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.