

**ETHIOPIA:  
INTEGRATED RISK FINANCING  
TO PROTECT LIVELIHOODS AND FOSTER DEVELOPMENT**

**DISCUSSION PAPER**

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Ulrich Hess, Chief of Business Risk Planning, WFP  
William Wiseman, Economist, World Bank  
Tim Robertson, DFID Ethiopia

## 1. PURPOSE

This note presents a proposal for reform to the system of emergency relief in Ethiopia by building on recent innovations in resource mobilization as well as delivery mechanisms to better address the needs of beneficiaries. It proposes to shift, to the extent possible, away from ex-post disaster relief to ex-ante risk management as the *modus operandi* for response to emergencies.

This note is preliminary and the outcome of various informal discussions between Government of Ethiopia, WFP, World Bank and DFID representatives. Future versions of this note will seek to incorporate the views and comments of other key stakeholders. This will hopefully serve as the start of a larger discussion within Ethiopia on how Government and donor partners can more effectively and efficiently plan for the needs of its people before and during the next emergency, and indeed help to avert future emergencies. This note does not reflect the views of any one of the above-mentioned organizations.

It is important to highlight that this work has evolved out of thinking on how to better respond, specifically, to drought.<sup>1</sup> This is by far the largest and most frequent shock that Ethiopia suffers. Moreover work on developing drought indices has developed rapidly in recent years. The opportunity to index risks allows Government and donors to develop timely, objective, transparent and sustainable triggers that can be used to determine when and to what extent assistance may be required. The principles laid out in this Discussion Paper are not specific to drought however and could be applied to any indexable livelihood crisis. However, in order to allow an effective, timely ex-ante response to an imminent emergency that saves livelihoods, the need to have indices and triggers that meet the above criteria should not be marginalised and remains central to the proposal elaborated below.

## 2. BACKGROUND

### ***WHY DO WE NEED EARLY INTERVENTIONS TO PROTECT LIVELIHOODS?***

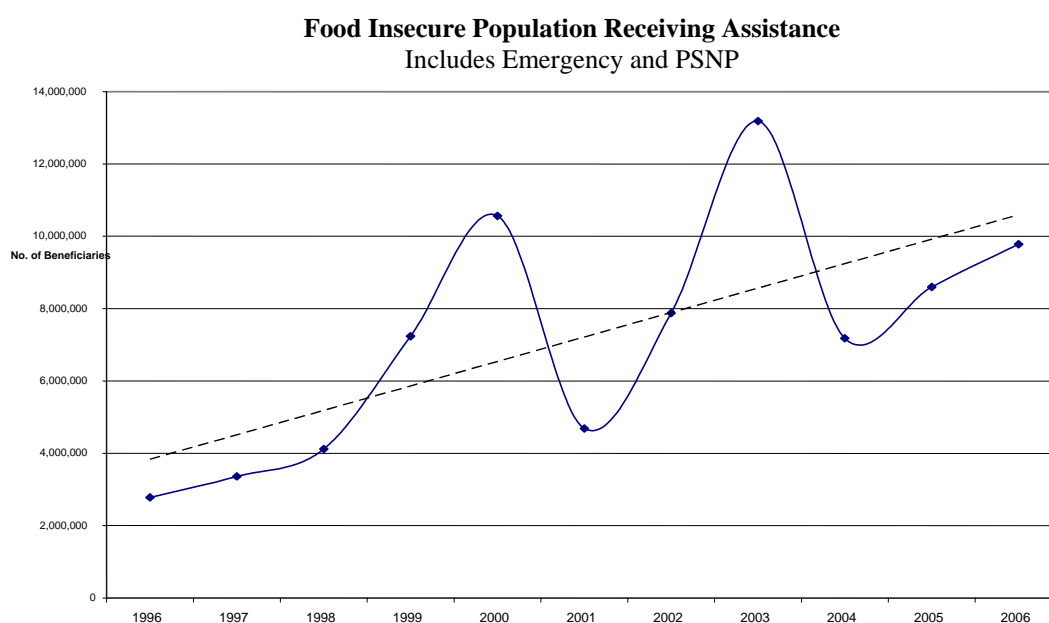
There is ample evidence that transiently food-insecure households start coping with an impending disaster relatively early, even before harvest failure. In the early stages, coping strategies tend to involve less costly actions such as sale of non-productive assets or migration of family members. In later stages, however, households approaching or at subsistence levels and having exhausted initial coping mechanisms are forced to sell productive assets or employ other costly coping strategies, such as removing children from school. As often cited, short-term shocks have long-term

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<sup>1</sup> Jerry Skees proposed to finance catastrophe relief for famine risk with early warning system indicators. This and other contributions of Prof. Skees have been an inspiration for this work all along. "Can World Financial Markets Be Tapped to Help Poor People Cope with Natural Disasters? November 2001, IFPRI Issue Brief 2001. See also "Poverty Traps and Index based risk transfer products." Skees, Barrett, Barnett. Forthcoming.

consequences and involve considerable setbacks to development. For example, studies show that households that suffered substantially during the 1984-5 drought, which resulted in a large-scale famine, continued to experience 2 to 3 percent less annual per capita growth during the 1990's as compared with those who were not hit as hard<sup>2</sup>.

While the current emergency system supporting the transiently food-insecure is largely sufficient to save lives –it is unfortunately often not sufficient to save livelihoods. In short, repeated shocks followed by traditionally late or inadequate responses have led to loss of livelihood and increasing chronic food insecurity, as can be seen in the rising trend in the number of people requiring assistance in the graph below. Current estimates of the long-term impact of the 2002 drought are that it pushed as many as 1-2 million previously vulnerable people into destitution<sup>3</sup>. Timely and predictable intervention in a crisis can prevent households from having to engage in destructive risk-coping strategies, and would reduce the need for a massive emergency response.



Source: DPPC

*“Individuals and communities are resilient. Given the resources to manage shocks while they still have time to do so, crises can often be averted through early preventive response by donors.....massive deliveries of food-aid are often unnecessary if timely delivery of appropriate resources are made available in order to equip communities and vulnerable households with the means to manage the oncoming shock before the collapse into crisis” (Barrett, 2006)<sup>4</sup>*

<sup>2</sup> Dercon and Krishnan, 2000

<sup>3</sup> WFP/OEDSP, “Ethiopia 2002-2003: A Reconstruction, WFP, May 2005” and “Evaluation of the Response to the 2002-03 Emergency in Ethiopia, Steering Committee for the Evaluation of the Joint Government and Humanitarian Partners Response to the 2002-03 Emergency in Ethiopia, October 2004, especially pp. 9-17.

<sup>4</sup> “Food Aid in response to Acute Food Insecurity”; Barrett, Christopher; April 2006, Background paper prepared for the FAO “State of Food and Agriculture 2006” report; processed

Assistance to the food insecure in Ethiopia has undergone significant reform in recent years. Most notably, the Productive Safety Net Programme (PSNP) has introduced a multi-annual, predictable and increasingly cash-based model as the mechanism for providing support to the “chronically” food insecure. At the same time, the Government has aligned targeting of other complementary interventions with the PSNP to promote graduation of beneficiaries out of chronic food insecurity.

However, mechanisms for effectively protecting livelihoods of the “transiently” food insecure remains neglected in the reformed food security system in Ethiopia. ***Presently, those at risk of transient food insecurity face a significant probability of falling into destitution as a result of future shocks and therefore of adding to the numbers of chronically food insecure. From this perspective the current partial reform of the emergency system is simply not sustainable.***

## NEW APPROACHES TO DROUGHT RISK MANAGEMENT

The motivation for the current paper is due in part to several innovations in recent years that suggest there are better ways of doing business and real options exist for overcoming many of the limitations of the current ex-post emergency response approach.

The Ethiopia Drought Insurance Pilot Project<sup>5</sup> has shown that (i) ***it is feasible to use market mechanisms to finance drought risk in Ethiopia.*** As part of the pilot, WFP obtained insurance through a contract with AXA Re, a Paris-based reinsurer using a sophisticated index based on Ethiopia’s historical rainfall and agricultural output; (ii) ***it is possible to develop objective, timely, and accurate indicators for triggering drought assistance.*** The Ethiopian agricultural drought index referred to above shows an 80% correlation with the total number of historical food-aid beneficiaries. This suggests that such an index can be used as a relatively good proxy of actual aggregate needs in case of drought. From the current agricultural season, field visits have indicated that the index has so far correctly captured events on the ground. Moreover, the index is updated on a 10-day basis, which greatly improves the timeliness of information; and (iii) ***facilitating predictable ex-ante resources allows Governments to put contingency plans in place that in turn permits for earlier and more productive response to shocks.*** In Ethiopia, the Government has created an implementation rulebook for cash transfers for up to 316,000 at-risk beneficiaries in case of catastrophic drought. Identified communities are in the process of elaborating community-based plans that will allow them to implement programmes swiftly once early assistance has been triggered.

The Productive Safety Net Programme (PSNP), which has been providing multi-annual predictable support to the chronically food insecure since 2005 has shown that ***cash-based responses can work at scale in Ethiopia.*** After the second season of implementation, it is clear that cash can be channelled to beneficiaries through Ethiopia’s decentralized Government structure. According to recent administrative data, the volume and timing of assistance under the PSNP compares favourably with the previous emergency food-aid system. Evidence also indicates that cash is reaching

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<sup>5</sup> Approved by the WFP Board in November 2005. The pilot receives financial support from USAID and Denmark.

beneficiaries in time to effectively protect livelihoods. A recent survey of beneficiary households indicates lower levels of asset depletion for programme beneficiaries as compared with non-beneficiary households<sup>6</sup>.

A recent review of world-wide experience with cash-based responses to emergencies suggests that *early cash-based interventions can be an appropriate mechanism for responding to emergencies*. There is a strong body of evidence that providing people with cash works. It is possible to target and distribute cash safely, people overwhelmingly spend money on basic essentials, cash provides a stimulus to local economies, and it is often more cost-effective than commodity-based alternatives (Harvey, 2005). This is not to suggest that cash will necessarily be the only, or even the dominant form of response to any given emergency, rather than this remains a largely underutilised mechanism and is often appropriate.

The increasing use of international and Ethiopia-specific contingency funds indicates that *donors understand the significant costs to operating under an ex-post emergency model*. These costs are not just related to the provision of expensive food –aid imports from donor countries instead of either locally purchased food or cash assistance<sup>7</sup>, but also include the costs of providing that support late, rather than early. If those in need of assistance can be helped before they have depleted productive assets, the costs of supporting these households are significantly lower than under a scenario where (i) assistance must be provided to protect consumption, and (ii) additional support would subsequently have to rebuild lost productive assets or provide ongoing consumption support as well. While the importance of contingency funding has been recognised for some time in the literature, adoption of this approach is still not widespread. Recent initiatives such as the Central Emergency Response Fund<sup>8</sup> at the global level and the PSNP Contingency Fund within Ethiopia indicate an increased interest in moving in this direction.

### 3. THE PROPOSAL: INTEGRATED DROUGHT RISK FINANCING FOR ETHIOPIA

A forward-looking social protection system needs to intervene early, possibly right after the weather shock, which in the case of Ethiopia tends to be lack of rain in the critical months of August and September. Similar to the approach used under the PSNP, the Government would transfer cash and/or food to households allowing them to maintain critical livelihood assets. This would be seen as a first response phase to any shock. This approach would protect development gains and considerably reduce expensive intervention costs during the second “life-saving” phase of an emergency response.

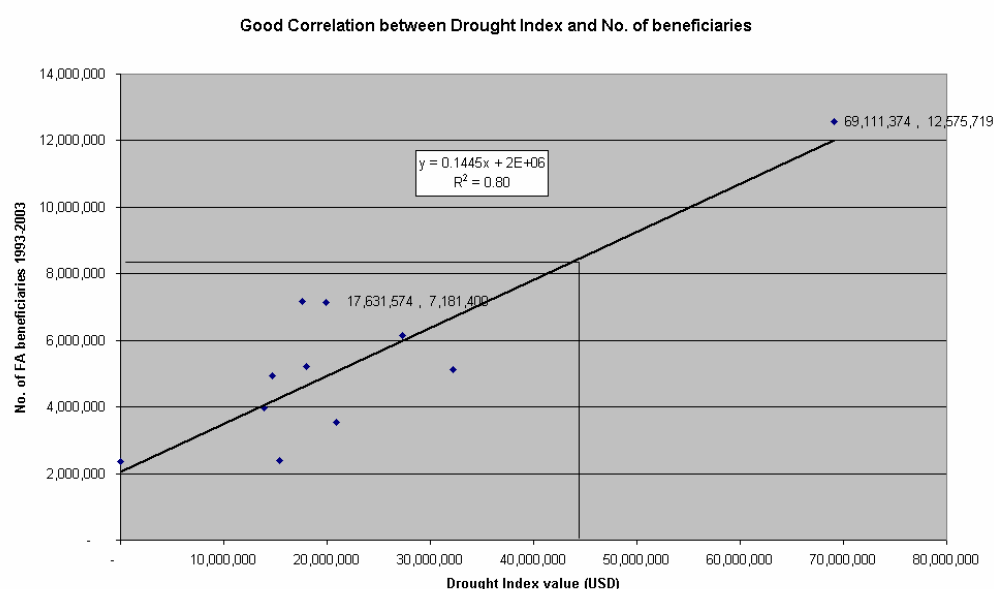
In order to comprehensively address the needs of Ethiopia’s food-insecure population, it is important to understand the nature of the *risk* and its impact on *people* in

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<sup>6</sup> Much work remains to be done to reduce delays in the provision of both cash and food assistance under the PSNP; however the importance of the emerging evidence here should not be underestimated.

<sup>7</sup> Imported food-aid costs roughly twice as much as compared with providing beneficiaries cash transfers.

<sup>8</sup> <http://ochaonline.un.org/webpage.asp?Page=2101>



vulnerable areas of the country. Only then can this risk be financed<sup>9</sup>. What is proposed here is that risk be segmented in a way that allows for optimal financing through a portfolio of coordinated instruments. It recognises that such an approach, whether ex-ante or ex-post, presents costs of capital as well as opportunity costs. At the same time, the approach will seek to coordinate instruments in such a way as to minimize the overall cost to Government and donor partners of providing ex-ante assistance.

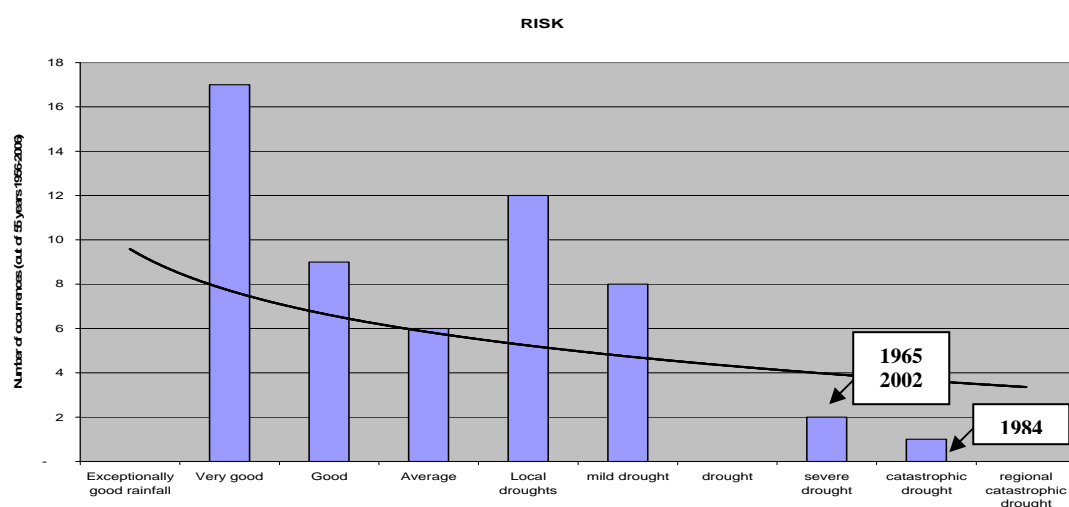
**High correlation between drought and food insecurity:** Meteorological drought is the major driver for agricultural losses in Ethiopia, which in turn results in food and income shortfalls and subsequently an increase in the number of food aid beneficiaries. In fact, there is a high correlation between the agricultural yield-based drought index (WFP Drought insurance project) and the number of food aid beneficiaries between 1994 and 2004 (around 80%). Despite the low sample size, only 10 years, this is a strong indication that the relationship between weather factors and the emergency response is strong.

**Risk:** Risk assessment involves utilizing risk measurements and analysis techniques to assess potential losses from natural hazards such as drought. This requires data collection and analysis that presents the probable occurrence of natural disasters and the calculation of severity of loss and likely damage that would result. There are various ways to represent risk. For example, the frequency distribution graph below plots the number of normal years as opposed to mild or severe drought years as measured by the Ethiopian Agricultural Drought Index. The graph reveals average to above-average rainfall in around 60% of all years, localized droughts in 20% of all cases, mild droughts in 15% of all cases. The remaining 5% of all years represent three catastrophic years: 1965, 2002 and 1984. In other words **catastrophic droughts in Ethiopia occur with a one in 20 probability**, or once every 20 years.<sup>10</sup> The modelling effort that has been done under Phase I of the drought insurance project is

<sup>9</sup> Using this approach we obtain a “price-tag” for the risk which, in conjunction with return on investment and return on transfers indications signals to policy-makers which projects (risk reduction projects, risk transfer or other development projects) generate the highest return on scarce resources.

<sup>10</sup> It is still uncertain how global warming and climate change will alter these expectations.

an essential tool for the Government of Ethiopia to assess the risk of loss from these catastrophic events.<sup>11</sup>



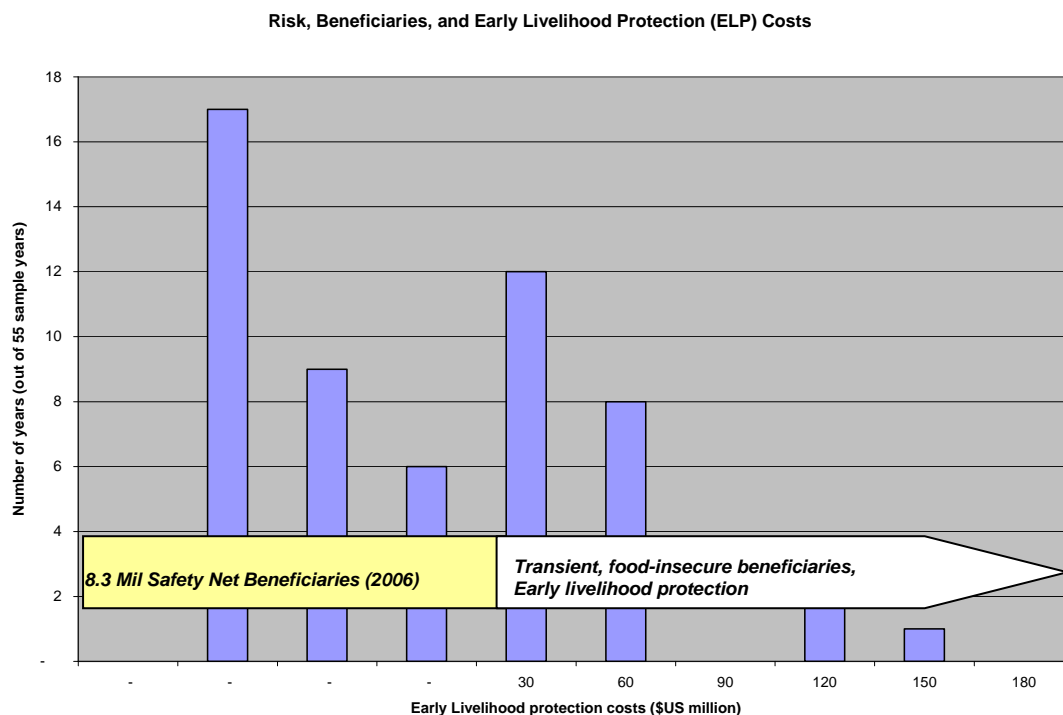
**People:** As explained earlier, the results generated from using the Index correlate highly with actual numbers of food-aid beneficiaries. A comparison of the PSNP beneficiary number (8.3 million<sup>12</sup>) with the beneficiary number from the most recent large-scale drought (12.5 million) indicates that there are roughly between 4-5 million transiently food insecure people that are at risk of livelihood loss during the next drought<sup>13</sup>. It is assumed that in normal, non-drought years, PSNP along with contingency reserves set aside through the PSNP will address chronic food insecurity. Combining the frequency distribution in the graph above with the numbers of beneficiaries receiving assistance gives us an indication of the size of transiently food insecure population (shown in the graph below). Taking the PSNP transfer amounts and costs as a benchmark, it is assumed that the early livelihood protection cost per beneficiary are around \$US 27. Thus the total cost of an early livelihood protection (ELP) operation in a severe drought year, such as 2002, would be \$US 113 million for 4.2 million livelihood protection beneficiaries. In an even more severe drought year, such as 1984, costs are estimated to have been around \$US 135 million for 5 million beneficiaries.<sup>14</sup>

<sup>11</sup> The model also yields common measures of risks for the insurance industry, such as the average annual loss (AAL) and probable maximum losses (PML) for different risk periods (e.g., 100 years, 500 years, 1000 years).

<sup>12</sup> 7.2 million Current beneficiaries plus 1.1 million planned additional beneficiaries for Somali.

<sup>13</sup> Note that these numbers are indicative and would need to be adjusted to take account of demographic factors and long-term trends in food insecurity.

<sup>14</sup> *Prima facie* these early livelihood protection cost estimates tend to be lower than ex-post lifesaving costs and/or food aid costs for the same households. However, the comparison of total disaster costs prior to the safety net with the sum of PSNP costs and livelihood protection costs, assuming that those beneficiaries assisted by livelihood assistance are not part of the appeal presents serious methodological problems.



**Finance:** The question is: how can the response to emergency risks be optimally financed – that is, the risk of normally food secure farmers and herders becoming food insecure and losing their assets? In establishing its risk financing strategy, the Government will have to estimate its absorption capacity and the speed at which the necessary financing can be released to beneficiaries. Funds made available through tax increases and increased borrowing for example generally have a time lag of up to one year before they are disbursable. The objective is to finance an **Early Livelihood Protection Facility (ELPF)**, which would be a sequential combination of (i) a contingency fund, (ii) a contingent debt/credit, and (iii) insurance. Only then, in the most extreme events if this financing was insufficient would an appeal be necessary. The first of these layers would depend on the appropriation of reserves for a “contingency fund.” This fund would finance the most recurrent risks that cause minor losses, e.g., local droughts occurring at most every three years. Such frequent events generate an average annual loss estimated to be US\$50 million, at the upper scale. The contingency fund would be a pre-established fund with a set amount of money that the Government could access.

The instrument used to trigger payments from the contingency fund and to determine the size of payment would be an early Livelihood Protection Index (modelled on the Ethiopia Agricultural Drought Risk Index), and/or other appropriate indices developed for this purpose. If the value of the index at the end of the season falls above the trigger point (in the case illustrated above, fund resources would be triggered in part once every three years), the fund would pay out up to \$50 million depending on the value of the index over and above the initial trigger. The fund would be a donor financed contingency fund and could be either Ethiopia specific or tap into existing global funds (such as CERF or EC’s FLEX). The critical point is that the funds are set aside for Ethiopia-specific risk and clear triggers are agreed ex-ante.



The “in between” losses, i.e., loss that are too large to be fully financed by reserves but too small to trigger insurance payments and/or which could not be covered by an index insurance instrument would be financed by a **contingent grant** or **contingent debt**<sup>15</sup>. This instrument is adequate for this risk portion because of the disproportionately high premiums that would otherwise be required for insurance.<sup>16</sup> In practice, if the value of the Index exceeds \$US 50 million, then the Government would draw-down additional funds by accessing part or all of a contingent debt or grant facility offered by international organizations, such as the World Bank<sup>17</sup>. It is proposed that the contingent debt or grant facility could be around \$US 40 million in total. Thus for example, if the index shows \$US 70 million at the end of the season, the Government could \$US 20 million from this facility, on top of the contingency fund disbursement of US\$ 50 million.

Major catastrophic losses are likely to result from large scale severe droughts. This pure risk resulting from weather events can be financed with alternative risk transfer mechanisms such as **weather index insurance** or a **weather derivative**. Payouts under these contracts depend only on the magnitude of the lack of rainfall in given locations over a given period of time (usually one season). The higher the magnitude of the drought above a certain threshold, the larger is the payout. The probabilistic drought risk model would be used to calibrate payouts to match actual needs as closely as possible – that is, the early livelihood protection costs.

Weather index insurance is likely to be less expensive than traditional insurance, as loss adjustment procedures are not required and administrative costs are lower. Insurance is also extremely quick to disburse. Premiums would be driven mainly by the cost of capital. Upon exhaustion of the contingent fund and contingent grants, for index values over and above \$100 million in this illustrative case, an **index-based insurance** policy would kick in. The Government and donor partners would pay premiums on a policy that would be triggered if the index exceeded \$100 million. That is, the insurer would automatically pay up to \$US 60 million to GoE, according to the index.

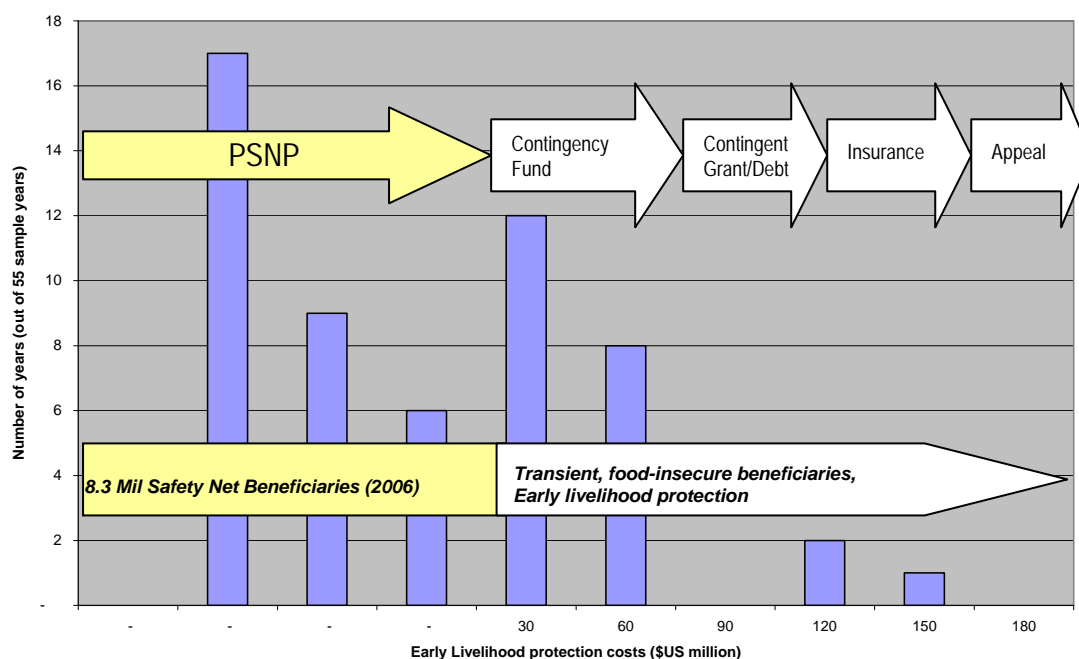
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<sup>15</sup> It is possible that the contingency fund and a contingent grant would disburse proportionally over a combined tranche of the risk exposure rather than sequentially. This is something that would be further explored during appraisal.

<sup>16</sup> In addition contingent grant or debt is also well suited to cover large, but not major, losses caused by sources of risk other than weather such as man-made risks which cannot be captured by the early livelihood protection index. This is a different and separate approach, because it changes principles and rules and assumptions.

<sup>17</sup> The European Investment Bank also offers contingent debt facilities with concessionary rates

### Financing the Risk of Early Livelihood Protection



If these facilities are not sufficient, the Government would launch a **flash appeal** for additional funds. This appeal would cover those cases where either the index exceeds \$US 150 million, or the index value does not fully reflect the full cost of the required operation.

***In a nutshell:*** The overall objective of the financial structure is to minimize the costs of making early livelihood protection funds available in a guaranteed and timely fashion. The “early livelihood protection load” of at-risk beneficiaries in a drought year would cost approximately \$US 27 per beneficiary - assuming that the actual transfers to households amount to approximately \$100 per household (mirroring safety net modalities). In a 2002 type drought year for example, around \$US 113 million are needed, in a 1984 type of drought \$US 135 million are required for respectively 4.2 and 5 million beneficiaries. Drought events (33% of all cases) would be financed with a three-year **Early Livelihood Protection Facility (ELPF)** combining: a contingency fund of \$US 50million, contingent grant or contingent debt of \$US 40 million and insurance for another \$US 60million.<sup>18</sup> When all of these instruments are “triggered” by the index and funds exhausted, a flash appeal would be launched.

<sup>18</sup> This three tier structure is intuitive: it does not make sense to have \$US 150 million sitting idle most of the time – opportunity costs for donors of putting aside this amount of money are prohibitive. Similarly it does not make sense to insure the whole amount: premiums for the more frequent risk portion are prohibitive – why pay a “load” (profits, admin, etc. for the insurer) for the one in three year type of event? However, for the infrequent, 1 in 10 or even 1 in 7 type of risks insurance is very efficient, because insurers diversify their risks and therefore use capital very efficiently. Clearly for the “in-between” risks then an IFI such as the World Bank or EIB can offer attractive terms with (concessionary) contingent loans that are called in 1 in 5 years or similar. It is a matter of financial engineering to optimize the amounts covered by the three instruments. See technical annex for details.

## **THE LIVELIHOOD PROTECTION FACILITY AND GOVERNMENT'S POLICY OBJECTIVES**

Governments that seek to spur growth and eradicate poverty inevitably combine economic policies that aim to enhance efficiency and growth with social policies that aim to address poverty and vulnerability. Governments also often pursue equity or income redistribution objectives. A key element for ensuring that growth and poverty reduction are sustainable is an ex ante system for disaster risk management. Disaster risk management covers severe and very infrequent events affecting mostly the poor, because the poor are more vulnerable, tend to be exposed to more risk, and have fewer adequate risk management tools. The result is that vulnerability to major natural disasters and the impact of repeated disasters trap people in poverty.

Government disaster risk policies often entail some form of monetary compensation for victims of natural disaster. The challenge is to make this assistance as timely and predictable as possible. This requires ex ante planning rather than just ex post disaster responses. This also implies efforts to forestall political demands for ex post, ad hoc government disaster assistance. Indeed, a credible and reliable disaster risk management system can put farmers and countries on a higher growth path by making people more comfortable with taking calculated and protected risks. Naturally growth and poverty-reduction objectives overlap, but this makes it even more important to identify clear objectives and to design effective and cost-efficient ways to achieve them. Mixing objectives can lead to suboptimal outcomes. Many government-facilitated crop insurance programs, for example, attempt to accomplish social welfare and economic efficiency objectives simultaneously.<sup>19</sup>

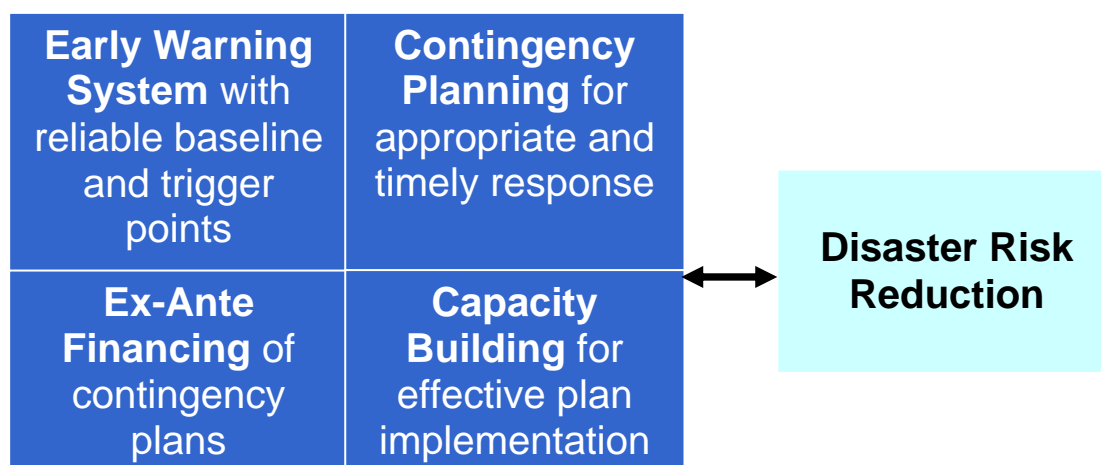
## **INTEGRATING THE FACILITY AND APPROACH INTO A COUNTRY RISK MANAGEMENT FRAMEWORK**

This approach basically protects development gains by protecting livelihoods and is a worthwhile and cost effective way of dealing with risk. However, this approach is one of five major pillars in the emerging country risk framework. Another way of dealing with risk is to reduce it – the relative cost advantages depend on the magnitude of the risk.

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<sup>19</sup> Managing Agricultural Production Risk, World Bank 2006, p. 24

## Risk Management Framework



In other words the risk transfer option for emergencies has to be embedded in a sound rural development framework. Where risk reduction<sup>20</sup> makes sense as opposed to risk mitigation depends very much on a sound livelihood analysis. This analysis reveals also to what extent people trade returns for risk minimization – that is, do they forego significant profits to protect themselves against shocks? That risk minimization effort often translates into high degrees of income diversification and underinvestment in crops (local seeds, etc.). The poor in particular are particularly risk averse. Their inability to accept and manage risk and accumulate and retain wealth is sometimes referred to as «the poverty trap»<sup>21</sup>. WFP's OEDSP and partners are currently building a value for beneficiary model that will seek to quantify the relative costs and benefits or beneficiaries of different risk mitigation strategies.

### HOW BENEFICIARIES ARE REACHED

How can Donors and government make sure that beneficiaries are reached in a timely manner once the funds are triggered by the weather index, and how can adequate accountability for the funds be ensured. The WFP drought insurance experience in Ethiopia provides a useful reference. WFP and the Government of Ethiopia's Food Security Bureau (FSCB) have established a steering committee to lead the project and have designed and endorsed an *Implementation Rulebook* to regulate transfers to beneficiaries in case of an insurance payout. The rulebook, modelled on and complementary to the Productive Safety Net Project (PSNP) Program Implementation Manual, offers a detailed transfer scheme design that directs the flow of funds from insurer to beneficiaries in a payout scenario. This design is supplemented by beneficiary targeting, selection guidelines, and definitions of institutional roles and responsibilities. Financial reporting and auditing guidelines are also defined to ensure transparent, accountable and efficient financial management.

<sup>20</sup> The World Bank is implementing a 'Mainstreaming DRR for Poverty Reduction' programme over the next three years. The focus in Africa will be Malawi and Mozambique. There might be scope for integration in due course of this programme within Ethiopia.

<sup>21</sup> World Development Report 2001/2002: Attacking poverty. World Bank, Washington DC.

Ultimately it is the actual ownership of the process by the Government, achieved through Government contributions directly to the instruments elaborated above, and adequate safeguards and oversight that will ensure proper use of funds.

#### **4. CONCLUSION: OPTIMAL LIVELIHOOD RISK FINANCING**

The current emergency appeal system for responding to humanitarian risk in Ethiopia leaves a critical gap in the Government strategy for promoting sustainable livelihoods and protecting people from sliding, or falling back into destitution and chronic poverty. The current system is clearly failing to provide an effective “safety net” in this sense. In order to address this problem financing needs to be set aside in advance to allow timely, predictable and appropriate responses. This discussion paper illustrates how quantification of the risk, the numbers of potential beneficiaries and finance can be considered in order to optimize a portfolio of drought-financing instruments that minimizes risk transfer costs. Implications are manifold: assistance in all cases would be triggered much earlier, which would significantly improve asset protection and reduce costs. The certainty that this type of ex-ante financing can create for the Government as well as beneficiaries would generate investment behaviours that maximize returns; insurance needs to cover only extreme cases while more frequent cases could be addressed by pre-agreed contingency funds and lines of credit.

#### **5. NEXT STEPS**

This approach should be discussed in more detail with all relevant stakeholders in Ethiopia. This illustration, as well as more detailed cost estimates and a comprehensive early livelihood protection index<sup>22</sup> would underpin the discussion. Assuming consensus on this type of approach and under the leadership of Government, the different tranches of the risk financing strategy could be established. WFP, DFID, and the World Bank would take leadership in furthering these discussions with key stakeholders. A multi-year facility<sup>23</sup> would be desirable. GoE and these three actors could present a fully-fledged proposal at a pledging conference in early 2007 that would then lead to the placement of the risk financing structure in the risk transfer “markets” (private and public) by the end of 2007.

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<sup>22</sup> WFP could take the lead in refining and extending the drought index and turn it into an early livelihood protection index for both agricultural and pastoralist areas. For pastoralist areas WFP will base the index on LEWS, the livestock early warning system.

<sup>23</sup> The longer the better – ENSO return periods are around 5 years, ideally the risk financing should cover a whole ENSO return period to make the package attractive to insurers and therefore cheaper.