

Final Evaluation Report  
of the

**Improvement of Household Food Security and Woreda  
Integrated Basic Services Project  
In Oromia and Tigray Regions – Ethiopia**

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by

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<sup>1</sup> This report reflects the opinion of the mission team and does not necessarily represent the official view of the DGIC or of the Belgian government

## Table of Contents

List of Appendices .....	iii
Acknowledgments .....	iv
List of Acronyms .....	v
Executive Summary .....	6
1. Introduction .....	12
2. Intervention Context and Project Description .....	12
2.1 Intervention Context .....	12
2.2 Project Description .....	14
2.2.1 <i>Predecessors to the project/ Program history/evolution</i> .....	14
2.2.2 <i>Program objectives</i> .....	15
2.2.3 <i>Description of Project Activities</i> .....	15
2.2.4 Geographic and population targeting strategy .....	17
2.2.5 <i>Implementation strategy: description of institutional, administrative, financial arrangements for implementation.</i> .....	19
3. Evaluation Objectives .....	20
4. Methods .....	21
4.1 Data Sources, Instrument Development and Testing .....	21
4.1.1 <i>Data sources</i> .....	21
4.1.2 <i>Instrument Development and Testing</i> .....	23
4.2 Training of Enumerators .....	23
4.3 Sampling and Data Collection .....	24
4.3.1 <i>Sample Size Calculations</i> .....	24
4.3.2 <i>Sample selection</i> .....	26
5. Limitations .....	27
6. Evaluation Results .....	29
6.1 Relevance .....	29
6.2 Effectiveness .....	30
6.2.1 <i>Results 1 and 2: Ensured food availability/access and improved incomes</i> .....	31
6.2.2 <i>Result 3: Nutrition status of women and children improved</i> .....	35
6.2.3 <i>Result 4: Improved access/use of health services by women and children</i> .....	35
6.2.5 <i>Result 6: Improved access to water and sanitation</i> .....	36
6.3.1 <i>Results 1 and 2: Ensured food availability/access and improved incomes</i> .....	38
6.3.2 <i>Result 3: Nutrition status of women and children improved</i> .....	39
6.3.3 <i>Result 4: Improved access/use of health services by women and children</i> .....	39
6.3.4 <i>Results 5 and 6: Enhanced basic education for girls and Improved access to water and sanitation</i> .....	40
6.4 Efficiency .....	49
6.5 Sustainability .....	51
7. Conclusions .....	52
8. Recommendations .....	54
8.1 Project Planning and Design .....	54
8.2 Implementation .....	55
8.3 Institutional Framework .....	56
References .....	59

## **List of Appendices**

- Appendix 1 List of Objectives and Targets and Indicators
- Appendix 2 Logical Framework
- Appendix 3 List of Persons Met
- Appendix 4 Focus Groups Discussion Guide (English, Afan Oromo, Tigrinya)
- Appendix 5 Key Informant Interview Guide (English, Afan Oromo, Tigrinya)
- Appendix 6 Community Level Questionnaire (English)
- Appendix 7 Household Questionnaire – Female (English, Afan Oromo, Tigrinya)
- Appendix 8 Household Questionnaire – Male (English, Afan Oromo, Tigrinya)
- Appendix 9 Maps of Targeted Kabeles in Boke, Bedeno, Samre, and Tsilemti Woredas
- Appendix 10 Terms of Reference

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## List of Acronyms

ADLI	Agricultural Development Led Industrialization Strategy
BINP	Bangladesh Integrated Nutrition Program
BOFED	Bureau of Finance and Economic Development
BSF	Belgium Survival Fund
CBN	Community Based Nutrition
CDD	Community Driven Development
DA	Development Agent
DFID	Department for International Development
DHS	Demographic and Health Survey
EPI	Expanded Program for Immunization
FANTA	Food and Nutrition Technical Assistance Project
FGD	Focus Group Discussions
FHH	Female Headed Household
FSP	Food Security Project
GOE	Government of Ethiopia
HFIAS	Household Food Insecurity Access Scale (FANTA)
HH	Household
HAZ	Height for Age Z score
KII	Key Informant Interviews
Logframe	Logical Framework Analysis
MDG	Millennium Development Goals
MOARD	Ministry of Agriculture and Rural Development
OOPP	Objective Orientation Project Plan
PA	Peasant Association
PRA	Participatory Rural Appraisal
PRSP	Poverty Reduction Strategy Paper
PSNP	Productive Safety Nets Program
PTA	Parent and Teacher Association
TBA	Traditional Birthing Attendant
TET	Tufts Evaluation Team
TINP	Tamil Nadu Integrated Nutrition Program
TOR	Terms of Reference
UNICEF	United Nations Children's Fund
WAZ	Weight for Age Z score
WHZ	Weight for Height Z score
WIBS	Woreda Integrated Basic Services

## Executive Summary

### Objectives and Methods

The objective of the “Improvement of Household Food Security and Woreda Integrated Basic Services (BSF/WIBS) Project” was to improve household food insecurity and to reduce the mortality and morbidity of vulnerable women and children. Funded by the Belgian Survival Fund (BSF), the program has been implemented by the Government of Ethiopia in partnership with UNICEF since the year 2001 in four woredas of the Oromia and Tigray regions. The Project’s approach is integrated and multi-sectoral, initiating improvements in household and community well-being across agriculture, health, education and water sectors. An important priority of the approach is to build the capacity of Woreda and community level administration to plan and mobilize resources for activities that can continue after the Project’s funding has ceased. A hallmark of this strategy is the extensive involvement of community members in the planning and implementation of a jointly developed workplan.

This report details the process and results of the end-line evaluation of the BSF/WIBS Project. The evaluation was carried out from March to June, 2007 by one faculty and one research staff member of the Tufts University Friedman School of Nutrition Science and Policy together with a team of 3 national experts in the fields of water, education, and rural development/food security. The Tufts Evaluation Team (TET) was charged with five primary tasks: to assess a) the relevance, b) effectiveness, c) impact, d) efficiency, and e) sustainability of the BSF/WIBS. This evaluation also aimed to contribute to the understanding of challenges related to the integration of multi-sectoral programs, scaling up of community-driven activities, and the management and oversight of programs in a recently decentralized environment.

A mixed method approach was employed in order to answer the evaluation questions. Data sources included 1) interviews with project officials and community representatives, 2) focus group discussions with project beneficiaries, 3) a structured household survey of a sample of households from each of the four project woredas, and 4) a community checklist to collect information on community level infrastructure that had been built as part of the project.

A total of 571 households were surveyed for the evaluation. In Boke and Bedeno woredas, multi-stage cluster sampling methods were used to randomly select 305 households from among those Kabeles that had been sampled for the baseline survey<sup>2</sup>. One hundred eighty-five of these households were in villages that participated in the BSF/WIBS project, while 120 households were from non-BSF/WIBS areas and were used as a comparison group. In Tigray, 266 households were randomly selected from a list of beneficiary households in 10 villages located in the two woredas, Samre and

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<sup>2</sup> In Boke, the baseline survey sampled 255 households (126 from 5 BSF Kabeles and 129 from 5 non-BSF Kabeles). In Bedeno, the baseline survey sampled 246 households (145 from 5 BSF Kabeles and 101 from 4 non-BSF kabeles).

Tsilemti. In both regions, enumerators interviewed only households that had a child under five and its mother in residence. Within each household, enumerators collected anthropometric measurements for one child (typically the youngest child in the household) and his/her mother.

While the range of data sources allowed for an analysis of all of the evaluation questions, the study of impact was limited by the fact that no quantitative baseline data existed for the project in Tigray, while in Oromia only a report with summary statistics was accessible. As such, the TET could not assess statistical significance of pre-post changes in well-being in Oromia, and could not learn about project impacts in Tigray.

### Relevance

The TET concluded that the design of the BSF/WIBS Project is relevant to UNICEF, BSF and Ethiopian development priorities as well to the expressed needs of the target communities.

- One of the biggest strengths of the project was the participatory planning approach that engaged target communities in identifying key development challenges in their areas and in determining the activities that were most contextually suitable to addressing these problems.
- That said, while relevant problems and solutions were identified at the outset by the community, there was insufficient *prioritization* of activities and *assessment of key preconditions for success*. Facilitated discussions (between communities and experts) during the planning phase could have addressed these issues earlier and promoted the implementation of activities with track records of success.
- The decision to implement the BSF/WIBS project in the most vulnerable Kabeles and target to only the most vulnerable households was appropriate despite the trade-offs involved. The project was narrowly targeted (according to its objectives), resulting in a low rate of coverage. This design decision made it difficult to detect project impact as part of the evaluation, as the evaluation budget was not big enough to support a sample size with enough power to detect impacts if they existed. As such, the magnitude of impact is likely to be understated in the evaluation results.
- While the project objectives were appropriate given the nature of the project's interventions, the targets stated in the project documents (e.g. reduction of malnutrition by 15%) were largely unrealistic given the level of inputs available and the number of beneficiaries that could be reached, even under conditions of perfect project implementation.

### Effectiveness

- Of the numerous project activities, community revolving funds were one of the most effectively delivered in three of the four Woredas (in all except Boke Woreda). For

instance, in Bedeno though only 200 households were slated to receive an improved breed of chicken, over the course of the project 575 households (nearly 3 times the target) were allocated 2,281 birds. The development of, and adherence to, strict eligibility criteria ensured that only those poorest and vulnerable members of the community received loans as cash (Tigray) or livestock (Oromia).

- The construction of education and health facility infrastructure was also highly effective. For instance, Samre exceeded its target by 20% over the project implementation period. For example, 12 new classrooms were constructed and 676 pieces of furniture were provided, including desks, chairs, blackboards, and shelving, in 2005 alone. The 2005 monitoring data from Tsilemti show that 8 out of 10 planned classrooms were built and 676 pieces of classroom furniture were delivered. Focus groups reported that the new construction coupled with awareness raising activities motivated parents to send girl and boy children to school for an education.
- According to monitoring reports and the community-level checklist, water infrastructure was greatly improved in many of the BSF/WIBS communities. Water projects were more thoroughly implemented in Boke (92% completion of planned communal water schemes) and Samre (over six times the number of planned water related trainings for government officials) than in Bedeno and Tsilemti (average 20% and 33% of communal water projects completed, respectively). Nearly every focus group stressed that the improvements were welcome but not sufficient given the severity of the water scarcity and the need for water for agriculture, livestock, and personal consumption.
- Household-targeted activities pertaining to the provision of nutrition inputs (eg. supplementary feeding) were delivered at the lowest rates, whereas activities pertaining to community awareness raising and training of project officials were more successfully implemented. Possible explanations for the slow implementation of household-targeted activities include: low community demand for nutrition interventions given the relative invisibility of the problem, a scarcity of nutrition capacity at lower administrative levels, and the lack of an institutional home for nutrition within the local health sector. These types of constraints may have been magnified by more general implementation issues described in the ‘efficiency’ section. Given that activities to improve administrative knowledge and awareness of nutrition interventions were, in fact, carried out, the project may have succeeded in laying the ground-work for more targeted nutrition interventions in the future.

### Impact

A comparison of food insecurity manifestations between beneficiary households and non-beneficiary households in BSF/WIBS project areas using the FANTA Household Food Insecurity Access Scale showed that, for seven of eight items in the food insecurity index, fewer BSF/WIBS households reported experiencing food insecurity conditions than non-BSF/WIBS households. Thus, at the end of the project, BSF

households showed better food security situation than non-BSF households. Based on the assumption that BSF/WIBS beneficiaries were worse off at the beginning (as corroborated in focus groups), the project had a positive impact on the household food security situation.

- Several positive impacts were detected in the health and nutrition of women and children. For instance, visits for antenatal care improved by 8% more in BSF project communities than in non-project communities. Use of contraceptives, delivery using a trained TBA or health practitioner, receipt of tetanus vaccine during pregnancy, and mother's self-reported perception of her health status had all improved, and had improved more in the project areas than not.
- There were significant reductions, of approximately 10 - 20 percentage points, in each of three anthropometric indicators of malnutrition (WAZ, WHZ, HAZ). Because the data showed improvements of similar magnitude in both project and non-project sites, it is not possible to entirely attribute these positive changes to the BSF/WIBS nutrition activities. Moreover, the only nutrition-related activities implemented to any degree were training of government officials and some community-level interventions (like school gardens) that would be unlikely to affect nutrition status directly. More likely, the observed changes were due to a secular trend or to interventions implemented in both project and control areas (like the EOS).
- There was scarce comparable baseline to endline data to be able to draw conclusions about the impacts of education and water activities. The data did suggest that the improvement in access to a protected water source was greater by 15% in BSF/WIBS than non-BSF/WIBS areas by the end of the project.
- Focus group participants felt that the project served to strengthen both the physical and human infrastructure in ways that are particularly valuable to improving future development investments. For instance, with the decentralization of fiscal and planning control to the Woreda, having the BSF program in place with the secondary aim to capacitate local government has produced a structure and mechanism through which other national programs can operate. In addition, qualitative interviews indicated that the BSF/WIBS project instilled a strong sense of ownership, optimism, and feelings of self-sufficiency within the community.

### Efficiency

The evaluation identified problems related to the implementation and management of the BSF project that appeared to account for project achievements that were less than intended.

- All key informants and focus group discussants reported that the project was very well targeted to those most in need of support. However, respondents also felt that

food insecurity was widespread among other households not receiving project benefits.

- Monitoring of project activities at all levels was insufficient. This problem can be largely attributed to the overburdened workloads of all project coordinating staff within BOFED and UNICEF and the relatively low priority of the small-scale BSF/WIBS project within these institutions.
- The institutional capacity of both BOFED and UNICEF in regards to food security programming was also limited. Adding other institutional relationships, for example with the Bureau of Food Security, may have been more appropriate.
- Inconsistency (during the middle of the project) in the release of funds from BSF and UNICEF also greatly reduced the efficiency of the project activities. Funds were not dispersed to any project woreda for a period of one-two years (the actual time varied by Woreda) bringing many BSF/WIBS activities to a stand-still and impeding the momentum that had been gathering since the inception of the participatory planning exercises. It has been widely reported that the delay in the release of funds was due to the 2002-03 Ethiopian drought emergency (which affected the BSF Woredas) and the absence of a BSF focal person in UNICEF.

### Conclusions and Recommendations

The Tufts Evaluation Team concluded that the BSF/WIBS was a well-designed and very well-targeted project with a commendable commitment to participation, integration, and building local capacity and infrastructure. The project suffered, though, from various implementation challenges that were often exogenous to the community project coordination structure and outside the control of individual beneficiaries. The Tufts Evaluation Team recommends that funding for the BSF/WIBS activities be continued in the four project Woredas, however key changes should be made to the project design, implementation, and institutional framework:

- Proposed activities during future PRA/needs assessments should be prioritized by the communities in order of their perceived importance agreed through facilitated discussions with programs staff. The feasibility of implementing the activities and the ability of proposed activities to drive desired impacts should be assessed with technical experts.
- The importance of developing a strong monitoring information system for the next phase of the project cannot be emphasized enough. Many of the implementation problems that ultimately hindered the project's efficiency and effectiveness could have been easily addressed and resolved if information about project implementation had been compiled regularly, aggregated, analyzed and acted on at each administrative level.

- BSF should fund at least one full-time National Project Coordinator to be housed in UNICEF. This person would be responsible for coordinating and monitoring the project in all four Woredas and would provide bi-annual reports to BSF.
- A ‘phased approach’ to the implementation of project activities is recommended, with the first phase addressing issues of infrastructure and technical administrative capacity at the Woreda and Kabele level.
- Since the Woreda BSF Coordinator is typically overburdened with other competing priorities, incentives for the Woreda BSF Coordinator should be put in place to encourage his/her careful oversight of the project.
- In coordinating future BSF Projects, UNICEF should partner with regional Food Security Offices located within Regional Agricultural Bureaus rather than partnering only with Regional BOFED offices.
- In future the BSF/WIBS woredas should be used as a learning ground for the larger (but similar) integrated Community-based Nutrition program, in order to test technical strategies, activities, and management practices before scaling them up to 150 woredas.
- As a relatively small-scale project, the role of the BSF/WIBS should continue to be addressing the needs of the poorest, most food insecure and vulnerable households and communities when larger scale projects are focused on broader coverage with less narrow targeting to the ultra-poor.
- Drought is a regular phenomenon in Ethiopia. During the BSF/WIBS project, the redirection of funds and personnel from the existing project to “emergency response” in non-project areas caused a lapse in implementation that represented a major setback for the project and its beneficiaries. The prevention (or mitigation) of the effects of drought and other covariate shocks on the implementation of existing programs should be taken into account in the design of all food security interventions in these regions.
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- 1. Introduction

Conditions of poverty, food insecurity, and malnutrition in Ethiopia are well documented and have been the focus of development efforts for more than half a century. Poverty in Ethiopia is largely a rural phenomenon, with nearly 90% of Ethiopia's poor living in rural areas (DFID, 2003, 3). The majority of households in rural areas are highly dependent on agriculture for their livelihoods. As the agricultural techniques practiced in the rural areas are largely non-modernized and dependent on rainfall, it is not surprising that many households are highly vulnerable to regular shocks, including fluctuations in annual rainfall, crop blights, pest infestation, and livestock epidemics. All of these shocks can render rural households destitute, as many liquidate already scarce assets to cope with such adversities. Excessive vulnerability leaves households in a vicious cycle of poverty where their efforts are insufficient to lift themselves from their tenuous reality.

The BSF/WIBS (Belgian Survival Fund/Woreda Integrated Basic Services) Project represents a commitment from the Belgian Parliament to help Ethiopia alleviate poverty, food insecurity and its numerous manifestations, such as low access to health services and safe drinking water, low literacy and education coverage, and high mortality and morbidity among women and children. The BSF is committed to address the underlying conditions poverty and food insecurity in the most vulnerable groups (e.g. women and children) *within* the most vulnerable communities through an integrated and participatory approach, working to support local and national institutional structures.

The end-line evaluation of the BSF/WIBS Project was carried out from March to June, 2007 by faculty and research staff from Tufts University's Friedman School of Nutrition Science and Policy together with a team of 3 national experts in the water, education, and rural development/food security sectors. The evaluation had five primary objectives: to assess a) the relevance, b) effectiveness, c) impact, d) efficiency, and e) sustainability of the BSF/WIBS project. These objectives collapse into three broad categories of project design, implementation and management, and achievements.

This report begins by describing the context in which the project has taken place and follows with a detailed description of the project's design and intended implementation procedures. Subsequent sections outline the evaluation objectives, methods, and key findings. The report finishes with a set of conclusions and recommendations relevant to improvements in the BSF/WIBS Project and to other integrated food security programs worldwide.

## **2. Intervention Context and Project Description**

### 2.1 Intervention Context

This situation of protracted poverty and vulnerability affects households and rural communities in many ways. Low per capita income, a widely used measure of poverty, reduces households' ability provide sufficient nourishment for all members. In addition,

low incomes also limit parents' ability to invest in their children's education as the opportunity costs of sending their children to school remains too high. Low education levels often manifest in poor parental caring practices, further reducing the wellbeing of children. The combination of low incomes and education levels prevents households from investing household sanitation infrastructure and adopting improved health and sanitation practices. These situations are the underlying causes behind delayed child development and contribute directly the acute and chronic malnourishment of more than 50% of Ethiopia's children under 5 years old (Silva 2005).

In the continued quest for effective and cost-effective approaches to human development, the question of the merits of single-sector programming versus multi-sectoral public action has not been settled. On the one hand, vertical programs tend to deliver a narrow 'package' of interventions, consistently, and on a large-scale. These programs frequently achieve broad coverage but yield narrowly defined impacts, temporarily ignoring the roots of the problem they are structured to address in favor of tackling the precipitating causes for more direct, but potentially less sustainable, results. While successful examples of such programs, like national vitamin A supplementation, borehole drilling, and EPI, abound, there are equivalent examples of such interventions that are critically constrained by failing to address important underlying factors with multiple causes and solutions.

Integrated programs, on the other hand, are better suited to address underlying as well as proximate causes of development problems. When centered at administrative levels closest to the ultimate target beneficiaries, such programs are more likely to result in a strengthening of the human and social infrastructure of the community, building a capacity that can ultimately be self-sustaining. However, community-based programs often suffer the challenge of scaling-up and achieving broad coverage when their design is variable and driven by context-specific needs of a particular population. Systems for managing the implementation of multiple program sites must yield decision-making to local levels and build-in flexibility, while retaining a minimum level of standardization across locales.

In Ethiopia, vertical, sector-specific programming continues to play an important role in the economic and human development of the nation. Organizations like UNICEF have shifted over the past several years from integrated community-based approaches (e.g. in the form of its prior Woreda Integrated Basic Services [WIBS] Project), to sectoral programs that aim to achieve a common set of priority objectives. Increasingly, though, frameworks like the PRSP and approaches like Community Driven Development (CDD) are replacing or complementing vertical programming. The Millennium Development Goals (MDGs), by "making explicit the synergy between priority problems" and "maintaining targets to address them as a set, rather than individually" have provided a common agenda for motivating increased interaction among sectors and ministries (Gentilini and Webb, p. 3 in Basset 2006). In Ethiopia, these trends must also be considered against the backdrop of rapid decentralization of governance and administration, a process with important implications for the implementation of any community-based development program.

The Improvement of Household Food Security and Woreda Integrated Basic Services Project (BSF/WIBS) falls squarely in this context of complementary trends. Funded by the Belgian Survival Fund (BSF), the program has been implemented by UNICEF in partnership with the Government of Ethiopia since the year 2001 in 4 woredas of the Oromia and Tigray regions. The overall objective of the project is to ensure the survival, protection, development, and participation of children and women through the improvement of household food security and the reduction of mortality and morbidity in the selected project areas. Its approach is an integrated, multi-sectoral strategy that fosters community participation in planning and the mobilization of local and external resources for interventions that target improvements in household and community well-being across agriculture, health, education and water sectors. This strategy is the hallmark of the BSF, which funds similar integrated development interventions in at least 20 other countries in Africa, including one in partnership with the FAO in Ethiopia.

Examined against the backdrop of this intervention context, an evaluation of the BSF/WIBS programs' successes and constraints has the potential to contribute important lessons for better understanding the challenges of the harmonization of vertical/national and horizontal/local programs, scaling-up community driven activities, and successfully managing the delivery of a range of services in a recently decentralized environment.

## 2.2 Project Description

### *2.2.1 Predecessors to the project/ Program history/evolution*

The integrated design of the BSF/WIBS evolved from the national WIBS program, implemented by UNICEF and the Government of Ethiopia (GoE) from 1994 to 1998. The WIBS program aimed to supply 52 Woredas with the financial means to improve basic health, education, and water infrastructure. The WIBS program's decentralized implementation strategy (i.e. working through Woreda governments) was *not* complimented at that time by Ethiopia's more centralized administrative structure, which dispensed funds and implemented projects via the Zonal administrations. This fact, coupled with low capacity at the Woreda level at the time, greatly impeded the overall success of the first WIBS program.

Despite the termination of the WIBS program in 1998, the model was reinstated in 2000 as the Improvement of Household Food Security and Woreda Integrated Basic Services Project (BSF/WIBS), funded by the Belgian Survival Fund and implemented by UNICEF in partnership with the Government of Ethiopia. By addressing household food security via the provision of an integrated basic services package, the BSF/WIBS project sought to create a sustainable model to reduce the alarmingly high rates of child and maternal mortality and morbidity. Though the BSF-funded WIBS project included additional food security components that were typically outside of UNICEF's purview, the two institutions appeared to form a natural partnership for their shared commitment to improving education, health, nutrition and water of children and their families through

community based approaches. Additionally, the BSF aims to reach the same target groups, that is, the most vulnerable in a community, particularly women and girls.

In 2000, the BSF/WIBS Project was established via a tripartite agreement signed between the Government of Ethiopia, the Government of Belgium and UNICEF. The project was implemented in four Woredas, two in the Tigray region, and two in the Oromia region. The project consisted of two phases: a participatory planning phase and an implementation phase. In both regions, the participatory planning phase included a thorough targeting exercise at all levels and community participation in the project's design and development of planned activities.

### *2.2.2 Program objectives*

The overall objective of the project is to ensure the survival, protection, development, and participation of children and women through the improvement of household food security and reduction of mortality and morbidity in the selected project areas. The project's specific objectives are:

1. Improve the availability of and access to year round adequate food supply at household level.
2. Improve the nutritional status and level of care of women and children
3. Enhance access to adequate health care services for women and children
4. Improve access to quality basic education for children and life skills or women
5. Improve access to clean and safe water and ensure environmental sanitation
6. Improve household income and its equitable utilization in the project area

Indicators and targets for impacting each of these objectives were developed individually in each of the 4 Woredas. A summary of these objectives, targets, and their indicators is included in Appendix 1.

### *2.2.3 Description of Project Activities*

The following section summarizes those activities that were planned to support the achievement of the six broad objectives outlined above.

#### *2.2.3.1 Improve availability of and access to year round adequate food supply*

Activities planned to improve household food security were focused on improving access to livestock assets and on improving agricultural productivity. Community micro-credit *revolving funds* which enable households to access oxen, cows, sheep, goats, were present in all project Woredas. Access to oxen was stressed over other types of livestock as oxen can greatly improve agricultural productivity, enabling households to efficiently

plough fields and plant crops according to the cropping calendar. Agriculture extension activities that provide access to improved farming practices, seed varieties, and fertilizers were planned in all Woredas. Improved agricultural inputs can greatly enhance agricultural yields, in turn improving household income and food supplies.

#### 2.2.3.2 Improvement of income and production utilization

Activities planned to improve incomes were primarily focused on reducing harmful behaviors (e.g. chat and alcohol use), provision of credit and training, and improving women's participation in community-based organizations and the relevance of development projects to women's needs. Interestingly, the livestock revolving funds were typically included under the 'improvement of food production and access' result rather than under the improvement of income. In reality, this same activity can theoretically benefit both production and income, thereby resulting in greater food access.

#### 2.2.3.3 Improve access to primary health care services

Activities planned to improve access to health care services were focused on the construction and equipment of health centers, the training of health care workers on EPI and Vitamin-A outreach, and the organization of health-focused groups. The construction and equipment of health centers was planned to provide communities with the basic infrastructure to be able to implement local/regional/national health programs as well as planned BSF/WIBS activities. The trainings of health care workers and traditional birth attendants were also seen as contributing the communities' health care infrastructure. The formation of local groups or committees to address malaria, HIV/AIDS, and environmental sanitation were seen as activities that fostered community involvement and promoted the sustainability of project.

#### 2.2.3.4 Increase gross enrollment rate at the primary stage of education

Much like health care, activities planned to increase gross enrollment focused on the strengthening of school administration and educational quality, the construction and equipment of schools, and community mobilization around education. To better utilize scarce resources and coordinate training activities, the formation of 'school clusters' was planned. School clusters consist of the school administrators and staff of a few proximately located schools. These clusters share technical equipment and coordinated trainings for teachers and school administrators. Through these activities, the BSF/WIBS projected aimed to improve the quality of education provided. School construction and equipment of schools was planned to increase the basic educational infrastructure within targeted Kabeles which, when lacking, directly prohibits children from attending school because of time and distance constraints. Community contributions are a critical component to school construction, as local materials and labor were planned to facilitate and instigate the construction of schools and class blocks. In addition, activities were planned to advocate the importance of education to local community groups. By strengthening school Parent and Teacher Associations (PTAs) and discouraging

detrimental practices such as early marriage, the BSF/WIBS project aimed to improve the importance of education in the target Kabeles.

#### 2.2.3.5 Reduce the current level of malnutrition

The strategy for reducing malnutrition included activities focused on individual services, the training of health care staff, and the sensitization of community leaders and groups. Planned individual activities include the provision of Vitamin A supplementation to children and lactating mothers and the establishment of a growth monitoring system. Subjects for trainings for local health staff included micro-nutrient deficiency and control and general awareness raising of the impacts of malnutrition. Sensitization of community leaders, particularly regarding the promotion of Vitamin A rich food consumption and the effects of malnutrition on vulnerable households, were planned to enhance community knowledge and understanding of the causes of malnutrition.

#### 2.2.3.6 Increase access to adequate and potable water supply

Activities planned to improve the access to adequate and potable water were focused on enhancing zonal hydro-geological capacity, construction and installation of water points/wells, and the establishment of water committees. To enhance the zone's capacity to implement hydro-geological activities, trainings of hydrogeologists and the provision of aerial photography and maintenance equipment were planned. Increasing capacity at the zone level was intended to facilitate the construction of water points (e.g. boreholes and shallow wells) and the development of perennial springs. Water committees were also planned to facilitate the management and preservation of existing water sources and schemes.

In addition to the objectives detailed above, the BSF/WIBS project also aimed to increase the planning, monitoring, and evaluation capacity of Regional/Zonal/Woreda and Community level administrations. Through intensive cooperation and participation, the BSF/WIBS project aimed to increase the technical capacity and implementation prowess of all stakeholders.

The specific sectoral activities are further detailed in the Logical Framework Analysis (Logframe) presented in Appendix 2.

### *2.2.4 Geographic and population targeting strategy*

#### 2.2.4.1 Woreda Selection

According to project planning documents, Woredas in both Tigray and Oromia were selected based on the pervasiveness of household food insecurity, frequent droughts, and low agricultural productivity. In addition, the selected Woredas had poor access to basic health, education, and water services, and lacked any health, education, and water infrastructure. Four Woredas (two in Tigray and two in Oromia) were selected from

Woredas that had been participating in the national WBS program. In Oromia, Bedeno and Boke Woredas were selected to participate in the BSF/WBS project. In Tigray, Samre and Tselemti Woredas<sup>3</sup> were selected as the two BSF/WBS project sites.

#### 2.2.4.2 Kabele Selection

Due to the large geographic area and population of each Woreda relative to available resources, the BSF Project was implemented only in certain target Kabeles within each Woreda. According to BSF principles, the project was implemented *only* in the most vulnerable Kabeles. By concentrating resources in the most vulnerable Kabeles, UNICEF and regional governments aimed to make a sustainable impact in improving food security at the household level among those who needed it most.

Initially, ten ‘BSF Kabeles’ were chosen in both Boke and Bedeno Woredas. Due to the subdivision of four Kabeles in Boke and two in Bedeno (i.e. one Kabele was divided and made into two Kabeles) in Boke there were ultimately 14 BSF Kabeles and 12 BSF Kabeles in Bedeno. Five Kabeles were chosen in Samre and Tsilemti at the start of the project. The subdivision of one Kabele in each Woreda resulted in six BSF Kabeles in both Samre and Tsilemti.

Basic criteria were compiled in order to select the target Kabeles in each region. The criteria used for the Kabele selection were further developed into a field guideline for data collection from the Kabeles using PRA methodology. Though the criteria for Kabele selection were flexible and differed across Woredas, the main criteria to select Kabeles in both Oromia and Tigray is as follows:

- Nutritional status of children
- Estimated rate of morbidity and mortality among women and children
- Access to clean and adequate water supply
- Access to health institutions
- Access to quality basic education and life skills to women and children
- Duration of food shortage in the Kabeles
- Availability of services as credit, grind mills
- Average land and livestock holding per household
- Productivity of major crops
- Existence of off-farm income-generating activities – trading, remittance, etc
- Traditional decision making practices, ETC

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<sup>3</sup> In Tigray, the 2000 border conflict between the Ethiopia and Eritrea prompted the Government of Tigray to request that UNICEF and BOFED re-select project Woredas, as the Woredas Mereblehe and Gulomakda are proximately located to the Ethiopia/Eritrean border. Samre and Tsilemti Woredas were chosen to replace Mereblehe and Gulomakda as their populations also experienced chronic food deficit and drought. Though this change in the project Woredas could suggest that the project did not target the most vulnerable Woredas in Tigray, numerous regional officials have attested to the similarity of conditions and need for assistance in the original and ultimately-selected Woredas.

#### 2.2.4.3 Household Targeting

Participatory planning approaches were also utilized by communities to target the most food insecure households. Specifically, ‘wealth ranking’ exercises were employed in all Kabeles and were widely effective at targeting the services to the most vulnerable households. The ‘wealth ranking’ exercises enabled communities to have a localized definition of wealth, often categorizing households into three categories: rich, medium, and poor. Numerous focus groups expressed satisfaction with this targeting approach and stated that few households that received the project assistance were incorrectly targeted. This suggests leakage of project activities to non-targeted households was rare.

In addition to targeting households based on their ‘wealth ranking’, communities also established definitions of vulnerable households that should also be targeted. Female-headed households were often targeted to be the main beneficiaries of the project, as they are often marginalized and have limited employment opportunities.

#### 2.2.4.4 Community-Based Participatory Planning

In order to for the project’s activities to meet the needs of the communities, an extensive participatory planning process was undertaken. The participatory planning phase lasted one year in Tigray and six months in Oromia. To facilitate this phase, UNICEF initiated a PRA training of technical experts at the Regional, Zonal, Woreda, and Kabele level. UNICEF conducted two 10-day trainings; 1 for Regional and Zonal experts, and 1 for Woreda and Kabele sector experts and representatives. Established participatory methods that were employed include Participatory Rural Appraisal (PRA), Objective Oriented Project Planning (OOPP), and participatory causality analysis. These analyses and subsequent project planning identified critical and underlying causes of household food insecurity. With a clear understanding of the local causes of food insecurity, representatives from UNICEF and regional Bureau’s of Finance and Economic Development (BOFED) assisted Woreda administrators and Kabele Officials to develop appropriate activities and work plan.

#### *2.2.5 Implementation strategy: description of institutional, administrative, financial arrangements for implementation.*

The project utilizes a community based approach to reinforce actions at household level with community and institutional support. One of the basic rationales behind extensive community participation is to ensure the sustainability of the project by supporting integrated and locally-appropriate activities that build capacity to sustain continuous assessment, analyses and actions (Triple A).

#### *2.2.3.7 Management and Administration of the project*

The project is managed by the Woreda Steering committee. The committee consists of seven to nine different people with one or no female member(s). The chairperson of the

committee is the Woreda administrator, with representation from various sectors (e.g. agriculture, health, education, and water departments). The coordinator of the food security desk is the secretary of the committee and is tasked with coordinating various sectoral officials and with the overall management of the project's activities. Kabele level development committees are responsible for the day-to-day implementation and follow-up of project activities. The Kabele development committee is chaired by the Kabele chairperson and is comprised of sectoral experts from the Kabele Administration. The development committee is responsible for organizing monthly meetings and submitting quarterly reports to the Woreda BSF/WIBS coordinator.

Monitoring and oversight of the activities was the responsibility of both UNICEF and BOFED. Both UNICEF and BOFED required that monitoring reports detailing the implementation efforts and liquidation of project funds were provided regularly. Funding requests from the Woreda were sent to UNICEF, which transmitted funds to the Woreda via regional BOFEDs.

### **3. Evaluation Objectives**

The BSF/WIBS Evaluation Terms of Reference specified five primary objectives: to assess the a) relevance, b) effectiveness, c) impact, d) efficiency, and e) sustainability of the project. These objectives can be usefully collapsed into three broad stages of the project cycle: project design, implementation and management, and achievements. This section summarizes the key questions that were assessed within each of these categories.

#### **2.3 Program Design (Relevance)**

“Project Relevance”, as assessed in this evaluation, has several different meanings: a) the appropriateness of the project's objectives and activities to national level priorities, needs, strategies and policies, b) the suitability of the objectives and activities in responding to community-defined development priorities, c) the soundness of the project design (ie. the ‘logic’ of the logical framework), d) the feasibility of project targets and the usefulness of indicators, e) the degree to which selected interventions have been proven effective elsewhere, f) the extent to which key pre-conditions for project success (ie. assumptions) were assessed and accounted for in advance, and g) the extent to which potential positive/negative impacts related to gender, HIV/AIDS, and the environment taken into account in the project's design.

#### **2.4 Program Results and Achievements (Effectiveness and Impact)**

“Project Effectiveness” is defined as the extent to which planned project activities have been realised (eg. the number of schools built out of the total number of school constructions scheduled in the workplan). Project “impact”, on the other hand, assesses the extent to which these activities, when implemented, yield desired improvements in the well-being of target communities and households.

## 2.5 Management and Implementation of the Program (Efficiency, Sustainability)

The TET assessment of “Project Efficiency” covered a wide range of issues, all pertaining to the transformation, or ratio, of project outputs to inputs. Project efficiency covers issues of a) targeting, b) technical support, c) organizational efficiency, and d) financial efficiency, all of which are required in order to facilitate this transformation. A lack of observed effectiveness in achieving project targets can be understood through a closer examination of problems in project efficiency.

Sustainability: Thought the term “sustainability” has many meanings, in the context of this evaluation, sustainability was defined and assessed by the TET as: a) the degree to which project management processes or systems are likely to continue once sources of external funding have ceased, b) the probability that new sources of finance will be leveraged to continue the types of activities being implemented under the project c) the likelihood that existing capital investments realized under the project will be maintained and continue to operate after external funding and support has stopped, d) the degree to which community members maintain knowledge, attitudes, and practices acquired as a result of the project, e) the likelihood that impacts realized by the project will continue beyond the project’s completion date, f) the degree to which capacities within local government and communities that were instilled by the project will be maintained. Sustainability is typically (though not ideally) assessed prospectively, an approach that is limited by the need to speculate on the future based on the past and present situation.

## 4. Methods

The evaluation was conducted by the Tufts University Friedman School of Nutrition Science and Policy evaluation team (TET) from March through June, 2007. The TET was comprised of faculty and research staff from Tufts University with expertise in food security and nutrition, and three Ethiopian national experts in water, food security/rural development, and education fields. The following section details the methods used to conduct the evaluation. The evaluation team members worked closely together to carry out each stage of the evaluation process.

### 4.1 Data Sources, Instrument Development and Testing

#### 4.1.1 Data sources

In order to achieve the evaluation objectives, a mixed methods approach to data collection was employed. The TET utilized four types of research instruments: 1) open-ended key informant interviews with project coordinators and implementers, 2) focus group discussions with beneficiaries and non-beneficiaries, 3) a community-level checklist, and 4) a household survey. The data collected by the TET was supplemented

by monitoring data provided by Woreda officials and by relevant literature on UNICEF’s and Ethiopia’s development strategies, policies, and institutions.

As illustrated in Table 1, information from the key informant interviews and focus group discussions enabled the TET to get a sense of perceived constraints and successes in implementing the BSF project from both an official and community/beneficiary perspective. In addition, these data allowed the TET to explore key project assumptions and how they influenced the project’s implementation and sustainability.

The community-level checklist was used to collect information on community infrastructure and to capture the extent to which there were changes in availability and access of key education, water and health facilities as a result to BSF project interventions.

Table 1: Data Sources for Informing Evaluation Criteria

Evaluation Criteria	Data Sources
Relevance	Document desk review Key informant interviews
Effectiveness	Woreda monitoring data Focus group discussions Community-level checklist
Impact	Household survey Focus group discussions
Efficiency	Focus group discussions Key informant interviews
Sustainability	Focus group discussions Key informant interviews

The household survey provided crucial information on the coverage of certain BSF activities and on the extent to which BSF/WIBS activities contributed to the realization of intended household- and individual-level outcomes. In addition, the household survey enabled the TET to examine the impacts (where possible due to baseline data limitations) of the BSF project. Due to the non-existence of baseline data in tabular form (i.e. the baseline database), the household survey also asked households whether they experienced changes in key behaviors and indicators of well-being since the year 2001 (ie. the start of the project) and whether these changes were related in any way to BSF inputs.

Official monitoring records supported these primary data sources by summarizing the effectiveness of program implementation – that is, by indicating the degree to which planned activities were accomplished. Triangulating the monitoring data with information from key informant interviews also enabled TET to explain any sub-optimal effectiveness by exploring constraints to the project’s implementation.

Finally, the TET reviewed the literature describing UNICEF and GoE programs in order to understand the development context and the ‘fit’ of the BSF-project within UNICEF and the GoE’s program portfolio.

#### *4.1.2 Instrument Development and Testing*

The household survey, FGD and KII guides, and the community-level checklist were designed based on established best practice and were drafted and then extensively revised prior to pre-testing using insights collected from three-day formative research trips to project areas in Tigray and Oromia.

Portions of the household survey were designed to mirror as closely as possible the impact-indicator questions that were asked at the baseline and summarized in the baseline report. Unfortunately, since the actual baseline questionnaire was not appended to the report the question wording had to be approximated from the report tables and text. The household survey questionnaire collected detailed information on household characteristics that were used to construct key impact indicators (eg. demographics, literacy, income sources, water access, hygiene and sanitation, food and non-food expenditure, dietary diversity, anthropometry, health practices and outcomes, food production). The survey also contained questions about the delivery/receipt of BSF project inputs and the impressions of the respondents about changes in aspects of their well-being since the start of the project.

#### 4.2 Training of Enumerators

Enumerator training was conducted by the TET members twice -- first in Mekele (Tigray) and next in Bedeno (Oromia), lasted approximately four days including the pilot test in each site. The 8 enumerators trained for the Tigray household survey were degree holders, several had concentrated their studies on related areas like statistics, computer science, or other relevant subjects. In Oromia, nearly all of the 10 enumerators were diploma-holding government officials selected by the BSF project coordinators. Though this was not considered ideal given the potential for respondents to recognize and respond differently to enumerators associated with the government, only 2 of the 10 officials were collecting data in the areas in which they worked and were recognized by respondents. These enumerators were DAs with solid relationships in the community and, it was felt by the TET, that respondents were more likely to provide honest, straightforward answers to these known entities.

During training, enumerators were briefed on the study objectives, and were instructed on survey protocols, the sample methodology, and procedures to be adopted in the field. Each question in the questionnaire was reviewed individually and thoroughly discussed.

A full pilot test was initiated in each region on the fourth training day once the enumerators and supervisors were completely familiar with the questionnaires. The pilot

test served not only as a final check of the questionnaire, but also as an opportunity to evaluate and provide feedback to the enumerators on their performance. Following the test day in Tigray, a quality check was performed of the completed surveys. Problems were reviewed and, where necessary, changes made to the questionnaire. Because the survey had already been finalized during the Tigray training, no changes were made after the pilot test in Oromia due to the need to have the instruments be consistent across the two regions. After the questionnaires were finalized, the survey questionnaires, FGD and KII guides were translated from English into Afan Oromo and Tigrinia.

### 4.3 Sampling and Data Collection

#### 4.3.1 Sample Size Calculations

The first step in calculating sample size requires the determination of which indicator or indicators, of interest to the project evaluation, should be used as the basis for the sample estimates. Typically, an indicator that represents the primary project objective is used in order to ensure that any actual change in that indicator in the population will be detected within the sample. In the not uncommon instance where there are several project objectives, the indicator is used that is likely to be the most demanding in terms of sample size. The combination of these two criteria was applied in this instance.

The goal of the project was to improve the morbidity and mortality of women and children. As a proxy for these two objectives, change in child malnutrition was chosen as the indicator on which to base the sample estimates. Not only is this the impact of primary interest to UNICEF, it is also, of the range of other project impact indicators, one of the most difficult to detect. The reason for this is twofold: 1) the anticipated magnitude of improvement is quite small (Mason *et al.* suggests that improvements more on the order of 1-2% per year are what can be expected from large scale nutrition projects) despite the ambitious targets set by project designers and 2) the project itself was designed with few activities targeted directly to the improvement of child nutrition, suggesting that any effect may be even more difficult to identify.

There are several options in operationalizing a measure of child malnutrition. A case could be made to use weight-for-height (wasting), global acute malnutrition (severe+moderate+weight-for-height+oedema), height-for-age (stunting), or weight-for-age (composite indicator of both), or all of the above. In Ethiopia, where problems of wasting as well as stunting and micronutrient malnutrition are still prevalent, a composite of the wasting and stunting is most appropriate if the selection must be narrowed to a single anthropometric indicator. As such, the sample size was estimated based on the percentage of children < 60 months with weight-for-age z-score of <-2.

The following Equation for Changes in Proportions was used to estimate the sample size.

$$n = D [(Z\alpha + Z\beta)^2 * (P1 (1 - P1) + P2 (1 - P2)) / (P2 - P1)^2]$$

Where:

N:

required minimum sample size per comparison group

D:

design effect (assumed to be the conventional value of “2” typically used for anthropometric surveys)

P1:

the estimated prevalence of children with weight-for-height z-scores < 2 at the time of the baseline survey. Due to the lack of baseline data for Tigray, a prevalence estimate was derived from the 2000 Ethiopia DHS survey. Using DHS data, the estimate of P1 was the average across Tigray and Oromia regions.

Region	% WFA < -2
Tigray	47.9
Oromia	42.4
Average	45.15 (45%)

Source: Ethiopia DHS Report, 2000

P2:

The expected prevalence of weight-for-height z-scores <2 at the time of the current survey, such that the quantity (P2 - P1) is the size of the magnitude of change we would like to detect. In this case, we will use the estimate by Mason et al. of 1% per year, or 7% over 7 years of implementation.

$Z\alpha$  = the Z-score corresponding to the degree of confidence with which it is desired to be able to conclude that an observed change of size (P2 - P1) would not have occurred by chance ( $\alpha$  - the level of statistical significance). Where  $\alpha=.95$ ,  $Z\alpha=1.645$

$Z\beta$  = the z-score corresponding to the degree of confidence with which it is desired to be certain of detecting a change of size (P2 - P1) if one actually occurred ( $\beta$  - statistical power). Where  $\beta=0.8$   $Z\beta=.840$

Which yields:

$$n = 2 [(1.645 + 0.840)^2 * (45 (1 - 45) + 7 (1 - 7)) / (7 - 45)^2]$$
$$n=1025$$

In this study, however, resources were available to interview respondents in 600 households only. Since, according to the 2005 DHS survey 16.7% of the rural population was under age 60 months and the average rural household size was 5.2, around 86% of households were estimated to contain at least one child in the desired age range. Therefore, in order to interview 600 households with children under 5, about  $600/.86$ , or 698 households would have to be visited and screened for having a child in the

appropriate range. To the extent possible, this was figured into the logistics and timeline for the survey

#### *4.3.2 Sample selection*

FGD and KII: Purposive sampling methods were used to select respondents for key informant interviews (KII), focus group discussions (FGD), and community-level information in Tigray and Oromia. Approximately 40 KIIs and 20 FGDs were conducted by the TET members in the two regions.

Household Survey: Oromia: For the household survey, slightly different sampling methods were used in Oromia than in Tigray, necessitated by the lack of baseline data and incomparable non-project woredas in Tigray (see Table 2 for a summary of key demographic indicators of the sample). In Oromia, summary baseline data (in hard copy) was available for both Boke and Bedeno Woredas. The TET mirrored the geographic sampling strategy outlined in the baseline reports to select households for participation in the household survey. Five Kabeles were randomly selected from the baseline Kabele sample and revisited – three of these were from BSF areas (representing highland, midland, and lowland) and two were comparison Kabeles in which the BSF project had not operated. Using a multi-stage cluster sampling approach, two villages within each Kabele were randomly selected from a complete list of villages in the Kabele. At the final stage, field coordinators were instructed to randomly select 15 households each village, in which there was a female between the ages of 14 – 49 years old and a child between the ages of 6 – 59 months, old using the random-walk method (Magnani 1997; 30).

Enumerators were instructed to walk in the randomly selected direction, stopping at every *n*th house (*n* being a randomly selected number, in this case, ‘4’). Where there was no female or child in the appropriate age range, the enumerators were told to proceed to the next house until they encountered a household with a child and female in residence. This procedure was repeated until the enumerators had conducted their allotted number of interviews. Enumerators worked in pairs, with one enumerator asking questions of the female respondent that pertained to the female’s sphere of responsibility, and the other asking questions to the male respondent that the male was in the best position to answer. In total, 305 household survey questionnaires (185=BSF, 120=Non-BSF) were completed during the data collection process.

Household Survey, Tigray: In Tigray, the absence of any quantitative baseline data made pre-post comparison of the BSF Project’s impact unfeasible. A second option, to collect data from comparison (non-BSF communities) in order to draw conclusions about the relative well-being of households exposed to the BSF intervention, was also discarded after consultation with UNICEF, BSF, and other M&E experts at Tufts. This, it was agreed, could not add reliable information on impact given that the initial, pre-project status of households in both communities was unknown (and, if anything, non-project woredas were believed to be better off initially to project areas). Given scarce resources and a limited sample size, it was decided to only survey households in randomly selected

BSF Kabeles, and to randomly select BSF beneficiary households *only* in order to maximize both the sample size and data pertaining to the program experience – that is, data related to the extent of uptake of project activities by beneficiaries of various characteristics along with information related to the project’s effectiveness.

The sampling process proceeded by randomly selecting 5 BSF/WIBS Kabeles<sup>4</sup> in Samre and 5 in Tsilemnti. Each Kabele is comprised of two villages, and one of the two was randomly selected from each Kabele. Within each of these villages, 30 households with a female between the ages of 14 – 49 years old and a child between the ages of 6 – 59 months were randomly selected from a list of BSF beneficiaries provided by Woreda or Kabele officials. Once at the households, interviews proceeded the same way they did in Oromia, with enumerator pairs interviewing one male and one female in the household. In total, 266 questionnaires were completed during the data collection process.

## 5. Limitations

A few limitations to the implementation of the evaluation should be mentioned at the outset. First, as mentioned previously, no quantitative baseline data existed for the project in Tigray and in Oromia the raw data from the baseline were not available (only a report with summary statistics was accessible). The lack of comparable data from before the project began limited the TET’s ability to draw conclusions about the statistical significance of changes in well-being in Oromia, and prevented the team from learning about project impacts in Tigray. Second, monitoring data was to be used as the key resource for determining project effectiveness. In Oromia these data were available however in Tigray, only Samre Woreda provided final monitoring reports and these reports were difficult to interpret against program activity targets specified in the workplan. In Tsilemnti, monitoring data was only available from the year 2005. Third, because one of the TET national consultants had to leave during the first week, the TET was short one national consultant. As a result, the Tufts Field Coordinator was required to stand in for this team member Oromia, preventing him from overseeing the entire data collection in both regions.

Fourth, because the BSF project is implemented through the local government, it does not have strong name recognition within the community. This meant that respondents confused BSF with other government programs and did not always know who had funded the services they were receiving. While this issue is actually preferable from a sustainability standpoint, the lack of a strong project identity made it difficult at times to disentangle information relating to BSF from that relating to other projects. In addition, the long time frame of the project (6 years) made recall difficult for respondents, who could not always remember receiving certain services or trainings that may have been administered early on in the project. Finally, the high rate of turnover of government

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<sup>4</sup> While in Oromia, the administrative level below the Woreda (district) is the “Kabele” (Peasant Association). In Tigray, these units are called ‘Tabias’, but for the sake of consistency they will also be referred to here as “Kabeles”. The unit below the Kabele level will be referred to interchangeably as “village” or “community”.

staff at the regional and Woreda level may have impeded the ability of the TET to uncover the entire story related to the project's efficiency and implementation. Where possible, the TET tracked down project staff that had since moved on to other posts in order to interview them about their experiences with the BSF/WIBS project.

Table 2: Key Household Demographic Characteristics in Oromia and Tigray Sample

	Oromia: BSF			Oromia: Non-BSF			Intervention % Δ – Control %Δ	Tigray  Post (n=244)
	Post (n=185)	Pre (n=271)	%Δ	Post (n=120)	Pre (n=230)	%Δ		
Household size	5.8	6.0	-0.2	5.9	6.9	-1.0	-0.8	5.9
Dependency ratio*	1.6	1.5	0.1	1.5	1.7	-0.2	-0.3	1.3
Religion								
<i>Orthodox</i>	9.2	0.0	-9.2	1.7	1.1	-0.6	8.6	100.0
<i>Muslim</i>	90.8	100	9.2	98.3	98.9	-0.6	-9.8	0.0
Age	(n=1092)	(n=1681)		(n=714)	(n=1389)			(n=1446)
0-4	30.5	26.1	-4.4	24.6	24.6	0.0	4.4	20.7
5-19	36.1	38.8	2.7	40.9	40.5	-0.4	-3.1	43.7
20-34	21.2	18.5	-2.7	22.1	19.2	-2.9	-0.2	16.7
35-49	10.6	12.7	2.1	10.1	11.3	1.2	-0.9	14.6
50+	1.6	3.9	2.3	2.2	4.5	2.3	0.0	4.3

Source: Tufts Friedman School of Nutrition Science and Policy Evaluation Team (TET)/UNICEF-Ethiopia Survey 2007

\*"Dependency ratio" in baseline and follow-up survey data was defined as the population level ratio of (<=14 yrs and >=65 yrs) / (>=14 yrs and <=65 yrs)

## 6. Evaluation Results

### 6.1 Relevance

The TET concluded that the design of the BSF/WIBS Project is relevant to UNICEF, BSF and Ethiopian development priorities as well to the expressed needs of the target communities.

- Participatory planning approaches engaged target communities in identifying key development challenges in their areas and in determining the activities that were most contextually suitable to addressing these problems. Feedback from focus group respondents affirmed that the activities that the BSF Project were highly relevant to the needs of the community. The thoroughness with which the project was designed, coupled with the elaborate consultative process is, in the opinion of the evaluators, the biggest strength of the BSF/WIBS project.
- That said, while relevant problems and solutions were identified at the outset, the critical steps of prioritization and assessing key preconditions for success were lacking in the planning process. During focus group discussions, the evaluators noted that community members had some difficulty agreeing on the relative importance of intervention activities. For example, male discussants in Meta Ramis, Bedeno ranked (in order of importance): the construction of improved roads, soil conservation, health center construction, and the construction of a veterinary clinic. Female discussants in the same village prioritized interventions that support maternal and child health and income generating activities. This example suggests that even in the same community there are often divergent attitudes towards the significance of the various problems the project was intended to address, underscoring the need for a facilitated prioritization process.
- Though community engagement in the project design resulted in a workplan that was very contextually relevant, the lack of expert influence in the design process meant that certain activities that have been proven effective were conspicuously missing, while other less-proven activities were abundant. For example, though Boke Woreda had a growth monitoring activity, there was no attempt to link this monitoring activity with supplementary feeding, a combination approach that is a proven-effective strategy to improve the nutritional status of children. Instead, the workplan contained such activities as school nutrition gardens, vegetable seed distribution to women headed households, and the installation of grinding mills -- none of which are widely accepted practices for reducing child malnutrition. The lesson from this example is that even when a project emphasizes community ownership, there *is still a role (and need) for* technical experts who can propose and advocate for more evidence-based activities.

- Targeting trade-offs are nearly always necessary, with resource constraints forcing the decision to reach more people with fewer services or fewer people with a larger development package [ref WB reposition nut doc]. Trade-offs are also made in determining whether to target the most vulnerable/in need or those slightly less vulnerable households who are in a better position to take advantage of development inputs and transform them into improved well-being of their families and community. The decision to implement the BSF/WIBS project in the most vulnerable Kabeles was appropriate despite the trade-offs involved and the potential political unpopularity of concentrating scarce project resources in the hands of only the most vulnerable members of the society. This result of this design decision, though, was smaller coverage within a community, and greater challenges in eliciting desired impacts at detectable levels.
- While the project objectives were appropriate given the nature of the project's interventions, the targets stated in the project documents (eg. reduction of malnutrition by 15%) were largely unrealistic given the level of inputs available and the number of beneficiaries that could be reached, even under conditions of perfect project implementation. For instance, it has been estimated that even the most successful integrated nutrition programs featuring child growth promotion (eg. TINP, BINP) resulted in an average decline of child malnutrition of 1-2 percentage points per year (Heaver et al, forthcoming) far below the rate required to achieve the BSF/WIBS target over 6 years with fewer resources and nutrition-related activities.

## 6.2 Effectiveness

“Project effectiveness” is the extent to which project activities have been implemented as planned. The TET examined effectiveness by collecting and tabulating monitoring data and by gathering qualitative insights from project officials and beneficiaries. Tables 3 and 4 present the results of the tabulations of monitoring data. For each Woreda (except Tsilemnti, which did not have monitoring records), the final activity report data were aggregated into 4 main types of inputs:

- a) Capacity building and awareness-raising for government/community project officials -- examples of these types of inputs include health worker trainings and management workshops for BSF steering committee members.
- b) Capacity building and awareness-raising for households or individuals -- inputs falling into this category include nutrition education for women and training for farmers on alternative methods of fertilizing the soil.
- c) Community assets -- the infrastructural and supply inputs whose benefits stretch beyond the household, including schools, water schemes, health clinics and medical equipment, and
- d) Household assets -- the BSF project sought to improve household assets by extending loans, in the form of livestock in Oromia and mostly in the form of cash in Tigray. One other input category is presented in the tables under Result 1 only:
- e) Agriculture inputs, including the provision of seeds and fertilizer.

In order to determine the degree to which the activities in these 5 categories had been implemented, information from the ‘planned’ and ‘implemented’ columns of each report was used to calculate the percentage that had been completed (Eg. 10 trainings planned, 5 trainings implemented = 50%). The percentages calculated for each workplan activity were aggregated by the 5 categories and the mean and median were reported in Tables 3 and 4. On several occasions, the Woreda reported having carried out activities to an extent greater than that intended the original workplan. In these instances, the completion rate exceeded 100%.

### *6.2.1 Results 1 and 2: Ensured food availability/access and improved incomes*

Monitoring data offer a mixed picture of the implementation effectiveness of activities to support Results 1 and 2, though for the most part inputs related to this component of the project were effectively delivered. Table 3 suggests that, in Bedeno, trainings, including those for extension agents, development agents, contact farmers, and farmers groups, were implemented according to, and sometimes exceeding, the number planned. Activities to augment household assets, specifically in the form of the provision of livestock as part of the revolving credit fund (poultry, goats, heifers) also met (or exceeded) targets. For instance, 200 households were slated to receive an improved breed of chickens, yet over the course of the project, 575 households were given 2281 chickens. Similarly, 564 households received 1204 dairy goats, even though only the workplan had budgeted only 400 goats for two hundred households. Heifers were distributed to 241 women headed households.

Some planned activities related to community assets – for example, tree nurseries, animal feed nurseries, and small irrigation pumps – were not constructed at all (in the case of the nurseries) or were constructed in fewer instances than planned. The provision of extension services is arguably one of the most important inputs for advancing production and productivity of both land and human resources. Agriculture inputs were provided, but not at the intended rate, with herbicides, improved seed varieties and pesticides at 50% of target or less.

The picture in Boke is a bit different. There, 100% of agricultural inputs were distributed as planned. Goats, chickens, and heifers were given on a credit basis to female headed households (though there were reports that these loans were never repaid) exceeding the original targets. Household level trainings in such practices as animal husbandry, and masonry for landless youth were carried out, however training of government officials (eg, DAs on pest and weed control) were carried out at 50% or less than planned.

In Samre, the project met, within 10% of the target, activities planned for training, provision of community assets, household assets, and agriculture inputs. Tsilemti monitoring data were available for the year 2005 only. In this year the performance was impressive, with the project meeting or exceeding targets for planned activities related to household, community, and government capacity building and the provision of household-level assets in the form of livestock and credit for petty trade for female

headed households. For instance, heifers were distributed to 120 households, goats to 300 households, and oxen to another 120. Credit for petty trading was given to 120 female headed households even though the workplan called for only 50 beneficiaries.

The household survey asked respondents whether or not they had received BSF/WIBS inputs or participated in certain types of BSF/WIBS activities related to improving household food availability and access. Table 5 compares the results of responses from households in BSF areas in Oromia and Tigray. Within Oromia, approximately 16% of the sample had received some type of livestock or beehives from BSF. Nearly 24.3% reported receiving at least one visit from the DA, however very few (2.7%) had received seeds or other inputs like fertilizer or pesticides and only 5.5% had received any training.<sup>5</sup>

Of the numerous activities funded by the WIBS project, community revolving funds were one of the most effectively delivered in three of the four Woredas (in all except Boke Woreda, where livestock were lent but not revolved). Compared to other activities, the systems in place to deliver this intervention were the most well-conceived and implemented. For instance, a PRA technique was used to target beneficiaries based on their place in a community wealth ranking. The development of and adherence to strict eligibility criteria ensured that only those poorest and vulnerable members of the community received loans as cash (Tigray) or livestock (Oromia). In each area the project coordination committee strictly monitored the receipt of the transfer, ensured that only healthy livestock were purchased, and oversaw the return of the loan plus interest (or the equivalent in livestock) in order to pass the opportunity for credit to another eligible beneficiary. Pre-existing indigenous knowledge of livestock care practices in these areas also facilitated the success of this activity, since the terms of the livestock revolving fund required the borrower to maintain the animals in good health until they could be sold at a high rate of return. Despite this activity's success in building on local knowledge, beneficiaries expressed a strong demand for improved veterinary services as animal diseases/epidemics are prevalent.

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<sup>5</sup> It is important to note that these coverage figures were estimated from a population-based sample (rather than a sample of project beneficiaries only). Though coverage across the community is low, in part this appears to be because inputs were very well targeted to those who needed them most (per focus group reports), resulting in few beneficiaries as a percentage of the population. Further analysis could be conducted to explore whether those households that reported receiving these benefits did indeed meet the targeting criteria and, more importantly, how many of those households meeting the targeting criteria did not receive the intended benefit. This is a worthy analysis even though evaluation time and resource constraints prevented us from examining this question in more detail.

Table 3: Summary of BSF/WIBS Project Activity Completion Data for Boke and Bedeno Woredas in Oromia By Project Result.

	Bedeno		Boke	
	% Completed		% Completed	
	Mean	Median	Mean	Median
<b>Result 1: Sustained availability and access to adequate household level food supply on year round basis ensured; and Result 2: Incomes improved</b>				
<b>Capacity Building/Awareness Raising</b>				
<i>Individuals/Households</i>	104	107	645	65
<i>Government/Community Project Officials</i>	104	125	72	72
<b>Ag Inputs</b>	28	23	100	100
<b>Community Assets</b>	13	0	100	100
<b>Individual/Household Assets (HHs)</b>	266	266	57	57
<b>Result 3: Overall nutritional status of women and children improved</b>				
<b>Capacity Building/Awareness Raising</b>				
<i>Individuals/Households</i>	16	7	335	335
<i>Government/Community Project Officials</i>	75	75	28	28
<b>Community Assets</b>	12.5	0	55	55
<b>Individual/Household Assets</b>	47	47	--	--
<b>Result 4: Improved access to, and use of adequate health services for women and children</b>				
<b>Capacity Building/Awareness Raising</b>				
<i>Individuals/Households</i>	94	73	1530	1530
<i>Government/Community Project Officials</i>	105	55	79	84
<b>Community Assets</b>	88	85	856	185
<b>Individual/Household Assets</b>	69	69	7	7
<b>Result 5: Improved life skills for women and enhanced basic education for girls</b>				
<b>Capacity Building/Awareness Raising</b>				
<i>Individuals/Households</i>	65	52	--	--
<i>Government/Community Project Officials</i>	163	115	62	60
<b>Community Assets</b>	99	122	163	175
<b>Individual/Household Assets</b>	--	--	--	--
<b>Result 6: Improved access to safe and adequate water and sanitation facilities</b>				
<b>Capacity Building/Awareness Raising</b>				
<i>Individuals/Households</i>	16	16	87	87
<i>Government/Community Project Officials</i>	57	25	117	117
<b>Community Assets</b>	20	0	92	92
<b>Individual/Household Assets</b>	--	--	--	--

Table 4: Summary of BSF/WIBS Project Activity Completion Data for Samre and Tsilemnti Woredas in Tigray By Project Result.

	Samre		Tsilemnti	
	% Completed		% Completed	
	Mean	Median	Mean	Median
<b>Result 1: Sustained availability and access to adequate household level food supply on year round basis ensured; and Result 2: Incomes improved</b>				
<b>Capacity Building/Awareness Raising</b>				
<i>Individuals/Households</i>	92	100	145	135
<i>Government/Community Project Officials</i>	98	100	95	95
<b>Ag Inputs</b>	100	100	--	--
<b>Community Assets</b>	106	100	--	--
<b>Individual/Household Assets (No's)</b>	136	93	145	120
<b>Result 3: Overall nutritional status of women and children improved</b>				
<b>Capacity Building/Awareness Raising</b>				
<i>Individuals/Households</i>	300	300	0	0
<i>Government/Community Project Officials</i>	77	77	0	0
<b>Community Assets</b>	80	80	0	0
<b>Individual/Household Assets (No's)</b>	0	0	0	0
<b>Result 4: Improved access to, and use of adequate health services for women and children (available for FY 2005-2006 only)</b>				
<b>Capacity Building/Awareness Raising</b>				
<i>Individuals/Households</i>	290	290	65	65
<i>Government/Community Project Officials</i>	197	197	62	62
<b>Community Assets</b>	100	100	0	0
<b>Individual/Household Assets</b>	87	87	4000	4000
<b>Result 5: Improved life skills for women and enhanced basic education for girls</b>				
<b>Capacity Building/Awareness Raising</b>				
<i>Individuals/Households</i>	--	--	45	45
<i>Government/Community Project Officials</i>	80	80	--	--
<b>Community Assets</b>	120	120	90	90
<b>Individual/Household Assets</b>	--	--	--	--
<b>Result 6: Improved access to safe and adequate water and sanitation facilities</b>				
<b>Capacity Building/Awareness Raising</b>				
<i>Individuals/Households</i>	--	--	100	100
<i>Government/Community Project Officials</i>	626	626	--	--
<b>Community Assets</b>	--	--	33	0
<b>Individual/Household Assets</b>	--	--	--	--

### *6.2.2 Result 3: Nutrition status of women and children improved*

Nutrition inputs were delivered at the some of the lowest rates of all project activities. This trend across the four woredas is troubling given that poor nutrition is both a severe problem in its own right, and a constraint to the improvement of overall health, learning, and capacity to earn a livelihood. In an integrated project like the WIBS project, addressing malnutrition directly while attacking less proximate causes like low agricultural production is critical for achieving desired impacts across all sectors.

In Bedeno, like in all four of the woredas, activities planned to improve nutrition status were not effectively implemented. These activities included establishing community based growth monitoring, demonstration gardens, demonstration centers, and the provision of nutrition education to mothers. On average, the planned trainings for individuals were completed at only 16% of the target. However, nutrition trainings for health workers and community officials were performed for 75% of the intended beneficiaries. Community assets, including the community-based fruit tree nursery and school gardens, were not developed as planned, while only one nutrition demonstration center was constructed. In Boke, the picture was similar, except that sample sites in this woreda met or exceeded the target for educating 5000 women about the importance of sound nutrition for themselves and their children. Samre, like Boke, was successful in holding trainings to teach women about beneficial and practicable nutrition practices and, though it did not fully meet targets to train health workers and other officials, it did complete an average 77% of these intended training activities. Samre was more successful than either Boke or Bedeno in building the community-level assets like those that were intended to be built in Boke. The 2005 monitoring data for Tsilemti suggested that no nutrition activities had been implemented that year.

Possible explanations based on the experiences of other projects and countries include: low community demand for nutrition interventions given the relative invisibility of the problem, a scarcity of nutrition capacity at lower administrative levels, and the lack of an institutional home for nutrition within the local health sector. These types of constraints may have been magnified by the more general implementation issues discussed in Section 6.4.

### *6.2.3 Result 4: Improved access/use of health services by women and children*

In Bedeno, the training of health workers, TBAs, on such issues as HIV/AIDS, appropriate quality service, and EPI exceeded, on average, the target. Individuals and households also received most of the trainings that were intended for them, including education on environmental health, on the benefits of immunization, and on malaria prevention. Two of the four health posts that were planned were ultimately constructed and equipped with materials and supplies. However, provision of household level assets, including latrines, was completed at a rate much lower than that intended. On average,

69% of the planned household assets were distributed. Boke trained many more individuals than originally planned, built one additional health post, and procured more medical equipment and supplies than planned. The one major household level asset-building activity, the construction of latrines, appears to have been neglected, though this may be an error in the monitoring report, as the report shows funds expended for latrines but does not mention the building of any. In Samre, average targets for trainings and community asset building were met. Slabs for latrines were distributed to 217 of 250 intended beneficiaries. In Tsilemti 2005 data suggest that training activities were below target (on average, 65% of training activities were completed as planned). There were no health activities planned related to the provision of household level health supplies. However, 4000 insecticide treated bed nets were distributed to households for malaria prevention.

#### *6.2.4 Result 5: Enhanced basic education for girls*

Education activities centered primarily on the construction and equipment of schools and the capacitation of teachers and PTAs on teaching methods and on raising awareness in the community about the importance of child, and particularly, girl education. There were few trainings targeted to individual community members in Bedeno (and none in Boke) and the implementation rate was, on average, 65% of what had been planned. In Bedeno, the training of officials was implemented at a higher rate than in Boke (163% vs. 62%), however, both the Oromia woredas fared very well in completing the infrastructural activities that had been planned. For instance, in Bedeno 3 of 4 planned primary schools had been built and 13 primary schools were equipped with essential furnishings (more than the 9 slated to receive assistance) Similarly, Samre exceeded its target in providing new construction for the benefit of education (120% of the target which included, in a single year (2005), the construction of 12 classrooms and 676 pieces of furniture including desks, chairs, blackboards, and shelving. The 2005 monitoring data from Tsilemti shows that 8 out of 10 planned classrooms were built and 676 pieces of classroom furniture delivered. In numerous focus groups, respondents cited the lack of schools in their community before the BSF/WIBS project as the major constraint to sending their children for an education. These monitoring data suggest that in most communities in the sample, schools or classrooms were built and equipped using project funds. Focus group responses convey the fact that awareness raising activities have motivated many parents to send girl and boy children to school for an education.

#### *6.2.5 Result 6: Improved access to water and sanitation*

According to the community-level checklist, water infrastructure was improved in many of the BSF/WIBS communities. Monitoring reports suggest a slightly different picture – activities were more effectively implemented in Boke and Samre than in Bedeno and Tsilemti. In Bedeno, water infrastructure plans were met an average of 20% of the time, while very few of the individual and project official trainings were complete. In Boke there were very few planned water activities, however the woreda was more effective

than Bedeno in implementing the water components in the workplan. Of the planned deep wells and root catchment, 92% on average were constructed. Training of water committees, technicians, and plumbers in water points exceeded the number planned. The data for Samre is not easily summarized and therefore the table is mostly empty for the water activities. However, from monitoring reports it appears that water schemes were developed in nearly every community and that water management committees were organized and trained to oversee the continued functioning and maintenance of the schemes. On the other hand, 2005 Tsilemti data show that none of the 4 planned water schemes were completed that year, though 100% of the 42 planned trainings for community households in improved water and sanitation practices were carried out.

As evidenced by the data presented above, the effectiveness of the water implementation is a mixed picture – two of the 4 woredas had less than optimal implementation. In the more successful woredas, particularly in Samre, given the low baseline from which water access began, nearly every focus group stressed that the improvements were an important step forward but still not sufficient. At times, water schemes that had been developed had fallen into disuse, possibly due to the lack of equal attention to plans for maintenance as to construction.

### 6.3 Impact

The BSF/WIBS project was designed to impact 1) the availability of and access to year round adequate food supply at the household level, 2) the nutritional status and level of care of women and children, 3) access to adequate health care services for women and children, 4) quality of basic education for children and life skills of women, 5) access to clean and safe water and ensure environmental sanitation, 6) household income and its equitable utilization.

Indicators for each of these intended impacts were captured in the evaluation household survey. Typically, an assessment of impact aims to determine whether significant changes have taken place in the project areas and, if yes, whether these changes can be attributed to project activities. In order to make this assessment, it is necessary to have comparable survey data from before the project began and after it finished. It is also important to have control groups to estimate the degree to which the situation changed more in project areas than in similar areas without the project.

Due to the absence of baseline data in database form for Oromia and the lack of any baseline reports from Tigray, the TET was not able to determine with statistical confidence whether the changes in impact indicators from pre- to post- project are statistically significant. However, the degree of change in Oromia could be calculated for project and control areas and is summarized here.

### 6.3.1 Results 1 and 2: Ensured food availability/access and improved incomes

Table 6 presents a (non-statistical) assessment of the change in various indicators of household food availability and access between BSF/WIBS and non-BSF/WIBS. The table shows a slight decrease in land holdings in both project and non-project areas, reflecting the continued fragmentation of land (that the BSF project was not equipped to redress). The mean number of most types of livestock (goats, sheep, poultry, equines, and cattle) owned by households changed little in either area from the beginning to the end of the project. However, for an unknown reason, there was a *decrease* in the number of households that reported owning at least one ox, and this decrease was much greater in the BSF/WIBS project areas (-15%) than in non-project areas (-2%).

The percentage of total expenditures spent on food is an indicator of poverty and food insecurity; the higher the proportion of the total budget devoted to food, the more food insecure a household is considered to be. Among the most food insecure, this portion can be upwards of 80%. Table 6 shows that the percentage of expenditures devoted to food decreased slightly less in BSF (-5.1%) than in non-BSF areas (-7.1%). This result suggests that in both areas there were improvements in food insecurity, however the improvements may be due to some factor other than the BSF project. It is also possible that the low coverage in BSF areas has diluted the impact that the project had on its direct beneficiaries. One way of exploring these hypotheses further is to examine the difference in this indicator between BSF beneficiaries and non-BSF beneficiaries within BSF areas. Because BSF beneficiaries were worse off to begin with, if we see that they are now better off we can assume that there was a change that was likely due to the BSF intervention. After carrying out this analysis, we see in Table 7 that the percentage of expenditures devoted to food was lower in BSF-beneficiary households (39.9%) than in non-BSF households (46.1%), suggesting that the project did improve the situation of BSF beneficiaries relative to non-beneficiaries.

The *access* dimension of food security was also assessed using the FANTA Household Food Insecurity Access Scale (HFIAS), which is comprised of a number of items that ask about household behaviors and perceptions in response to food shortage. Because there was no baseline report of the FANTA HFIAS, the results of the questions were compared between BSF beneficiary households and non-beneficiary households in BSF project areas. Table 7 shows that, for seven of eight items in the food insecurity index, fewer BSF/WIBS households reported experiencing food insecurity conditions than non-BSF/WIBS households. For instance, 82.4% of non-BSF beneficiaries vs. 61.5% of BSF beneficiaries reported worrying about where food would come from, 76.7% of non-BSF beneficiaries vs. 57.7% of BSF beneficiaries reported having to cut meal size, and 59.7% vs. 42.3% reported having no food in the household

These comparisons suggest that BSF/WIBS beneficiary households were less food insecure than non-BSF/WIBS households at the end of the project. Assuming that BSF/WIBS households were the most food insecure to begin with, the fact that they are less food insecure now suggests positive food-security changes due to the BSF/WIBS project. As the targeting of BSF/WIBS households was reported by all focus groups and

key informants as fair (ie. selecting the poorest and most food insecure households), the results of this analysis are highly provocative. This result also suggests that BSF non-beneficiaries in these areas are in need of assistance as well – the narrowly targeted program with low coverage has left non-beneficiaries, the majority of the sample, with high absolute levels of food insecurity.

### *6.3.2 Result 3: Nutrition status of women and children improved*

An analysis of changes in the prevalence of malnutrition due to the project, as assessed by WHZ, WAZ and HAZ, is presented in Table 8. The table shows that there were significant reductions, of approximately 10 - 20 percentage points, in each of the three indicators. For moderate malnutrition in WHZ and HAZ, reductions were equivalent or slightly greater in non-BSF than BSF areas, while reductions in the prevalence of severe malnutrition were slightly greater in BSF areas across the same anthropometric measures. In addition, there were greater reductions in the prevalence of moderate and severe underweight in BSF versus Non-BSF areas. Because the data show improvements in both project and non-project sites, and given that BSF nutrition activities were among the least well implemented of all the project activities, it is not possible to entirely attribute these positive changes to the BSF/WIBS nutrition activities. It is more likely that other BSF/WIBS activities, secular change, or a program like the EOS, which was operating in certain BSF project and non-project areas is primarily responsible for these improvements.

### *6.3.3 Result 4: Improved access/use of health services by women and children*

Table 9 presents the results of pre- and post- comparisons by project and control areas of indicators related to maternal and child health behaviors. Several positive impacts were detected in the health and nutrition of women and children. For instance, visits for antenatal care improved by 8% more in BSF project communities than in non-project communities. Use of contraceptives, delivery using a trained TBA or health practitioner, receipt of tetanus vaccine during pregnancy, and mother's self-reported perception of her health status all improved, and all improved more in the project areas than not. For instance, In BSF areas, 13.7% more respondents reported attending antenatal care at the end of the project than the beginning. In non-BSF areas, this attendance of ante-natal care also increased but by only 5.7%, for a difference of 8.0% that can be attributed to the project activities.

Behavioral indicators in Table 9 related to child nutrition did not show quite the same extent of success – but did often improve more in BSF than non-BSF sites. For instance, episodes of diarrhea decreased more in project areas, and the use of ORS to treat diarrhea increased more in BSF/WIBS sites. The prevalence of children vaccinated decreased, but decreased less in the project than control areas. An examination in Table 9a of child dietary diversity in BSF-beneficiary versus non-beneficiary households suggests that BSF-beneficiary children are worse off in this regard.

#### *6.3.4 Results 5 and 6: Enhanced basic education for girls and Improved access to water and sanitation*

There is scarce comparable baseline to endline data to be able to draw conclusions about the impacts of education and water activities. The data in Table 10 do show that the improvement in access to a protected water source was greater by 15% in BSF/WIBS than non-BSF/WIBS areas. Ownership of household latrines increased substantially in both BSF/WIBS (14.5%) and non-BSF/WIBS (20.1%) areas, but more so in the comparison group, suggesting that observed changes cannot be entirely credited to the BSF/WIBS project. A similar effect was seen in the change in literacy rates in people > 5 years of age (Table 11) – positive changes were observed across the board, but slightly more so in non-BSF/WIBS communities. Two additional indicators of school enrollment and mean grade completion need to be confirmed using other data sources as they suggest that overall, enrollment and completion rates are declining. This is surprising in light of national trends.

Table 5: BSF Service Delivery and Coverage Related to Improved HH Food Availability and Access

	Oromia: BSF (N=182) % yes	Tigray (N=266) % yes
Received BSF seeds or other inputs	2.7	12.2
Received BSF livestock	14.4	52.1
Received BSF beehives	1.7	0.8
Received BSF training	5.5	39.5
Received visit from DA	24.3	71.8
Attended adult literacy workshops	42.7	72.9
Received credit/microfinance service from BSF	4.1	62.5
Used credit for:		
<i>Petty trade (i.e. small shop)</i>	0.0	14.0
<i>Farming</i>	25.0	3.7
<i>Animals and Animal product production</i>	62.5	78.7
<i>Cottage industry (i.e. handicrafts)</i>	12.5	3.7
<i>Other</i>	0.0	0.0

Source: Tufts Friedman School of Nutrition Science and Policy Evaluation Team /UNICEF-Ethiopia Survey 2007

Table 6: Change in Key Impact Indicators of Year-round HH Food Availability and Access by BSF and Non-BSF Project Sites

	Oromia: BSF			Oromia: Non-BSF			Intervention %Δ – Control %Δ	Tigray  Post-only n=244
	Post n=184	Pre n=145	%Δ	Post n=120	Pre n=101	%Δ		
Total land holdings (h)	0.2	0.7	-0.5	0.3	0.7	-0.4	-0.1	0.7
At least one Ox owned	22.2	37.2	-15.0	35.0	37.0	-2.0	-13.0	72.6
Average Livestock Ownership of HHs								
<i>Cattle</i>	1.5	2.3	-0.8	2.3	2.1	0.2	-1.0	1.0
<i>Oxen</i>	0.3	0.5	-0.2	0.5	0.4	0.1	-0.3	1.1
<i>Sheep+Goats</i>	0.6	0.7	-0.1	0.7	0.7	0.0	-0.1	1.8
<i>Equines</i>	0.3	0.6	-0.3	0.4	0.6	-0.2	-0.1	0.3
<i>Poultry</i>	1.4	0.3	1.1	1.8	0.6	1.2	-0.1	2.3
Food production is enough to feed family for entire year	9.2	5.6	3.6	9.2	4.8	4.4	-0.8	6.8
Food Expenditure as % of Total Expenditures*	55.4	60.5	-5.1	51.4	58.5	-7.1	2.0	63.3

Source: Tufts Friedman School of Nutrition Science and Policy Evaluation Team (TET)/UNICEF-Ethiopia Survey 2007

\*Food and Total Expenditures of households were summed by BSF and Non-BSF areas following the method used in the baseline survey.

Table 7: Comparison of Food Availability and Access by Beneficiary and Non-Beneficiary HHS in BSF Oromia and Tigray Sites

	Oromia			Tigray
	BSF Beneficiaries n=26	Non-BSF Beneficiaries n=159	% Difference between BSF and Non-BSF Beneficiaries	BSF Beneficiary n=266
<u>Food Availability</u>				
Total land holdings (hectares)	0.5	0.5	0.0	0.7
Livestock ownership				
<i>Cattle</i>	1.7	1.4	+0.3	1.0
<i>Oxen</i>	0.2	0.3	-0.1	1.1
<i>Sheep and goats</i>	1.7	1.1	+0.6	3.6
<i>Equines</i>	0.3	5.9	-5.6	0.3
<i>Poultry</i>	1.6	6.9	-5.0	2.3
Food production is enough to feed family for year	11.5	8.8	+2.7	6.8
<u>Food Access</u>				
Food exp. as % of total	39.9	46.1	-6.2	64.1
Food Security Scale	8	11	-3	6
Worry about insufficient food to eat (%)	61.5	82.4	-20.9	61.3
Not able to eat preferred foods (%)	73.1	78.6	-5.5	69.2
Ate limited variety of foods (%)	76.9	88.1	-11.2	73.3
Ate smaller meals than needed (%)	57.7	76.7	-19.0	68.8
Ate fewer meals than needed (%)	69.2	77.2	-8.0	65.8
No food in HH due to lack of resources (%)	42.3	59.7	-17.4	46.9
Went to sleep hungry (%)	42.3	48.4	-6.1	31.9
Went whole day without eating (%)	57.7	50.9	+6.8	11.3
Female Decides Food Purchasing (%)	80.7	57.9	+22.8	50.7
Female Decides Food Allocation (%)	90.9	90.0	+0.9	74.7

Source: Tufts Friedman School of Nutrition Science and Policy Evaluation Team (TET)/UNICEF-Ethiopia Survey 2007

Table 8: Change in Key Impact Indicators of Child Nutrition Status in BSF and Non-BSF Project Sites

	Oromia: BSF			Oromia: Non-BSF			Intervention %Δ – Control %Δ
	Post n=144	Pre n=265	%Δ	Post n=105	Pre n=217	%Δ	
Acute Malnutrition (Wasting: Weight for Height)							
< -2 Standard Deviations	14.6	26.7	-12.1	8.8	24.9	-16.1	+4.0
< -3 Standard Deviations	2.1	11.1	-9.0	4.8	10.6	-5.8	-3.2
Global Malnutrition (Underweight: Weight for Age)							
< -2 Standard Deviations	27.8	47.7	-19.9	29.5	44.9	-15.4	-4.5
< -3 Standard Deviations	11.8	23.4	-11.6	6.7	18.2	-11.5	-0.1
Chronic Malnutrition (Stunting: Height for Age)							
< -2 Standard Deviations	22.2	44.3	-22.1	20.0	50.7	-30.7	+8.6
< -3 Standard Deviations	12.5	25.6	-13.1	20.0	30.8	-10.8	-2.3

Source: Tufts Friedman School of Nutrition Science and Policy Evaluation Team (TET)/UNICEF-Ethiopia Survey 2007

Table 9: Comparison of Change in Health and Nutrition Practices by BSF and Non-BSF Project Sites

	Oromia: BSF			Oromia: Non-BSF			Intervention %Δ – Control %Δ
	Post	Pre	%Δ	Post	Pre	%Δ	
<b>Maternal Health</b>							
Attended antenatal care	39.3	25.6	+13.7	31.9	26.2	+5.7	+8.0
Received tetanus vaccination <sup>a</sup>	56.8	13.5	+43.3	61.3	21.2	+40.1	+3.2
Delivered child by trained TBA or health practitioner	44.0	18.0	+26.0	22.5	10.6	+11.9	+14.1
Used contraceptives of those who reported awareness of family planning methods	7.7	9.9	-2.2	0.0	18.3	-18.3	+16.1
Wash body once per week	76.2	23.2	+53.0	80.8	19.2	+61.6	-8.6
Mother self rated health status is “good”	63.8	35.0	+28.8	60.0	45.2	+14.8	+14.0
<b>Child Health and Nutrition</b>							
Child received Vitamin A supplementation <sup>b</sup>	60.5	70.7	-10.2	66.7	74.7	-8.0	-2.2
Child Had Diarrhea <sup>c</sup>	42.7	82.6	-39.9	43.3	79.3	-36.0	-3.9
Child has ever been vaccinated	63.6	54.9	+8.7	62.5	60.8	+1.7	+7.0
Mother used ORS as treatment of Diarrhea	3.6	6.0	-2.4	2.9	8.3	-5.4	+3.0
Initiated Breastfeeding 0-6 hours after birth of child	97.8	77.4	+20.4	100.0	76.4	+23.6	-3.2

Source: Tufts Friedman School of Nutrition Science and Policy Evaluation Team (TET)/UNICEF-Ethiopia Survey 2007<sup>a</sup> The ‘post’ results include mothers who stated that they had received a tetanus vaccination during their last pregnancy, and mothers who reported receiving a vaccination, but did not know what type.

<sup>b</sup> Vitamin A coverage of children in baseline reports utilize the term “vitamin A status”, and do not define the duration of time in which the child last received vitamin A supplementation. The TET/UNICEF-Ethiopia Survey 2007 asked female respondents if their child had been given vitamin A supplementation in the past six months.

<sup>c</sup> Baseline reports asked if child had ever experienced a diarrheal episode at any point in his/her life. The TET/UNICEF-Ethiopia Survey 2007 asked if child had had diarrhea in the past six months. This may partly explain the dramatic decrease in diarrhea prevalence in both BSF/WIBS and non-BSF/WIBS areas.

Table 9.a Child Dietary Diversity in BSF beneficiary versus Non-BSF Beneficiary Households in BSF communities

	Oromia			Tigray
	BSF Beneficiaries n=26	Non-BSF Beneficiaries n=156	% Difference between BSF and Non-BSF Beneficiaries	BSF Beneficiaries n=266
In the past 7 days, child:				
<i>Ate grain</i>	76.9	70.5	+6.4	67.8
<i>Ate roots or tubers</i>	15.4	17.3	-1.9	23.5
<i>Ate Vit A rich fruits/vegetables</i>	3.8	6.4	-2.6	19.6
<i>Ate other fruits/vegetables</i>	7.7	13.5	-5.8	12.2
<i>Ate meat</i>	3.9	4.5	-0.6	45.9
<i>Ate eggs</i>	0.0	7.1	-7.1	34.1
<i>Ate fish</i>	3.9	0.0	+3.9	0.0
<i>Ate pulses</i>	23.1	20.5	+2.6	42.7
<i>Ate dairy</i>	38.5	32.7	+5.8	26.6
<i>Ate oils or fats</i>	23.1	26.3	-3.2	32.9

Source: Tufts Friedman School of Nutrition Science and Policy Evaluation Team (TET)/UNICEF-Ethiopia Survey 2007

\*In contrast to the TET/UNICEF-Ethiopia Survey 2007, the baseline surveys in Boke and Bedeno asked if child had diarrhea in his/her lifetime.

Table 10: Changes in Water Access in BSF and Non-BSF Project Sites

	Oromia: BSF			Oromia: Non-BSF			Intervention %Δ – Control %Δ
	Post	Pre	%Δ	Post	Pre	%Δ	
Access to protected water source (e.g. Bore hole, piped water, protected Spring/well)	46.5	8.3	+38.2	35.0	12.4	+22.6	+15.6
Household has a latrine	21.6	7.1	+14.5	26.1	6.0	+20.1	-5.6
Number of HH-accessible water points (hand pump, water faucet)	60.9			58.3			
Water points reliably provide enough water for HH?	22.2			34.2			
Cost of water per jerry can in birr (of those who pay for water)	0.5			1.9			
Decrease in the time to fetch water since BSF/WIBS began	25.9			24.4			
Quality of water improved since the start of the BSF/WIBS project?	16.9			25.8			

Table 11. Changes in Literacy and Education in BSF Project and Non-Project Sites

	Oromia: BSF			Oromia: Non-BSF			Intervention %Δ – Control %Δ
	Post	Pre	%Δ	Post	Pre	%Δ	
Literate (> 5 yrs)	35.8	17.1	+18.7	42.7	22.3	+20.4	-1.7
Average last class completed	1.4	2.6	-1.2	1.7	2.3	-0.6	-0.6
School Enrollment <sup>a</sup> (>5yrs and < 19yrs)	38.6	39.5	-0.9	45.3	47.9	-2.6	+1.7

<sup>a</sup> Due to the absence of enrollment statistics by age in the Bedeno Woreda's baseline report, 'pre' results are based on data from Boke Woreda's baseline report only

## 6.4 Efficiency

The “efficiency” of a program pertains to how well the program was implemented technically, organizationally, procedurally, and financially. Problems with the implementation and management of the BSF project had a palpable effect on project achievements. An examination of the implementation and management practices at the local and regional level, the funding strategies employed, the targeting strategies utilized, and the communities’ involvement provides a clear understanding into how different factors affected the realization of the project objectives. The findings related to efficiency provided below are relevant to all sectors (i.e. agriculture, health, education, water, etc). Lessons from these findings can be generalized when considering the efficient implementation other food security and development projects.

- At the Woreda- and Kabele-level, the project activities were (for the most part) efficiently implemented. BSF project activities were coordinated by the Woreda Steering Committee. The Steering Committee is chaired by the Woreda Administrator/Head and is composed of all sector heads and members from key offices. The BSF project was one of many projects coordinated by the Steering Committee, and no autonomous ‘BSF Committees’ existed at the Woreda level. In itself, the lack of an autonomous ‘BSF Committee’ is not considered a drawback of the project implementation. Rather, the harmonization of BSF activities with other national-, regional, and Woreda-level development is considered a positive deviation from the project’s conceptualization. That said, concerns of Woreda BSF Coordinators being overburdened are relevant and should be considered serious obstacles to efficient implementation of activities.
- The evaluators were intrigued to learn from all key informants and focus group discussants that the project was very well targeted. Respondents felt that only the most deserving Kabeles and beneficiaries had been selected to receive BSF/WIBS support. Despite the desire to target the most food insecure Kabeles, Project Coordinators have repeatedly cited the similarity in the severity of household food security conditions between BSF and Non-BSF Kabeles. Other key informants lamented that other kabeles and households that were nearly as food insecure were not selected to participate in the project due to insufficient project resources. They would have liked to see wider project coverage.
- Monitoring of project activities at all levels was insufficient, and can be largely attributed to the overburdened workloads of all project coordinating staff within UNICEF and BOFED and the relatively low priority of the small-scale BSF/WIBS project within these institutions. Though regular project reports from the Woreda were required, they were not always delivered (particularly in Tigray). Several local project staff reported that the minimal oversight and attention given to the project from higher administrative levels reduced the momentum, motivation, and efficiency of those charged with implementing project activities within the community.

- Insufficient staffing: The effective implementation of project activities suffered from insufficient person power within UNICEF and at the levels of regional and woreda government. For instance, after the original project officer left UNICEF, he was not replaced for two years. During this time, the project suffered from inattention. After UNICEF's hiring of a Project Officer tasked with overseeing the BSF project in 2004, funds have reached the Woredas in a timely manner. Nonetheless, the current Project Officer has numerous responsibilities in addition to the BSF project making it difficult for him to devote sufficient time to the monitoring and oversight of the project. It appears that even in a decentralized model, until capacity is fully developed at the periphery, there is still a need for strong centralized oversight and motivation, ideally coming from UNICEF and the central or regional governments.
- The relationship between regional BOFEDs and UNICEF and their roles in the project greatly impacted the effectiveness of the implementation of the BSF project. A detailed understanding of the funding mechanisms utilized, support provided, and the institutional capacity of both agencies illuminates why the implementation was less than effective.

The institutional capacity of both UNICEF and BOFED in regards to food security programming is also limited. The lack of food security expertise within both agencies suggests that neither agency had the ability to provide technical assistance to the Woreda in this sector and that adding other institutional relationships, for example with the Bureau of Food Security, may have been more appropriate.

Regarding funding, UNICEF interacted differently with BOFED-Tigray and BOFED-Oromia due to their institutional differences. UNICEF channeled project funds through BOFED-Tigray to reach Samre and Tsilemti, while UNICEF bypassed BOFED-Oromia and sent funds directly to Boke and Bedeno Woredas. The difference in the size (in terms of Woredas and population) of Tigray and Oromia was cited by UNICEF as one rationale for employing different funding strategies for each region. Ultimately, the less bureaucratic and more efficient option is to directly fund the project at the woreda level, though the decision ultimately depends on administrative capacity in the woreda vs. the regional BOFED.

The support provided to the Woredas from UNICEF was largely in the form of health-related supplies, such as scales, height boards, and bed nets. Woreda BSF Coordinators report that technical trainings provided by UNICEF and BOFED rarely occurred.

- Inconsistency in the release of funds from BSF and UNICEF also greatly reduced the efficiency of the project activities. Funds were not dispersed to any project woreda for a period of one-two years, bringing many BSF/WIBS activities to a standstill and impeding the momentum that had been gathering since the inception of the participator planning exercises. The lack of funding consistency was also noted by coordinators at all levels as a factor that hampered the implementation of

activities. The absence of a staff member responsible for the BSF project within UNICEF and divergence of attention to the 2002-03 drought accounts for the large delays reported in the release of project funds.

- Even outside this two-year hiatus in funding, the untimely release of financial resources was cited as a big problem on many levels. Money did not reach the Woredas in a timely fashion and took even longer to reach the PAs. There were also cases where money promised to the PAs for skilled labor/construction was not dispensed. Timely release is also a big issue as prices for animals fluctuate around the growing season. Making funds available for oxen (revolving fund) right before the growing season when prices are high for oxen illustrates how the timely release of funds can greatly impact the gains that project beneficiaries receive. In the same vein, the arrival of improved seed varieties after the planting season reduces the success of the project.
- The political landscape at the Woreda-level cannot be discounted when considering the design and implementation of the project. In this regard, the BSF project's design did not take into consideration of some issues that should have been expected to arise. For example, the BSF project design mandated that a committee (BSF Committee) oversee project activities. Currently, the chairman of the BSF Committee is the Woreda Administrator. The Woreda Administrator is an appointed official and does not have a fixed term in office. As the Woreda Administrator is not elected, it is unclear what mechanisms are available to ensure accountability. A similar issue pertains to politically motivated staff turnover or reorganization – during the site visit to Boke, the TET was informed that the Woreda Administrator and his cabinet (i.e. Heads of Education, Health, Agriculture, Water, etc) had been recently removed by the Regional Government. By comparison, in Tigray, the jobs of most local government officials were relatively stable and many project officials had participated in BSF/WIBS activities from the outset, building a cumulative institutional knowledge and experience that improved project implementation as it went along.
- Poor and insufficient roads were widely cited as a hindering factor to efficient implementation. Particularly during the rainy season, the inability of community members to access markets limited farmers' ability to sell their livestock and produce when prices were high. Also, the near nonexistence of roads in areas like Tsilemti limited the ability of officials to provide proper monitoring and support.

## 6.5 Sustainability

- Community involvement in the implementation of BSF/WIBS project activities has given the communities a sense of ownership of the project and has improved their ability to mobilize resources, labor, and funds. Woreda, Kabele, and community level officials perceived changes in their capacity to plan and manage development

programs and to generate external funding for other programs after ‘learning on the job’ through the BSF project.

The construction of schools and additional class blocks provides an apropos example: focus group discussants widely stated that before the BSF/WIBS project, there was no school in their area. They helped to construct the school and now are sending their children to school. Despite the optimism of communities and their confidence in their ability to maintain certain activities, the TET believes that external funds for high-value materials (wood and concrete) supplies (desks, tables, and blackboards), skilled labor, and other technical assistance would be required in the near-term to sustain the same level of development in educational and other infrastructure.

- Key informants reported that community revolving funds could be sustained if external financial resources were stopped. The keen interest from the community, the close monitoring of the revolving fund’s finances and the ability of livestock loans to literally ‘reproduce’ exponentially are three reasons for which this activity is perceived to be sustainable.
- Other project achievements appear to be less sustainable – for instance, health centers that are equipped by BSF and supplied with drugs will cease to function unless a mechanism is developed for maintenance and replenishment of disposable supplies. Water schemes must be maintained, preferably by organizing and training community water committees. Focus group discussants in the Kabele, Fiyelwuha (meaning , “goat water”) in Tsilemnti lamented the fact that their water access point had not been maintained and was contaminated, causing the spread of water-borne disease. Ultimately, the communities must organize themselves to perform this maintenance, however as above the provision of capital equipment and supplies along with technical training on maintenance will be critical.

## **7. Conclusions**

The Tufts Evaluation Team concluded that the BSF/WIBS was a well-designed and very well-targeted project with a commendable commitment to participation, integration, and building local capacity and infrastructure. The project, however, suffered from various implementation challenges that were often exogenous to the community project coordination structure and outside the control of individual beneficiaries. These obstacles included resource flow stoppages lasting up to two years, inconsistent and inadequate technical support from UNICEF and BOFED regional offices, and a period of widespread drought during which resources and attention were diverted to humanitarian relief needs.

Despite these constraints, the monitoring data suggest that the project proceeded to often meet, and sometimes exceed, individual activity and output targets. Based on these monitoring data, the most effective elements of the project were the household

microfinance/revolving livestock funds, the construction of educational and health facilities, and the training and awareness-raising of government/project staff, health workers, teachers, and community members.

The evaluation detected improvements in many quantitative indicators of food security, health, and water access between the baseline and the follow-up, and several of these improvements were greater in BSF/WIBS communities than in non-BSF/WIBS communities, evidence that the changes can be attributed to the project. Where impacts were not in the direction or magnitude that was expected, this could be because 1) despite a high rate of target achievement certain planned activities were implemented incompletely or not at all, 2) those activities that were implemented at target levels did not have broad enough coverage to prompt detectable impacts at the population level, 3) the lack of baseline survey data in Tigray regions or data from comparable non-project areas prevented the TET from drawing conclusions about impact in Tigray.

In addition, most of the key informants interviewed as part of the evaluation believed that there were, in fact, important outcomes that were less tangible and not captured by our quantitative instruments. More specifically, the types of activities that *were* successfully implemented served to strengthen both the physical and human infrastructure in ways that are particularly valuable to improving future development investments. For instance, the project was begun at a time when the government institutional structure was highly centralized. Projects operating at Woreda levels and below lacked decision-making power and the necessary capacity and support to effectively implement this type of integrated program. With the decentralization of fiscal and planning control to the Woreda, having the BSF program in place with the secondary aim to capacitate local government has produced a structure and mechanism through which other national programs can operate.

In addition to building administrative capacity at the local level, qualitative interviews and focus group discussions indicated that the BSF/WIBS project instilled a strong sense of ownership, optimism, and feelings of self-sufficiency within the community. Respondents reported that the project improved community members' development participation and motivated increased community's interaction and work toward a common goal. As explained by key informants on multiple occasions, the BSF provided the first, and often the only, support that community members had received from government in recent memory. The visible nature of infrastructural projects demonstrated that positive change, *can*, in fact, happen and can happen in a way that leaves the community with a strong sense of self-efficacy in facing remaining challenges to their well-being.

## 8. Recommendations

Based on these results, the Tufts Evaluation Team recommends that the BSF/WIBS project be continued in the four project Woredas and expanded to cover the remaining food insecure Kabeles in these Woredas. In addition, the TET recommends the scaling up of household-level activities (ie. expanding and intensifying coverage) within the target Kabeles in order to magnify project impacts.

Assuming that the BSF/WIBS project is continued and expanded, the following recommendations should be considered. Adjustments to the existing planning strategy, project design, and institutional framework will facilitate the implementation and effectiveness of future activities, bolstering household food security and improving the health and welfare of women and children.

The following recommendations are grouped in three categories: project planning and design, project implementation, and institutional framework. Though written specifically for the BSF/WIBS project in Ethiopia, these recommendations can be generalized to assist in the planning and implementation of other food security and integrated basic services projects elsewhere.

### 8.1 Project Planning and Design

1. Proposed activities during future PRA/needs assessments should be prioritized by the communities in order of their perceived importance. The prioritization of the activities should be reflected in the work plan with the highest priority activities occurring first. In addition, project funds should be allocated accordingly to each project, favoring projects prioritized by the community. For example, since poor water infrastructure is a limiting factor in nearly all other project activities, it should be addressed at the outset of the project in order to facilitate the success of the other activities.
2. In addition to assessing and prioritizing their needs, at the outset of the project the community should also analyze, up front, the feasibility of their proposed activities in partnership with advisors with technical expertise. Assumptions (i.e. preconditions for transforming inputs into impacts) should be incorporated into the Logical Framework Analysis in order to determine if existing capacity and infrastructure inhibit the achievement of specific interventions. For example, if poor road access impedes beneficiaries' ability to access livestock markets, UNICEF and Woreda officials can plan to 1) lobby regional government officials to construct an all-season road, or 2) simply design interventions that take the lack of road access into account, such as incorporating travel costs into the *revolving funds* loans for livestock.
3. Drought is a regular phenomenon in Ethiopia, and plans for activities to prevent it or mitigate its effects should be taken into account in the design of all food security programs in this region. The drought in 2002 diverted funding, attention, and

momentum from the implementation of project activities. It is notable that none of the activities, save for household-level asset building, were designed with the explicit aim of reducing household and community vulnerability to recurrent shocks. As many food crises are localized, implementing organizations like UNICEF should similarly be prepared with plans for continuing programming and financial support to unaffected regions so as to avoid the types of disruptions that can destroy the success of a project.

4. The importance of developing a strong monitoring information system for the next phase of the project cannot be emphasized enough. Many of the implementation problems that arose during the course of the project, that ultimately hindered its success, could have been easily addressed and resolved if information about project implementation had been compiled regularly, aggregated, and acted on at each administrative level. This type of system must be considered during the project design phase, and could be done using participatory monitoring techniques that involve the community both in developing and tracking indicators. Simple targets, or thresholds, can be built into monitoring indicators in order to trigger the need for a managerial response by predetermined project staff at each level of the system. Quantitative baseline data must also be collected from a sample of all project woredas and preserved in their raw form in an electronic database so that they can be later used in the evaluation of program impact.

## 8.2 Implementation

1. BSF should fund at least one full-time National Project Coordinator to be housed in UNICEF. This person would be responsible for coordinating and monitoring the project in all four Woredas and would provide bi-annual reports to BSF. In addition, the BSF National Project Coordinator would be responsible for the publication and dissemination of a quarterly newsletter. This recommendation addresses the concerns of the current coordinator of the BSF project, whose has stated that overseeing the BSF project is only one of his many responsibilities. His other responsibilities include the coordination of national nutrition programs, making it difficult for him to monitor the BSF project closely. In addition, key informants expressed the lack of coordination with UNICEF as a formidable obstacle to implementing the project. The absence of a BSF coordinator within UNICEF for nearly two years is a clear indication that the coordination of the project should be formalized and resources made available for coordination and monitoring efforts.
2. Assuming the communities have prioritized their proposed activities, a 'phased approach' to the implementation of project activities is recommended. A 'phased approach' might require that institutional stakeholders address issues of technical administrative capacity at the Woreda and Kabele level in the first phase, while also working to implement infrastructural activities in order to install the 'hardware' in the community system. The second project phase would focus more on the software – training and awareness raising to continue to capacitate project officials, health

workers, teachers, etc. but also to begin to emphasize key shifts in knowledge, attitudes, and behaviors that will ultimately close the gap between the provision of inputs and the achievement of impacts.

3. The Woreda BSF coordinator should be given the authority to allocate BSF funds without the consent of the Woreda Administrator. Since there is often no independent BSF committee and BSF project activities are coordinated by the Woreda Cabinet, the BSF coordinator should be given a means to leverage the activities of the BSF project and facilitate their implementation. The Woreda Administrator will continue to oversee the project as the Chairperson of the Woreda Cabinet, but would be relieved of the responsibility to authorize all financial transactions. This change would streamline the funding process and enable UNICEF and the Woreda BSF Coordinator to efficiently transfer funds to project Kabeles.
4. Incentives for the Woreda BSF Coordinator should be put in place to encourage his/her careful oversight of the project. The Woreda BSF Coordinator is often the Head of the Food Security Desk and typically has numerous government responsibilities in addition to attending to all BSF project activities. In-kind incentives such as trainings and support of distance learning activities would both improve the Woreda BSF Coordinator's capacity to implement the project activities and encourage the prioritization of the BSF agenda.

### 8.3 Institutional Framework

1. The partnership between BSF and UNICEF is highly beneficial and sensible. UNICEF's technical expertise in the health, water, nutrition, education sectors makes UNICEF the logical institution to oversee the Food Security and Integrated Basic Services Project, since the project encompasses all of these components. The technical knowledge within UNICEF can be further leveraged to improve the technical capacity at the Woreda level via direct technical assistance and strategic trainings. For these reasons, it is recommended that partnership between the BSF and UNICEF be continued.
2. The continuation of integrated programming is encouraged, while additional attention should be paid to the harmonization of national-level vertical interventions within these communities. The argument for ensuring the convergence of the activities of multiple sectors in one place is to alleviate those limiting, underlying factors in the purview of one sector that prevent the successful implementation of activities in another. If this type of project is to continue, a similar structure should be in place in UNICEF in order to properly support the project. For example, a Coordinating Committee could be formed within UNICEF consisting of a representative from the Water, Health, Education, and Nutrition sections.
3. In coordinating future BSF Projects, UNICEF should partner with regional Food Security Offices located within Regional Agricultural Bureaus rather than partnering

only with Regional BOFED offices. As UNICEF's newly-formed Nutrition and Food Security Section aims to address malnutrition in the context of food security, a partnership with a government agency that implements Food Security projects is more logical and relevant to the project design. In addition, working with Regional Food Security Offices would compliment UNICEF's technical expertise and ensure that the BSF project would be harmonized with existing national and regional food security programs. The Regional Food Security Offices currently coordinate the National Productive Safety Nets Program, the National Food Security Project, the Emergency Drought Recovery Program, as well as BSF/FAO Food Security projects. For these reasons, regional Food Security Offices are considered the most appropriate government agency with which to partner.

4. What is the role of a small project like the BSF/WIBS within a government and UNICEF portfolio of large-scale national level programs? The TET has two important recommendations for improving the relevance (and profile) of the BSF/WIBS to ongoing larger scale activities. The first is to consider integrating the BSF/WIBS into the planned community-based nutrition (CBN) activities that are scheduled to take place in 150 woredas. The CBN model has many similarities to the BSF/WIBS design, the main difference being its explicit objective to reduce *malnutrition* (rather than morbidity and mortality) by addressing its underlying (Eg. poor water, sanitation, health care, and education), as well as proximate, causes. The components of the CBN are similar to the BSF/WIBS, except for a greater emphasis on nutrition through growth monitoring and supplementary feeding, and a de-emphasis on activities to improve food production and incomes. The recommendation of the TET is to use the BSF/WIBS woredas as a learning ground for this larger CBN program. As a learning site, technical strategies, activities, and management practices can be tested and proven effective before scaling them up to 150 woredas. In addition, the past experience and lessons learned from BSF/WIBS implementation in 4 woredas can be harnessed by program designers in order to avoid making the same mistakes again. Systems for measuring the achievement of activities, outputs and eventually impact, will be critical under this arrangement in order for lessons to be learned and shared with the CBN team. At the same time, UNICEF should not drop the food security components from the CBN, but rather preserve them through partnership with the Food Security Bureau within the Ministry of Agriculture and Rural Development (MOARD).

The second unique role that the BSF/WIBS may continue to play in the context of larger scale projects, is that of addressing the needs of the poorest, most food insecure and vulnerable households and communities when larger scale projects are focused on broader coverage with less narrow targeting to the ultra-poor. UNICEF and other UN agencies are moving toward a strategy of 'convergence', where certain sectoral activities will be targeted primarily in areas where other activities are being implemented by government or UN, in order to maximize linkages and economies of scale and, in theory, to see the greatest impacts. The missing piece from the convergence strategy is the determination of the extent to which the areas with most 'convergence' are also those areas most in need. With BSF/WIBS explicitly targeting

the most vulnerable areas (rather than those areas where impact will be easiest to achieve), the project may take on the role of ‘going where no project dares to go’, working with populations that are not reached by the new convergence strategy. This will undoubtedly require special considerations in setting targets for impacts and in designing the optimal program strategy, taking into account the special challenges and needs faced by ultra-poor households and communities.

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