BEYOND THE MERRY-GO-ROUND TO THE RELIEF-DEVELOPMENT CONTINUUM

Prospects for Linking USAID Relief and Development Resources in Amhara National Regional State (ANRS)

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ABBREVIATIONS

ANRS	Amhara National Regional State
BOA	Bureau of Agriculture
BOPED	Bureau of Planning and Economic Development
CFW	Cash for Work
DG	Democracy & Governance (USAID Sector)
DPPB	Disaster Preparedness and Prevention Bureau
DPPC	Disaster Preparedness and Prevention Commission
EGS	Employment Generation Scheme
EU	European Union
FA	Food Aid
FFW	Food for Work
FS	Food Security
FSU	Food Security Unit
GoE	Government of Ethiopia
INGO	International Non-Governmental Organization
ISP	Integrated Strategic Plan
MED (SO)	Mitigate the Effects of Disaster (USAID Strategic Objective)
MOA	Ministry of Agriculture
MT	Metric Ton
NGO	Non-Governmental Organization
NFSP	National Food Security Program
NFSS	National Food Security Strategy
PVO	Private Voluntary Organization
RHPP	Rural Household Production and Productivity
WFP	World Food Program

Executive Summary

1. The Limitations of Food Aid Assistance

- In spite of heightened levels of food aid and development assistance to Ethiopia over the last decade, the numbers of people defined as chronically food insecure have risen to a figure of approximately 6.5 million. This group comprises people who are incapable of meeting their annual food needs without food aid assistance. Equally, food aid has not improved nutritional indicators in the beneficiary population, demonstrating that whilst food aid may feed people, it does not do it particularly well.

- Although food insecurity is recognized as predominantly chronic in nature in Ethiopia (with the exception of crisis years), present response mechanisms are primarily geared towards addressing acute needs. This is borne out by the annual DDPC appeal, which ultimately requests donors to respond with emergency assistance (e.g., food aid) to what is essentially a development problem related to a low productive asset base at household level, and a lack of assets and opportunities at the wider level. Thus, whilst food aid may save lives, it does and cannot replenish productive assets that would permit people to take off from their poverty.

- Even when food aid has been used to develop a continuum between relief and development though Food for Work (FFW) and Employment Generation Schemes (EGS) this has not led to the creation of sustainable assets at either household or the community level in most cases. This is primarily because a lack of community involvement in project identification, and more substantively, the identification of inappropriate FFW/EGS activities (e.g., stone bunds etc) mean that any assets created are not usually maintained or rehabilitated without further food aid inputs in subsequent seasons because communities do not identify their benefits. At the household level, assets are not being created because present levels of remuneration are too small to cover anything but food needs. Moreover, food aid is often distributed gratuitously because the annual appeal process and subsequent emergency response makes coherent planning of activities to be financed with relief resources difficult, due to a variety of reasons, but most notably a lack of capacity in the DPPC.

- Present food aid targeting practice also (unintentionally) limits the ability of food aid to address the needs of the chronically food insecure. This is because interventions usually occur (especially in highland framing systems) when households have depleted productive assets, such as oxen. That is, food aid arrives at a time when households are already on the road to destitution. More significantly, this undermines their future status because without external provisioning of seeds, traction power, tools etc households cannot get themselves back on the

ladder of productivity. Food aid does not do this. The beneficiaries of food aid today are also therefore the beneficiaries of tomorrow.

- In the long term and if the last few decades are indicative of a trend generally, then food aid needs will rise as the level of chronic food insecurity increases. This is because in-country growth in any sector is too small to meet even additional food demands (let alone in education, health, water etc). Whilst the international community has a moral obligation in principle to respond to forthcoming appeals, it is less certain that this will occur in practice. It is estimated that by 2025, Ethiopia will require 24 million metric tons (MTs) of food - a substantial proportion of which would be derived from food aid. Assuming that donors would or could respond with sufficient aid, logistical limitations would no doubt result in widespread excess mortality reminiscent of the 1980s.

2. Increasing Poverty – An Overview of Causes

- The numbers of chronically food insecure are increasing in Ethiopia because macro-economic development has not kept pace with the additional demands generated annually from population growth. This is especially true with regard to agriculture, which grows on average at an annual pace of 2.4%, compared to an estimated annual population growth rate of 2.8%. Moreover, national growth figures conceal the fact that agriculture is mainly growing in surplus areas where the bulk of investment accrues, as opposed to in the food deficit regions. Moreover, poor storage and marketing infrastructure, and transport limitations prevents interaction between surplus and deficit regions, which could otherwise be a means (albeit limited) to smooth out production shortfalls in food insecure areas.

- Although chronically food insecure areas also coincide with low and variable rainfall areas (and high population density), at the household level, chronic food insecurity is related more specifically to a lack of productive assets (e.g., oxen for traction power), savings (e.g., cash or small livestock), land and/or labor than to climate. The real relationship between climate and food insecurity is that the gradual (and sometimes sudden loss of assets) has reduced the margin of safety from climatically related shocks, because people have little recourse to coping in the way they had in the past.[1]

3. Reconceptualizing Food Insecurity

- Re-conceptualizing our understanding of famine from a sudden catastrophic event related to external shocks (e.g., drought) event to process inextricably bound with poverty could have an important bearing on the timing of

[1] For example, in the past people held larger land-holdings dispersed throughout a variety of microclimates. It was therefore less likely that drought would impact on all altitudes and therefore affect all of a household's production in a given season.

our intervention (e.g., to prevent destitution) and also the nature of our intervention (e.g., development assistance as a preference to emergency assistance).

- With reference to this pilot project, chronic food insecurity will be defined as evident when a stressed community has to adopt survival mechanisms that knowingly deplete its long term strategies and assets, and which do not form part of the adjustment to seasonal poverty fluctuations. Acute food insecurity (frank starvation) may arise from this process once destitution has become irreversible. In this case, death from starvation may be one possible outcome, but it is not a defining characteristic.

4. Linking Relief and Development Resources in ANRS

In order to more comprehensively link relief resources within the framework of a development program, a pilot project is proposed in Amhara National Regional State (ANRS). The essential components of this program are:

- Program for development a proportion of the USAID food pledge for distribution through channels other than the traditional relief mechanism.
- The retained amount will be used to cover the DPPC identified needs of two *woredas* in ANRS.
- USAID will commit relief and development resources to the selected *woredas* for a minimum of 3 years. The pilot *woredas* will therefore not feature in the annual appeals for the period of USAID's commitment.
- Distribution of food aid in the *woreda* will be undertaken on the basis of well-planned FFW/EGS activities.
- USAID will supply additional development resources through its Title II programs and partners, and draw on its agriculture, environment and extension resources.

Within this overall pilot, food aid is to be used as a flexible tool to assist overall development goals and as a means to attack chronic food insecurity. Here, the essential elements of its use are:

- Distribution of food aid will take place through FFW
- FFW activities will create assets at the community level, and build assets at the household level by increased rates of remuneration.
- In the event of drought, FFW may become available to all household types to prevent asset depletion in the relatively more productive households.
- Food aid will be used more as food to reduce the inefficiencies of past Title II partners' monetization experience. In order to accommodate this, and any negative benefits to the household, distribution will go in tandem with the development of community grain stores/banks.
- Food aid will be used to guarantee risk of early adopters of new technologies, and help especially vulnerable households (e.g., female headed) to diversify their productive base.

1

Introduction: Back to the Future?

1.1. Introduction: The Context to Relief-Development Proposals

"To speak of famine once again affecting northern Ethiopia is a misnomer. This area has not been without famine since the 1960s. All that waxes and wanes is the threat of mass mortality" (Walker 1989:71)

On January 23, 2001, the DPPC launched its annual emergency appeal for food aid assistance to Ethiopia. USAID immediately pledged MT 110,000 of food aid for distribution through its NGO partners. Other donors followed suit.[2] As the food aid machine kick starts in to action for the year, the issue of donor and GoE cooperation and coordination to secure and deliver timely food aid inputs will be critical. Issues of vulnerability, targeting, logistical capacity, and storage will dominate agendas. Ultimately, the success of the relief effort will be measured in terms of the number of lives saved by effective and timely intervention. Barely will the last of the food aid have been delivered, when next year's appeal will be launched, leaving little if no time to evaluate the impact of food aid, or to plan long-term strategies and activities to manage food aid more effectively. In this sense, another year of 'disaster' will guide us to next year's appeal, without the breathing space to truly evaluate the nature of and response to food insecurity in Ethiopia.

This response to food insecurity in Ethiopia (in particular) is not new. It has continued for over fifteen years, although there has been a trend towards increased food aid assistance over the last decade, finally culminating in the crisis year of 2000.[3] An increased quantity of relief and development assistance over the years has, however, had no discernible impact on reducing the scale of food insecurity, especially in relation to the chronically vulnerable.[4] Thus, at present, it is estimated that approximately 6.5 million people are chronically food insecure and in need of assistance external to the household to meet their annual food needs.

Although USAID will continue its commitment and approach to those facing acute food shortages, the rationale behind this proposal is that those affected by chronic vulnerability require a different response. As such, this paper lays out a conceptual framework for USAID's new policy direction to link relief and development.

This section introduces the complexity and scale of the problem (detailed further in section 2), and reviews the ways in which USAID proposes to move forward in 2001.

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[2] Although the DPPC downsized the appeal this year, WFP and FAO maintain that the number of beneficiaries will remain approximately constant to last year's appeal, although there may be a movement of 'hunger' hot spots, depending largely on weather conditions.
[3] This trend is with the obvious exception of the mid 1980s famine.
[4] The value of food aid assistance alone to Ethiopia in 2000 is estimated at $0.5 billion.

1.2.) The Chronically Food Insecure – Who, Where and Why?

Chronic food insecurity tends to be concentrated in two geographical zones, which have been and continue to be the center stage for famine in Ethiopia. The first zone comprises the central and northeast highlands, stretching from northern Shoa, through Wollo to Tigray (Webb & Braun 1994:21-22). The second zone comprises lowland regions stretching from Wollo, through the Ogaden, to Sidamo and Gemo-Goffa in the south (Webb & Braun 1994:21-22). Over half of Ethiopia's documented famines have occurred in these regions. Moreover, over a quarter have occurred in the northern highlands from Shoa through Wollo and Tigray, where the bulk of Ethiopia's population is concentrated, and where environmental degradation is most severe (Webb et al 1992:19-21). Even in 'normal' periods, households suffer extreme poverty and food deficits (e.g., chronic food insecurity). However, there is also a growing trend towards increased food insecurity in the formerly more food secure *ensete* cropping areas where population density is high, as well as to southwest Ethiopia generally. Overall, the evidence suggests a gradual increase in the number of people living in a state of chronic food insecurity.

These two famine-prone zones also coincide with poor rainfall and predominantly *belg* cropping areas (Workineh 1987, 1988). Less than average annual rainfall is also combined with a high degree of inter-annual rainfall variability in these areas. Thus, in Ethiopia there appears to be a high correlation between poor rainfall areas and food insecurity. This is shown clearly in table 1., which reviews the average levels and variability of rainfall for the years 1961-1987. The most pronounced food deficit areas are highlighted in bold as a means to show more clearly supposed links between climate and food insecurity in this context.

Table 1.1: Average Levels and Variability of Rainfall (mm) Ethiopia 1961-1987

Area	Long Term Average	Percentage of Ethiopian Average	Coefficient of Variation	Rainfall in Worst Year	
				Year	% of Average
Arsi	872	96	16	1980	69
Bale	766	84	26	1965	69
Gema-Goffa	747	82	21	1963	48
Gojjam	1170	128	10	1983	82
Gondar	**986**	**108**	**19**	**1966**	**78**
Hararge	497	54	27	1984	49
Illubabor	1304	143	13	1965	67
Keffa	1322	145	11	1980	81
Shoa	830	91	11	1965	77
Sidamo	837	92	24	1980	51
Tigray	**571**	**62**	**29**	**1984**	**44**
Wollega	1210	132	20	1970	48
Wollo	**837**	**92**	**18**	**1984**	**47**
Ethiopia	913	100	7	1984	78

Source: Adapted from Webb & Braun 1994:25

However, the linkage between climate and food insecurity needs to be mediated by other factors. Drought is generally not the major catalyst for food insecurity in these areas because chronically vulnerable households

experience food deficits in 'normal' times for a variety of reasons, including diminishing land holdings, a lack of productive assets and/or household labor. Moreover, in spite of increased levels of food aid and development assistance to Ethiopia, especially over the last decade (albeit with the exception of the mid-1980s crisis), there has been a noted trend towards increased vulnerability. The number of chronically food insecure households has thus continued to rise in response to a multitude of factors, including:

- **Development initiatives have not kept pace with population growth.** This is especially true in agriculture, where annual growth averages 2.4% compared to a population growth rate of 2.8%. This trend increases Ethiopia's annual food deficit, whilst also imposing additional demand for resources from health, education, water and land to name but a few. At the same time, growth in the manufacturing and industrial sector is too insignificant to generate sufficient income to compensate for shortfalls in agricultural production.
- **Successive government policies in the rural sector have failed to address structural poverty**. Overall, there has been a trend towards declining investment in the deficit areas, whilst surplus producing areas have historically and disproportionately received the bulk of government's agricultural investment. This trend has been reinforced in recent years because an increased defense budget has significantly reduced government sector development spending. At the same time, donors have also reduced their development assistance for fear of misuse.
- **Rural poverty is increasing levels of environmental degradation on and off the farm.** In turn, this is both a result and cause of low agricultural productivity, as discussed in section 2.
- **Poor marketing infrastructure and binding transport limitations compound the problems of a weak agricultural sector.** On the whole, there is very little integration between surplus and deficit regions, which (purchase power permitting) might otherwise smooth out some dramatic price differentials. Instead, the present trends in marketing continue to be to the benefit of urban dwellers, especially in Addis Ababa, at the expense of the rural sector.

In addition, (but not in itself a direct cause of food insecurity) actual responses to the nature of food insecurity have failed to attack the root causes. This is because **food insecurity in Ethiopia is mostly chronic, rather than acute with the exception of certain crisis years** (e.g., 1984/5, 2000). This is borne out by the DPPC 2001 appeal, which mostly requests food aid for the chronically vulnerable. In practice, however, the use of an annual disaster appeal ultimately means that donors respond with emergency assistance (e.g., food aid) to a mostly a chronic structural problem related to the low asset base of rural households and a lack of assets and opportunities at the wider level (as discussed further in section 2). In this sense, food aid per se, although an important measure aimed at saving lives, cannot address the underlying cause of chronic vulnerability, which is inextricably linked with poverty. If food aid could generate assets that got people back on the ladder of productivity, then one could expect that the chronically food insecure would not feature in appeals year after year. But they do.

Collectively, these trends have culminated in a deepening agrarian crisis in Ethiopia. The lack of other significant non-farm income generation opportunities means that, without a real reorientation of policy, one may expect a large increase in the number of people requiring emergency food assistance over the coming years. Some estimates of future food needs that factor in present population growth and agricultural performance lead to the alarming projected need of 24 million MT of cereal by 2025 (e.g., CRS/Ethiopia 1990).[5] Ethiopia would therefore need to grow/import an additional 12 million MT beyond the best harvest estimate of approximately 12 million MT for 2000. Of course, agricultural performance should not stay the same. But, given the fact that it has never tracked population growth in Ethiopia, combined with a lack of macroeconomic development generally, one can expect the gap between food needs and food availability to widen, placing additional demands for food aid. However, even if donor countries maintained the political will to provide food aid, the logistical limitations of operating such a large-scale relief effort would ultimately result in the widespread excess mortality reminiscent of the 1980s.

It is not just an agrarian crisis that is affecting Ethiopia presently, but also a 'nutritional crisis', irrespective of food aid inputs. This is demonstrated by studies that show that improved nutritional status does not necessarily go hand in hand with food aid distribution. Food aid has not reduced the high levels of stunting – a process that begins at birth - even if it temporarily reduces wasting.[6] Micronutrient deficiencies are also common, leading to poor growth, cretinism and blindness to name but a few associated diseases.[7] General measurements of nutritional poverty are expressed in table (1.2) below for 1996.

Table 1.2: Measurements of Nutritional Poverty in Ethiopia

Measurements of Poverty	Percentage of Population
Children exclusively breast-fed (0-3months)	83.8%
Children Under 5- stunted (height for age)	51.2%
Children Under 5- wasted (weight for height)	10.7%
Children under 5 – underweight (weight for age)	47.1%

(Source: Ethiopia Demographic and Health Survey 2000)

[5] According to figures cited by the CRS/Ethiopia's Mid Term Evaluation Report 1999 (4-5), Ethiopia will have a cereal requirement of approximately 24 million MT by 2025, if present levels of population growth continue.

[6] Stunting is based on measurements of age for length, whilst wasting is based on weight for height. Measurements of stunting are less accurate because it requires that the exact age of the child/adult in question is known.

[7] Vitamin A and iodine deficiency rates are especially high. Surveys have shown iodine deficiency disorders (IDD) to be widespread. This is indicated by the mean goiter rate of 31% among school children.[7] Vitamin A deficiency (VAD) is also widespread. A 1991 study of Shoa showed the prevalence of Bitot's spots (connected to blindness) to be just over 0.5%. Thus, vitamin A and iodine deficiency, alongside other micronutrient deficiencies, continue to lead to secondary complications and further undermine the general health of the rural population. Moreover, a 1991 survey of the hemacratic levels of children aged 6-72 months old showed the prevalence of anemia to be 47%, although it should be noted that iron deficiency in Ethiopian adults is not a particular problem.

1.3. Aid and Development Assistance – A New Way Forward?

In recognition of these factors, USAID and other major food aid donors (e.g., EU and WFP) have begun to question the sustainability of their responses to food insecurity in Ethiopia. There is now general recognition that food aid per se cannot address the structural causes of rural poverty. However, recognizing the limited present funding environment for development programs, and the unsustainability of annual gratuitous food distributions, many donors have sought to promote the relief-development continuum through Employment Generation Schemes (EGS) and other related activities (e.g., FFW, CFW, EBSNs). These schemes purport to make effective use of relief resources to establish community assets and thereby bridge the gap between relief and development. Whilst there is much merit in their objectives, their impact on promoting and maintaining productive livelihoods systems and developing community assets is less than hoped. This is related to both the inability to plan activities in advance, and because the barriers to increased agricultural productivity are often within the household, as opposed to related only to environmental degradation (e.g., a lack of traction power, land and/or labor). The issue of sustainability of infrastructure developed through such activities is also an issue to be addressed (as discussed further in part two). However, the merit of such schemes as implemented presently is that they demonstrate the growing recognition that food aid, especially when distributed on a gratuitous basis (for whatever reason) is not a sustainable solution to chronic poverty. This is because food aid does not generate the assets needed to get people back on the ladder of agricultural productivity, or provide people with the means by which they could pursue alternative income generating activities. Rather, ***food aid simply feeds people, and not always very well.***

While the donor community has a moral obligation to respond to the appeal and prevent excess mortality, USAID takes the stance that the merry-go-round of emergency food aid assistance to Ethiopia cannot run the gauntlet of another designated 'emergency' year without truly evaluating its impact or proposing alternatives. This concept paper lays down a framework and rationale for a series of pilot initiatives to rationalize USAID relief and development resources within a common program that seeks to address the chronic nature of food insecurity in Ethiopia.

The proposed pilot program is part of the implementation of USAID/Ethiopia Integrated Strategic Plan (ISP) for the period 2001-2006, which has as its central strategy an attack on food insecurity. Moreover, it is in line with USAID's proposal to use its assistance tools with flexibility by integrating food assistance activities throughout the strategy to build the bridge between relief and development and directly address the issues of food insecurity. By integrating all sector resources into a common program, the pilot also reflects overall USAID strategic objectives:

- **ESHE II SO:** Improved Family Health
- **BE SO:** Quality and Equity in Primary Education System Enhanced
- **RHPP:** Rural Household Production and Productivity Increased
- **MED SO:** Mitigate the Effects of Disaster
- **DG SO:** More Effective Governance and Civil Society Developed

1.4. Linking Relief and Development – The Concept

USAID proposes to undertake a pilot initiative linking relief and development resources to address the dynamics of chronic rural poverty in Amhara National Regional State (ANRS).[8] To achieve this, a series of *woreda* based pilot initiatives are proposed to permit USAID to concentrate sector resources into a few localities for a minimum of three years. This proposal is based on the following assumptions:

- *Chronic food insecurity is related to long term processes other than drought induced production failures. Recognition of this may permit more timely and appropriate responses to prevent destitution.*
- *Chronic food insecurity is related to the gradual loss of productive assets at the household level (e.g., land, oxen, and/or labor), and the loss of 'free' goods at the community level (e.g., pasture, forest), both of which feed into each other. In the absence of off-farm income opportunities food insecure households have little opportunity to 'take off' from their poverty by their own means.*
- *The targeting of specific household types (e.g., a livelihoods approach) is not always best practice, even if there is significant socioeconomic household differentiation. This is because community targeting (e.g., livelihood systems approach) can often more accurately attack causes of chronic vulnerability.*
- *Food aid as distributed presently cannot address the chronic nature of food insecurity. This is because food aid meets 'hunger gaps', and thereby implicitly focuses on saving lives, not livelihood systems.*
- *Combining relief and development resources can create productive assets to improve the economic viability of smallholder agriculture, and thereby permit households to 'take off' from their poverty. The guarantee of food aid within a given timeframe will provide the 'breathing space' required for the advanced planning of sustainable FFW/EGS and other related activities.*

Working on these assumptions, the USAID pilot initiative will:

- *Program for rehabilitation a proportion of its food pledge for distribution through channels other than the traditional relief mechanism.*
- *The retained amount will be used to cover the DPPC identified needs of two woredas in ANRS.*
- *USAID will commit relief and development resources to the selected woredas for a minimum of 3 years. The pilot woredas will therefore not feature in the annual appeals for the period of USAID's commitment.*
- *Distribution of food aid in the woreda will be undertaken on the basis of well-planned FFW/EGS activities.*
- *USAID will supply additional development resources through its Title II programs and partners, and draw on its agriculture, environment and extension resources.*
- *In recognition of its pilot nature, USAID will adopt a reflexive approach to programming that will permit the agenda to evolve and change in response to issues as they emerge.*

[8] Most USAID food aid (approximately 250,000 MT) will still be disbursed through usual channels as in previous years.

The overall aim of the Pilot is to effectively combine USAID relief and development resources to work towards the strategic objective (SO) of tackling the root cause of chronic food insecurity in Ethiopia. Although this is the overall goal, sub-aims within this are identified as:

- *Assist households and communities to develop productive assets that enhance their livelihoods in normal years, and strengthen coping mechanisms against future production shocks..*
- *Improve nutritional status.*
- *Develop off farm income generation activities.*
- *Enhance access to education up to grade 10 for all household types, and to increase access to more practically based technical training.*
- *Develop sustainable non-food production based livelihood systems*
- *Develop and conserve community assets of forest and pastureland.*
- *Reverse/halt the levels of environmental degradation*
- *Develop community capacity to manage natural resources through participatory land use planning.*
- *Enhance woreda capacity to develop, manage, and implement natural resource management.*
- *Improve capacity of the Extension Service available to rural households through the community based Development Agent (DA).*
- *Innovate and diversify agricultural production through the introduction of appropriate technologies and cereal types that have had marked success in other areas of Amhara (e.g., triticale, tenkera kend).*
- *Pilot a land registration program in 1-2 kebelles*

1.5. Structure of Report

Part 1 has laid out the context to USAID's interest in the relief to development continuum. This recognizes the fact that a 'pure' emergency response in the form of food aid distribution is not an appropriate or sustainable intervention to the chronic nature of food insecurity in Ethiopia. Moreover, even though EGS/FFW activities are promoted as a means to link relief and development, USAID recognizes that such activities have only a minimum impact and that further resources are required to decrease chronic vulnerability, for the reasons further discussed in part 2. This lays out the essentials of the dynamics of the Ethiopian smallholder sector. In so doing, famine is re-conceptualized as a process (as opposed to an event) to focus our efforts towards on more timely interventions that prevent the further destitution. In sum, it rationalizes the context of USAID's decision to focus on preserving and developing rural livelihoods systems first and foremost as a response to food insecurity, as opposed to waiting for nutritional indicators to drop before intervention will occur. Furthermore, the discussion of the dynamics of the rural community at the micro level helps to contextualize why it is that the targeting of households over a community cannot fully address the root cause of chronic vulnerability. This discussion lays the foundation for that which follows in part 3, and which discusses the pilot program components in concept phase.

2

The Dynamics of Rural Poverty in Ethiopia: The Implications for Relief and Development

2.1. Introduction

The assumptions underpinning this concept paper are reviewed here. It is, however, not intended to be exhaustive, but detailed enough to rationalize USAID's new policy direction. Discussion is therefore weighted towards the new themes, whilst less focus is given towards the limitations of food aid per se as the latter has been explored at length elsewhere, and because USAID will commission a food aid impact study over the coming months. The primary focus of the discussion here is to shed light on:

- ***Famine as a socioeconomic process inextricably linked with poverty***
- ***The dynamics of the Ethiopian rural small-holder economy***
- ***The relevant aspects of socioeconomic differentiation***

2.2. Recasting Famine as a Process: Creating Conditions for Effective and Timely Interventions

Media images have done little to highlight the complexity of famine, even if they have provided an effective means of securing public donations for emergency relief, and thereby saved millions of lives. This is because such images mostly focus on the accumulation of processes that cause excess mortality and thus show famine in its later stages. In reality, however, people do not suddenly succumb to famine. For most households, it is a long journey into destitution, beginning with the depletion of productive assets, and ending with the adoption of extreme measures just to physically survive. It may take years between the first external shock (e.g., drought) and the manifestation of frank starvation, as highlighted in box 2.1, which details the development of the mid-1980s crisis. The fact that the drought really began in parts of the country as early as 1979, whilst mortality was not noted significantly until 1984 shows both that drought does not automatically lead to famine and that famine is a process.

Box 2.1: Famine as a Process: The Mid-1980s Ethiopian Experience

The mid-1980s famine demonstrates the extent to which distress indicators can be apparent long before a crisis of frank starvation manifests itself. For example, in December 1984, 7.7 million people needed emergency food aid in Ethiopia itself, in addition to a further 210,000 Ethiopian refugees inside Sudan. At the close of 1984, approximately 300,000 people had died, and mortality continued until the end of 1985 (Gill 1986:186). Overall, one million people are thought to have died in the 1980s famine (Gill 1986:3). However, indicators of the crisis were actually apparent as early as 1979, when both the *Belg* and main *kiremt* rains were inadequate and untimely, especially in the northeast. By May 1980, following poor *belg* rains again, approximately five million people were affected by the accumulative effects of drought conditions in large parts of Eritrea, Tigray, Wollo, Gondar, and parts of northern Shoa. Following poor *belg* rains again in 1981, approximately 12.5% of the population were drought-affected. This was most pronounced in Tigray, although drought was already spreading to more southerly areas of Sidamo, Gemo Goffa, Hararge and Bale. In 1982 the *belg* rains failed altogether in many northern areas. Tigray and Eritrea subsequently experienced low harvests for the fifth or sixth season in succession. By July 1982, the town population of Korem had swollen from 45,000 in May to 102,000 (Hancock 1985:76).

The situation deteriorated further when the *kiremt* rains were reduced by half across the country, or failed altogether in some areas. By the middle of 1984, REST estimated that half a million people had migrated from the northern drought region to western regions. Thus, when the *kiremt* rains ceased a month earlier than usual in August 1984, conditions were already ripe for a '*rapid translation from production failure to consumption failure*'. (Webb et al 1992:27).

Mainstream academic and policy discourse, however, continue to define famine as an extraordinary event to be met by extraordinary means (e.g., food aid), as opposed to a more wide-ranging, socioeconomic process (often) leading to irreversible destitution (see box 2.2).[9]

Box 2.2: Defining Famine

Orthodox definitions of famine are associated with starvation, mass mortality, and food scarcity. For example, as described by Crow (1992:15), famine is a "*crisis in which starvation from insufficient intake of food is associated with sharply increased death rates*". Therefore, as starvation related mortality provides the central tenet of many definitions of famine, an inadequate ability to obtain the required levels of food not only define famine, but is also a principal cause of famine.

Famine is also viewed as distinct in that it may imply starvation, but starvation does not imply famine (e.g., Sen 1981, Crow 1992, Rivers et al 1976). In this way, the problems and processes of 'normal' times, which may encompass the possibility of a perpetual state of sustained nutritional deprivation, are separate to those of 'disaster' or, famine. As expressed by Rivers et al (1976:348),"*although famine is a manifestation of poverty - a low economic temperature - there is a freezing point at which it develops, a point characterized by a change in state that clearly separates famine from extreme poverty. Famines are distinct.*"

However, in the post 1980s period, some critics began to argue that the parameters that define famine as an abnormal event associated with food shortage and excess mortality are only useful in defining famine once it is actually well underway (Getachew 1995, de Waal 1989, 1990b, Walker 1989). In order to accommodate observations of famine as a process, it was subsequently suggested that famine is best defined as occurring when a stressed community has to adopt survival mechanisms that knowingly deplete its long term strategies and assets, and which do not form part of the adjustment to seasonal poverty fluctuations (Walker 1989:143). Thus, from this perspective, famine is viewed as a wide-ranging socioeconomic crisis that can cause the accelerated destitution of certain groups

[9] For example, many donors continue to speak of widespread famine being averted in 2000, when what was actually meant was that food aid was instrumental in averting mass mortality. Food aid did not, however, prevent asset depletion and destitution in some groups (e.g., pastoralists).

within a community to a point where they can no longer sustain their livelihood systems. Thus, starvation related mortality becomes a symptom of famine, but it is not famine's defining characteristic.

The above perspective is also supported by micro level case studies of famine, which are well documented in famine literature under the term 'coping' or 'survival strategies' (e.g., Corbett 1988, Jodha 1975, de Waal 1989, Dessalegn 1987, 1988). Such strategies are assumed to represent a progressive narrowing of options that start with broad attempts to minimize risk in the long term through actions designed to limit damage caused by a crisis. In Ethiopia, this may involve agricultural, livestock and household income diversification, with an emphasis on asset preservation. They culminate with the adoption of extreme measures aimed at saving individual lives.

The generic aims of coping mechanisms are shown in table 2.1 below, and detailed in 2.2.further in the text.

Table 2.1. Stages and Aims of Coping Strategies

Stages of Coping/Surviving	Aim of Strategy
Risk Minimization	Undertaken by households to diversify their productive base in a normally risky environment. Measures undertaken here aim to reduce the effects of production deficits.
Risk Absorption	When production deficits cannot be met, households increase their search for off-farm employment, sell small livestock, such as shoats, and reduce consumption as an effort to maintain their productive assets.
Risk Taking	Undertaken by households when all other efforts to meet household food deficits have failed. The aim here is to survive. Households take more desperate measures that include the sale of productive assets, such as oxen (if available), distress migration, consumption of famine foods, and the break up of the family unit.

From a coping mechanisms perspective, the above are all responses to food insecurity, which may at some point in the future produce excess mortality and social breakdown (de Waal 1990b). A person may postpone the purchase/acquisition of food in order to preserve household assets, but this does not mean that s/he is not a victim of famine. This is because if assets are not preserved, then the future productive capacity of the household is undermined, which in turn sets in motion a process of irreversible destitution. Without external intervention at this point, then we will see the emergence of more acute needs.

Table 2.2: Categories of Responses to Food Deficits

Trigger Event (Production)	Behavioral Category (Consumption)	Strategy (Generic)	Response (Specific)
Grain Production Deficit	Protect Consumption	Purchase Grain	Sell Non Food Crop Use Off-farm Income Sell Assets (e.g., livestock) Borrow Cash Postpone debt repayments Reduce Non food spending
		Receive Grain (Non market transfers)	Remittances Begging Food Aid Charity
	Modify Consumption	Reduce Consumption	Smaller Portions Fewer Meals per day Fewer Snacks per day
		Diversify Consumption	Less preferred food varieties Wild foods Less nutritional diet
		Reduce Consumers	Wife returns to parents Children sent to relatives Temporary male migration Betroth daughter Household dissolution

Source: Adapted from Devereux 1993b:53

In the famine prone zones, chronically food insecure households are increasingly reliant on non-market transfers (see generic strategies section cited in table 2.2 above) or modifying and reducing consumption because of the lack of viability of household agricultural production. In this sense, the trigger for chronic vulnerability, is not drought per se, but poverty - a point to which we return later. Thus, in the highlands in particular, chronically food insecure households are permanently engaged in risk absorption and risk taking as a measure to physically survive.

Coping strategies literature therefore shows famine as a process in which households make a number of sequential adjustments in an attempt to cope. By recognizing this, and the early warning implicit in coping mechanisms, then it is possible to intervene at a stage when households have yet to deplete their productive assets. This is because the decision to sell productive assets will affect a household's future productive capacity. Once assets, especially oxen, have been depleted, households are generally unable to get back on the ladder of productivity without external provisioning of seeds, tools, traction power etc. Those affected by the first crisis are thus more vulnerable to the next production crisis. Thus, the beneficiaries of today will also be the beneficiaries of tomorrow. In sum, famine begets famine.

Re-conceptualizing our understanding of famine from event to process can have an important bearing on the timing and nature of our responses. Intervention to prevent widespread destitution (before asset depletion) is an integral part of bridging the gap between emergency relief and long term development (e.g., Buchanan-Smith & Davies 1995). In sum, any intervention needs to factor in the notion of future productivity (e.g., inter-temporal entitlement sets). The following definition of famine accommodates these factors:

Box 2.3. Operational Definition of Chronic Food Insecurity

Chronic food insecurity is defined as occurring when a stressed community has to adopt survival mechanisms that knowingly deplete its long term strategies and assets, and which do not form part of the adjustment to seasonal poverty fluctuations. Acute food insecurity (frank starvation) may arise from this process once destitution has become irreversible. Thus, famine is viewed as a wide-ranging socioeconomic crisis that can cause the accelerated destitution of certain groups within a community to a point where they can no longer sustain their livelihood systems. In this case, death from starvation is one possible outcome, but it is not the defining characteristic of famine.[10]

Such a definition helps us to address the issue of timely intervention long before we see starvation. In sum:

- ***Recognition of processes at work that may or may not create the conditions for mass mortality permits us to provide more timely interventions to prevent mass destitution.***
- ***More timely interventions can focus on the preservation of assets to help households preserve their future productivity so that we are not creating the 'famine generation' of tomorrow but are assisting people back on the path towards economic viability of their livelihood systems.***

2.3. The Causes of Food Insecurity in Ethiopia: Implications for Programming

There is a trend towards declining household and community assets across most household types (e.g., SCF UK FEA 2000). Many households are thus entering into a spiral of poverty from which it is difficult to escape, having lost (or never acquired) the means to ensure future productivity (e.g., oxen). Moreover, the margins of safety from climatically induced shocks have narrowed significantly over the years. This is especially true in those areas characterized by chronic food insecurity where the process of destitution has gone so far that the smallest external shock is often sufficient to create more acute needs. This is not a new process, but one that has taken place over the course over the last century for a variety of factors laid out in the discussion below.

Growing population pressure in the twentieth century pushed farming into previously uncultivated land, where the frequency of frosts and floods, and highly variable rainfall patterns exposed rural communities to a climate and environment that is 'unstable' in normal years. At the same time, increasing demand in the ideal middle zone (e.g., the first zones of occupation) led to decreasing per capita land and livestock resources. These trends worked in tandem to decrease both agricultural productivity and also the margin of safety from climate related shocks.

Diminishing land-holdings and declining productivity led to the abandonment of fertility restoring practices and a trend towards permanent cultivation. This is compounded by the clearance of forests and the subsequent use of dung as the major source of fuel in the highlands. This is generally not compensated for with fertilizer use in the deficit areas because of the economic risks associated with erratic climates. The net result is both environmental damage, and lower yields, and ultimately increased chronic food insecurity.

The negative effects of the above trends are presently compounded by household ownership of land in only a few microclimates. This prevents households from spreading the risk of crop failure in the event of climatic

fluctuations in the same way as in the past when farmers where able to grow a variety of different crops at different altitudes to insure against adverse climate. Moreover, household seed shortages prevent households from re-planting in the event of initial crop losses, in the way as they could in the past.

Declining household asset bases are reinforced by the loss of community assets, which once served as 'free' goods. This is especially true with regard to pasture, which has steadily declined relative to livestock needs in the chronic deficit areas since the 1970s.[11] This has led to a reduction in livestock numbers at the household level because livestock must mostly be fed from on-farm fodder resources, even as land-holdings and agricultural productivity has diminished. Households are therefore less able to build up livestock assets during good years, as an insurance against bad years that may follow, because they lack sufficient on-farm resources. For many households, feeding livestock is as difficult as feeding people. The limitations of the ecological base have thus been a significant factor in household de-capitalization. However, the repeated effects of famine in the 1980s and 1990s, resulting in the loss of livestock assets through deaths/ sales further add to the problem. This is because without productive assets (e.g., oxen) households are unable to increase the economic viability of their smallholdings. In turn, this leaves households more vulnerable to food production deficits – a point to which we return in later sections.

Declining productivity is reinforced by the fact that farming and production systems have changed little since the nineteenth century. Moreover, the interaction of population pressure, a dwindling resource base, and the over-exposure of peasant households to famine has encouraged farmers to adopt more conservative risk aversion strategies, rather than innovate farming systems. Even adaptive forms of land-use, such as terracing and irrigation are being abandoned in the severe food deficit areas (for reasons discussed further in section 2.4).

As food insecurity has deepened at household level, on and off-farm environmental degradation has increased. This is because household investment in agriculture decreases with the manifestation of a production crisis. Investments in soil & water conservation practices (e.g., irrigation, terracing) are too labor intensive relative to potential gains. Concomitantly, community assets are also depleted (forest, scrub and pasture) as households increasingly search for off-farm income generating opportunities. In both ways, poverty and famine vulnerability increase levels of existing environmental degradation. Perhaps the real causal relationship between environmental degradation is that poverty leads to increased environmental destruction and not that the latter is leading to increased food insecurity as is sometimes thought to be the case. Rather, environmental rehabilitation and on-farm investments tend to go hand in hand with increased food security at the household level (Raisin 1998). This is significant to note because it means that to attack the root cause of food insecurity, one must rebuild productive assets at the household level and replenish lost assets such as pasture at the community level, or provide households with the resources to increase fodder production on farm. This is because interventions aimed only at environmental rehabilitation in the chronic food insecure areas will not increase food security, as farm production is not a viable means for households to cover their annual food needs. Evidence suggests that the higher the level of food

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[10] See Raisin 1998.

insecurity, the less the level of investment on-farm and vice versa. This is because households lacking productive assets get a higher return for their labor and investment from off-farm employment. The converse is true of households where agricultural production is more economically viable. Therefore,

The real causal relationship between environmental degradation and food insecurity is that the latter leads to low technology, low inputs and over-farming, and ultimately, environmental degradation.

Not

that over-farming farming plus low technology plus no inputs leads to environmental degradation, and ultimately food insecurity.[12]

However, the effect of the interaction of population pressure, environmental degradation and diminishing land holdings is only true because past and present government policy has and does not address these trends through appropriate development strategies. The net result is a rural sector overwhelmingly characterized by chronic food insecurity.

Recognizing the cause and nature of food insecurity, and the dynamics of the rural economy – especially the linkage between on and off-farm assets – will go a long way to help design interventions that attack the root cause of chronic food insecurity.

2.4. Socioeconomic Differentiation: Implications for Targeting

Most households in the food insecure *woredas* are poor by absolute measures. However, there is a significant degree of socioeconomic differentiation, although the relative difference concerns varying degrees of food in/security, as opposed to excess income. Nonetheless, the degree of differentiation between households matters both in 'normal' years (chronic food insecurity) and in crisis (acute food insecurity). For this reason, many relief and development interventions are focused towards certain household types – most notably those lacking traction power, land, and/or labor – those deemed the poorest. While there is a clear rationale for targeting poorer households over relatively better endowed households – e.g., **a livelihoods approach** - an examination of the dynamics of inter-household relationships and the nature of food insecurity in Ethiopia suggests that community targeting – e.g., a **livelihoods systems approach** – will be more effective. This is because the household economy is not isolated.

In general, four basic household types can be identified for the highland chronically food insecure areas. The categorization of these is based primarily on oxen ownership, as they provide on-farm traction power.[13] An absence of oxen usually indicates absolute poverty.[14] A further reason to use oxen, and not land, as a defining

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[11] Of particular significance in explaining the loss of pastureland is the Dergue 1975 Land Reform Act, which distributed pasture to the landless, rather than land being reallocated from other households. See upcoming USAID report on Land Tenure Reform (May 2001).

[12] An acknowledgement of this can help us understand why it is that EGS and related activities on their own can not reduce the level of chronic food insecurity or create the conditions for economically viable small-holder agriculture. E.g., Remuneration is not sufficient enough to build productive assets.

[13] The northeast highlands of Tigray are the original seat of the ox-plough complex. This technology has been increasingly exported southwards throughout this century. Therefore, a high dependence on the plough in agricultural production is no longer a distinguishing feature of the northeast highlands. Yet, it is still true that where there is hand tilling of fields in the north, this is more likely to be a sign of desperation than in southwestern Ethiopia. On flat lands in the northeast, hand tilling denotes an absolute lack of oxen or horses. In contrast, hand cultivation on steep gradients highlights an extreme shortage of productive land (Holt & Lawrence 1993:3).

[14] The categorization of households on the basis of oxen ownership fits with the parameters of previous research. See for eg., Cliffe 1996, Holt & Lawrence 1993.

characteristic of household type is that oxen ownership also determines the amount of land a household can cultivate, and therefore also the amount of food entering a household. In turn, this plays a significant role in determining the level of household food in/security, livestock holdings, and also land fertility. Household types are categorized in table 2.3 below as ***A, B, C*** and ***D.***

Table 2.3. Household Types and Characteristics

HH Type	No of Oxen	Defining Characteristics
A	2	Possess the unit required for on-farm traction power. They generally hold other livestock and have a larger pool of labor available within the household. Overall, they are the most productive households and as they possess an oxen team, they are able to increase the amount of land available to them through sharecropping arrangements with those households that lack traction power. These household types are less likely to have members engaged in off-farm employment because on-farm production is more profitable and because more labor is required generally, as their land-holdings tend to be larger.
B	1	These households possess one ox, and (often) also smaller livestock. They generally pool their ox with others in similar circumstances, and to some extent, they are therefore self-sufficient. However, the level of food entering the household is significantly less than A types because they do not have the same share-cropping options, and nor can they plough their land at the optimum time, reliant as they are on another household for traction power.
C	0	These households lack oxen, although they may have other livestock even if they do not own them. They may belong to type A under an arrangement known in Amhara as gerbee, under which A passes some livestock to C who feed them in exchange for which they keep a certain number of livestock born, as well as some of the farm produce. If land is accessible, these household types are much more likely to rent it out (through sharecropping) as they lack traction power and often labor too. A very significant proportion of household income comes from off-farm employment and food aid.
D	0	These households are generally labor poor and/or land poor. They typically comprise new family units that have not been allocated land and female-headed households. This is the poorest household type and the category least reliant on its own agricultural production for household food needs. Instead, if possible, they may engage in off-farm income generation activities, be reliant on food aid, work as laborers on other farms etc. However, more often they are reliant on food aid because they lack the profile to take up off-farm income generating opportunities.

The ability of households in the chronically food deficit areas to cope in crisis years depends on their ability to cope with underlying production constraints in 'normal' years. In order to minimize potential risks to production, households attempt to diversify their agricultural resource base through the ways outlined in table 2.4.

Table 2.4: Strategies to Minimize Risk in the Agricultural System in Drought Prone Areas

Strategies pursued in a normally risky environment to diversify the agricultural base	Aim
Grow a variety of crops in any year to create a flexible production system.	To compensate for low and erratic rainfall. The greater the number of crops planted, the greater the chance of survival of one or two types of crops in the event of adverse weather conditions. It is not unusual for farmers to plant five different types of seeds.
Staggered planting whereby crops of different maturing cycles are planted successively, rather than altogether.	To reduce the possibility of overall crop failure in the event of adverse weather conditions.
Grow crops with shorter maturation period.	To end the hungry season (e.g., those months preceding the harvest) as early as possible and increase the potential for planting a second crop in the same season.
Diversify land-holdings and grow a variety of crops at different altitudes.	Take advantage of different microclimates and soils to reduce risk of total crop failure in the event of drought. Thus, fragmentation is preferential because it maximizes the chances of obtaining some kind of harvest in bad years and maximizes productivity in good years.
Diversify livestock holdings to acquire mixed animal stock.	Permits better utilization of feed resources, and ability to dispose of smaller livestock for small deficits, before disposing of large livestock to meet the larger household deficits.
Diversify source of Household Income	This reduces household vulnerability to climatically induced reduced agricultural output, or as a means to compensate for small and infertile landholdings.
Build up food stores	Permits households to capitalize on production in good years as an insurance against drought years that might follow.

All the above activities are a major part of the agricultural system even in 'normal' years. Some households are more successful in minimizing risk than others, depending on their ownership of productive assets, especially oxen. This is because the latter lays the foundation of socioeconomic differentiation as demonstrated in table 2.5.

Table 2.5. Arrangements to Compensate for Oxen Shortage

Strategy	Details
Renting/ Share-cropping	A common arrangement is for a landholder to allow another to cultivate a portion in exchange for 25% of the harvest. If the landowner is to receive 50%, the usual agreement is for the equal provision of seeds and labor at harvest time. The straw normally belongs to the tenant, except when half of the seeds and labor are provided, and then it would be shared.
Fodder sales	Households without oxen but which have fodder (straw, hay) supply this to farmers with an oxen team in exchange for the use of their oxen. This arrangement is becoming increasingly common due to a general shortage of pastureland in rural areas, especially within the highlands.
Pool with others	Households with one ox pool their oxen together. Type B households are therefore considered self-sufficient even if its derived from a complex system of labor and livestock sharing.[15]
Exchange Labor	Households without oxen may also exchange their labor on the basis of two-man days for one oxen-day as a means to compensate for their lack of traction power, although this is less common.
Hoe Cultivation	This is a less desirable choice for households and one generally not pursued if the land available to the households is flat. It is however, a choice for households farming on steep gradients where ox-plough cultivation is not a real possibility. In parts of the south of Ethiopia, this is much more the norm.

[15] In some places in the highlands, especially Wollo, a household may choose to plough with horses, or use one ox and one horse to formulate a plough team.

The relationships described above are not equal and reciprocal exchanges, but arrangements that reinforce/generate socioeconomic differentiation, as explored in more detail in box 2.3 below.

Box 2.3. The Significance of Socioeconomic Differentiation in Relation to Coping/Survival Strategies

The concentration of oxen ownership in ***A*** lays the foundation for socioeconomic differentiation between households because it significantly, and possibly in the case of groups ***C*** and ***D*** irreversibly, results in declining productivity. For example, ***C/D*** households (lacking oxen, land and/or labor) tend to rent out their land as they lack the means to farm it (if they have it). This limits opportunities to accumulate food stocks, invest in rural assets, and to access sufficient food to cover household needs. ***C*** & ***D*** have a shared vulnerability (even though ***C*** is less likely to rent out all land). Having an ox enables ***B*** to enter into reciprocal relationships with similar households, which permit this group to keep control over its harvests. ***A*** can increase its access to land through sharecropping the land of **C/D** in return for 50-75% of the harvest. This also gives ***A*** greater access to fodder, and accordingly, larger livestock holdings. ***A*** also loans animals to ***C*** (and sometimes ***D),*** who takes care of animal welfare and provisioning in return for a specified number of offspring and dairy products. This gives ***C*** temporary assets only as livestock and dairy products are sold seasonally. ***D*** households generally do not own livestock of their own, except perhaps goats and sheep. This is because lacking land and/or labor bars them from productive asset ownership.

Even in so-called 'normal' years, off-farm employment is part of livelihoods system, although a primacy is placed on household agricultural activities for any available labor in ***A*** because they get a higher return from agricultural production. However, households most in need of off-farm opportunities (***C*** & ***D)***, do not have the necessary profile to fulfill this need. This is because the age, gender and skill profile of household types is the overriding factor in determining off-farm opportunities. This is especially true for female-headed households, mostly represented in ***C/D***. As women have so few off-farm employment opportunities, they try and derive some income from fuel and commodity sales such as beer, baskets, firewood, grass, and animal dung. This can account for up to 70% of ***D***'s income (SCF FEA 2000).

If households can survive the worst months by obtaining food and other resources on credit without selling assets, then they are more likely to retain their productive capacity. ***A*** & ***B*** cope much better here because they have more assets to offer as security on loans whereas ***C*** & ***D*** do not. In this case and in these days, the 'hungry season' is usually passed with food aid inputs.

Asset sales are commonly assumed to represent the latter stages of coping. The sale of productive assets in particular is therefore primarily viewed as an economic adjustment aimed at protecting consumption (e.g., lives), as opposed to livelihoods. This is because the decision to sell assets is related to the management of a household's asset portfolio, both immediately and for the future because it impacts on future productivity. Thus, the long-term implications of asset stripping are considerable. ***A***, and sometimes ***B***, fare better when a consumption crisis manifests itself because they have a larger store of assets, and can sell small livestock to meet food demands, without compromising future productivity. By contrast, ***C*** & ***D*** have so few assets anyway, and their sales rarely meet all household food needs, even in 'normal' times. Thus, asset sales tend to be concentrated in ***A*** & ***B*** not because they are the most in need, but because they have assets to sell, without compromising future productivity, leaving them in a better position in the post crisis period.[16]

In good times, households keep grain in storage in anticipation of future crises, although the opportunities for this are limited. Even richer households experience seasonal hunger before the main harvest. Household types ***B***, ***C*** and ***D*** generally do not meet their food needs through food production alone, and some cannot even meet their seed requirements. Thus, depleting household food stores may be an option for some type ***A***'s but is generally less applicable than in the past. Rationing is also a coping mechanism aimed at maintaining productive assets and avoiding future destitution. This tends to be the preserve of ***A*** & ***B*** as ***C*** & ***D*** are not consuming enough even in 'normal years'.

Distress migration is the final response to famine. ***C*** & ***D*** are much more likely to be represented here, although extreme distress migration has become less of a feature in the settled agricultural areas because of the prevalence of relief distributions in situ.

[16] Market forces may also determine exactly what assets a household sells. For example, if the price of oxen is good relative to other livestock, households may make a decision to sell while the price is high. This is because if a household can sell oxen at a good price, they are able to meet their immediate food needs, and have a chance of re-purchasing oxen at a later date when the price falls. This is significant because it also signifies that households do not make a number of sequential adjustments in response to the speed and intensity of the crisis alone. Instead, they may anticipate and respond to the threat of economic shocks that may follow. In this way, rural food insecure households may respond to market signals, as much as to distress.

The aforementioned discussions can therefore show the extent to which relationship between households partially determine the level of food in/security. For example, ***C*** and ***D*** are significantly poorer than ***A*** & ***B***, primarily because of a lack of productive assets. However, their relationship with ***A*** & ***B*** also prevents them ever getting on the ladder of productivity and accumulating assets. However, there is evidence to suggest that impoverishment is also occurring across the board. ***A*** & ***B*** are selling assets because climatic/economic shocks are impacting on their production, but they usually do not qualify for food aid assistance. The result is increased asset depletion in relatively better off households. This process is described in box 2.4 below.

Box 2.4. Processes of Impoverishment

A is experiencing production shortfalls, leading to livestock asset sales to meet household food needs. Although they usually sell goats and sheep first, a trend towards oxen sales has been noted (e.g., SCF FEA 2000). Thus, ***A*** is undermining its future productivity by stepping down the ladder to the dependency relationship associated with ***B***. This in turn affects household income and thus, food security as the move from **A** to **B** cuts out the income derived from owning two oxen. In this way, relief targeting of the poorest households is encouraging/resulting in asset depletion among the relatively rich. This, in turn affects the dynamics of the community as a whole as households are locked into complicated inter-household labor and land arrangements.
B households, with relatively fewer options than **A**, are also engaged in asset depletion to meet food needs. As these households have fewer assets to begin with, it is easier to perceive how this category is moving down the ladder, and how it will be more difficult in future for them to get back on the ladder of livestock ownership in the future. This is because the sale of their ox moves them from the relatively 'self-sufficient' category in to the relatively non-productive no-oxen category (e.g., **C** & **D**), which in turn increases their dependence on food aid for the future, and/or on richer households for access to productive capacity (an oxen-team).[17] Moreover, in the long term, this trend encourages impoverishment across the board in **B**. This is because the sale of a remaining ox in household **B** inevitably impacts on its 'partner' household. This changes the dynamics within a community and leads to asset depletion across the board.

By targeting in this manner, interventions are therefore unintentionally encouraging asset depletion in the most productive households. Furthermore, understanding these dynamics explain why it is that whole communities can start to dip below a threshold of poverty, even when socioeconomic differentiation between households is evident. This is because, as seen, the household economy never stands alone from wider the community. It is therefore preferable to take a **livelihoods systems approach** (e.g., the community) over a **livelihoods approach** (the individual household) as a means to acknowledge these trends. A livelihoods systems approach can also help us to come to a better understanding of why certain interventions fail to address the trend towards the impoverishment of rural communities generally.

2.5. Past Experience in Linking Relief and Development (EGS, FFW, and CFW)

Employment Generation Schemes (EGS), and other related activities (e.g., FFW and CFW) seek to link the provision of relief supplies with development activities. They usually take the form of public works (e.g., rural road construction, school & health infrastructure development, soil and water conservation activities to name but a few).[18]

[17] There is the possibility that B is deliberately selling oxen in order to access food aid, and will re-purchase oxen before the following ploughing season commences, but the evidence for this is more anecdotal than factual.
[18] The list presented here is not meant to be exhaustive.

At the wider community level, these activities are undertaken on the assumption that they build up the capacity of areas to strengthen their ability to cope with 'disaster', whilst also assisting future development by strengthening the infrastructure. At the household level, EGS and associated interventions provide a means of filling food deficits. Participating households are given approximately 3kg or ETB 4 per day in exchange for their labor.[19]

The selection of households to participate in EGS programs is often undertaken by self-targeting, or the use of certain criteria to identify poorest households. Whilst targeting practice is never perfect, limited resources often mean that those households registered for EGS usually lack livestock, most notably oxen, and/or are land poor or landless, or are female headed (e.g., types ***C*** and ***D***). Targeting in this way, however, does involve making a judgment at a fixed moment in time when a crisis begins to manifest and cannot therefore accommodate the notion of *inter-temporal entitlement sets*.[20] In simple terms, this means that the potential for future productivity is not factored in. Thus, ***B*** and ***C*** may both experience production shortfalls, but the possession of one ox prevents ***B*** from being eligible for relief, which in turn leads them to sell their ox and undermine their future productivity.

Even if EGS does fill the immediate food needs of ***C*** & ***D***, it generally does not have a long-term impact. This is because EGS and related schemes do not create possibilities for households to 'take off' from their poverty. This is especially true with self-targeting, which is based on the notion of below market wages (e.g., 3kg per day/ EB4 per day) because payment is insufficient to build productive assets. This partially explains why the same households stay on the beneficiary list year after year, irrespective of donor inputs.[21] Moreover, it demonstrates the fact that EGS and related activities are working as a relief intervention, more than a continuum between relief and development. [22] In sum, targeting below market wages is actually helping to keep beneficiaries in poverty.

Whilst EGS may not directly benefit targeted households to move out of poverty in the short term, there is an assumption that the public works undertaken do benefit recipient communities by infrastructure development and soil and water conservation management. In this way,

EGS and other related activities are (ideally) linked to risk minimization through public works development at the community level, and risk absorption through the provision of food supply at the household level.

However, whilst there is no doubt that these schemes build infrastructure and address some of the basic concerns of environmental degradation, it is less certain that they create sustainable community assets. This in turn is related to the issue of maintenance. Whilst the community is in principle responsible for the maintenance of assets, this rarely occurs in practice because ***communities are unwilling to maintain for free what could be available the following year under EGS/FFW as deferred rehabilitation.***

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[19] It should be noted, however, that targeting practice is not always strictly followed. In many cases, eligibility for EGS type schemes may be determined by political factors. For example, there is anecdotal evidence to suggest that households in Amhara must have participated in free public works schemes under *Mengistawi Buden* networks if they are to qualify for relief. In SNNPS, interviewees stated that a backlog of fertilizer debts was a qualifying criteria for FFW/EGS. Households working on such schemes were then required to sell part of their grain to meet their debts.

[20] Inter-temporal entitlements sets were the subject of conflict between Osmani (1993) & De Waal (1993). In general, inter-temporal entitlements mean that when considering the entitlement set of a household, one has to factor in the concept of the capacity for future productivity.

[21] For e.g., field work data from EGS/FFW nursery workers in Ibenet *woreda* in North Gondar revealed that the they had been working in the nursery for four years during certain months on the basis of 3kg per day. If EGS/FFW had actually built household assets during this period, then the same households would not be registered for relief.

[22] Moreover, in this case the workers did have land-holdings, which were not fully cultivated as they still lacked the productive assets (oxen and in some cases, labour) to fully utilize their land-holdings.

Taking these factors into consideration, EGS and related activities as implemented presently, often do not represent a continuum between relief and development because:

1. *They fail to create productive assets at the household level, and thereby prevent people from moving out of poverty.*
2. *Targeting practice may be encouraging asset depletion in more productive households.*
3. *They often fail to create viable and sustainable community assets.*

The challenge for USAID is therefore to:

- ***Raise the productive asset profile of households so that they may 'take-off' from their poverty.***
- ***Reverse the levels of environmental degradation and help develop and maintain natural resources.***
- ***To develop community assets in the form of viable and sustainable infrastructure.***

3

Linking Relief and Development Resources in ANRS

3.1 Introduction

Part 3 provides a backdrop to the project components, which are discussed here on a conceptual basis within the framework of:

- **Program for rehabilitation a proportion of the USAID food pledge to the DPPC appeal to cover the needs of selected *woredas* for three consecutive years at the minimum, on the basis that the *woredas* will not feature in DPPC or UN appeals for the duration of the program cycle.[23]**
- **A holistic *woreda* approach to include the concentration of health and agricultural resources, relief, and block grant funding.**
- **The use of food aid to develop both productive community and household assets.**

The discussion presented here is not focused towards the types of technical interventions required for the success of an integrated food security project. Rather, it seeks to show the flexible use of food aid resources to address some of the barriers to increased productivity and diversification and more clearly link relief and development. In addition, it builds on aspects of socioeconomic differentiation outlined in part two, to show the potential for using specific household's comparative advantage in certain areas and highlights ways in which this could be strengthened and diversified.

In addition, some guidelines and parameters are given with regard to the implementation of the pilot, and where relevant, some appropriate technology is highlighted for consideration for use in the pilot. This is especially true with regard to the sphere of biological conservation methods, as these are the preferred option for the pilot due to their known sustainability over physical measures.

[23] The annual DPPC prevents appropriate donor responses to chronic food insecurity as it creates difficulties with regard to advance planning and organization of relief resources. The rush to implement EGS type activities in later stages often precludes community participation, and ultimately, the possibility for the development of viable and sustainable community assets. Without community participation in need identification, assets created in one season are unlikely to be maintained without further inputs of food aid in the following season, as discussed in part 2.

3.2. Selecting *Woredas* & Partners

a) Woreda Selection

The pilot *woredas* will be located in ANRS, where USAID title II programs and resources are presently concentrated. Qualifying criteria for *woreda* selection are shown in box 3.1.

Box 3.1. *Woreda* Selection Criteria

- **The *woreda* must feature in the DPPC 2001 annual appeal.**
- **Be recognized as one of the 48 drought prone chronically food insecure *woredas* of ANRS, in regular receipt of food aid assistance.**
- **That there is baseline nutritional and economic data already in existence for the selected *woreda*.**
- **That *woreda* level cooperation and coordination for the proposed activities are secured.**
- **That agreement is in place with the zone and region.**
- **That the *woreda* is rural.**

In particular, having baseline socioeconomic and nutritional data for *woredas* will permit the program to move ahead quicker than would be the case where no data had been collected as it would provide a benchmark through which to measure impacts and thereby assist in program evaluations.

One suggestion would be to implement the program in *woredas* already covered by SCF UK's NSP, and SCF UK Food Economy Analysis for which eight consecutive years' information already exists, although this does not necessarily translate into SCF UK being the preferred implementing partner.

b) Potential Implementing Partners

Woreda capacity across all sectors (e.g., health, education, water etc) is limited. Although the BOA will be a major implementing partner, its limited capacity and staffing levels also necessitate additional NGO/PVO partners. This creates some institutional problems in USAID because FHA and ANR traditionally use different implementing partners, reflecting the past (and somewhat artificial) divide between relief and development. It is thus proposed that NGOs/PVOs compete for funding through the submission of technical project proposals against the conceptual framework of the pilot.

Potential NGO partners operational in ANRS are shown in the boxes below. The list is not exhaustive, or exclusive to those who may be operational in Amhara, but not cited here.[24] Rather, the list presented here is of those projects visited in relation to this research.

[24] USAID also supports Winrock activities in the SNNP. However, Winrock has recently received approval to implement program in two *woredas* in the Amhara region. The program has a specific capacity building component for women, and a further agricultural component based around the notion of on-farm demonstration of new crops and technologies.

Box 3.2. NGO Operations in ANRS

SCF UK

SCF UK is operational throughout the entire NE ANRS (especially N & S Wollo, and Wag Hamra). Its Nutritional Surveillance Program maintains complete nutritional and socioeconomic datasets that date from 1992 for all three zones. This year (2001), SCF will have also completed Household Food Economy baseline surveys on vulnerability in the three above-mentioned zones. SCF delivers 35,000MT annually to NE Amhara, which it uses as a means to link relief and development. SCF has also developed a new EGS approach, currently being piloted in *woredas* in North Wollo, and through its Institutional Support Program in five *woredas* in South Wollo. SCF's agricultural work is focused in North Wollo and Wag Hamra Zones, where it works with the MOA to develop participatory extension services.A successful example is its work in instigating Farmer's Field Schools to promote integrated pest management (Sekota, Meket, Bugna, and Gidan *woredas*). SCF UK is not aTitle II partner.

Food for the Hungry International (FHI)

FHI is presently a Title II partner of USAID in ANRS, active in Tach & Lay Gaynt, and Simada *woredas* with the program: 'Sustainable Improvement of Household Food Security.' Project components focus on agricultural production & diversification, fodder production and natural resources management, health, water and sanitation, small-scale irrigation, community organization & capacity building, and primary education.

German Agro Action (GAA)/ORDA

GAA/ORDA is presently not a Tittle II partner for USAID. However, it operates an integrated food security project (IFSP) in North Gondar, in the *woredas* of Ibnet and Belessa. There is significant overlap in the types of technologies used in the GTZ sites, with the additional component of small-scale irrigation, which has dramatically improved household food security. The project components are similar to those cited above with the addition of off-farm income generation development.

World Vision

World Vision is a present USAID Title II partner for its activities in Tigray, Oromia and SNNP, where it runs programs that aim to increase agricultural crop production, increase household income, and improve health status. However, it is also operational in Kemessie *woreda* of Amahara Region, even if not directly funded by USAID for this project, which focuses on food security.
On the whole, however, World Vision activities are primarily focussed in Southern Nations.

Ethiopian Orthodox Church (EOC)

EOC is a present USAID Title II partner, with associated activities in Amhara, Tigray and Southern Nations. Present programs in ANRS are focused in two structurally food insecure *woredas* of N & S Wollo with a Prime Objective to Enhance Household Food Security. The main components of their project thus aims to increase agricultural crop production, increase household income, improve and maintain the natural resource base, and improve health status (as in other Title II partner programs).

SOS Sahel

SOS Sahel (not a title II partner) is operational in Meket *woreda* in North Wollo in agriculture and natural resources (including fish-farming pilot) micro-enterprise/finance, income diversification and infrastructure development (including community grain banks), health and water (including successful family planning program), good governance and institutional capacity building. It also has a similar program in Kindo Koisha (Wellaita, SNNP) with much experienced gained in implementing cash and food for work schemes within a development framework.

3.3. Using Food Aid to Link Relief and Development

The essential elements of the pilot's food aid component are:

- Distribution of food aid will take place through FFW
- FFW activities will create assets at the community level, and build assets at the household level by increasing rates of remuneration.
- In the event of drought, FFW may become available to all household types to prevent asset depletion.
- Food aid will be used more as food to reduce the inefficiencies of monetization. Distribution, however, will go in tandem with the development of community grain stores/banks.
- Food aid will be used to guarantee risk of early adopters of new technologies.

Table 3.1: Linking Relief and Development with Food Aid

Food Aid linked to FFW	Expected Outcomes
Food aid to be distributed through FFW schemes for all the able bodied.	• The effective use of relief aid to develop assets - the merits of which should be identifiable to the participants so that they are maintained for free.
FFW Activities	
Integrate Food Aid into *woreda* focused development program in two main ways: • Implementation of ANRS Watershed Management Scheme (AWMS) • On-farm Improvements are **exempt.** • FFW should be of benefit to the wider community. • Community Identified Projects	• Implementation of AWMS would link food security more substantively with natural resource management in a framework already approved and laid out (see box 3.3. below). • Reverse levels of environmental degradation & Improve community assess to fodder and thereby increase opportunity for asset building. • Community self identified projects (only available for wider community benefit) will lead to more sustainable community assets (e.g., drinking water, latrines, access roads).
Increasing FFW Payments	
Remuneration for FFW to be increased. Moreover, the food package should contain mixed commodities, as opposed to wheat only.	• Participant household food deficits are met • Create a surplus for household productive asset building to assists households to move out of poverty in the best case, and strengthen household coping mechanisms for dealing with drought in the worst case. • Increase nutritional intake of participating households.
FFW & Grain Banking	
To reduce the losses of NGO past experience with monetization, **food is to be distributed as food.** But in order to accommodate seasonal fluctuations in food prices • FFW should be provided in tandem with community grain banks. [25]	• The value of food aid (and its cash equivalent) to the donor and beneficiary is not reduced through monetization. • Beneficiaries have the flexibility to choose whether to monetize food aid. • Grain banking reduces losses and provides storage so that food can be sold at a time when farmers can get the best price. • It may ultimately stimulate more participation in the market in other spheres.
Food Aid to Guarantee Risk	
• Food aid to be available for diversification projects • Food aid to be available to richer/poor households to guarantee the risks undertaken by early adopters of new technologies and crops to encourage take-off.	• Provide an incentive and insurance to trial new technologies, crops and diversify livelihood systems of richer and poorer households. • Ultimately, it may provide the economic conditions for increased on farm productivity. • Diversify household income & create conditions for privatized initiatives.
Drought Contingency Planning	
• Prepare on-shelf plans for activities to be undertaken when a drought is recognized. • Drought projects are to be undertaken on the basis of FFW. • Participation in drought contingency activities should be open to all households, regardless of assets.	• It will prevent the decapitalization and asset depletion that may take place in richer households when drought manifests itself because it is open to all household types. • The same is true of poorer household types. • It will prevent any development initiatives been undermined in the advent of adverse climatic conditions. • Increase household/community assets. • Increase the margins of safety from climatically related shocks and thereby strengthen household coping mechanisms.

[25] In July, ETB 4 has a significantly lower value compared to market food prices than in December (following the main harvests) and the provision of food aid may therefore be more appropriate at this time than cash. The inverse is true for the December-February period.

Box 3.3 below briefly highlights the ANRS Watershed Management Scheme proposal, referred to in table 3.1. for FFW funding. This is suggested as a possibility for a variety of reasons, but most notably because the research has already been undertaken and written into existing detailed project proposal, and is already government approved.

Box 3.3. ANRS Watershed Management Scheme

In July 2000, the USAID Mission proposed that watershed management activities be included under its new strategic structure, specifically under Strategic Objective (SO) 3: *Rural Household Production and Productivity Increased* (RHPPI). The design of such a program was completed in 2000 by ARD-RAISE Consortium, and its content has already been approved by appropriate Ethiopian Government Bureaus and by USAID (see ARD-RAISE 2000).
In sum, the implementation of this program would help to link the issue of food security more substantively with that of natural resource management within a framework already laid out and approved. Moreover, one of the main findings of the consulting team was that that the program would be suited to FFW financing. Furthermore, the BOA has itself indicated that this is its preferred choice rather than seeking grants for implementation (for detailed discussion see ARD-RAISE main report).

In addition to the implementation of the ANRS Watershed Management Scheme, which one could reasonably expect the community not to prioritize directly, a set proportion (yet too be defined) of FFW resources should be allocated to community-identified projects. Technical assistance should be provided to develop and build *kebelle* capacity to plan and oversee implementation of such works (e.g., pond and road construction).

3.4. The Health Component

The discussion below is in the primary stage of development and further parameters of operation in this regard are yet to be defined, subject to specialized inputs in this field. In line with USAID ESHE II SO, the pilot will utilize USAID health sector resources and those of ANR and FHA to improve family health indicators. This will include the delivery of maternal and child support, as well as support for community nutritional and general health awareness training including in particular:

- Iron supplementation
- Provision of Iodized salts
- Provision of micro-nutrients
- School feeding
- Community Nutritional Awareness Training
- Kitchen garden promotion (ANR resource)
- Family Planning
- HIV Prevention
- TBA and community health worker training

These components should not simply be 'tacked on' to the program, but integrated into the overall strategy. Thus, nutritional awareness training must go in tandem with the provision of resources to address this issue, such as the promotion of kitchen gardens, which have had significantly more success in attacking poor nutrition, than more

elaborate and controlled supplementary feeding programs. In sum, **inputs need to be self-sustaining. Households must be provided with the means to establish sustainable resources to implement any training proposals.**

3.5. The Agricultural Component

i) Household Asset Building

Focus: To build assets at the household and community level in situ of the *woreda* to reduce:

- **Losses associated with sharecropping**
- **Vulnerability to seasonal food shortage**
- **Vulnerability to drought production failures.**

This will be undertaken in two main ways:

- **Firstly, FFW will help households accumulate some assets over time as remuneration will be set a higher level to meet food needs, and to provide a surplus for investment, as discussed previously. However, not all assets can be developed in this way as some households may not have labor available for FFW and for this reason, and because prospects for accumulation by this means alone is limited.**

- **Development resources will thus be used to compensate so that poorer households can also diversify their income and build small livestock assets (e.g., goats/sheep) using self-sustaining revolving fund mechanism.**

Farm Africa's goat project in Konso Special *Woreda* (SNNP) is a good example of one way that the pilot can maximize the potential for small livestock asset-building at household level at low initial input cost, and with little other overheads in subsequent years.

Box 3.4. Farm Africa Goat Project, Konso Special *Woreda*, SNNPS

Farm Africa's began its goat project in Konso in 1991 with the provision of two hybrid goats to women from 30 households, targeted on the basis of lacking both land and assets. Each recipient then established a member group for their village. The initial recipients were required to give away two kids to another target household, and any goats born after those were kept. There was also a minimum insurance taken out in the event of the death of the goat/s. Thus, in Gaho village, the project now has 40 members, each owning between 3-5 goats. The membership continues to grow as each new member must give away two kids. In total, there are now 1600 goat group members in Konso from an initial starting point of 30. The goat groups also have a mandatory saving scheme for members, set at 50 cents per month. At the time of study (Feb-May 2000), Gaho goat group had saved ETB5000. Members can borrow against this for petty trading for a fixed interest rate of 50 cents per ETB10. The group is also considering further small-scale enterprises, such as a village shop and grind mill.

There has also been an improvement in animal health through the training of goat group leaders as para-vets, and the provisioning of basic animal medicines.

Moreover, the project has strengthened household coping strategies as goat ownership has helped to cope with the present drought in Konso. For example, the health of goat owning families who had access to milk, meat and manure for kitchen gardens in the period before the 2000 drought meant that they remained healthier during the food shortages longer than would have been the case. Even households that sold goats earlier when the crisis loomed and prices were good bought larger stores of grain. Wealthier farmers have also been much more willing to extend loans to households with goats because of the assurance of assets.

In this sense, it is clear that the goat project significantly built assets at household level and enabled families to cope better with the drought, at very low input costs. Furthermore, the revolving nature of the fund and the community management of the project have made this project sustainable, long after Farm Africa handed over ownership. As in the case of Gaho, the project has led to small-scale enterprise amongst households that were initially the poorest of their village.

Larger livestock cannot be so easily developed because of the greater expense required in the initial outlay, longer periods of gestation and development, and because the fodder required is greater in quantity and more specialized. Thus, it is suggested that revolving funds be used as a means only to increase access to goats and sheep in target households ***C*** & ***D*** – the poorest household types. For larger livestock, it may be the case that households have to resort to credit facilities outside of the project, **as the pilot will not involve funds for establishing new micro credit and savings schemes.**

Other low cost options in relation to household asset building may include improved beehives and poultry pens, with which NGOs have already had much success at very little cost to the project or the recipient (e.g., SOS Sahel, Meket, Wollo).

ii) Forage Development, Diversification & Asset Building

Livestock asset building raises the need for fodder, which is usually limited in situ of the *kebelle,* because of a lack of community pasture and because of the limited size of smallholdings. In some cases, a lack of fodder is the main reason why even more productive households do not expand livestock holdings in good years. Although this may be best undertaken as part of soil and water conservation practices at the community level, there is significant scope for intensification of fodder production in all household types, which would:

- Permit the greater ownership of livestock resources where the ecological base has shown itself to be the major factor in limiting the build-up of livestock. This is especially the case for the more productive household types A, that may have surpluses to invest but cannot take advantage of low livestock prices in good years because, simply, they cannot feed expanded numbers.
- Diversify and raise income of poorer households through fodder sales, and/or increase their productivity by exchanging fodder for the use of oxen, as is often practiced in highland agriculture. In turn, this may mean that certain household types are less likely to rent out their land through sharecropping, and thereby increase access to harvests from their own land.
- Strengthen the resilience of communities as a whole to cope with drought and food insecurity, because they have either a larger livestock holding, or have increased their income through fodder sales, without undermining the dynamics of the rural economy.
- Improve livestock health through provision of fodder rich in nutrients.

Its potential impact on household is explained more fully in table 3.2.

Table 3.2. Household Impact of Forage Crop Development

HH type	The Obstacle to Asset Building & Consequence	Forage Development & Outcome for Asset Building
A	Limited landholdings and lack of community pasture limit livestock holdings that build rural savings, raise HH income, and strengthen coping mechanism.	Have larger on-farm availability of fodder and can thus increase livestock holdings with significant improvements in HH income, nutrition, savings and coping mechanisms.
B	As above, although the poverty of the productive base is higher because of lack of two oxen, although smaller land-holdings may prevent accumulation of smaller livestock such as goats.	Increase fodder crops on farm. This can be kept to keep existing livestock or sold to provide income to meet food deficits, and/or increase livestock holdings by income earned, thus strengthening income earning capacity, potential for rural savings and coping mechanisms.
C & D	These households lack productive assets such as oxen because of poverty. They may rent out land or take in A's livestock. They experience problems to move out of poverty because assets generated under normal conditions are insufficient to meet household food needs. Equally, D households, also lack productive capacity, and/or land and labor. They tend to loose production from their land (if they have it) through sharecropping arrangements that provide no opportunity to escape poverty for these groups.	Will increase potential for them to diversify and strengthen source of income through fodder sales. They may also take in more livestock from A to build income. Animals born in their care (through *gerbee*) may be kept longer or even retained on permanent basis as rural savings and source of dairy income. If land is available, but labor is limited within D, then forage development – using limited labor – provides an opportunity for income diversification. And as above, it may help households gain access to livestock on permanent basis.

GAA and GTZ have already had significant success here, as shown in the box below. However, adoption outside of demonstration sites is slow. In consideration of this, food aid may be used as a means to guarantee the risk associated with on-farm adoption, as discussed in earlier sections.

Box 3.5.Forage Crop Developments

GTZ South Gondar IFSP is presently trialing varieties of Alfalfa, which is a highly productive fodder crop that can be grown throughout a range of altitudes and under both rain fed and irrigated conditions. The variety Sequel produced 200 quintals per hectare, as compared with Klausia, Homor Vote and Kisvradal, which produced 125, 125 and 100 quintals per hectare respectively. GTZ has also had similar success with other fodder crops such as Saradella. Although a variety of grasses usually produce up to 200 quintals per hectare, the advantage of the above crops is that they are, by comparison to grasses, highly nutritious, and environmentally friendly due to their nitrate fixing qualities.

iii) Raising Household Agricultural Diversity & Productivity

Both production and productivity in the drought prone areas is low due to a combination of factors including small land-holdings, a lack of soil fertility restoring practices[26], low asset base of households, a large number of dependents, inappropriate technologies and farming practices, the recurrent effects of drought, and poor conservation practices, to name but a few.

[26] A further method to improve soil fertility and increase productivity is through the introduction of fertilizer. This has been mostly achieved through the provision of credit to smallholder through the MOA system. However, at present there are so many problems that have arisen in relation to this that it is not recommended that this intervention be scaled up without an economic and social impact assessment study in the deficit regions.

The pilot should therefore seek to maximize the potential for raising productivity in situ through:

- **The introduction of appropriate technologies and farm practices that are shown to dramatically increase yields.**
- **The introduction of technologies and approved practices that increase soil and water conservation on-farm, to raise yields and reduce initial impacts of drought.**
- **The introduction of high yielding cereal varieties that do not require the associated inputs that improved seeds do.**
- **Small-scale irrigation to increase potential for both household food and cash cropping and reduce dependency on rain-fed agriculture.**

Again, there is an element of risk associated with the adoption of new technologies that usually slows the rate of 'take up'. This is especially true with regard to food insecure households that must minimize risks. These household types are the least likely to innovate production processes, because they have so little to invest. Again, food aid may be used in initial phases or with new households as a short-term insurance to cover losses in the advent of production failure. Some successful technologies are itemized in box 3.6 below.

Box 3.6. Appropriate Technologies

The *Tenkera Kend* Sub-Cultivator

Increasing moisture content on farm soils is not necessarily the preserve of irrigation and terracing, as in many cases, it is associated with plowing, which has reduced the depth and water retention capacity of soils over time. This leads to substantially lower yields through water logging, which in turn exaggerate the impact of drought. *Tenkara Kend* was developed by GTZ to counter water logging associated with the use of the traditional *Meresha* plough, which cultivates to a depth of 12 cm, which, alongside livestock trampling, has created plough-pans that reduce yields. The proposed solution is the new lightweight sub-cultivator by GTZ, which penetrates between 23-28 cm and has resulted in a 10-15% yield increase in the first year, and up to 40% in the second, in on-farm trials in Gondar. The plough was modified further in 2001to use wooden skits (not metal), which reduced the cost to approximately ETB180. Although still significantly more expensive than the traditional *Meresha* (ETB 50) *Tenkera Kend* has a tenfold life expectancy over the *Meresha*, making it cheaper in the long run and up to 40% more effective.

Small Scale Irrigation

GAA/ORDA irrigation projects in Ibnet total cost of ETB250,000; an investment sufficient to irrigate 45ha of land through the construction of a weir and canal diversions, although the full potential of the irrigation scheme has yet to be realized. Households have access to 0.5 ha, spread across 61 households, who are growing potatoes (75% of the irrigated plot), onions, barley and fenugreek. On average, households are able to produce 25qt potatoes and 5qt onions from 75% of the irrigated plot, of which they market approximately 75% of their produce in Ibnat. Presently, the market price is stable but the selling price of onions and potatoes will decrease as the numbers of producers increase. Households with access to irrigated plots have been able to obtain a minimum of EB1000 per year extra income and have dramatically increased their consumption to eating 3-4 times per day. Conversations with households showed evidence of asset building, and improvements in education and health. All interviewed stated that they were now sending their children to school.

The maintenance of canals is split between water committees comprising from the left and right side of the structure. This year, the community will begin to make a cash contribution to ORDA for maintenance of the structure, and ORDA will set the fee. Presently there are some problems relating to maintenance as the community alleges that the users on the left are not cleaning the canals, which in turn is affecting water supply on the right.

However, it has been noted in the GAA sites that the introduction of cash cropping has created problems in relation to marketing. The flooding of the local markets with onions had significantly lowered the selling price. It is possible that in the future, the positive impact on household food security would decline as prices fall. Thus, the introduction of a workable marketing system is also required, although this component so far remains unexplored in the context of this proposal.

Pedal Pumps

Ato Wobe, from Belessa field-tested a foot pump, produced by Salem at a cost of EB1500 with a life span of four years. From this he has been able to open one quarter of hectare of his land to irrigation. This simple investment has dramatically increased food security for his household. So far, he has harvested 10qt of potatoes, of which 70% are marketed and the remainder is consumed within the household. Furthermore, he can harvest 8qt of onion, which are sold at a cost of between EB60-250, dependent on market conditions. Onions serve as a cash crop and 100% of his produce is marketed. In order to replant, Ato Wobe must retain 2qt of potatoes and 1qt of onions as seed. However, irrespective of this, the pump will have paid for itself within one year, with some additional income to spare, and increased household consumption through potato harvesting.
Both Ato Wobe and his neighbor have since purchased their foot pumps.

Triticale

GTZ/BOA have recently had dramatic success with on-farm trials of a wheat/rye cross, named Tricale in their sites in the South Gondar IFSP. Test farmers received a harvest between 30-40 qu/ha, without any inputs such as fertilizer – at least a fourfold increase on traditional crop mixes in the area. When used with inputs under nursery conditions, triticale yields were between 60-120 quintals. Tricale is also higher in micronutrients, such as Vitamin A, a deficiency prevalent in Ethiopia, leading to blindness. Like any cereal, in can be used to make injera, breads, pastry and pasta.

iv) Asset Building at the Community Level

Past programs have shown the difficulties in creating viable and sustainable community assets. This seems especially true in relation to conservation practices that use the high maintenance and labor-intensive physical structures (e.g., stone terracing). In the most drought prone and food insecure *woredas*, farmers do not terrace their own land (let alone communal lands) for the fact that it make take up to 20% of their farm land, and 20% of their annual labor to maintain them against livestock trampling (free grazing) and rain. Moreover, they harbor pests that may consume 30% of their harvest. Nonetheless FFW and the BOA favors these interventions (alongside rural feeder road construction) even if in the long term, they require significantly more financing (maintenance & rehabilitation).

The pilot should therefore seek to maximize the potential for using biological measures that are self-sustaining and nitrate fixing to prevent further erosion on hillsides, gullies and pasturelands.

GTZ has had success in this regard with vetiver grass (see box below), poplar trees and willows to name but a few. Repeated visits to their project site over the years confirm the view that biological measures are sustainable, increase community access to fodder, and rehabilitate land around gullies for farm use.

Box 3.7. Biological Alternatives to Terracing in the Sphere of Soil and Water Conservation: The case of Vetiver

Vetiver hedgerows play a vital role in watershed protection by slowing down flood runoff, recharging groundwater, the latter of which it does much better than most plants because of its deep penetrating roots. Vetiver may also be used to protect the fountain of rivers (i.e. spring heads), stabilize dam walls, canal banks and drains, thus reducing maintenance costs and assuring the integrity of the systems.
On-farm, vetiver has several advantages over soil and stone bunding as a means of soil and water conservation management. For example, as it is self-propagating, it requires no further maintenance, whereas it is estimated that soil and stone terraces absorb approximately 20% of labor time on-farm for maintenance alone, whilst simultaneously utilizing between 10-20% of arable land. By contrast, vetiver requires no maintenance or arable land and up to six months of age, it can be cut up to seven times to feed livestock, and thus serves as an important source of fodder, and thereafter for mulching to improve soil fertility. [27]

[27] GTZ's Integrated Food Security Project in South Gondar introduced vetiver to its sites three years ago. Its partner, BOA, has however insisted on planting vetiver on stone bunds, the latter of which serve as hiding places for rodents, while the former serve as food. Thus, it is recommended that vetiver is planted without bunding. Other grasses such as Tall Fescue and Phalaris are presently undergoing trials for the same purpose.

Box 3.8.Appropriate & New technologies for Biological Conservation Methods

Diversification of Tree Species

The GTZ IFSP site in South Gondar has introduced a number of new tree species that are presently undergoing dry land adaptability trials. GTZ aims to supply farmers with fast growing trees to supplement Eucalyptus. For this purpose, different poplar trees are undergoing trials. Poplars produce good timber, pulp, and fodder. Furthermore, they are grass friendly in that grasses grow better under poplars than under eucalyptus. Production is higher if the trees can be rotationally grazed over the summer creating a fresh supply of fodder. However, they do need a lot of water, and in this sense they are useful for biological measures to control soil erosion such as gully rehabilitation. This is because their roots act as a mechanical anchor, while the whole tree acts as pump to pull water from the soil. The most promising of these is the New Zealand Hybrid Poplar, which has a growth rate of 3cm per day under ideal conditions. This is a multi-purpose tree serving as a good source of timber and foliage, whilst also stabilizing soil. In addition, it is easily propagated. However, it does have an aggressive root system, although planting trees 25 metres from buildings and water sources can accommodate for this negative effect. There are many other varieties of poplars and willows that may be as suitable as the above and this are presently undergoing on-site trials at the GTZ site.

Other multi-purpose trees include the Moringa (Cabbage Tree), which is widely grown on farmland in Konso. This is a nitrate-fixing tree, and its leaves are edible to humans and livestock, whilst its seeds are used for water purification. However, early trials suggest that this tree does not grow well in Amhara.

There are opportunities to link environmental rehabilitation with agricultural diversification, income generation and project sustainability. Not all households need to be self-sufficient in food production and there are significant options for diversification. This discussion is especially relevant to ***C*** & ***D*** households, which tend to lack land and/or be labor poor, and is majoritively represented by female-headed households. There are several possibilities for diversifying the agricultural base of these households without directly resorting to strengthening off–farm opportunities. One way in which this could be achieved is through the development of nurseries on farmland that would:

- Address the environmental management component of the pilot
- Guarantee a market for produce
- Provide a new source of income to ***C*** & ***D*** households
- Reduce project costs in the long term by providing resources in situ of the *woreda*.

This is best understood by considering the table below, which uses a type ***C*** & ***D*** household and vetiver grass examples.

Table 3.4: Conservation Management, Diversification & Income Generation

HH	The Problem for food production	Possible Solutions	Impact at HH level	Impact at Community Level	Impact on Programme
C / D	These hhs are poor in terms of labor, land and livestock. They tend to be more reliant on off-farm employment and aid, then on food production.	Turn their land & labor over to seedling production of vetiver, nitrate fixing tree seedlings, fruit tree seedlings, cash crop seedlings such as coffee and cotton.	Reduce the need for traction power (oxen), compensate for labor shortage, provide guaranteed income, reduce risk of drought induced food production deficits, build assets and pave way for private enterprise for these HHs.	Provide supply of soil conserving plants, and diversified tree species in situ of *woreda* and thereby, reduce pressure on environment, and reduce pressure on pastoralist areas.	The programme would benefit from the nursery sites on hand to provision farmers. E.g., GTZ always has a shortage of vetiver and other plants to demand because of limited nursery spaces.

Ultimately, this method of targeting according to comparative advantage of household endowment and assets could pave the way for private nurseries as demand for seedlings grow in other household categories. Such nurseries do not have to be linked only to seedling production in the soil and water conservation component, but should eventually extend to the production of fruit crops and cash crops.

3.6. Piloting Land Registration

USAID will also extend support to the regional government of ANRS in the sphere of land tenure. Of particular interest to USAID are the recent Amhara land use and administration proclamations (August 2000), which propose, amongst other changes, the right to an inheritable specific plot of land in order to strengthen small-holder land use rights in ANRS. Although the exact means and scale of support has yet to be defined, **one concrete step will be for USAID to financially support a pilot land registration/titling exercise in a few chosen *kebelles* of the pilot *woredas*.** It is hoped that this will provide some understanding of the extent of work involved in implementing the new proclamations and more importantly, the impact of registration with regard to production and resource management.

3.7. GOE Contributions to the Project

a) Block Grant Provision to the Woreda

Recent studies suggest a trend towards government offsetting of aid resources at the *woreda* level. In sum, government capital subsidies to the *woreda* are reduced in anticipation of NGO spending. In effect, this means that spending for new capital projects in health, education, water supply and rural roads are significantly cut, whilst NGOs may be doing little more than FFW projects. In sum, this generally means that the higher the level of food insecurity in a *woreda* (e.g., NGOs are most likely to be operational in these *woredas*), the less the investment in sector development spending. This needs to be reversed if the food insecure *woredas* are to 'take a step up'. In order to stem this process, and provide an incentive to increased GoE spending, the USAID pilot study will:

- Provide an untied block grant to the *woreda* to boost untied funds, which would better enable local administration and sector bureaus to respond to community needs in the sphere of capital project development.

Box 3.9. Decentralization & SIDA Block Grant

Under present decentralization practice, the *woreda* receives a subsidy from the zone (with the exception of special status *woredas* in SNNP where subsidy flows come down directly from the region). The vast majority of the subsidy is, however, allocated towards recurrent expenditure costs to maintain government bureaucracy, whilst very little is allocated towards capital project development.[28] Some *woredas* have a tied budget of approximately ETB3 per capital capita to cover the areas of health, education, water etc. As projects must conform to those laid out in the Five Year Plan (FYP), there is little opportunity for the community to feed its priorities into this process, or for the *woreda* to respond.

SIDA has made significant contributions at *woreda* level (e.g., in food secure Awabel *woreda*, ANRS) through the provision of a direct untied block grant. This permits capital project identification to be undertaken fully with community participation, resulting in 'wanted' assets at a cost of approximately ETB 450,000 for the entire *woreda* per annum. However, the block grant is officially offset from the zonal to *woreda* subsidy, which means that there is in fact not more money itself, but more flexibility in spending decisions.

[28] For more details, see upcoming World Bank Led *Woreda*-Level Decentralization Study, due for release end of March/early April 2001.

Moreover, written agreement with the ANRS will be required so that:

- **The USAID block grant will not be officially or unofficially offset from the zonal capital subsidy transfer to the *woreda* so that USAID funds are a supplement to GoE activities, and not a replacement.**
- **The USAID block grant will not be tied to specific sectors but that a community planning process is followed with regard to implementation of capital projects financed by USAID funds.**
- **That the USAID block grant will be matched annually by a capital subsidy allocation from the zone. E.g., if USAID provides ETB 3 per capita per year, the zone's capital subsidy to the *woreda* should be the same.**

USAID's block grant to the *woreda* could conceivably be financed in two major ways, depending on the availability of resources.

Box. 3.10. Block Grant Funding Options

The most direct, preferable and efficient means of support would be through the provision of a block cash grant to the *woreda* along the lines of the SIDA model, but without offsetting.

OR

A less preferred option would be to provide the *woreda* with USAID food resources, that the *woreda* itself could choose to monetize. Obviously, it is more difficult for the *woreda* to plan activities in this way because of the logistics involved in monetization that create time delays, and because the amount received for grain sales vary throughout the year. Moreover, the potential for fluctuation in the USAID subsidy will create difficulties if the GoE is to match (in ETB) the USAID subsidy.

b) Seeking GoE Guarantees for Recurrent Expenditures

It is often the case that capital projects undertaken by NGOs in the *woreda* are not sustainable after phase-out because recurrent expenditures associated with maintenance and rehabilitation of infrastructure have not been factored in prior to their development. As a consequence, many capital projects are not functional following NGO withdrawal. In order to minimize this and enhance the future sustainability, all capital components of the pilot will:

- **Have been discussed with the *woreda* and zone prior to implementation to ensure that identified capital projects are a priority.**
- **Written agreement will be required whereby the GoE guarantees to factor in recurrent costs. This may include costs for maintenance and rehabilitation, and also staff (e.g., the provision of a health technician if a health post has been constructed).**
- **Ensure that capital projects use easily available low cost technologies. This reduces the maintenance and rehabilitation costs of capital projects, whilst also permitting the community a much more substantial role in maintenance. In this way, capital projects are less likely to lie idle.**

ANNEX
The Pilot: Unresolved Institutional and Timing Issues

1.1 The Main Components of USAID ANR Support to Amhara Region

At Regional Level:

- USAID ANR will provide technical and financial support to Amhara Regional Agricultural Research Institute for an adaptive research program.

At *Woreda* and sub-*Woreda* Levels:

(Although *woredas* have yet to be specifically identified, and the sites within those, it would be preferable to concentrate inputs and interventions into complimenting sites wherever possible).

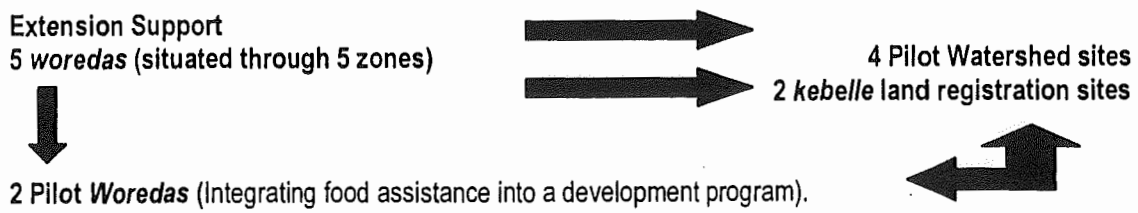
- USAID will provide technical and financial support to the ANRS extension system. This support will be concentrated in **5 *woredas*** from 5 zones recognized as chronically food insecure in the region.

- Contained within this program of support, is the **sub-component that focuses on the development of 4 pilot watershed management schemes** (that cut across a few *kebelles* in each case). It is not yet clear whether the pilot watershed areas are within the 5 *woredas* earmarked for extension system support, as the selection process is still underway.

- In support of recent ANRS land use and administration proclamations, **USAID will provide financial assistance for a land registration experiment in 2 *kebelles*.** It is preferable that the land registration pilots take place in situ of the pilot watershed sites (the latter of which have yet to be defined).

- Preferably, the 2 proposed *woredas* that focus on integrating food assistance into the framework of a development program (relief-development) would be represented within the 5 *woredas* receiving extension support as a means to consolidate available ANRS and FHA resources.

The Ideal Scenario



1.2. Institutional Factors to Be Considered

The Pilot is a new venture for USAID and for the DPPC. Several institutional issues and arrangements need to be resolved before implementation. This is because it is presently unclear which institution will have overall control over resources generated from the DPPC appeal process. In other circumstance the DPPC would have control over their distribution, as this program aims to respond to chronic needs by programming a proportion of emergency assistance for development, it is less clear-cut that the DPPC should continue to have the mandate in this particular instance. Whilst the Amhara FSU may therefore be the correct bureau to handle food aid as it is to be programmed for development, at present the FSU only has responsibility for the distribution of cash resources through EGS. Such institutional wrangling has the potential to slow progress with regard to implementation and lead to resource conflicts between different bureaus at regional level in ANRS.

It is thus recommended that issue be addressed through consultation within the *Regional Steering Committee for USAID Program in ANRS*. This comprises, amongst other players, the DPPB, BOA, FSU, BOPED and representatives of the Regional Council.

In addition, the nature of the program also raises issues of timing and deadlines, as shown in the box below, which should be addressed by December 2001, if implementation of the pilot is to move forward in 2002.

Deadlines for Food Aid Delivery & Distribution

The proposed pilot is based on an acknowledgement of food insecurity as mostly of a chronic nature, as opposed to acute. In recognition of this (and as detailed in parts 1 & 2 of this paper) it is presumed that food aid can be better utilized when integrated into a long term and well-planned development program, and when complimented by additional cash resources.

In effect, the pilot is an attempt to reorient emergency resources arising through the DPPC appeal process for 1-2 *woredas* in Amhara. Not only does this raise the institutional issues discussed previously (Annex 2) but it also raises important questions regarding timing and implementation:

For example, the key to the success of this program would lay in advanced planning of activities to be funded through food aid. In turn, this necessitates extensive community and *woreda*-level dialogue/planning exercises. **Thus, if USAID is to consider beginning implementation of the pilot with emergency resources earmarked in response to the 2002 DPPC Appeal, then plan preparation needs to have been completed by January 2002. This is because the FFW activities will have to be undertaken between January-May 2002 (the typical FFW/EGS season). However, the PVO/Title II extension of activities will begin 2003, leaving a gap of one year for the implementation of FFW and the need for a different implementing partner, should the pilot be underway in response to the 2002 appeal.**

Equally, at program level, food aid is envisaged as one particular tool to help combat food insecurity, but not the only input. For it to bring maximum benefit to the community, it needs to be distributed alongside the provision of community grain banking (see section 3). All this requires significant planning and preparation, and an evaluation and monitoring framework to be in place for implementation to begin 2002.

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