funded by the

EMPOWER project and 6 were funded by partner programs for a total of 131. Then in 2003 (during the final year of the project) an additional 4 PhD scholarships were awarded with external funds, for a total of 135 scholarships. Of the 131 managed throughout the project period, the scholarships were awarded in the following categories:

- 3 PhD
- 10 MSc
- 62 BSc
- 40 Diploma
- 16 Certificate

C. Implementation Strategies

Originally the project anticipated funding scholarships at the level of professional degrees (Bachelor's level and above). However, it was realized quickly after recruitment started that more women would be available for the scholarships, especially in the rural areas, by investing in lower levels of training. When the project agreements were negotiated in the Southern Region (SNNPRS) for example, a specified number of scholarships were to be allocated per wereda. Few female candidates were available at the wereda level for professional degrees, whereas many certificate holders could be upgraded to diploma status. Training at the diploma level, the qualification needed to rise in the ranks of field staff in development agencies, would fulfill a need to access women development agents in support of food security and quality of life goals. Other scholarships, at the professional level, were earmarked for mid-career women to serve specialist and management roles in select organizations at the regional and federal level.

One additional goal in the SNNPRS region was that of upgrading the diploma level training in home science available at Awassa College of Agriculture to Bachelor's status. In order to accomplish this goal, faculty with MSc and PhD degrees would be required, a reality that was not possible to achieve with existing resources. Therefore a special set of objectives within the EMPOWER project were directed at upgrading the program at Awassa, the only institution in the country providing training in areas of the family sciences and household resource management. Five scholarships were awarded to existing faculty at Awassa to provide the technical expertise needed for a full BSc curriculum. In addition, financial support was provided through the EMPOWER project to incorporate external expertise in designing the new BSc curriculum, to hire replacement faculty from India for the interim while faculty were in training, and to create a more supportive environment at the University for female student success. All of these objectives were accomplished during the project period.

C.1. Implementation Challenges

The adjusted goals had both stunning responses and disappointing outcomes. On the positive side, a very large number of candidates applied for the scholarship training—such a large number that many candidates were turned down even though they had exceptional potential. A very stringent and objective process was undertaken in the selection process. A panel of national experts was given the responsibility of awarding the scholarships. Both the criteria used and the process undertaken was extremely thorough. None of the individuals that were interviewed questioned the objectivity of the selection process. In fact, even those who were passed over were very supportive of the process and only regretted the fact that a second wave of applications would not be forthcoming due to project termination.

However, investments in the diploma level training, proved to be unfulfilled. Thirty-one of the 40 women recruited for diploma level training failed to complete their programs (78%). This reality was very disappointing for the women themselves and for the wereda level leadership who recommended them. In looking into the situation it was found that the women recruited were just not competitive—they were older and thus less oriented toward academics, they had families and responsibilities that interfered with their studies, some experienced detractions at the campuses who which were not really prepared for non-traditional students, and in spite of heroic efforts by teachers and institutions in providing tutoring and relaxed rules, many just were not able to complete the work demanded of them. Although changes were made on the participating campuses involved during later years to create better conditions for non-traditional students, these efforts were too late for many candidates (although a few who were dismissed later returned without scholarships and were successful).

Given this realization, the project made two changes. On one hand the project invited 16 female high school graduates in the SNNPRS to undertake "certificate" level training to make them eligible for development agent positions at the wereda level. This entire batch completed their training successfully and along with the two diploma holders increased the female Development Agent contingent by 23% and 6% respectively. The second strategy was to allocate future scholarships at the regional rather than wereda level. This strategy would create a larger pool of female candidates, although it would not guarantee that any specific number of upgraded staff would be available at the wereda level. When agreements were negotiated in the north (Amhara Region) all of the scholarships were allocated at the regional level.

It also should be noted that WI exerted a great deal of time and effort to make the academic scholarship component relevant and beneficial to Ethiopia.

- The fields of study of candidates were strictly monitored to be sure that the expertise gained would be appropriate to strengthen the agricultural and rural sectors. For instance the following majors were selected: Nutritional Sciences, Food Science, Community Development, Family Resource Management, Entomology, Fisheries, Rural Development, Horticulture, General Agriculture, Animal Husbandry, Dry Land

Crop Sciences, Land Management, Agricultural Economics, and Agricultural Extension.

- The majority of scholarships were awarded for in-country studies (115 out of 131). Only when necessary were out-of-country institutions considered. Also priority was given to Asian Institutions (Philippines) over Western Institutions to help insure both relevance and retention. The project was especially concerned that all scholarship holders return to Ethiopia. Many such programs have problems in this regard and the project proposal was considered risky because of this eventually. However, commitment and investment in Ethiopia were considered important selection criteria and extensive orientation to the goals of the program helped to ensure the return of candidates to their home institutions and communities. Some job turnover was expected, but so far the three organizational shift have been within the public sector and consistent with the goals of the program.
- A strong program of monitoring and backstopping was offered to the scholarship holders. Some trainees in foreign institutions received less support, but in general candidates were in constant contact with WI staff, financial support was consistently provided on time and any problems with academic programs were quickly resolved.
- Whenever dissertations, theses or projects were required as part of the academic program, WI encouraged and even financially supported field work within projects or least on topics of interest to the EMPOWER project. All BSc candidates studying in Ethiopian Institutions were required to complete a rural work experience/project. WI funded these experiences and helped to place students in EMPOWER locations to support the ongoing agricultural and household enhancement agenda. At Alemaya University, the project actually hired a field work coordinator to support these experiences. MSc and PhD candidates were also encouraged to pursue research topics that could address issues of concern to Ethiopian development. A list of these topics provides clear evidence that important new information and innovations have been gained through these research and extension projects. (See appendix for list of titles.)
- Lastly, WI actively involved returned scholarship holders in the LFC training program. In fact, many of these individuals not only participated in the intense leadership training; they also become trainers and active promoters of such training for others. Based on WI experiences in other parts of Africa, they realized the need to build a cadre of not only qualified women, but self-confident women—women, who could take risks, face challenges and shape events. Academic training alone could not be expected to have these impacts. Thus the integration of the leadership training and scholarship program created a unique opportunity to add value and substance to these emerging leaders with the hopes of more quickly realizing results for the programs and institutions involved. This external review found ample evidence to suggest that such a combination of experiences indeed created a new milieu for action, creating confidence and commitment within the individuals involved and support within the environments in which they functioned.

D. Outcomes and Impacts

As noted earlier, 131 scholarships were awarded during the project implementation period and four additional scholarships were awarded within the last six months. Of the 131 awarded earlier, 70% can be considered successfully completed, and 30% considered unsuccessful. In the following table, a summary of the scholarships is identified by level of training and regional association.

Table 5.1. Scholarship Allocations and Achievements by Region

(The numbers in parenthesis are those that failed to complete their programs.)

	Cert.	Diploma	BSc	MSc	PhD	Total Achieved	Total Drop Outs	Grand Total
SNNPRS	16	6 (19)	23 (5)	5	3	53	(24)	77
ANRS		3 (12)	29 (3)	3		35	(15)	50
Federal			2	2		4		4
TOTAL	16	9 (31)*	54 (8)*	10	3	92	(39)	131

* Note that one diploma level candidate and 2 BSc candidates were reinstated, thus reducing the drop-out rate from 30% to 27%. Also, two of the PhD candidates are also counted as recipients of MSc degrees. These data include the anticipated completion of the 13% of candidates in good standing but whose studies are still in progress.

D.1. Summary of Outcomes

In summary, the following conclusions about outcomes and impacts can be forwarded:

1. Generally, the project met or exceeded their targets for the scholarship component in all but Diploma level training. Specifically:
    - Advanced Degrees (MSc and PhD)—79% but with the 4 additional PhD's—107%
    - BSc—96%
    - Diploma—30%
    - Certificate—107%
2. The project experienced higher attrition rates than expected—13% vs. 5% at professional levels and 77% vs. 10% at Diploma level.
3. Professional level scholarship holders were expected to do their research or field work on topics immediately applicable to address the realities of rural conditions. This goal was met partially (89%), mostly because in some institutions the advisors directed study topics or such opportunities were not available in the foreign institutions. Topics and studies chosen were very diverse and specific and did bring attention to critical problems in the rural sector. The dissemination of the results of these studies and experiences however is limited.
4. The selection of majors and institutions seem very appropriate and inline with the intent of the program.
5. The project made a good decision in choosing to send candidates to in-country or Asian Institutions…thus reducing costs and providing developmentally appropriate exposure. This decision also may contribute to the 100% return rate!

6. Only three candidates to date have shifted their organizational affiliation upon return and all within the broad intents of serving rural women and addressing their needs. A concern of scholarship programs is that returned professionals will move from public sector to private sector positions or even to international agency roles, thus potentially diminishing the impact on the target goals. It is still very early to judge this phenomena in regard to EMPOWER as trainees are only now returning. In two of these cases the individuals moved from Regional level Bureau of Agriculture positions to the Federal level within the Bureau. One other MSc graduate was reassigned from the Regional Women's Affairs unit to the Office of Civil Service Reform, mainly because of her exposure in the Philippines to a similar reform effort.
7. Seemingly 100% of candidates who returned to their former organizations received promotions or increased responsibilities commensurate with their training and on-par with male counterparts.
8. It is reasonable to assume that these women will continue to serve as leaders for women and that their increased status and credentials will continue to open doors of opportunity for them.
9. Investments in the Awassa College of Agriculture in Debub University can be considered a unique and concrete success (see success story at end of this chapter).
10. Scholarship holders returned with an unexpected benefits—access to new networks. Two of the interviews with returned scholarship holders provide examples of building and using international networks to bring new information to Ethiopian Institutions.
    - At Awassa College of Agriculture, as a result of Dr.Yewlesew Abebe's involvements at Oklahoma State University (OSU), a new institutional linkage has been established. The president of Debub University visited OSU and a delegation of OSU faculty and administrators visited ACA to establish a series of research collaborations and faculty exchanges. Dr. Abebe herself has already secured one research grant in collaboration with her advisor at OSU and was revising a second proposal as we talked.
    - The second example also occurred in SNNPRS. An MSc scholarship holder, W/o Amarech Agidew, who attended the University of the Philippines at Los Banos, returned to her position in the Regional Women's Affairs Office when she was asked to take-on a new role in the Office of Civil Service Reform. The Philippines had just completed a similar national civil service reform effort and it was hoped that she could use her contacts in the Philippines to access information that could help shape the Ethiopian effort. She has successfully linked these two efforts and is looked upon as an expert in this area because of these linkages.
11. Criticism was heard from within the leadership ranks of wereda officials, especially in the south, and from some development agents in that only female candidates were eligible for the scholarships. One wereda administrator called it a "lost opportunity" for his wereda in that so many of the female diploma candidates from his area failed to succeed. He interpreted this to mean that either male candidates might have been more successful, or in light of the dearth of eligible female candidates that males should have gotten the opportunity so that the wereda could benefit. This opinion that males should have been eligible may stem from the fact that few scholarships were available to anyone at the beginning of the project making these scholarships

even more coveted. WI staff commented that the eligibility criteria were reviewed when the female diploma scholarship holders ran into difficulties. But the trend in government agencies to only seek male candidates for training opportunities influenced their decision to hold firm on the female focus. Not only are males in the majority in these agencies, but because of the extreme differences in the size of the pools, males could easily out-compete female candidates. (This fact has been proven recently when a large number of scholarships have been made available to upgrade diploma holders to BSc status in the Bureau of Agriculture. No women have been selected in either the SNNPRS or ANRS.)

D. Sustainability and Replicability

The academic scholarship component of the EMPOWER project was a long-term investment in human resource development to address the shortage of trained and qualified women in leadership and management positions in the institutions serving agriculture and rural development. Throughout the world, there are gaps in the status and roles of professional women compared to men, thus limiting their ability to equally influence programs and policies. EMPOWER was a unique effort to equalize the playing field, at least to a small extent. By upgrading the academic credentials and leadership skills of 92 mid-career professional women through the scholarship component, the program has made a substantial impact on the potential of institutions to address issues relevant to rural women directly and thus through them, to the quality of rural life, including food security.

Those trained, will most certainly continue to pursue issues related to their studies and to their commitments to rural women. Already returned scholarship holders are holding more influential positions, are being invited to participate in more important policy setting forums, and are more directly responsible for the planning and implementation of programs and projects that can shape priorities and the direction of research and extension activities. These women are being viewed as experts, leaders, managers, not just employees. These women are aware of the potential that they have to make a difference in their institutions, and increasingly in their communities. This enthusiasm and optimism is real and is sustainable, especially if women can network and support each other. The mere presence of the EMPOWER program provided a visible sign of external/donor support for gender empowerment that in itself may have created support within. But with the termination of the program will this enthusiasm and optimism fade? Will termination of USAID support provide a negative signal that may be stronger than the original positive signal? The signs are unclear.

D.1. The Networking and Support Potential of AWLAE

A major element of the project's sustainability agenda was the creation of a network of professional women to provide a forum of peer support. Based on their experiences in other parts of Africa, WI hoped to establish a professional association of African Women Leaders in Agriculture and the Environment (AWLAE) to serve networking, support and

advocacy functions. The project anticipated inviting all LFC and scholarship holders to join the new association. A similar association of female lawyers has been extremely successful in mobilizing support for gender issues and in lobbying for women's rights in Ethiopia. This new association could have a similar impact on agriculture and rural development programs and policies. By organizing and creating a critical mass of voices for women in agriculture and the environment, both a support network could be created and a forum could be established for action. But this one element to sustain and capitalize on the networking needs and opportunities afforded by this dramatic increase in professional women in the agriculture and rural sector does not seem to have materialized, at least for the time being.

Much work and progress has been made in establishing the organization. An organizational structure has been created, a constitution and by-laws ratified, a managing committee elected and legal status as a domestic NGO established. All of these organizational steps were complicated, time consuming and labor and leadership intensive. But now, as the organization is critically needed to take up many of the communication and support functions that will be lost without the EMPOWER and WI infrastructure, the organization is floundering. The current president in on study leave, many of the other executive committee members have recently changed jobs, and all are extremely busy. Although feelers were sent to a variety of ministries to solicit a headquarters location, no follow-up has been done. Although a venue has been secured for an annual meeting, no committee has been formed to design the program. Operationally, the organization seems to exist in name only. In talking to some of the AWLAE leaders, they all relate the feelings of frustration in that they are committed and want to the organization to succeed, yet they lack the time to make it happen. None of the trainees or returned scholarship holders with whom we interviewed had attended a meeting, although they were all aware of the organizational intents and most were members of the organization. They seemed willing to invest in such an organization, but were looking to WI for leadership. Sadly this organization might be lost due to the termination of the WI project. The organization is weak and still functioning at the organizational stage. It needs help at this critical juncture to become fully operational with enough programming momentum to sustain itself.

D.2. Continual Need for Resources

It is not clear if such opportunities for upgrading women in positions in the agricultural and rural sector will continue without projects such as this. The Ethiopian Government has not earmarked scholarships for women and has not seemed to even use the affirmative action flexibility that does exist to get more females into degree programs, or into leadership positions. The Women's Affairs Offices are sorely understaffed and under funded, although they are widely viewed as advocates for women. Without external donor support, the prognosis for future scholarship programs seems poor.

Even within the donor community, such an investment in human resource development for women is rare. For USAID Ethiopia to support such as effort is commendable. An October 1999 report generated for the Royal Netherlands Embassy inventoried the

various WID/Gender activities supported by the Donor community in Ethiopia. Among the 54 organizations and agencies surveyed, including bi-lateral, multi-lateral and Donor NGOs, only USAID had made long term investments in women outside of the education sector. That investment was the EMPOWER program. This fact is gratifying but also disquieting. Why are donors not supporting capacity building for women? Why is the Ethiopian government not taking more proactive steps to upgrade and enlarge opportunities for women? These realities place the replicablity of this program in question. The program has been successful, it has been effective and it has been sought after. But who will fund its continuation or replication? Even the current leadership at USAID seems indifferent.

E. Lessons Learned from the Scholarship Component

The experiences of WI in designing and implementing this major scholarship program can be summarized in the following lessons learned. These lessons were gleaned from the existing documents produced by WI and from the observations and insights of the independent external evaluation team.

1. Existing academic programs designed for traditional students do not serve non-traditional students well. Specially designed programs that focus on mature learners, concentrate coursework to reduce total time and provide support services better meet their needs.
2. Scholarships targeted exclusively for any group will raise concerns, but the goals of the effort must be considered and weighed against other competing goals.
3. Infusing a substantial number of newly upgraded mid-career professionals to any sector should have an immediate and lasting impact. The strategy to quickly create a critical mass of trained and credentialed women professionals in the Bureau of Agriculture and Women's Affairs Offices at the regional and federal levels in Ethiopia is producing substantial attitude change and recognition/respect for women and their potential.
4. Selecting training sites in-country not only reduces costs, but may contribute to retention.
5. On the other hand, international training creates opportunities for developing new networks, information streams and access to critical resources.
6. Newly trained individuals need continuing contact with each other and with stimulating activities to maintain enthusiasm. Ongoing communication channels and peer support/sharing networks can be extremely useful in helping professionals expand their scholarly vision, recognize their potential contributions and rally around critical issues.

Interviews with WI Training Coordinator, Addis Ababa

Success Story
Awassa College of Agriculture (ACA)

WI originally wanted to help ACA to sustain the only diploma level training in the home sciences in the country to ensure that development agents with home science training would be available to support women and the introduction of new household technologies and practices in the rural sector. However, due to federal level changes in policy early-on during the project period, it became clear that a bachelor's level program would be needed at ACA. The transformation of the diploma program to a BSc program would require more highly trained staff. Given the financial prospects of the College, the University and the country, this seemed impossible. In fact, the University was considering terminating the program completely. With the possibility of sending existing faculty for further academic training through EMPOWER investments, the University revised its position and began a serious effort to both upgrade the program and to redesign the program to serve broad rural development needs.

The resulting new Department of Rural Development and Family Sciences is a spectacular example of innovation and commitment. The new department and BSc major are unique not only to Ethiopia, but to the world! The curriculum combines a strong agriculture, community development and family focus to prepare both men and women for critical roles in managing rural development investments. It will provide mid-level managers for line ministries and NGOs while contributing to the manpower needs of various training institutions and programs thus inspiring the next generation of development workers. The current class includes 100 students (40% female) and was the most sought after major across the College! In the words of Dean Aszerefegn, "*We believe this program will be good for rural development. These graduates will be good change agents. Not only do we have new faculty capacity, we have new programs to serve the country."*

Interactions with the President of Debub University, the Dean of the College of Agriculture and the Chairman of the new Department confirmed the strong commitment and pride associated with this effort. All of these academic leaders were intimately involved in the transformation of the program and praised the support of WI, who made it possible. They also noted with pride the increase in female enrollments (20%) throughout the University, progress that was strongly supported by having female role models and active support for female student retention that emerged from the WI association. It seems that one of the LFC participants (a faculty member in the department) started a female mentoring program as part of her post-training commitment to change. The experiences of that early program have proved to be important to retaining female students.

As a result of the upgraded credentials of faculty, supported by WI scholarships, the department now boasts of having the only female PhD faculty member in the University! And another scholarship holder sent to the Philippines for her BSc, extended her scholarship to acquire an MSc and now is completing her PhD–progress for women and the academv!

Chapter Six: Conclusions

The EMPOWER project had an overall goal to improve household level agricultural production and productivity in target areas in Ethiopia in order to ensure food security and income generation in the smallholder sector. It also hoped to create more enabling environments for women to more fully participate in the processes of development. The project viewed these goals as interrelated and complementary. Thus in the evaluation, both the individual components and these interrelationships were targets of assessment.

The independent external evaluation had a variety of goals and expectations. Those expectations form the basis for the presentation format of this chapter. Briefly that end-of-project evaluation was to:

- Serve as a general verification process to review and confirm project claims for achievements and deliverables and to estimate the degree to which project objectives and related modifications were necessary and productive in moving toward agreed upon goals.
- Gather expert opinion as to the unique elements of the EMPOWER model and their individual or collective influence on project achievements with the intent of identifying operating principles or lessons learned for replication to future endeavors.
- Estimate quantitatively and qualitatively the degree to which project activities and achievements have left a legacy of improved food security, gender relationships and capacity in the participating institutions and individuals that would endure and be sustained beyond the project period.
- Identify specific success stories, principles and lessons learned to contribute to the showcasing of the project to the donor/government/stakeholder community.

The following sections of this chapter summarize the findings and conclusions drawn about these elements of the project.

A. Assessing Performance of the EMPOWER Program

Two small issues emerged during the evaluation that took a considerable amount of the time and attention of the evaluation team. These were concerns about the selection process and resulting socio-economic demographics of the partner families, and the WI per diem rates and their potential impact on the intervention strategies. Briefly:

Populations served: The evaluation team quarried a variety of staff and stakeholders about the process of selecting weredas, peasant associations and finally partner families. It was a concern in that the project achievements needed to be generalized to similar populations, and there were inconsistencies in describing the group. There was consensus that the weredas chosen by regional officials were indeed poor and vulnerable if not actually food insecure. Likewise, the PAs chosen by wereda officials were underserved and poor. After many reiterations, however, the evaluation team accepted the fact that perhaps the ONFARM and IG components targeted two different but overlapping populations. No lists were used to identify the poorest families, but with the strong influence of knowledgeable local officials, the families and female-headed households invited to participate in income generating activities could be

considered the poorest members of the community (outside of the landless). ONFARM target farmers were, however, more likely to be volunteers and needed to have sufficient land available to create demonstration plots. Therefore they were more likely to be more outgoing and assertive farmers with perhaps more resources than the poorest (relatively speaking). In general, however, it was accepted that the project involved poor and vulnerable families living in very poor and often isolated communities.

Per diem rates: The concern about the generous WI per diem rates only emerged late in the evaluation process. No mention was made of these rates in the southern projects, but one farmer in the north, when asked how he benefited from the project, replied "*the per diem.*" It seems that the WI per diem rates, given to participants in any of the training activities (and training was an integral part of all activities), were twice that of the government rates. WI staff in ANRS noted that the rates were adopted from the south and only occasionally questioned, as NGOs were expected to be more generous than government. The concern from an evaluation perspective was their influence on participation. Were male spouses more supportive of their wives participating in WI activities because of their gender awareness or their economic desires? In reviewing project records, only 10 families in Libokemkem could have received per diems from more than one training, and the maximum length of training was three days. Therefore, partner households could have received up to 90 birr in per diems. Although these per diems were significant new resources for the families, and families used them in creative ways to access productive assets, it was generally agreed that they alone could not have generated the enthusiasm and responsiveness that the project created.

In the following, the performance of each of the major components of the EMPOWER project is summarized. On the onset, the team can clearly state that the EMPOWER project has met its obligations within its contract with USAID and the Government of the Republic of Ethiopia.

A.1. ONFARM

The ONFARM technology transfer component used basic principles of agriculture extension applied to a specific set of communities. Worldwide, most extension programs are criticized for their ineffectiveness in moving research based innovations into the smallholder sector. But *EMPOWER proved that small and often poor subsistence level farmers, even farmers of female headed households and those from very remote and isolated communities can fully participate in the processes of adoption and diffusion.* WI empowered farmers to manage the innovation testing process and make their own decisions as to what was worth adopting using a farmer-led approach. This farmer centered approach created confidence and enthusiasm for the innovation-testing process that created curiosity and led to peer dissemination and natural diffusion. Diffusion rates of 3-5 times are recorded in the project documents and the personal testimonies of interviewees indicate even greater penetration into the non-partner population. Thus the project can be considered a good example of the technology transfer model of extension.

The external evaluation team heard both praise and criticism of the ONFARM program. For those 3914 farmers (57% female) able to participate in demonstrations (target or participating farmers/households) the results were significant and impressive. Even if farm households only participated in one of the many agricultural interventions introduced, they realized important productivity gains (20-50%) that stretched their access to food for two or more months. If combined with income generation activities, farm households could make significant gains in both income and food security. Across the years these gains could be expanded and solidified to improve their resilience and progress toward their food security and quality of life goals.

On the negative side, the project staff were extremely stretched. The scope of the geographic areas to be covered, the inaccessibility of communities and the scarcity of local resources provided almost impossible working conditions. Luckily the WI staff established rapport and good working relationships with their allied Office of Agriculture peers and created strong linkages with the academic and research community. These networks were important assets creating access to the farm community in a timely fashion and in backstopping the technology access and transfer process. Limitations of reliance on these systems included accepting the associated opinions of farmers about past interactions with "extension," relying on the research community to recommend crop varieties and innovations that may or may not be appropriate to local needs, and investing in training and capacity building in systems with high turnover. In spite of these limitations, these relationships were important in the long run to stretch the capacity of WI staff to reach remote areas, to reinforce the importance of the work WI was undertaking and to institutionalize and sustain project impacts.

An overall weakness of the program was its limited penetration capacity in terms of numbers of farmers directly involved. The WI hired DAs served as many farmers as the government DAs, and in the north served many more. And the WI program was more intense and required more contact and follow-up with farmers. But the resources of the project were extremely limited. On the supportive side, WI provided transportation for their DAs (motorcycles or mules) and had a strong backup system that provided financial and technical support and allowed a great deal of flexibility for agents to make decisions on their own. These conditions created an enhanced work environment that empowered staff and created internal rewards to sustain their heavy workloads. But the scope of the potential audience that needed their help was overwhelming, and the pressures from wereda officials to expand because they lacked resources themselves, was continuous. These were unfortunate pressures and realities that diminished the project in the eyes of some regional leaders. The project was only a pilot effort with limited but significant coverage. The project provided a good test of the ONFARM approach and proved that

good extension work can make a difference. But it didn't change the food security prognosis for the weredas where they worked, as a whole.

A second negative voiced about the project was its short-lived presence. Even if the anticipated continuation of the project timeline had been received, these were four-five year commitments. True development gains take longer to stabilize and institutionalize. These ONFARM strategies could easily have continued and expanded to additional communities and weredas and thus maximize the lessons learned and high start-up costs. But the termination decision may have removed WI staff before either farmers or OA personnel were ready or prepared to takeover. In every community visited, farmers and officials lamented the fact that a second wave of activities would not be available to involve more farmers directly in the training and loan activities. Similar concerns were voiced concerning the training and scholarship dimensions. As evaluators, we had hoped to hear of the independence and resilience of farmers and local officials, but either they downplayed their capacities, felt betrayed by the termination or truly needed more support to maintain their gains.

A.2. Income Generation

The Income Generation (IG) component can generally be considered very successful. It created income-generating opportunities for over 2,000 poor farmers, around 80% of whom were women. It was successfully implemented in all four project areas and at least 10 different agriculturally related income generating activities were taken-up by farmers, most of which exceeded their numerical targets in terms of the number of participants.[20] The project was also able to make credit available to women, in most cases for the first time. This was done either by providing resources to existing service and production cooperatives, which had previously catered almost exclusively to men, to allow women to participate and to borrow; or by establishing new savings and credit cooperatives exclusively for women. The creation of credit sources for women must be considered a major achievement of the project, particularly given the difficult history of cooperatives in Ethiopia.

The participatory methods used to identify and implement IG projects, combined with the close personal contact of WI staff with farmers worked well. The approach of bringing in technologies developed by national agencies and then adapting them to the economic and cultural characteristics of each community was also very effective. The persistence, creativity and tactful diplomacy of WI staff proved very effective in working with local officials and garnering support for the project.

However, a number of challenges and issues were identified. One of the potential weaknesses of the project was the lack of marketing support, either through the provision

[20] The following figures show actual number of participants as compared to original targets. Yem: poultry 103% and beehives 151%. Gimbo: poultry 123% and beehives 247%. Enebssie and Libokemkem combined: poultry 194%, beehives 92%, oxen 100%, sheep 117%, fishing 132% and irrigation pump 90%. Source: End of Project Report (draft) November 2003, Tables 10, 11 and 12. These are the only activities for which the achievement percentages are given.

of transport to gain access to larger and more distant markets, or in the provision of other marketing services such as storage facilities and contacts with wholesalers. This omission would be especially troublesome if the project attempted to scale-up participation. Also, despite the excellent progress made in providing credit, a potential weak link is the credit mechanisms. The project ending before all of the credit programs had been completely legalized and before there was time to work with the different organizations to complete the first and second cycle of loans to women and thus work out any operational problems.

A.2.1.Assessing the Impacts of the IG Component

It is difficult to assess the economic impacts of the income generating component at this early stage as many families were still consuming most of their own produce. However, under favorable circumstances the IG activities were able to generate earnings equal to 50% to 100% of typical household earnings from traditional agricultural production. This was achieved by a combination of: sale of crops or animals produced with the loan, own consumption of produce and use of earnings to accumulate assets increasing future earnings.

The IG activities also had significant social impacts through:

- Opening up opportunities for women to earn income, start their own business and accumulate productive assets. This provided many women with the opportunity for the first time in their life to earn income.
- Provided women with credit, which permitted them to purchase the inputs to start their own business and gave them recognition of productive contributors to the household and community economy.
- Women were able to reinvest part of their earnings in productive assets so that they increased their control over resources and over their own lives. One of the critical impacts was their ability to purchase or rent oxen so that they could take possession of land they had previously had to rent out and hire men to plough or sharecrop for them.
- Women's economic empowerment also gained them recognition as equal partners with men in farming activities.
- The recognition of women's role as farmers also gained them the right to participate in community decision-making.
- Women's enhanced economic status gained them greater equality within the household and community. This also gave them the confidence and status to be able to challenge harmful traditional practices such as early marriage and female circumcision, which they did with passion.

A.3. Introducing Appropriate Domestic/Non-farm Technology

A total of seven new labor and fuel reduction technologies were introduced. The technologies most widely adopted by women were: "mirt" mud stoves (872 adoptions); fireless cookers (794 adoptions); and enset decorticators (670 adoptions). The technologies most widely adopted by both men and women were: iceless coolers (438 women and 240 men) and improved grain storage (354 women and 330 men). All of these technologies were widely accepted although there were a number of specific criticisms such as the fact that the mirt stove took up more room than the traditional stove and could be damaged if something dropped on it.

Winrock's four-step introduction and dissemination methodology proved effective through:

- Acquisition and demonstration by the DAs along with hands-on familiarization;
- Identification of volunteers to test/adapt the technology in actual working settings;
- Close contact between DA and volunteers to provide help and obtain feedback on problems and improvements; and
- Informal dissemination by the volunteers.

The system worked well and most volunteers were very enthusiastic disseminators. Some women noted that 24 or 26 other women had built an improved stove with their help. The enset decorticator saved so much time and human energy that it was quickly adopted and used to transform the workweek for many women. The fact that the technologies had impressive advantages such as fuel savings of three to five times over open fires, and grain loss reductions of 40-60% for storage devices, helped to create demand in these poor struggling households.

A number of lessons were learned about effective ways to promote appropriate technology:

- First**,** many farmers, particularly women, are willing and able to adopt new technologies if affordable and useful to their daily routine.
- Second, the informal dissemination process worked well as relatives, neighbors and even distant acquaintances eagerly asked about the innovations and volunteers enthusiastically shared their experiences.
- Third, it is essential for the DA to maintain close contact with volunteers throughout the process, to respond to problems and to reinforce the process of local and individualized adaptations.
- Finally, adoption and dissemination works particularly well for technologies such as enset decorticators which were adopted by women working in groups.

All of the technologies were designed to be self-sustaining, using local materials and expertise so families should be able to continue to use them or replace them without external assistance. Some technologies, such as the construction of the mud stove provided a stimulus for women to try the mud construction technique for other objects. Thus raised sleeping platforms, sofas and a variety of household improvements resulted. However, replication of this process in other communities will be a challenge, as the

process requires commitment and a level of staff input/follow-up that government agencies are not known to sustain.

A.4. Short-term Training

The training component can be characterized as focusing on four types of training—

- Technical training accompanying the introduction of various technologies and credit systems to ensure that the necessary knowledge and skills needed for successful adoption and maintenance of innovations are available to participants.
- Development agent and supervisor training to improve technical skills, enlarge abilities to support female farmers, and develop experience with participatory methods to encourage a broader participation of both men and women in program planning and implementation.
- Gender awareness and sensitivity training to rural women, community leaders and agency professionals to enlarge understanding of the barriers to women's status and participation and encourage actions to minimize these barriers including reducing the adherence to harmful traditional practices. Complementing this awareness level training the project provided specific management and leadership training for select rural women leaders to help them become more assertive and involved in public affairs and outreach to women.
- "Leadership for Change"(LFC) training for professionals working in the zonal, regional and federal level agricultural and rural agencies to improve their confidence, risk-taking ability and leadership in support of women's full participation in development.

Across these types of training, nearly 1400 individuals were involved.[21] All of these various forms of short-term training have been amazingly well received and effective. As a result the dialog and skills developed through training, widespread support has been achieved for women's involvement at the household, farm, and community level. One of the goals of EMPOWER was to change the institutions and environments that affect rural populations to create more supportive environments for men and women to together, address development challenges. By all intent and purpose a great deal of progress has been achieved in the project sites. However the needs for training are never ending. Even during the implementation period the training component seemed thin. Larger numbers of community agency representatives and emerging women leaders needed to be trained in order to be available to train and influence the very large populations that waited to be reached. Likewise ongoing training programs need to be institutionalized in communities to provide updating and higher order skill development to be able to respond to future needs. Great strides have been made, and the types of training have been judged very appropriate and relevant. The only criticism is that not more is being done.

[21] Source: End of Project Report, (draft) November 2003, page 77.

A.5. Scholarships

The scholarship component of the project enlarged the pool of professional women with upgraded academic credentials and thus qualifications in the agriculture and rural sector by 92 individuals! This is a critical mass for any sector and is even more impressive in that 90% of these individuals are currently concentrated in two regions of the country. Ethiopia's professional ranks are slim and for so many females to be in critical decision-making positions in the Bureau of Agriculture and related agencies that affect rural populations is outstanding.

This component of the EMPOWER project was a long-term capacity building and institutional change effort. Throughout the world a dearth of females are evident in the professional and leadership ranks of agricultural and rural development institutions. Some experts associate this lack of female voices in the planning and implementation of programs and policies as directly and adversely affecting the ability of these programs and policies to address the needs of women. EMPOWER hoped to change that relationship and bring more women into positions of influence so that their experiences, sensitivities and ability to relate to other women's realities could be incorporated into the work of their institutions.

There is no doubt that access to upgraded credentials has had impressive consequences for the lives and futures of these women, and indirectly to their work and to the status of women in general.

- Almost all of the scholarship returnees received job promotions. Economically, 50%-75% salary increments were associated with these job promotions. But these job promotions were not just lucrative; they presented opportunities for women to exercise increased responsibilities for supervision, planning and policy involvement that will improve their ability to address issues affecting women and men in the rural sector. One women scholarship holder noted, "*My first day back on the job I was invited to a high level policy meeting. I had never been invited to such a meeting before. Not only was my presence acknowledged, but they listened to my opinions and accepted my ideas."*
- The increased skills, capabilities and confidence of these women encouraged them to assume new roles, take risks and act more assertively in dealing with people and institutions. These women are challenging the status quo and advancing new strategies and initiatives within their realm of responsibilities. A senior expert in a regional Bureau of Agriculture remarked, "*I am working with a project to provide income generating opportunities for poor rural women. There are a lot of obstacles to overcome, but I know that the changes that are needed will be important. We can make this work."* Another returnee noted that she was working on a "Cleaning Bahir Dar" project that mobilizes volunteers for community service. She had never participated in such volunteer activities before but was exposed to them in her graduate studies and learned to appreciate their value.
- Both the fact that such scholarships existed and the evidence of the resources represented by these returnees has improved attitudes toward women. More

colleagues are believing in the capabilities of women and accepting them as equals, a reality that did not exist prior to the project. In fact, women commented that they "*felt like part of the fixtures—overlooked and underestimated by the male decision-makers in their units*." Not only have these women gained status and respect from their peers and colleagues, even external agencies and community leaders are calling upon them to serve leadership and expert roles. They have become role models for other females and students/daughters as well. Because of their achievements, they have motivated others to excel and now peers, spouses and children are seeking higher degrees or raising their aspirations.

Another aspect of the scholarship component has already had impacts on the research and scholarship available about rural issues. As part of the BSc degree, domestic students were engaged in a research or extension project as part of their coursework. Likewise, MSc and PhD candidates were required to conduct original research. All of these scholarly assignments created an opportunity to expand the knowledge of rural issues, especially issues affecting rural women. Topics of these research projects included nutrition and child growth, domestic violence, the biochemical characteristics of various food products and processes, crop production enhancements, animal production, the process of introducing new technologies, promotion of new food products, household technology adoption and forestry introductions. Of particular note is the practicality of these studies, providing relevant information for extension applications; and the gender sensitivity of these topics, investigating problems of immediate concern to women. These studies enlarged the knowledge base in Ethiopia about rural issues and contributed substantially to understanding smallholder adoption patterns. A criticism of this research component is the limited availability of these papers/reports. A more systematic collection, inventorying and dissemination of the papers are needed. A secure library should be identified to house the collection and make the results accessible electronically, if possible.

Finally, a sustainability strategy was planned, to provide an ongoing networking and advocacy support system for these and other professional women in the agriculture and rural sector. That strategy involved the creation of a professional association—The Association of Women in Agriculture and the Environment (AWLAE). A great deal of effort has been expended to create the organization and secure legal status for it as a domestic NGO, but it is not yet functional as a peer support system. The termination of the EMPOWER project places this organization in jeopardy as it still relies heavily on the WI staff for leadership. Given the high levels of commitment of its members, however, its prognosis is positive.

A.6. Summary

Generally speaking, the EMPOWER project has met the goals and most of the specific targets articulated in the project plan. The scope of the effort is limited and the outcomes are underestimates because of the short time available to observe their impacts. Limitations in this evaluation and in the documentation from WI constrain the full interpretation of the valuable changes that have occurred and will continue to occur

within the individuals, families and institutions involved. But there is no doubt that the program and the model has proven that significant increases in agricultural productivity can be achieved and that seemingly insurmountable obstacles to raising women's status and participation can be overcome. Serious sustainability questions remain, primarily because of the termination of the project leaving many processes and activities unfinished or immature. And replication is also questionable, not because of the relevance and value of the program, but because of the political will of funding and operational units. The changes incorporate in the project cannot be evaluated against what could have happened, but seem rational given organizational realities. The shift in emphasis toward food security and the inclusion of an HIV/AIDS component at the expense of a greater gender concentration were feasible changes that could be accomplished within the structure and capacity of WI, Ethiopia.

B. Assessing the EMPOWER Model

The EMPOWER Model in Ethiopia had the following objectives:[22]

a. To improve food security while addressing gender barriers to agricultural production and food management;
b. To support increased food production and reduce production and post harvest food loss;
c. To train women professionals to exercise leadership roles and to work for and with women farmers; and
d. To create an enabling environment that promotes effective working relationships between and men and women in order to insure and sustain future food security.

Some of the unique and critical features of the approach included:

- *Women's empowerment and gender mainstreaming*. The project combines a focus on gender equity and women's empowerment (through scholarships for women professionals, creating credit mechanisms accessible to women etc.); with a gender mainstreaming strategy focusing on both female and male farmers and adapting conventional economic and social roles to ensure both sexes can maximize their contribution to household welfare. The approach also promotes equal participation of both sexes in household, community and local government (*wereda*) decision-making.
- *Close cooperation with government* at the wereda, zonal and regional level to give ownership of the program and capacity to government agencies who will be responsible for its continuation. This includes a commitment from units in original agreements for cooperation and eventual take-over, an official "phase-over document" designed by both farmers and officials delineating take-over strategies, the

[22] Source: End of Project Report (draft), November 2003.

extensive training and involvement of government functionaries in project activities to ensure familiarization, and the step-by-step turning over of project resources and responsibilities at the end of the project. All of these efforts were designed to maximize the likelihood that government agencies would be willing and able to continue the activities of the project and use the methodologies for other efforts.

- *Adapting national technologies* to the ecological, economic and cultural conditions of the farms and households in each region, rather than bringing-in foreign technology. The EMPOWER approach involves working with farmers in a farmer-led process to adapt technologies developed by government agencies and national research institutions so as to make them affordable and to ensure their compatibility with local conditions.

An important feature of the EMPOWER model is the emphasis on the integration of the different components through:

- A systematic focus on women's empowerment and gender mainstreaming in all of the project activities;
- Maximizing the role of women in agriculture by supporting agriculturally related income generation activities that reinforced women's contributions to agriculture and household welfare;
- Combining the impact of ONFARM and income generation to illustrate a potential strategy to break the "cycle of low price seasonal sales" that is a serious bottleneck to poverty reduction in rural areas;
- Reinforcing the new capacities of recent academic graduates with leadership training to ensure risk-taking and proactive support for change;
- Having a sustainability strategy that combined self-sustaining elements with phase-over plans to transfer responsibilities to appropriate government agencies;

Are any one of the EMPOWER components more important than others? That would be hard to answer. Each has its individual merits and yet each contributed to the project goals as a whole.

C. Estimating Project Impacts on Food Security, Gender Relationships, and Institutional Capacity

The independent external evaluation team used an interdisciplinary program review methodology using qualitative data gathering tools—document reviews, field site visits, interviews with stakeholders and observations. In the short period of time allocated to the evaluation, it was impossible to collect original data. Therefore the evaluation team needed to rely on existing records and datasets provided by the project. A number of limitations with the project monitoring data and the lack of any change or impact data place severe limitations on the ability of the evaluation team to estimate quantitative impacts. With that said, the evaluation team tried to summarize information and extrapolate commodity specific or situational specific examples of productivity gains or income gains to be able to project impacts on food security.

C.1. Food Security

Best estimates would suggest that food availability gains of from 20%-50% were feasible. Translated into food security, these gains would provide two or more months of additional food availability (based on baseline estimates of 6 months). The partner families in the south reported similar estimates when quarried directly about increased food security. Ninety percent of families noted that they had food available for 9 months or more at the end of the project, when estimates at the beginning of the project were for 6 months.[23] No similar data were collected in the north where food security was more tenuous. The 20-50% gains are extrapolated from the following data:

- Improved varieties of basic food crops with 22%-125% yield advantages suggesting that farmers could produce at least 20%-50% more grain in any one season;
- Post-harvest storage techniques that extended storage times by 3 or more months provided reduced crop losses and the ability of farmers to sell gain at more advantageous times (see example in ONFARM chapter of earnings of 100 birr per family); and
- Income generation activities that increased incomes on the average of 150 birr per household; which, when compared to an average earnings of 730 birr per year, is a 21% increase in income.

Any one of these innovations would allow a family to increase food availability beyond the 20% targeted in original project documents.

C.2. Gender Relationships

No data are available to estimate how many families or communities experienced improved gender relations, but a number of qualitative indicators suggest substantial progress:

- At all project sites, male farmers spoke enthusiastically about what their wives had accomplished;
- At all project sites, women were sitting along side men and speaking freely in group meetings;
- At all project sites, reports were told of single women getting married partly because of the assets they were able to bring to a union;
- At all project sites, local community and religious leaders praised the project for building gender awareness and changing attitudes towards women;
- In all communities involved in EMPOWER activities, women are now available to participate in leadership and public affairs roles; and
- In all communities involved in EMPOWER, leaders are speaking out against harmful traditional practices.

[23] Baseline data estimates seem to have been secured from PRA studies, not directly from partner families, although end-of-project data were collected from project families (Gimbo staff interpretations).

C.3. Institutional Capacity

Again, no data exists to document the change in institutional capacity because of the EMPOWER project. However, the following indicators suggest enormous impacts:

- 9 new savings and credit associations/cooperatives established in the SNNRPS and 7 in ANRS;
- 290 professionals trained in participatory planning/programming from grass roots agencies;
- 149 development agents and supervisors from Offices of Agriculture trained in various agricultural techniques associated with ONFARM activities;
- 92 women professionals with upgraded credentials taking decision-making roles in agricultural and rural organizations, 90% concentrated in two regions of the country.
- 110 male and female professionals from two regions trained in leadership skills and willing and able to train others; and
- A new department and BSc major in *Rural Development and Family Sciences* available to train development workers at Awassa College of Agriculture.

These indicators would suggest that the EMPOWER project made substantial inroads on the food security, gender relationship and the capacity building goals set before it.

D. Prognosis for Program Sustainability and Replication

Another goal of the external evaluation was to estimate the degree to which sustainability strategies incorporated into the project would ensure that the project continues, that impacts would be sustainable or that benefits would be expanded to others in the future. The prospects for the sustainability and replicability of each project component can be summarized as follows:

- ONFARM activities. While most farmer households have shown their ability to continue to manage the ONFARM and other activities with which they are involved, the sustainability of the total program will require the continued support of the *wereda* and the government line agencies. While Winrock had defined and implemented a systematic strategy for the progressive take-over of the projects by the *weredas*, there is a risk that local government support for the project will gradually erode. One reason is that the high turnover of government DAs means that many of the staff who have been trained by Winrock and who have the greatest commitment to the project will be transferred, and there is no mechanism in place to train their replacements. The negative feelings created in many agencies by what they perceived as the sudden termination of the program may also discourage these agencies from continuing to support the program. One of the consequences of the national decentralization policies is also that the program has relatively little support at the regional level as it is perceived that these are *wereda* level programs. Consequently there may be quite limited support at the regional level for the replication of the Winrock model in other areas.

- Income Generation: Evidence from the first two years suggests that most families will probably be able to continue to operate the activities without external help. The activities were carefully designed to be implemental within the economic and cultural contexts of each project location and most families are able to manage the activities on their own. However, there are two external factors, which may affect the sustainability and expansion of the activities. The first is the lack of access to markets beyond the small, local markets (many of which are in themselves quite inaccessible to families in the more remote communities). The second issue concerns the sustainability of the credit programs, some of which had not yet been legalized when the project closed; and others of which are breaking new ground by providing credit and other services to women. In both cases the termination of the Winrock program meant there was not sufficient time to work with the different credit agencies to ensure that all of the start-up problems had been resolved.

- Appropriate technology. Although most of the innovations have not been in operation for very long, initial evidence suggests that most families will be able to continue to use and replace these technologies without external assistance.

- Short-term training. The biggest threat to training is staff turnover. Already major changes in staffing at the OA have removed a number of trained DAs and supervisors from the ranks of those who could continue to support ONFARM and IG families and involve additional families. The WI staff have created written documents, supplied training manuals in local languages and have invested heavily in train-the-trainer approaches to create a legacy for future institutionalization and replication. But heavy time demands on those trained and changing organizational priorities will ultimate affect commitments for sustainability.

- The scholarship program. As noted earlier, the scholarship component and associated professionalization of women is most at risk for continuation and replication. The individuals trained will certainly continue to serve in leadership roles and exert an influence on the status of rural programs. But the continual availability of scholarships and scholarly works for additional women is questionable. The political will is just not evident within government, nor external donors to sustain this effort. The brightest hope is in the academic institutions that train the next generation of rural functionaries. Today's scholarship holders will continue to serve these training institutions for years to come, and their students will serve the needs of rural populations.

E. A Summary of Lessons Learned

The EMPOWER project was a very complex and multifaceted program. The external evaluation team was admonished to try to identify lessons learned from the EMPOWER experience to help learn from their experience but also to assist in showcasing the program to other development agencies. Thus the following lessons learned have been

articulated by the evaluation team. These are only tentative suggestions. The actual EMPOWER staff, who know the program more intimately, might have more detailed suggestions.

E.1. Lessons Learned from ONFARM

1. Agricultural innovations of value to farmers are available from research centers within Ethiopia. But they need to be tested and sometimes adapted to fit farmer-managed and local situations.
2. Agricultural productivity gains are possible even among smallholder farming households, female-headed households and those in isolated and remote communities with limited access to information and services.
3. Farmer participation in the demonstration/testing/adoption/diffusion process is invaluable. It creates capacity for experimentation and learning, generates natural curiosity and dissemination potential and provides confidence and hope to farmers who have few support services.
4. Significant female participation in agricultural innovation testing and adoption is feasible given a supportive environment for their involvement.
5. More than one innovation is needed to generate food security. The combination of access to improved seeds, production practices and post harvest storage techniques together create significant productivity gains that contribute to food security or increased income.
6. The Income Generation component coupled with the ONFARM component in the same household holds great promise to overcome the cycle of low price seasonal sales.
7. Investments in natural resource management techniques to reduce soil and water loss can generate enthusiasm and hope in a community that can complement agronomic innovations.

E.2. Lessons Learned from Income Generation

8. Agricultural-focused income generation helped raise women's esteem and recognition as being "farmers" and equal partners with men in farming activities.
9. Women's successful involvement in both economic activities and the testing and adoption of innovations helps to change perception among men and especially local leaders about the capabilities and decision-making potential of women. This results in women being invited to community meetings, being asked to serve on local committees and being viewed as contributing members of society.
10. Access to credit is essential, but institutional credit is a weak link. Investments in farmer operated savings and credit cooperatives can be an alternative.
11. Women's participation in credit cooperatives has important effects beyond the provision of credit. It offers a way for women to participate, often for the first time, in formal organizations and group processes. Also the presence of a collective body creates opportunities for women to exercise their voice in public affairs.

12. Enhanced economic status gains women greater equality within the household and community

E.3. Lessons Learned from the Introduction of Appropriate Technologies

13. Farmers, male and female, are willing and able to adopt new technologies if affordable and useful to their daily routine.
14. Training is essential with all technology introductions.
15. An informal dissemination process can work well to spread the adoption of appropriate technologies as initial adopters are usually enthusiastic and motivated to share their experiences, and neighbors are eager to learn.
16. Development agents need to maintain close contact with adopters to provide on-the-ground support and feedback on problems or improvements.
17. Adoption and dissemination worked particularly well for technologies such as the enset decorticators which were used by women working in groups.
18. It is important to document the reactions of adopters to appropriate technologies so as to be able to share information about strengths and weaknesses and to judge the benefits generated. Of particular importance is collecting estimates of reduction in women's time and energy burden, as these are especially onerous constraints to women's participation in development activities.

E.4. Lessons Learned about Training

19. Training in leadership skills can help participants become more confident and willing to take risks.
20. Training in gender and cultural barriers can bring about relative attitudinal change in rural areas as manifested by support given to women by spouses and the progress being made to do away with harmful traditional practices.
21. Local officials and agency staff need training in tools and skills to be able to support women's participation in development programs and community activities.
22. Empowered women become role models and change agents in their communities.
23. Gender awareness training needs to be provided intensely and repeatedly so that the gender agenda can remain in the forefront of community conversation.
24. There is never enough gender awareness training, but training with skill building is essential to create action.

E.5. Lessons Learned from the Scholarship Component

25. Existing academic programs designed for traditional students do not serve non-traditional students well. Specially designed programs that focus on mature learners, concentrate coursework to reduce total time and provide support services better meet their needs.
26. Scholarships targeted exclusively for any group will raise concerns, but the goals of the effort must be considered and weighed against other competing goals.

27. Infusing a substantial number of newly upgraded mid-career professionals to any sector should have an immediate and lasting impact. The strategy to quickly create a critical mass of trained and credentialed women professionals in the Bureau of Agriculture and Women's Affairs Offices at the regional and federal levels in Ethiopia is producing substantial attitude change and recognition/respect for women and their potential.
28. Selecting training sites in-country not only reduces costs, but may contribute to retention.
29. On the other hand, international training creates opportunities for developing new networks, information streams and access to critical resources.
30. Newly trained individuals need continuing contact with each other and with stimulating activities to maintain enthusiasm.

E.6. Lessons Learned about Project Design

31. The majority of rural populations have multifaceted problems brought about by chronic poverty. Therefore, projects need to be integrated and multifaceted also, to bring about meaningful results.
32. Projects to address women need to involve both men and women, to avoid restrictions/conflicts and to maximize benefits.
33. Monitoring data should include sufficient information to estimate effects of interventions, such as gains in productivity, income or time, even if only captured on a sampling of participants.
34. The processes of phase-over and institutionalization need to start at the project design stage and fully involve those affected line agencies and organization from the beginning. It is important for projects to incorporate self-sustaining features in the design of activities to the extent possible (e.g. train-the-trainer, local capacity building, peer dissemination).
35. All externally funded projects need a "champion" within government or community bureaucracies to assist during project implementation and to oversee post-project commitments for sustainability.

The external evaluation team in the field.

Chapter Seven: Applications of the EMPOWER Model to Future USAID or other Development Strategies

During visits with various USAID Staff, it became evident that major transformations were underway in articulating alternative priorities and strategies for USAID Ethiopia. Interest was high in understanding how the EMPOWER model performed and whether the model or elements of it might be useful to other agricultural and rural development agendas. The evaluation team during the debriefing session with USAID staff tried to propose some ways in which this could be done. This chapter further develops those ideas.

A. Contributions to Food Security Goals

The program has demonstrated a potentially cost-effective approach for reaching poor farmers, and helping them to increase food production by 20% or more, and to increase income by 50%-100%. Experience to date suggests that while the program can serve relatively poor farmers, its technology testing approach requiring access to land prohibits it from reaching the landless or the very poorest families. Consequently the approach should be complemented by food aid and other safety net approaches. However, within the generally poor smallholder sector, the ONFARM approach can be replicated and scaled up to gradually expand to additional families and communities. Current gains could be consolidated and investments made in a second phase intervention with partner families.

A Second Phase: Targeting multiple interventions per farming household: ONFARM is a technology transfer model capitalizing on and empowering local farmers through participating in the technology introduction/adaptation/adoption/diffusion process. This is a powerful capacity building strategy and a generally well-accepted agricultural enhancement strategy, as ultimately farmers need to make their own decisions about innovations and become advocates within the agricultural community for whatever assistance they need. A large number of new crop varieties and technologies were introduced in the project sites and tested, adapted and incorporated into the farming practices of target farmers. However, the testing process was immature to the extent that the blending of various innovations within the same household was not tested. A second phase of ONFARM at these sites could shift toward a Farming Systems approach and support individual farming households in combining sets of innovations to maximize their land, labor and asset mix. Already it was noted that a combination of income generating activities, coupled with ONFARM crop enhancements could increase resilience to food insecurity substantially.

Confronting the "cycle of low-price seasonal sales: It was learned in the process of collecting data in the field that a common concern of poor farmers is the fact that all debts are due at harvest time. Seed and fertilizer loans, taxes, school fees—are due just after harvest. Therefore to meet their obligations, farmers sell their crops at that time. But this is also the time when everyone else is selling and the prices are that lowest of the

year! But if farmers have no cash reserves or other assets to sell, they are caught in this cycle. The sheep fattening enterprise was a good example of a strategy to beat this cycle. If enough grazing/forage were available, a family could buy sheep during the summer season when livestock prices are low and sell at harvest time (the winter season) when livestock prices are high due to demands for festival celebrations. Thus with cash from livestock sales, debts could be paid without sacrificing the grain harvest. But then another problem emerged: that of crop storage losses. If farmers stored their gain harvest, generally up to 40-60% of the crop would be lost over time. That bottleneck was addressed as the new storage devices and the botanical pesticides tested during the project extended storage times by 3 or more months--enough time to get a better price in even local markets! Thus the project created a number of alternatives to confront this cycle and help poor farmers manage their production in new ways to increase income.

Addressing eventual marketing constraints: Any wholesale change in production or marketing in these isolated rural markets would eventually create gluts and even poorer returns. Thus the longer projects such as EMPOWER existed in the community, and especially if they scaled-up, the more likely marketing constraints would need to be addressed. Even during this implementation period some marketing problems emerged, especially for vegetables. One strategy that farmers were using in EMPOWER sites was transporting goods to larger markets. This concept could have been explored more fully by encouraging some of the income generating enterprises to invest in donkeys. Storage also created some flexibility. Other alternatives such as marketing cooperatives could also be explored.

Using food-for-work resources to continue building assets: For those families and communities where food supplies do not last the entire year, food-for-work resources are valuable development tools. If available to the EMPOWER program they could be used to enlarge the natural resource management component on both private and public lands, improve the rural infrastructure to support marketing options, complement family investments in constructing appropriate technology innovations, and support poor families in accessing services such as schooling for children. Any or all of these investments would complement ONFARM activities to move families toward food security and a better quality of life.

B. Contributing to Accelerated Agricultural Growth Goals through Promoting the Private Sector

The EMPOWER model can be applied as a rural development or small enterprise development intervention. For example, some of the bottlenecks observed in a scaled-up version of ONFARM could be overcome with investments in cooperatives or small business enterprise developments. As new technologies are identified as having promise in local communities, demand for those technologies grows. The active promotion of involvements in the emerging private sector in poor rural communities can respond to these new demands and promote sustainable economic growth. Some of the lessons/approaches from the EMPOWER project include:

- Developing and strengthening savings and credit agencies that can reach poor farmers, particularly women. This is a two-pronged approach which involves both encouraging existing service and production cooperatives to become more accessible to poor farmers, and particularly women; and where necessary creating new institutions which directly respond to the needs of women farmers and men and women operating small businesses.
- Refining and expanding the model toward entrepreneurial developments with additional training in business development skills and an expanded enterprise mix. Within the existing project opportunities emerged to build beehives, storage structures, rat guards, enset decorticators and other implements using local materials and expertise. These products could form the basis of small businesses.
- Involving private entrepreneurs in the provision of marketing services to enable poor farmers to reach wider markets and to obtain better prices. Credit and storage facilities can play a key role by enabling farmers to determine when and where to sell rather than accept low prices and forced sales.
- Promoting the development of various types of cooperatives can help poor families reduce their own risk by joining together in new enterprises. This was successfully tried in the north with the rice producers and fisheries cooperatives. In the south the women's vegetable production cooperative showed great promise.

C. Contribution to Integrated Rural Development Goals

- One of the elements of an integrated rural development approach would be at the household level--promoting resilience and the ability of poor families/ communities to overcome adversities. The EMPOWER model has provided ample evidence that it can contribute to resilience by giving families alternatives.
- Rural development strategies would do well to capitalize on developing income-generating activities so that families can diversity their sources of income and hence reduce risk and vulnerability.
- Promoting gender equality in the farming household and community is also important so that women are able to increase their contribution to the economic production/ welfare of the family, and overcome barriers to their participation in the community.
- Using the Winrock approach to the introduction and dissemination of appropriate ONFARM and domestic technologies can be expanded to testing social technologies such as "social fencing" that is being practiced to some extent now to prohibit free ranging animals from destroying plantation stands or crops.

D. Contributing to USAID Goals of Gender Mainstreaming

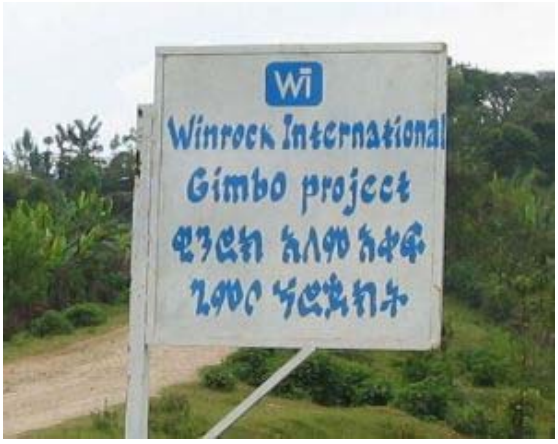
The Winrock model has demonstrated and tested some useful approaches to gender mainstreaming:

- Use of microcredit to give women access to productive resources but in a way which also involves male household members and gains their support.

- Winrock's participatory approach to seed testing and appropriate technology has found ways to involve both women and men in farm decisions in areas where previous only men were the decision-makers.
- The use of gender sensitive technical training and gender awareness training has enhanced the recognition of women as farmers at both the community and wereda levels and has led to women being accepted as equal partners in household, community and local government decision-making.
- The provision of tools and skills for local functionaries and professionals to involve women in gender sensitive and appropriately supportive ways. A key element of this training was recognizing that both men and women professionals can develop approaches to work well with women participants.
- Bringing more women into decision-making roles in the rural sector.

E. Summary

As can be seen, the EMPOWER project and its various components have excellent potential to contribute to similar or different development goals and strategies. Obviously as it currently exists it is agricultural development approach. But the elements of the approach can be directed toward food security, rural development, entrepreneurial development, cooperatives development and other gender mainstreaming efforts. A question may be asked, are the gender emphases necessary to produce the ONFARM achievements? This evaluation team would answer, yes. The experiences of this project have confirmed that prior to the project's presence, women's talents were underutilized in development efforts, their domain was neglected in terms of technology enhancements that would free their time and labor, and few women held positions of responsibility in the agriculture infrastructure. As a result of an integrated and overlapping assault on traditional attitudes and practices (in line with government goals), women became more visible and appreciated for their contributions to the household, the community, a variety of organizations and to the society, in general. Thus their contributions to the achievements noted in this report are substantial.



Draft

Ethiopian Management of Participatory Opportunities for Women in Extension and Research (EMPOWER) Program: A Proposal for Participatory Evaluation

I. Introduction and Background

1.1 Project Initiation and Agreements

EMPOWER is a project funded by the United States Agency for International Development (USAID) Ethiopia Mission. Winrock International (WI) runs the program under the tripartite cooperative agreement # 663-0019-A-00-7329-00 signed on July 30, 1997 between the Federal Democratic Republic of Ethiopia (FDRE) and USAID/Ethiopia Mission. The Ministry of Justice (MoJ) officially registered Winrock International as non- government and non-profit making organization on January 14, 1998 and also signed an operational agreement on February 20, 1998 with the Disaster Prevention and Preparedness Commission (DPPC) of FDRE. The purpose of these agreements was to provide support for the project entitled *"Ethiopian Management of Participatory Opportunities for Women in Extension and Research (EMPOWER)"*, with the initial obligated amount of $4,415,751 USD. The duration of the project was planned for five years.

Furthermore, two amendments have been made to the agreement on September 8, 1998 and in May 2001. The first amendment was made to transfer the responsibility of implementing the On-Farm Agricultural Research Management (ONFARM) component of EMPOWER project, which was initially agreed to provide to **a sub-grantee** (another NGO), to WI. The second amendment to the agreement was to expand WI's obligation to the Amhara National Regional State (ANRS) under the EMPOWER project thereby extending its initial plan of phasing out from July 30, 2002 to December 30, 2003. This amendment was also meant to initiate a new pilot project of coping mechanisms of mitigating HIV/AIDS impact on socio-economy particularly on food security of ANRS. The estimated incremental funding included in this amendment was $925,594 USD of which $100,000 USD is allotted for the latter activity. This has risen the estimated budget of EMPOWER project to a total of $5,341,345 USD.

Following the official registration and operational agreement with MoJ and DPPC, respectively, base line surveys were made in two selected food insecure project *weredas* of the Nations, Nationalities and Peoples Regional State (SNNRPS) by WI together with their partner institutions – Bureaus of Regional Finance and Economic Development and DPPC, Agriculture and Women Affairs in both regions that WI/EMPOWER project operates. As a result of the need assessments done in each project *weredas*, project documents were prepared. The operational agreements were made between the Southern (SNNPRS) Bureaus' of Finance and Economic Development, Agriculture, Women Affairs, and WI/EMPOWER program in January 1999 and in March 2000

for Yem Special and Gimbo *weredas*, respectively. Following similar procedures, another EMPOWER project was designed for ANRS and a project agreement was signed on December 25, 2000 between the ANRS. Then WI established three project site offices – Regional Coordination Office in Bahir Dar, and WI project sites in Libokemkem and Enebssie Sar Midir *weredas*.

EMPOWER is tailored to meet the country's expressed needs and to complement USAID/Ethiopia Mission's overall goal of enhancing food security and strengthen certain educational institutions (like the then Home Science and Technology Department, Awassa College of Agriculture) and to directly work with women farmers.

1.2 Overview of EMPOWER Project Objectives and Strategies

Agriculture in Ethiopia needs improved farming systems' knowledge and skills, labor and time saving appropriate technologies, improved post harvest and storage facilities to deliver to farmers. But the numbers of men and women extension specialists and agents who could provide these services need to be upgraded and their institutions strengthened to create the necessary human capital development needed for project implementation and improver the overall regional and national capacities. Even then, the role of rural women in improving food security remains to be central and critical part of the project. They need training, resources, and supporting institutions. These are aimed to be realized through EMPOWER program project components - **On-Farm Agricultural Resource Management** (**ONFARM), Scholarship and Short–Term Training**. The first one operates only in specific *weredas*, whereas the latter two are crosscutting and involve all zones and *weredas* of the regions where EMPOWER project operates.

It was with this background and other factors that EMPOWER project was designed and made to focus on enhancing food security whilst addressing gender barriers of food production and management.

1.2.1 Objectives and Strategies

EMPOWER in its medium and long- term plan supports actions that train women professional, strengthen academic institutions, and address gender barriers to food production and management, increase food production and productivity, and foster professional environments that promote effective working relationships among men and women to insure future food security. These are being realized through its specific objectives of:

- Increased availability of domestically produced food crops (which initially was food "*grains")* and decreased post harvest food loses and spoilage;
- Increased number of well-trained women extension agents, researchers, and advocators and policy makers to work with and for rural women; and
- Increased knowledge of gender factors in agricultural policies, programs and practices.

EMPOWER program strategies in achieving its goal and objectives are based on:

- Improving food security of target farmers of the *weredas* at the household level through productivity gains, reducing post harvests' losses and diversifying food habits;
- Increasing the income of target groups, particularly women by way of introducing alternative sources of income;
- Supporting actions to train women in agriculture/home science professions and exercise leadership roles in policymaking and be advocates for issues of women farmers;
- Introducing energy/labor saving devices, particularly for women;
- Introducing and popularizing improved soil and water conservation measures; introducing better forages and multipurpose tree species to alleviate feed and fuel shortage and arrest soil erosion;
- Empowering women in the project areas to be self-reliant so that their role in decision-making is fulfilled;
- Increasing training of target farmers and extension agents, in improved ONFARM technologies and practices; and
- Training in leadership/management for women leaders at the grass-root level.

1.2.2 Intermediate Results Framework

As indicated earlier EMPOWER objectives are designed to complement USAID/E mission's overall goal of "*Enhancing food security in Ethiopia"* and to directly contribute to its Strategic Objectives (SO), linking it with the Intermediate Results (IR) of the mission. The Mission's SO was revised three times from the first SO # 1 – ***Increased availability of selected domestically produced food grains***[1] to the second SO # 3 – ***Rural household production and productivity increased*** (RHPP) and to the third SO, which carries the same SO name as in SO #3, but changes the number from 3 to SO # 7 (RHPP). EMPOWER objectives and its project component activities are therefore better linked with the revised **RHPP's** IRs and would be able to provide information to the mission in the following corresponding activities:

IR. #3: ***Rural household cash income sources diversified:*** EMPOWER project components that falls under IR# 3 are ONFARM and Short-Term Training and their corresponding activities that closely links them are:

- Crop and food habit diversification, Promotion of small holder farmer's level seed production/multiplication and
- Credit and saving/cooperatives' promotion and business management training activities;

IR. # 5*: Dissemination of food, agriculture and environmental technology information in target area improved,* the components of falling within this IR are activities related to the adoption of improved food, agriculture and environmental technologies. Three sub-results that will contribute to its achievement are:

[1] SO # 1 had limitations of directly covering EMPOWER project component areas of Scholarship and Short-Term Training activities in directly linking them with the SO's Intermediate results. As result of the Mission's revision of this particular SO, EMPOWER program objectives are better fitted to provide information to the revised SO-RHPP of the mission.

- Testing for adaptation, demonstration and dissemination of proven appropriate technologies,
- Improved community natural resources management and environmental rehabilitation

1.3 EMPOWER Project Plans and Targets

1.3.1 Initial Plans

As noted earlier EMPOWER project was designed to put focuses on intermediate results that directly contribute to helping achieve food security, particularly at the household level. For long term objective of empowering women in agriculture, EMPOWER plans have been to train women professionals, strengthen academic institutions, introduce programs and foster professional environments that promote effective working relationships between men and women to ensure sustainable food security. The plan also included providing training to women farmers in technologies relevant to them such as in improved cultivation practices, soil management, seed technology, increased fertilizer use including compost, demonstration plots and expanded extension services. Initially fixed numbers of women farmers to be involved in such activities and the exact figure to train women or men in gender awareness related and leadership for change training activities were not set in Winrock's unsolicited proposal submitted to the mission as it did for the fellowship award indicated below.

- Women extension agents' fellowship receiving BSc degree in Home Science program at Awassa College of Agriculture (50),
- Women extension agents' fellowship receiving BSc. degrees in agricultural extension program at Alemaya University (30),
- Fellowship for women studying MSc Degrees in African/ Asian Universities (10), and
- Fellowship for doctoral degree studies in the USA/Europe (5).

1.3.2 Adjustments and Planned Targets Set

During the implementation of EMPOWER program activities, it was necessary to make some adjustments to the initial proposed plan as a result of the need assessment in project sites particularly to the scholarship component of the program in consultation with the USAID/Ethiopia Mission and also set specific targets for ONFARM and Short–Term Training project component activities.

AWLAE program of WI in other countries normally awarded scholarship to women studying higher degrees – Masters and Ph.D. programs, however, when it comes to Ethiopian project sites' like in Yem Special and Gimbo *weredas*, the need assessment showed that they did not have diploma holder candidates for the BSc degree program studies. So it was found necessary to revise the agreement and reduce the number of PhD fellowships to 3 and give more fellowships to BSc. and Diploma programs and also considered 12 plus 6 months certificate training for young women master farmers from project sites.

Furthermore, since the plan of up grading the Rural Development and Family Science Department or the then Home Science and Technology Department of Awassa College of Agriculture, Debub University took so long time to promote it from diploma to a Bachelor Degree offering program by the Ministry of Education; EMPOWER program revised its activities

to give fellowship to women in various agricultural streams and send its scholars to Alemaya, Jimma, Mekelle, Debub and even for BSc study in Home Science to the Philippine universities.

EMPOWER's over all impact indicator in setting the following targets in its program intervention plan is - **Number of targeted households having adequate access to food for 9-12 months** (see also recently revised EMPOWER program indicators in the next monitoring and evaluation section of this paper)**.**

ONFARM – Address constraints to productivity and technology needs of smallholder farmer through access to improved agricultural inputs, reduce post harvest and food processing losses as well as promote efficient and effective food management system at the household level. The following ONFARM targets were then set for the four *weredas*.

A minimum of 2400 – farmers' households to be directly involved in ONFARM demonstrations, with additional interventions, the target will reach 3000,
" " " **3000 – f**armer's households to benefit from spillover effects,
Over 30 km. - model conservation structures to be constructed,
Over 100,000 – seedlings to be raised and distributed
" " " **1750 – f**armers' households to be trained in various agricultural activities
" " " **180-**Development Agents/Supervisors to be trained in various agricultural technologies

Overall impact assumed – 20% increase in food production

Training - Increased number of women in leadership, managerial and decision - making positions and promote effective working relationships among men and women to insure future food security that is environmentally sustainable.

1200 To be involved in various Short-Term Training activities.

Scholarship - Increased number of well-trained women extension agents, researchers, and advocates and policy makers to work with and for rural women: Addresses critical shortage of qualified women professionals in agricultural and/or home sciences, through awarding scholarships to women in these areas of studies and women affair leaders.

97 Women fellowship awards

These targets have been adjusted based on annual performance monitoring records through a joint annual planning exercise.

II. Scope of Work for EMPOWER Program Evaluation

1. Need for External Evaluation

According to the Cooperative Agreement made between USAID/Ethiopia mission, the GFDRE and WI, it was agreed that a mid-term evaluation should be made on the performance of the program activities. This was, however not done owing to the fact that the project in the ANRS started two years later. It was therefore felt that a final evaluation would be conducted towards the end of the project so that the lessons learned are documented and the outcome of the project would serve in guiding the future direction.

However, regular monitoring of the project activities has been done by EMPOWER staff, USAID/E Agriculture and Natural Resources (ANR) staff and the stakeholders themselves.

2. Evaluation Objectives

The evaluation will have the following specific objectives:

- To assess, analyze and document the achievements/performance against the plan and evaluate the effectiveness and efficiency of the project implementation through the review of documents, inspection of field activities and assessment of the views of the target groups, project staff, partner institutions, USAID/E, and other stakeholders.
- To assess the views of target groups, project staff, partner institutions, funding agency (in particular USAID/E ANR) and key stakeholders.
- To assess, analyze and document the impact of and change brought about by the project and evaluate against the planned impact as envisioned in the project document.
- To assess the sustainability and replicability of project achievements.
- Based on the assessments, draw relevant recommendations and lessons learnt for future project direction and areas of emphasis.

In line with the above objectives the following have been identified to be priority areas/ scope of work for the evaluation:

i) Identification and Planning

Analyze on how the project was identified and planned. Assess the strengths and weaknesses in project design, and flexibility in adjusting to prevailing constraints, gaps, opportunities and other conditions.

ii) Project Objectives

Examine if the project has met its intended goals and objectives and the appropriateness of the objectives in addressing the food security problems of the project areas.

iii) Project Activities
Inspect field activities and review achievements in line with the set goals and objectives.

Evaluate the project performance in measurable as well as qualitative terms. Assess the extent to which project activities contribute to and are relevant to the project objectives.

iv) Project Organization and Management
Assess the effectiveness and efficiency of the overall organization and management of the project.

v) Relations with target groups and stakeholders during the project implementation.
Assess the approaches used for reaching and organizing the target group. Assess the issues of equity-how women and other disadvantaged groups have been addressed and benefited from the project. Assess the strengths and weaknesses of the project in involving the stakeholder in project implementation.

vi) Project Impact, Sustainability, and Replicability
Assess and analyze the overall impact attributed by the project. Assess the sustainability and replicability of the project. Analyze the extent to which the project has influenced the wider policy environment in order not to run the risk of being an island of excellence and a one time showcase. Comment on gaps, constraints, prospects and conditions for future sustainability of project.

vii) Assumption, Constraints and Risk factors
Identify major bottlenecks the project has encountered, and also the factors that have facilitated the progress of the project

Based on the above analysis, the team is expected to document lessons learned and brings specific practical recommendations.

2.1. Some Evaluation Questions

<u>Results</u>

- What evidence is there supporting increased income of target groups from pre-EMPOWER days?
- What facts substantiate the success/failure of introducing energy/labor saving devices, particularly for women?

- What evidence is there that scholarship beneficiaries have assumed tasks and responsibilities different from pre-EMPOWER days?
- How far has EMPOWER helped to improve food security through a comparative analysis between a sample of target farmers with non-target farmers?

Questions related to organizational effectiveness:

- How effective have the structure and organizational of WINROCK been in implementing the EMPOWER program(number and qualification of staff, line of communication, problem solving, quick decision-making, etc)?
- How effective has WINROCK been in ensuring understanding and genuine participation later from participants in realizing the objectives of the program?
- How far have the working relationships between the program offices (including their home offices), the different levels of government partners, and USAID/Ethiopia enhanced or constrained the effective implementation of the EMPOWER?
- How did EMPOWER, in its design, approach the issue of sustainability of its efforts in making a difference?

2.2 Major Evaluation Indicators

The evaluation team shall consider, but is not necessarily limited to, the EMPOWER's Performance Monitoring Indicators that were identified and applied during the course of implementation as major evaluation indicators.

2.3 Composition of Evaluation Team

2.3.1 The Team

The evaluation team will be composed of 2 international and two 2 local evaluator consultants. The senior international expert will be the team leader.

Note: - At least two of the evaluation team members should be women.

2.3.2 International Expert Profile

The international evaluator should have: -

- A minimum of MA/MSc preferably PhD degree qualification in one or more of applied fields in agriculture, natural resource, income generation and rural sociology/development and having rich field experience of food security programs, particularly in developing countries including Africa.
- Has knowledge of NGO operations in developing countries, preferably in Ethiopia or Africa.
- Has exposure to the USAID funded projects including the funding and implementation mechanisms and familiar about NGO's working system and WI's interventions,

- Has practical experience of working with gender focused training and development programs.
- Has an extensive experience in leading the evaluation of similar projects.

2.3.3 Local Experts Consultant Profile

The two local experts should preferably have qualifications similar to international consultant. He/she should have knowledge and practical experience of dissemination of appropriate technologies addressing food security, income generation, agriculture, natural resource and/or rural development related programs in Ethiopia. He/she should be experienced on gender-focused activities and NGO operations. Sound knowledge of the extension system, as well as familiarity with the country's rural development policies, strategies and priorities is relevant. Knowledge of appropriate agricultural and natural resource technologies and dissemination of experiences in the country is essential.

2.4. Methodology and Approach

The team expected to use the different participatory assessment methods and tools and all of which need to be gender sensitive. The following methods shall be considered:

2.4.1. Review of Documents

Review relevant documents, which include but not limited to:
- EMPOWER project documents, project amendments, PRA study reports.
- Review of EMPOWER annual, quarterly and periodic reports.
- Review EMPOWER seminar/training proceedings.
- Review of EMPOWER phase-out strategy document.

2.4.2. Semi–structured Interviews and Focus Group Discussions

- Discuss with target and non-target beneficiary farmers in the project sites.
- Visit activities (agricultural, natural resource and income generating) at project sites.
- Discuss with institutions, communities, stakeholders, and collaborators in the target *weredas* and various zonal, regional and federal offices.
- Discuss with scholars, different training participants including at the federal level, professional men and women trainees.
- Have discussion with EMPOWER staff in Addis and in the fields.
- Have discussion with relevant USAID/E Agriculture and Natural Resources office (ANR), the gender advisor, and other relevant staff.
- Conduct interviews with farmers, scholars, short-term trainees, higher learning institutions, stakeholders, institution delegates, program staff, funding agency (in particular with the staff of USAID/E and incorporate their attitude about the program.

2.4.3 Field Visits and Observations

Visit various field activities in representative sites.

2.4.4 Debriefing and Reporting

At the end and before finalizing the report, the evaluation team shall debrief the findings of the evolution to WI and funding agency in Addis Ababa. The overall assessment will take 25 days and the final draft report is expected to be submitted within 10 days period after completion of the evaluation.

2.5. Level of Effort (LOE)

The following level of effort is proposed to conduct the evaluation:

- The team leader will be required for 35 days (including 3-4 days spent on international travel).
- The local experts will be required for 26 days.
- The experts will spend up to 16 days on the field visiting ONFARM project sites, interviewing beneficiary farmers, scholars, taskforce members, institutions and professional men and women trainees.
- Each expert will spend up to 5 days reviewing documents and meeting with institutional delegates or experts in and around Addis Ababa.
- The group will spend between 5 (local expert) to 10 days (team leader) for report writing.
- Towards the end of their assignment, the experts will present their findings to EMPOWER and USAID/E staff and also gather feedback obtained at the forum.
- A final written report would be submitted to USAID/E and EMPOWER within 10 days after the end of the assignment of the team leader.

2.6 Deliverables

The consultants are expected to deliver the following to USAID/Ethiopia on timely base:-

- Prior to the resumption of the task included in this SOW, a one week time is allowed for the consultants to propose and submit their detailed plan of action for approval by USAID/Ethiopia;
- Bi-weekly progress report; and
- Draft and final report.

2.7 Time Frame

It is proposed to conduct the study for 35 days beginning Nov. 3, 2003.

Independent External Evaluation Team Schedule in Ethiopia

Evaluation of Winrock International Ethiopia's EMPOWER Project

24th November - 22nd December, 2003

Mon. 24 Nov.	Team Leader, Mary Andrews, arrives (evening)
Tues. 25 Nov.	Local Holiday (Id Alfatar: End of Ramadan Fast) Telephone Interview with John McMahon (USAID Ag. Office) and contact with team members, Hadara Tesfay and Senait Seyoum to schedule meetings.
Wed. 26 Nov.	10:00 First meeting of team at Hilton Hotel. Distribution of documents and discussion of evaluation plans. 11:30 Meeting at USAID with Yesuf Abdella. Reviewed expectations for the evaluation and scope of the WI project. Introduced to Metsal (communications unit). Briefly joined by John McMahon to meet team and review major evaluation interests. 2:00 Lunch on Debre Zeit Road 3:00 General briefing by Dr. Wudenesh at WI. Reviewed project description and end-of-project reports and other documentation. Discussed purpose of the evaluation, field work itinerary and logistics. Introduced to Ato Meketa (Finance Officer) and other staff members present in the office.
Thurs. 27 Nov.	Thanksgiving Holiday: Offices Closed, Team work individually reviewing documents.
Fri. 28 Nov.	10:00 Team meeting at Hilton. Discussion of possible individual assignments and general scope of the evaluation. Review of potential interviewees and schedule of appointments. 1:00 Lunch at the Hilton. Yesuf joins the team to discuss logistics of field work, flight bookings from Jimma to Addis. 3:00 Development of the plan of work for the evaluation.
Sat. 29 Nov.	10:00-2:00 Senait and Mary meet for tour of Addis and discussion of local/regional customs/protocol.
Sun. 30 Nov.	Individual readings and document review
Mon. 1 Dec.	9:00 Meeting with W/ro Bogalech Alemu at Pathfinder. Discussions of the genesis of EMPOWER, early history of Women's Affairs and BoAg invitation, ongoing impressions of the project and status of the Professional Association.

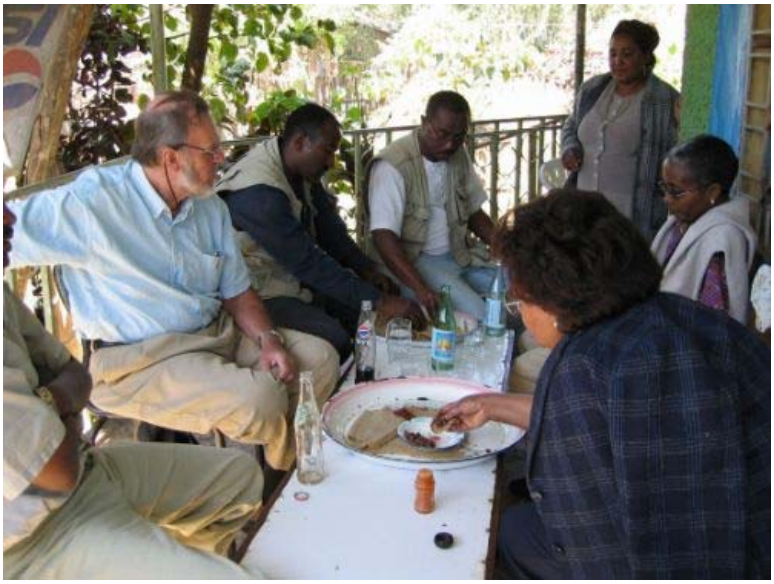
	11:30 Meeting with Dr. Wudenesh, WI Office to access documents, discuss trip logistics and potential respondents and review major components of the project. 1:00 Lunch at Meskel Square Michael Bamberger arrives in late evening
Tues. 2 Dec.	9:00 Meeting of Mary and Michael to review progress in designing the external evaluation and team member assignments. 10:00 Meeting of entire team at Hilton, review of evaluation plans 11:00 Meeting at USAID with Yesuf, Mitsal and Dr. Yeshiareg. Review of evaluation purposes, status of agricultural sector re food security, WI project components and concerns, and logistics of field work. 2:00 Lunch 3:00-7:00 Meetings with Dr. Tekalign (Ag. Coordinator) in WI office to confirm various details of the ONFARM component (Senait) and with Ato Jember (Training Coordinator) about the training philosophy and programming (Mary, Michael and Hadera).
Wed. 3 Dec.	6:00 Departure to the SNNPR (Yem) 12:20 Meeting with 12 representatives of the Deri Edget women's savings and credit cooperative in Yem. Also present 3 DAs, Gov't Extension Officer and local WI Site Coordinator 3:00 Lunch in Foffa, capital of Yem Wereda 4:30 Meeting with farmers in Gessi Peasant Association, home visits Overnight in Jimma
Thurs. 4 Dec.	10:00 Visits to Foffa—Gurumena Langery Peasant Association. Observation of model farm house, demonstration plots and vegetable production cooperative (interaction with women members of the cooperative). 11:30 Michael and Senait interview WI Yem Project Coordinator, Solomon about ONFARM activities and data while Hadera and Mary interview PA Officer and non-target families. 1:00 Meeting with Yem Wereda Council 4:00 Return to Jimma 7:00 Team meeting in Jimma Hotel
Fri. 5 Dec.	9:30 Meeting at WI Gimbo Project Office, review schedule and project overview with Project Coordinator, Wubeshet Adugna. 10:30 Meeting with Gimbo Wereda Partners (representatives of the DoA both DAs and DA Supervisors, Women's Affairs Zonal Office, Extension Rural Dev Agent), based in Bonga. 12:00 Meeting with Wereda Administrator, Endalkachew Debebe

	2:00 Lunch in Bonga 3:00 Meeting of a large group (N=50) of farmers in local school building—representatives of Kuti and Tula PA's. Interaction with farmers about the project and their involvements/achievements. 4:30 Return to Jimma
Sat. 6 Dec.	9:45 Visit with Bemo PA model farmer—Arega who developed the improved beehive and builds grain storage units for sale. 10:45 Interaction with various farmers from Shomba PA, 36-40 people mostly women. 1:00 Lunch in Bonga 2:00 Michael and Senait meeting with WI Gimbo Project Officer; Mary and Hadera interview women farmer at her home about Gender Training and ONFARM involvement 3:30 Meetings with DAs and DA Supervisor from WI: Also interviews with Gov't DA Supervisor. 4:30 Return to Jimma
Sun. 7 Dec.	8:30-1:30 Team Meeting, Integration of information/insights 1:30 Lunch (in preparation for Flight to Addis) 3:00 Departure to Addis via road (flight canceled) Overnight in Welisso
Mon. 8 Dec.	9:00 Arrival in Addis Free day for organization of notes and preparation for trip to the north. Mary interactions with Dr. Wudenesh and Ato Ambachew about schedule for Amhara Region and Trip to Awassa.
Tues. 9 Dec.	6:00 Departure from Addis to Mertule Mariam (Amhara) 3:00 Briefing at WI site office in Enbessie Sar Midir with Site Coordinator and Regional Project Coordinator, Ato Ambachew. Overnight at Agri-Service Guest House, informal interaction with Agri-Service staff
Wed. 10 Dec.	8:30 Departure to Debre Tsion PA 9:30 Visits to various natural resource project sites (gully rehabilitation) 10:00 Meeting with large group of farmers and local leaders from the Debre Tsion PA…Group is divided into four subgroups: • ONFARM participants (N=100) • Credit and Income Generation Participants (N=30) • Natural Resource and Household Technology Participants (N=20) • Local religious leaders and non-target farmers (N=10) 1:00 Lunch at Agri-Service compound

	3:00 Discussion with Phase-over committee and other Wereda Officials, Mertule Mariam: Mary interviews Gov't DAs and WI DAs Dinner and Overnight at Agri-Service Guest House
Thurs. 11 Dec.	8:30 Check out of Agri-Service Guest House; collect information from Melesse at WI Project Office. Travel to Finote Berhan PA 9:00 Discussions with large group of farmers from Finote Berhan PA….group divided into four subgroups 11:00 Interviews with Gov't and WI DAs 1:00 Departure to Dahir Dar, Lunch enroute 5:30 Team meeting at Hotel Tana
Fri. 12 Dec.	9:00 Team splits into two for appointments with Amhara Regional Partners: • Mary and Hadera interview Bureau of Women's Affairs, Ato Kerealem Saileh and Health Department, Engr. Daniel Gella • Senait and Michael interview Bureau of Agriculture, Ato Dereje Beruk and DPPC, Ato Zewdu Awoke 11:00 Interactions with ANRS Regional Coordinator—Ato Ambachew. 1:00 Lunch 1:30 Interviews with Scholarship holders, Alem Yalew, Tenagne Kebede, Yewoinshet Asnake, and Bizuayehu Atnafu; *Leadership for Change* Participants, Amelework Mamo and Simegnish Yimer; and *Participatory Methods* Trainee, Ato Negeese Yayu.
Sat. 13 Dec.	6:30 Departure for Libokemkem Wereda 9:00 Meeting with representatives of Wereda Officials and Phase-over committee in Addis Zemen 10:00 Departure for Mikael Debir 11:45 Group discussions with large group of farmers in Mikael Debir…organized into four subgroups 1:00 Visits to water harvesting site 2:00 Departure for Gondar Overnight in Gondar
Sun. 14 Dec.	6:30 Departure for Libokemkem 9:00 Group discussion with large group of farmers from Bora PA…organized into four subgroups. 11:00 Interviews with DAs and DA Supervisor (WI and Gov't) 12:30 Departure to Dahir Dar, lunch enroute 3:30 Team meeting at Hotel Tana 7:00 Team dinner
Mon. 15 Dec.	6:30 Departure for Bahir Dar Airport

	8:30-9:30 Flight to Addis 10:00 Pick-up and transfer to Hilton Afternoon preparation for trip to Awassa, confirm itinerary. 2:00 Mary interviews Ato Asnake Major, Women's Affairs Office in Awassa and LFC participant/trainer.
Tues. 16 Dec.	6:00 Mary and Hadera depart for Awassa; Micheal and Senait to analyze ONFARM data. 1:00 Arrival and lunch at Hotel in Awassa 2:00 Meeting with Head, Regional Agricultural Bureau, Ato Melese Argaw 3:00 Meeting with Head, Regional Bureau of Finance and Economic Development, Ato Tesfaye H/Michael and Head of Extension, BoA. 4:00 Meeting with Head Civil Service Reform Bureau and scholarship holder (MSc Philippines) and LFC participant and trainer, W/o Amarech Agidew.
Wed. 17 Dec.	9:00 Telephone interview with Ato Teshome Wolde Mariam (unavailable previous day due to visitor from Kenya), Senior Expert and NGO desk Monitoring and Evaluation. 10:30 Meeting with President of Debub University, Ato Zinabu G/Mariam 11:30 Meeting with Department Chairman, Department of Rural Development and Family Sciences 12:30 Lunch 1:00 Meeting with Dean of College of Agriculture, Dr. Firdu Aszerfegn 2:00 Meetings with scholarship holders from Department of Rural Development and Family Sciences: Mary: Dr. Yewlesew Abebe (PhD Oklahoma State) and W/t Getenesh, BSc Adventist College, Philippines Hadera: W/o Asefach Hailu, LFC trainee and Mentoring Task Force facilitator and W/t Anisha Yesuf, MSc Scholarship beneficiary and LFC participant. 3:30 Departure for Addis
Thurs. 18 Dec.	10:00 All Day Team Meeting at WI Office, brainstorming lessons learned and review of presentation format for debriefing with USAID staff. 2:00 Lunch at Hera Restaurant 3:30 Continuation of team meeting
Fri. 19 Dec.	10:00 All Day Team Meeting at WI office, continued development of individual and group presentation. Follow-up data clarification with Solomon and Ato Meketa 7:30 Farewell Dinner sponsored by Dr. Yeshiareg, USAID, WID

Sat. 20 Dec.	9:00 Debriefing with John McMahon, USAID Chief, Agriculture and Natural Resource Office 11:00 Debriefing with WI Staff (Wudenesh, Meketa, Jember, Tekalign, Yewubdar) 2:00 Farewell luncheon sponsored by WI staff
Sun. 21 Dec.	All day development of PowerPoint presentation and debriefing strategy
Mon. 22 Dec.	9:00 Mary breakfast with Yewubdar Hailu, WI Scholarship Coordinator 10:00 Hadera and Mary interview Dr. Mulualem Tarekegn, Vice Chair of the AWLAE 11:00 Team meeting to finalize presentation inputs. 1:00 Team business lunch at the Hilton 2:00 USAID Staff Debriefing (approx. 10 persons including Mission Director William Hammink, Program Officer Peter Delp, the Acting Agriculture and Natural Resources Director and Dr. Yeshiareg Dejene, Gender Specialist) 4:30 Return to Hilton, Final Farewell with Team 7:00 Departure to the Airport 10:20 Departure to Frankfurt and USA



Lunch in the field.

List of Project Documents Reviewed by External Evaluation Team

No.	Title
0	EMPOWER: A proposal for participatory evaluation (draft), March 2003, Addis Ababa
1	WIE Empower. Annual Progress Report (Oct. 2002-Sept. 2003) and Annual Plan of Action (Oct.-Dec. 2003), Oct. 2003
2	WIE-EMPOWER ANRS. Gender focused FS Enhancement Project Coordination Program. A.A.Nov. 2000
3	WIE-EMPOWER ANRS, East Gojjam Zone- Enebssie Sar Midir Wereda. Gender focused FS Enhancement Project 2 (GEFFSEP 2) 2001-03. Revised version. Nov. 2000
4	WIE-EMPOWER ANRS, South Gondar Zone- Libokemkem Wereda. Gender focused FS Enhancement Project 1 (GEFFSEP 1) 2001-03. Revised version. Nov. 2000
5	WIE-EMPOWER SNNPR, Kefa Sheka Zone- Gimbo Wereda. Gender focused FS Enhancement and Capacity Building Project (GEFFSECBP) 2000-02. Febr. 2000
6	WIE-EMPOWER SNNPR, Yem Special Wereda. Gender focused FS Enhancement and Capacity Building for Women in Extension and Research Project (GFFSECBWER) Reappraised Feb. 1999
7	USAID/Ethiopia Crop Production and Pesticide Evaluation Report and Safer Use Action Plan (PERSUAP). Ethiopia Pest Management and Pesticide Evaluation Report. Prepared for WIE and others. July 2003.
8	WIE-Enebssie Sar Midir Wereda Project Site- On farm annual progress report. Oct. 2001-Sep.2002 (with yield data collected after September 2002) and Annual Plan (Oct. 2002-Sep. 2003). April 2003
9	WIE-Libokemkem Wereda Project Site- On farm annual progress report. Oct. 2001-Sep.2002 (with yield data collected after September 2002) and Annual Plan (Oct. 2002-Sep. 2003). April 2003.
10	WIE-Gimbo Project Site- On farm annual progress report. Oct. 2001-Sep.2002 (including yield data collected after September 2002) and Annual Plan (Oct. 2002-Sep. 2003). May 2003
11	WIE-Yem Project Site- On farm annual progress report and plan (Oct. 2002-Sep.2003) (Oct. 2001-Sep. 2002) (including field yield data collected after September 2002).
12	WIE ANRS Regional Project Coordination Office. End of Project Report on Gender focused FS Enhancement Regional Project Coordination Office (GEFFSEP)- Scholarship and short-term training. Nov. 2003
13	WIE-Enebssie Sar Midir Wereda Project Site- End of Project Report on Gender Focused Food Security Enhancement Project in Enebssie Sar Midir wereda

	(GEFFSEP 2). Nov. 2003.
14	WIE-Libokemkem Project Site- End of Project Report on Gender Focused Food Security Enhancement Project in Libokemkem wereda (GEFFSEP 1). Nov. 2003.
15	EMPOWER Program- End of Project Report (1998-2003) for Gimbo wereda
16	EMPOWER Program- End of Project Report (1998-2003) for Yem Special wereda
17	WIE Report on Participatory Evaluation of Yem and Gimbo wereda projects in the SNNPRS (1999-2003). Sep. 2003.
18	WIE- Enebssie Sar Midir Project Site. Gender Focused FS Enhancement Project Participants List. Nov. 2003.
19	Baseline data for WIE partner farmers before the project started at Enebssie Sar Midir wereda
20	WIE- Libokemkem Project Site. Gender focused FSE Project Participants' list. Nov. 2003
21	Wealth status list of participants- For Libokemkem
22	List of partner farmers in Libokemkem who participated in beekeeping and management training (2002-2003)
23	List of DAs and supervisors who participated in beekeeping and management training in Libokemkem
24	EMPOWER (draft) End of Project Report EMPOWER Program, November 2003, Addis Ababa
25	EMPOWER End of Project Monitoring Report, September 2003, Addis Ababa
26	Personal Progress Report, Yogi Abate, WI Development Agent, Michael Dabber (ANRS), December 2003
27	MOU Between WI and the ANRS Disaster Prevention and Preparedness Commission in agreement to implement the "Gender Focused Food Security Enhancement Project", December 2000
28	Moue's Between WI and Wereda Cooperative Promotions Offices in Libokemkem and Enebssie Sar Midir to provide credit services for selected women farmers and to sustain WI initiated farmers' level seed multiplication scheme, June 2001 and December 2003.
29	EMPOWER Phasing over strategy/plan of Yem and Gimbo Projects (draft), April 2002 Addis Ababa

30	EMPOWER End of Project Scholarship Report, September 2003, Addis Ababa
31	African Women Gain Leadership Skills to Guide Agricultural Development, Lessons learned and best practices first 10 years (1989-1999), Winrock International Institute for Agricultural Development, January 1998
32	Enebssie Sar Midir Project Site, End of Project Report on the Gender Focused Food Security Enhancement Project (GEFFSEP2) November 2003
33	Libokemkem Project Site, End of Project Report on the Gender Focused Food Security Enhancement Project (GEFFSEP1) November 2003
34	Gender Focused PRA/Baseline Survey Report of Debre Tsion and Finote Birhan PAs, Enebessie Sar Midir Wereda, East Gojam Zone (ANRS), July 2000
35	Gender Focused PRA/Baseline Survey Report of Shina Tsion and Michael Debir PA's, Libokemkem Wereda, Sout Gonder Zone (ANRS), July 2000

List of Titles of EMPOWER Scholars' Research

Author	Year	Title
Yewelsew Abebe	August 2003	Nutritional Status of Low Income Mothers and Children under five in southern Ethiopia: Focus on Transitional Food Development
Eden Mengistu	Ongoing	The role of Home Economists in HIV/AID prevention and care: On going Ph.D. Dissertation project
Enquayehush Deboch	Ongoing	The Effects Of Seedling Age, Spacing, And Time Of Planting On Phyllochron, Yield And, Yield Components Of Two Rice Varieties Under system Rice Intensification Practices. MSc. Thesis
Alem Yalew	March 2002	Minimizing Enzymatic Browning of Fresh Cut Banana (Musa SP.) Bud. MSc. Thesis.
Amarech Agdew	April 2002	Violence Against Women in Ethiopia: An Obstacle to Development and Women's Full Participation in Development Focus on Abduction in Sidama Zone, Wondo Genet Area. MSc. Thesis.
Abaynesh Woldegiorgis	April 2002	Women's Participation in the Agri Service Ethiopia (ASE) Community Project in Debay tilat Gin., North-West Ethiopia. MSc. Thesis.
Ansha Yesufe	June 2001	Women's Participation in the Production and Utilization of Enset Resource in Selected Villages of Ethiopia.
Emebet Chaka	Ongoing	The Effect of Salinity on the Growth and Survival of Improved Breeds of tilpia strains from Fry to Juvenile" MSc. Thesis
Misrak Aklilu	August 2003	Acid Protcase Supplementation of corn-soybean based Diets Of Broiler and layer Chickens (Gallus Gallus Domesticus). MSc. Thesis
Author	**Year**	**Title**
Haregewoin Takele		Chemical Constituents And Combined Relative Antioxidant Activity Of Sage Plant Parts Varying In Physiological Age And Effect Of Harvest Method And Harvest Height. MSc. Thesis. Stillwater, Oklahoma. Major Field: Food Science, Specialization: Horticulture
Genet Meseret		Women's Participation in a Community based Development Project in Guhalla, Region 3, Ethiopia
Sinedu Abate	July 2000	The Potential for Natural Products to Control Stored Product Insects
Tsehaynesh Kidane	December 2000	Women's Participatory Evaluation of Fuel Saving Technology in Kollashara Peasant Association Arbaminch Zuria Wereda, North Omo, SNNPRS

Almaz Menbere,	January 2003	Promotion of Poultry Package in Tarmaber District Sina PA.
Yenenesh Tadesse,	November 2002	Participatory Evaluation of Hay Box Brooder Made by Farmer with Local Materials in Gimbo Woreda
Yaem Zewid Demissie	May 2002	The Effect of Simulated Soil Erosion on Maize Production at Mekelle University Research Site"
Lemlem T/Medhine	2003	Effect of Different Planting Positions of Vine Cutting on Establishment of Sweet Potato (Ipomea batatas L.)
Meseret Abera,	Ongoing	Promotion of Onion Production among Women farmers in Amhara Region East Gojj am Zone Enebessie Sar Medir District
Author	**Year**	**Title**
Zufan Nezir	Ongoing	Promotion Of Apple Fruit Production In Aelasha Kebele, Kutaber Woreda (South Wollo Zone.)
Mintwab Belay,	Ongoing	Introducing of 'Mirt Biomass Fuel Saving Ingera Stove' for Poor Families Living in Merawi wereda
Frehiwot Tefera	November 2002	Introduction of Onion Production at Arbaminch Wereda in Kolla Shelle Peasant Association
Yenenesh Tadesse	November 2002	Participatory Evaluation of Hay Box Brooder made by Farmer with Local Materials in Gimbo Wereda
Rahmet Yimer	October 2002	Introduction of Cassava Production, Preparation and Utilization of Different Foods Prepared from It in South Wollo Zone Kallu Woreda
Yalmzewede Teshome	October 2002	Farmers Participatory Evaluation of Churns in Totose Keble Angolelana Terra District North Shoa Zone
Getenesh Asefaw	December 2002	Introducing of Vegetable Preservation - Method in Mangudo Peasant Association, at Aleta Wendo Werda, Sidama Zon SNNPRS
Huluagresh Hailu	October 2002	Introducing Alternative Potato Utilization in Enerata Peasant Association, Gozamen Wereda, East Gojjam Zone, Amhara Region
Fanaye Yilma	December 2002	Introduction of Improved Biomass Energy Saving Injera Stove in Minjar Shenkora Wereda
Azeb Negash	????	Assessing effectiveness off video films to create awareness of farmers by introducing Soya Beans
Author	**Year**	**Title**

Hirut Geleta	December 2001	Assessing the Usefulness of Extension Campaign in Encouraging Women to Grow Multi-purpose Trees, around Homestead in Momo Shoki Kebele, Lumme Wereda
Wubit Shiferaw	December 2002	Promotion of Sheep Rearing Among Poor Farmers at Bahir Dar Wereda, West Gojam Zone, Region 3.
Tenagne Kebede	October 2002	Introduction of Urea Treated Straw Among Small Scale Farmers at Bahir Dar Wereda in Three PAs
Zeritu Desta	December 2002	Introducing Sericulture Technology for Rural Farmers in Kalisha and Hachamp PAS, Lemo Wereda, Hadiya Zone, Southern Nations' Nationalities People Regional State
Belaynesh Kumsa	December 2002	Introduction of Home Made Hay Box Chick Brooder in Minjar-Shenkora District
Woudie Bekalu	October 2002	Promotion of Vegetable Crops in Bale Zone, Agarfa Wereda
Tsehaynesh Kidane	December 2000	Women's Participatory Evaluation of Fuel Saving Technology in Kollashara Peasant Association Arbaminch Zuria Wereda, North Omo, SNNPRS
Felekech Basaznew	November 2000	Gender and Extension Service Study Conducted at Shesha Kebele Awassa Woreda, Sidama Zone
Felekech Basaznew	April 2000	Gender and Extension Service Study Conducted at Sheka Kebele, Awassa Wereda, Sidama Zone
Kassech Milky	December 2001	Introducing Sweet Potato Leaves as Supplemental Household Food in Delbo Weggene Peasant Association at Soddo Zuria Wereda, Wolaita Zone (SNNPRS)
Askale Yifu	2003	Effect of Inter-row and Intra-row Spacing on Yield Components of Potato (Solanum Tuberosum L.)
Emebet Bizuayehu	December 2002	Promotion of Tomato Production with a Focus on Farmers' Participation in Agode Kehele at Silte Woreda, Silte Zone

All of the above research and extension projects were designed and implemented by scholars while completing their studies under EMPOWER scholarships.

Plan of Action

EMPOWER End of Project External Evaluation
November/December 2003

The external evaluation team was comprised of four members; two expatriates (Mary Andrews and Michael Bamberger) and two domestic consultants (Senait Seyoum and Hadera Tesfay). The team commenced work on 24 November, 2003 with the arrival in Addis Ababa of team leader, Mary Andrews. The period of time from 25 Nov to 2 Dec was allocated for team meetings, document access and review, initial interactions with USAID and WI officials to clarify the scope of work, and the development of a detailed plan of action for the evaluation effort. Actual field work would commence on 2 December with the arrival of the full team.

It should be noted that the timing of this external evaluation is not ideal. Not only is the evaluation squeezed by a very tight timeline due to holiday schedules, it is operating concurrent to project closeout activities and the dispersal of project staff. These conditions place burdens on all parties, however, cooperation and patience is evident. The opportunity to conduct an external evaluation is being viewed very positively by both USAID and WI. Both parties appreciate the availability of the resources that are making the external evaluation possible as internal resource constraints precluded such an investment earlier. It is accepted that an external evaluation is warranted and important to document the unique scope and character of the EMPOWER project. Logistical support to the evaluation team is being provided by both the USAID and WI offices. WI and DevTech System staff in the USA have also been as cooperative as possible in providing documents and suggesting resource person contacts.

External Evaluation Goals:
The evaluation can be characterized as an External Review. The Draft SOW developed in March 2003 as an "*Ethiopian Management of Participatory Opportunities for Women in Extension and Research (EMPOWER) Program: A Proposal for Participatory Evaluation"* was accepted as an appropriate starting point for the evaluation.
Based on clarification discussions with USAID Officials John McMahon, Yesuf Abdella and Yeshiareg Dejene and with initial interactions with WI Program Coordinator Dr/Woz Wudenesh Hailu, the following outcomes for the external evaluation were identified. That the external evaluation:

1. Serve as a general verification process to review and confirm project claims for achievements and deliverables and to estimate the degree to which project objectives and related modifications were necessary and productive in moving toward agreed upon goals.

2. Gather expert opinion as to the unique elements of the EMPOWER model and their individual or collective influence on project achievements with the intent of identifying operating principles or lessons learned for replication to future endeavors:

   a. Assess the assumptions, strategies and achievements of the three individual EMPOWER components and their integrative aspects to determine if expectations have been met and whether any adjustment are merited:
      i. ONFARM
      ii. Income Generation with Credit
      iii. Training
      iv. Scholarships

3. Estimate quantitatively and qualitatively the degree to which project activities and achievements have left a legacy of improved food security and gender relationships and capacity in the participating institutions and individuals that will endure and be sustained beyond the project period.
4. Identify specific success stories, principles and lessons learned to contribute to the showcasing of the project to the donor/government/stakeholder community.

Goals of the evaluation:

1. Understanding the underlying project strategies and integrative nature of the project
2. Estimating the ability of WI to deliver on expectations, and influences on success
   a. Working relations with partner institutions
   b. Staffing
   c. Cooperation gained with target and non-target families
   d. Gender awareness/involvement elicited
   e. Institutionalization plans, progress and prognosis
3. Verifying project outputs and impacts to the extent possible and compared to what might have happened without the project's presence. Specific impacts on food security or resiliency of target and non-target families? Any specific technologies or approaches better than others in creating resiliency?
4. Estimating the ability of sustainability strategies to continue/sustain/expand in the future
5. Noting any evidence to confirm the theory that training=leadership
6. Identifying elements that might be replicable

Project Components:

1. Training in leadership and gender awareness for rural leaders and officials with the provision of tools to encourage women's participation in grassroots programs (participation methods).
2. Scholarships to upgrade women for leadership positions in Ag and Rural sector.
3. Introduction of improved agricultural and household practices
4. Credit for income generating activities that diversified production
5. Food security/household resiliency gained/sustained

General Schedule of Activities:

26 November-2 December, 2003	Document review, evaluation planning, interviews with key stakeholders in Addis area.
3-17 December	Field work: individual and group interviews
18-22 December	Analysis and development of tentative conclusions; debriefing with stakeholders and report planning
22 December	Departure of Evaluation Team
1-10 January, 2004	Preparation and finalization of External Evaluation Report

Terms of Reference for Individual team members:

1. Participate in the review of documents to familiarize self with total effort
2. Contribute to the fine-tuning of the evaluation design and identification of respondent groups.
3. Take responsibility for one portion of the evaluation plan for
    a. Understanding reports/data/claims
    b. Summarizing findings/lessons learned
    c. Verifying findings with new inputs
    d. Serving as team spokesperson for this aspect of the project during overall analysis and the building of conclusions
    e. Contributing to the final report writing
4. Contribute to the overall data collection effort
5. Provide input into the development of impressions, findings and statements of recommendations
6. Participate in debriefing sessions with stakeholders
7. Read and edit each other's inputs for final report
8. Serve as professional colleagues in maintaining objectivity, cultural relevance and acceptable protocol in all team efforts.

Evaluation Questions and Respondent Groups

Wereda Officials

1. Tell us about the EMPOWER Project that has been operating in your Wereda, What were its major contributions?
2. Would you be able to tell the difference between the way the EMPOWER Staff work and how other development agents work?
3. Do you think that your Wereda has benefited from the EMPOWER project? Examples
4. Do you think families will continue to benefit even after the project is over?
5. We understand that this project was especially concerned that women farmers get help? Did this happen? Will this continue after the project is over? If so, how?
6. What is the capacity and preparedness of the Wereda to ensure sustainability of the effort?
7. Would you welcome this NGO to your Wereda in the future?

DoA Officers

1. How many DAs operate in this Wereda?
2. How many would you estimate received some training from WI?
3. Were the technologies and strategies of WI similar to your own? Is the WI model useful?
4. How would you characterize the relationship between WI DAs and your DAs?
5. We understand that WI was trying to develop better working relationships for women farmers? Do you agree? Do you think any attitudes have changed toward women because of WI? Do you think the food security goals of the project have been reached?
6. What do you think will happen now that WI is closing the project? Will the work continue? Will the families continue to benefit?
7. Would you welcome the NGO back to your Wereda? Are there other NGOs working here? In the same area as WI? How would you compare WI to other NGO's?

DAs and other WI staff

1. What was different about the way ONFARM operated compared to other development efforts?
2. The technologies that were introduced, how were they identified?
3. What incentives did you use to gain farmer cooperation? Are these similar to what the government would use?
4. How difficult was it to achieve the gains that are reported in annual reports?
5. Do you think attitudes toward women have changed as a result of WI work? Any examples?
6. Will the benefits that families have gained endure after the project closes? How?
7. Did you encounter any problems in working for WI? Are you glad that you were able to work for this NGO? What unique capacities did you gain from the WI project (that other DAs are lacking)?

Cooperating DAs/officials

1. Are you familiar with the ONFARM program? Would you consider it a successful program? What is different about it compared to other programs?
2. Did ONFARM encourage the same technologies and rural development strategies as you do in government service?
3. Did ONFARM work with families in a similar or different way than you do in government service? (i.e. incentives, women, income generation)
4. Did you receive any training from WI? If yes, on what topics?
5. Did you learn anything from WI that has proved useful to you?
6. Did you assist them in any way that was useful to them?
7. Do you think families benefited from the work of ONFARM? Examples:
8. Do you think enough families benefited given the time and resources applied?
9. What would you consider the strengths and weaknesses of the WI project?
10. To what extent were local, regional, federal level partners linked for project implementation?
11. What do you think will happen now that the project is closing? Will the families continue to benefit? Will your work be any different?

Participating families

1. Tell us about your work with ONFARM. How did you get involved?
2. Do you think you have benefited from working with ONFARM? Give examples of status before and after involvement? How many ideas/technologies did you apply from the project?
3. Have you shared any of your ideas with other farm families? Have they taken up new ideas?
4. Is there any difference in the way the ONFARM DAs worked with you and the way government DAs work?
5. Are you glad that you were able to work with ONFARM?
6. Now that their project is closing, what do you think will happen? Will you continue to improve your farming? Will you continue to try new ideas?
7. We understand that ONFARM was especially interested in getting help for female farmers? Do you think any attitudes towards females have changed since they started working here? Do you think relationships within your family have changed?
8. <u>Members of Savings and Credit Groups</u>: Are you glad that you are a member of the credit and savings association? How have you or your family benefited? Would you have been able to participate without the EMPOWER project? Will you continue your membership? Help others join?

Wereda Steering Committee

1. We understand that one of the roles of this committee is to try to sustain the work of ONFARM into the future. Is this correct? How do you plan to do this?
2. What would you say was unique about ONFARM and WI? What is worth keeping?
3. Do you think attitudes toward women farmers have changed in any way since WI was here? What more needs to be done?

4. Are you glad the WI was here, even if only for a brief time? Do think families will have lasting benefits from their work? Examples

Scholarship holders

1. What scholarship did you receive? Why do you think you were chosen?
2. Could you have gotten this degree/diploma/cert/ without the scholarship?
3. In addition to the coursework, did you participate in any training by WI?
4. Did you participate in a rural work experience? If yes, how did this affect you?
5. Are you better prepared to serve women's needs in ag. & rural dev.? In what ways?
6. Where were you working before the scholarship and now after the scholarship? Do you consider this a promotion? Do you have a chance in this new role to help other women?
7. Where would you like to be in your career 5 years from now?
8. What are your feelings toward WI? Are you glad that you worked with them? Did you encounter any problems in working with them?
9. Do you think women's roles in agriculture are changing in any way? Attitudes toward women changing? What more needs to be done?
10. If asked, how would you justify the expenditures associated with your scholarship? What benefits will result for your organization/society?

Gender Training Recipients

1. In what kind of training were you involved? Explain. During that training did you learn about ways to address gender issues? How did you feel about this training?
2. Have you made any changes in how you work with women or women farmers as a result of training?
3. Do you think the training has made a difference in overall male-female relations or how women are treated?
4. Do you know of any other organizations in Ethiopia working on gender issues? Explain
5. What more could have been done in this area or can be done in the future?
6. Now that WI is closing the EMPOWER project, do you think this work on gender issues will continue? In what ways?

Regional Level BoA and Partner Organizations

1. One of the major components of the EMPOWER project was the scholarship program for women. How do you feel about this effort?
2. Do you think the right people were selected or that the selection process was fair?
3. Do you think that those who received scholarships will make in difference in addressing gender issues in the future?
4. Did you encounter any problems in implementing this component?
5. Are you aware of the field work component of diploma holders? Was this useful in generating sensitivity to women's issues? To solving appropriate technology concerns?

6. Did you or any of your staff participate in other types of gender awareness training? Was this the first such training made available to you? How was the training received?
7. Do you know of other organizations providing such training?
8. What do you predict will remain concerning gender issues after the project closes? Will any gains be sustained? How?
9. Concerning the ONFARM component, do you think that the introduced technologies have made or have the potential to make an impact on agricultural productivity and food security? Were sufficient gains made to impress/motivate farmers to continue to innovate? Did a sufficient number of farmers benefit directly or indirectly?
10. Did the WI project/strategies provide any solutions to long-term productivity concerns?

College and Training Cooperators

1. How has your institution been involved with the EMPOWER project?
2. The record of women trained in degree and diplomas is outstanding. Could this have happened without the project?
3. In what ways has your institution changed to be more supportive of women students? What problems were encountered…solutions created?
4. Do you think there is a better environment for women now than before the project?
5. Do you think these women who were trained will be able to make a positive difference for women, in their jobs/institutions?

Credit Institutions

1. We understand that creating credit and savings cooperatives (for men or women) has been a challenge? What is the cause of the concerns? Is progress being made? Are the legal bottlenecks removed?
2. Will the current cooperatives continue after the closing of the WI project? Will they all secure legal status? How will your organization ensure continuation?
3. Will women continue to be enrolled/served after the closing of the WI project? Who will provide oversight to be sure that this happens?
4. Do you think families have benefited from having credit? Will these benefits continue?

Number of Crop[1] Varieties Introduced, Passed through Adaptation and Demonstration Trials, Multiplied by Farmers and Showing Yield Advantages over Landraces by Project Site

Project site, project period and crop type	#crop types	#vars intro-duced	#vars passed adaptation trials	#vars tested on farm (dem. plots)[4]	#vars multip-lied by farmers[4]	Varieties showing yield advantage over local		No. farmer participants In demonstration trials	
						#vars w. yield adv.	Percent yield adv. Range	Total no.	% female[4]
Yem 2000-03	12	42	26	n.a	5	22		922	66
-Wheat		10	5	n.a	n.a	5	28-47	169	n.a
-Teff		5	4	n.a	n.a	2	4- 23	171	n.a
-Maize		2	2	n.a	n.a	2	17-66	113	n.a
-Barley		3	2	n.a	n.a	2	20-28	29	n.a
-Sorghum		2	0	n.a	n.a	-	-	7	n.a
-Fava bean		2	2	n.a	n.a	1	41	51	n.a
-Field pea		1	1	n.a	n.a	1	52	150	n.a
-Chickpea		5	3	n.a	n.a	3	44-62	57	n.a
-Lentil		2	2	n.a	n.a	1	40	90	n.a
-Linseed		3	2	n.a	n.a	2	24-61	39	n.a
-Sweet potato		5	2	n.a	n.a	2	2-65	25	n.a
-Irish potato		2	1	n.a	n.a	1	60	21	n.a
Gimbo 2000-03	16	58	57	21	16	15		1243	66%
-Teff		6	4	5	3	3	1–107	n.a	n.a
-Wheat		5	5	1	1	1	25-125	n.a	n.a
-Barley		2	2	-	-	-	-	n.a	n.a
-Maize		1	0	1	-	-	-	n.a	n.a
-Sorghum		10	10	-	-	-	-	n.a	n.a
-Haricot bean		5	5	3	2	3	2 –175	n.a	n.a
-Field pea		1	1	1	1	1	52-64	n.a	n.a
-Chick pea		5	5	2	2	2	27-108	n.a	n.a
-Fava bean		1	1	1	1	1	60-100	n.a	n.a
-Flax		2	2	1	1	1	126-254	n.a	n.a
-Sweet potato		3	5	3	3	3	117-192	n.a	n.a
-Irish potato		6	6	3	2	n.a	n.a	n.a	n.a
-Lentil		2	2	0	0	n.a	n.a	n.a	n.a
-Soya bean		1	1	0	0	n.a	n.a	n.a	n.a
-Sesame		6	6	0	0	n.a	n.a	n.a	n.a
-Groundnuts		2	2	0	0	n.a	n.a	n.a	n.a
Libokemkem 2001-03	13	80	54	56	16	9		1089	46%
-Teff		4	2	4	2	-	-	151	44
-Barley		4	3	4	3	-	-	131	44
-Wheat[2]		21	15	11	3	3	10-22	121	49
-Triticale[3]		6	6	0	-	-	-	n.a	n.a

-Maize		6	0	6	-	1	35	105	54
-Rice		2	1	1	-	-	-	152	56
-Faba bean		4	4	3	1	1	18	37	54
-Field pea		6	5	1	1	1	33	48	38
-Haricot bean		10	4	8	-	-	-	42	43
-Linseed		5	5	5	1	3	176-211	37	35
-Finger millet		2	2	2	2	-	-	34	53
-Sorghum		-	-	-	-	-	-	9	**
-Lentil		5	4	2	-	-	-	1	-
-Chickpea		5	3	5	3	-	-	98	47
Enebssie Sar Midir 2001-3	9	67	59	37	11	7		660	45%
-Teff		6	5	3	1	1	8	99	47
-Wheat[2]		19	16	14	3	2	21-22	104	48
-Triticale[3]		7	7	0	-	-	-	n.a	-
-Barley		4	3	4	2	-	-	25	45
-Faba bean		4	3	1	1	1	26	15	38
-Field peas		5	4	5	1	1	31	16	24
-Linseed		4	4	4	1	2	65	7	39
-Chickpea		5	4	0	2	-	-	26	57
-Lentil		3	3	0	-	-	-	-	-
-Haricot bean		9	9	2	-	-	-	-	-

n.a. = Not available.

*No yield was registered for sorghum in Libokemkem due to crop failure at germination.

Notes:

[1]Crops include field crops (cereals and legumes) and vegetable crops like sweet and Irish potato, but exclude other vegetables, fruit trees, enset suckers and forage species.

[2]For both Libokemkem and Enebssie Sar Midir the number of wheat varieties cited is the sum of bread and durum wheat varieties.

[3]Six and seven varieties of triticale were introduced and passed through adaptation trials in Libokemkem and Enebssie Sar Midir respectively, but did not reach on-farm demonstration stage.

[4]In Yem, introduced and most adapted crop varieties were identified in the EOP report, but there was no crop specific information on varieties which went through on-farm demonstration trials or were multiplied by farmers.

[5]The Yem EOP report does not have any information on the number or percent of female participants in on-farm demonstrations by crop variety. The EOP report for Gimbo does not have any list of partner farmers who participated in on-farm demonstrations by crop type. Hence figures reported under this column for these two sites represent total numbers of farmers who participated in all on-farm demonstrations.

Source: Compiled on the basis of lists found in End of Project Reports for individual project sites.