

## Seasons of Hunger

How planning for seasonal cycles can fight malnutrition and accelerate progress towards the Millennium Development Goals



At current rates of progress, few countries – particularly those in sub-Saharan Africa – are on track to meet the Millennium Development Goals (MDG) targets by the 2015 deadline. With seven years remaining, it is critical for donor agencies and national governments to analyse, from both technical and political standpoints, how progress towards the MDG's can be most effectively accelerated. Increased development assistance from donor agencies to developing nations, at least up to the previously agreed-upon target of 0.7% of national income, is certainly necessary to fuel this acceleration. However 'more' development must also be linked with 'smarter' development: the identification of approaches and leverage points that can increase the impact of money spent on the various MDG targets.

### Key Messages

- ✿ A majority of the world's poor are exposed to seasonal cycles of hunger, poverty and disease; 'seasonal thinking' in the food security intervention planning process can help to accelerate progress towards MDG1, MDG4 and MDG6
- ✿ Pre-positioning nutritional and health resources in the months before and during the annual hunger period can reduce mortality and morbidity considerably
- ✿ Seasonal employment programmes are effective means of predictably transferring cash and food during the months when they are most needed
- ✿ Indexing cash transfers to price trends can buffer poor households against the impacts of volatile markets

Action Against Hunger (ACF) is an international humanitarian organisation operating in over 40 of the world's poorest countries. Its vocation is to save lives, especially those of malnourished children, and to work with vulnerable populations to preserve and restore their livelihoods with dignity.

This briefing paper argues that planning for seasonality is an important, though often ignored, principle of smart development. Most of the world's poor families live in rural areas and work in agricultural and livestock economies. For these households, poverty, hunger and illness are highly dynamic phenomena, changing dramatically over the course of a year in response to production, price and climatic cycles.

As a result, most of the world's acute hunger<sup>1</sup> occurs not in conflicts and natural disasters but in that annually recurring time of the year called the 'hunger season', the period during the year when the previous year's harvest stocks have dwindled and little food is available on the market, causing prices to shoot upward. Employment and economic opportunities are often scarce during the hunger season, and to make matters worse, in many countries this period often coincides with the rainy season, when serious illnesses like malaria strike hardest.

Despite the importance of seasonal cycles throughout the rural developing world, development response is often homogenous in type and amount throughout the year. The result is that assistance is inadequate to meet the needs of families during some periods of the year, while resources are underutilised during other periods. Not only does this reduce the efficiency of development spending, but it also suppresses economic growth.

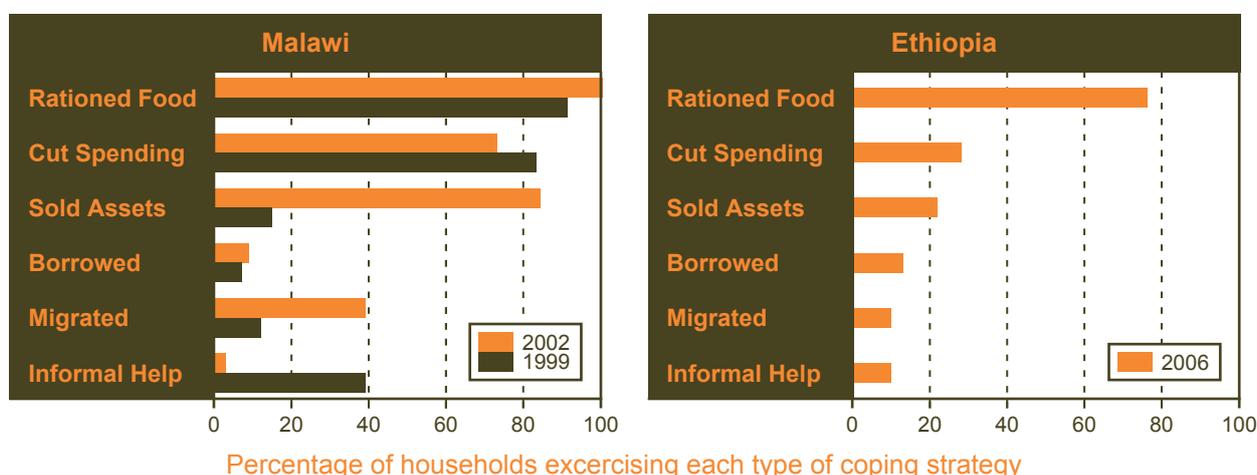
The gains made during the prosperous times of year are often negated by distress sales of assets and other actions families have to take to survive during the hunger season. Poverty is maintained, and in some cases deepened: some of the most serious food crises of recent years – for example in Malawi in 2001 and Ethiopia in 2003 – were not simply the result of a catastrophic once-off agricultural production failure, as is commonly thought, but were also underpinned by years of seasonal hunger that eroded household resilience to such production failures.

### Coping Mechanisms

The coping strategies that poor people adopt in response to seasonal hunger are almost identical to those adopted during famines. Figure 1 compares two years of food crisis in Malawi (1999, 2002) with a year of good rainfall and harvests in Ethiopia (2006). In all three cases, food insecure households were forced to ration food, cut spend-

ing and sell assets to survive. Rationing is always the most common response, because other strategies (such as borrowing or migrating) have more serious long-term consequences for household viability. Only the numbers of households and the intensity of coping strategy adoption vary from year to year and country to country.

Figure 1: Responses to Seasonal Hunger in Malawi and Ethiopia



## Seasonal Cycles and the MDG's

Planning for seasonal cycles is directly relevant to attaining MDG1, MDG4 and MDG6.

**Figure 2 : MDGs Directly Affected by Seasonal Cycles of Deprivation and Illness**

<b>MDG1</b>	
<b>Eradicate extreme poverty and hunger</b>	
Sub-target 1	Reduce extreme poverty by half
Sub-target 2	Reduce hunger by half
<b>MDG4</b>	
<b>Reduce child mortality</b>	
Sub-target 5	Reduce by two-thirds the under-five mortality rate
<b>MDG6</b>	
<b>Combat HIV/AIDS, malaria and other diseases</b>	
Sub-target 7	Halt and reverse the spread of HIV/AIDS
Sub-target 8	Halt and reverse the incidence of malaria and other major diseases

MDG1 is related to poverty and undernourishment. Seven out of ten hungry people in the world – or about 600 million in all – are tied to rural economies, either as small farmers or landless agricultural workers<sup>2</sup>. Many of these live in areas where

climatic conditions permit only one crop harvest a year, and are thus the populations most at risk of suffering an annual hunger period. Providing predictable transfers of cash and food during the hunger season, either through unconditional aid or employment-based safety nets, would be an efficient way to reduce the percentage of undernourished people worldwide. The importance of employment-based safety nets is highlighted by the MDG1 sub-target (1.2) that deals with increasing employment as a means of poverty reduction.

A focus on seasonality can have similarly strong impacts on MDGs 4 (reduction of mortality among children under age five) and 6 (control of epidemic diseases), particularly through the reduction of malnutrition: over one-third of mortality among young children, as well 11% of the global disease burden, is linked to malnutrition, much of which occurs in seasonal cycles.

*“Providing predictable transfers of cash, food or employment during the hunger season would be an efficient way to reduce the percentage of undernourished people worldwide.”*

## Seasonal Cycles and Development Planning

Some development programmes are already ‘thinking seasonally’. The Productive Safety Nets Programme (PSNP) in Ethiopia provides six months of employment during the hunger season for those who can work, as well as direct assistance for those who cannot. The livelihoods analysis methodologies employed by the Famine Early Warning Systems Network (FEWS-NET) utilise seasonal calendars to improve humanitarian assistance efforts. Small-scale projects by NGOs - ranging from grain banks to cash-for-work projects to supplementary feeding during

the hunger period - all focus on providing resources during the most difficult times of the year.

However, despite the impacts and cost-effectiveness of seasonally planned programmes and despite the year-after-year predictability of the hunger season, ‘seasonal thinking’ has yet to become the norm in development planning. In the following paragraphs, Action Against Hunger suggest three actions that should be prioritised in efforts aimed at increasing access to food in countries where hunger recurs in seasonal cycles.



*“Pre-positioned stocks of therapeutic foods would save hundreds of thousands of lives.”*

## 1. Pre-Positioning Resources

The first is to pre-position nutritional and health resources in the months preceding the hunger season. Nationwide food security and nutritional surveillance systems, such as those developed in Malawi through the collaboration of the national government and Action Against Hunger, can help provide early warning of a deteriorating food security and nutritional situation. Rapid preventative action triggered by these systems will greatly reduce the mortality, illness and developmental stunting that regularly occur during the hunger season. Engaging community-based auxiliary health and agricultural workers as data collectors and analysts can help to further increase the geographical coverage and informational depth of the surveillance system.

Even if resources do not exist for large-scale *preventative* interventions, pre-positioned nutritional and health resources can help to increase the effectiveness of *treatment* during the hunger period.

For example, pre-positioned supplementary feeding resources - e.g. food aid or nutrient-rich therapeutic foods - will assist in assuring that moderate acute malnutrition does not become severe acute malnutrition, which can kill within weeks if not treated. Such interventions will not only reduce mortality, but also lessen the disease burden and protect children from the irreversible cognitive abilities and physical stunting that results from severe malnutrition.

Finally, recent technical advances in the treatment of severe acute malnutrition, relying on a combination of inpatient treatment and ready-to-use therapeutic foods that can be administered by families and communities themselves<sup>3</sup>, hold the potential to greatly reduce death and suffering even when the nutritional situation has deteriorated. Pre-positioned stocks of these therapeutic foods would save hundreds of thousands of lives.

Access to high-quality year-round nutritional and health services for all people, regardless of socio-economic status, is assuredly a fundamental human right. The reality, however, is that the creation of such a health infrastructure will take time and massive increases in investment. We suggest that focusing the



presently available resources in the months before and during the hunger period is an effective strategy to maximise the amount of lives saved and illness prevented.

## 2. A Seasonal Approach to Safety Nets

A second priority in fighting seasonal hunger is the provision of employment-based safety nets during the hunger season. The Productive Safety Nets Programme (PSNP) in Ethiopia and the National Rural Employment Guarantee Scheme (NREGS) in India are good examples of seasonally-focused safety nets. These programmes recognise that even extremely poor households do not necessarily need assistance throughout the year, and even a few months of supplementary income through employment can protect family health and assets during the hunger season.

Employment programmes have the additional benefit of being politically palatable to both the ideological right and left, as compared to many other development initiatives. The work requirement guards against fears of ‘aid dependency’ while transferring significant and valuable resources to families in times

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of need. Individuals unable to work (due to sickness and/or age), however, should be provided with pensions and other forms of free food and cash transfers that protect against seasonal hunger.

It is true that employment programmes have historically had major problems, particularly around issues of incorrect targeting and resource leakage; however initiatives like PSNP and NREGS, while far from flawless, are helping to overcome these problems through a mix of community targeting methods, legal entitlement guarantees, social audits, and a strong emphasis on accountability and transparency.

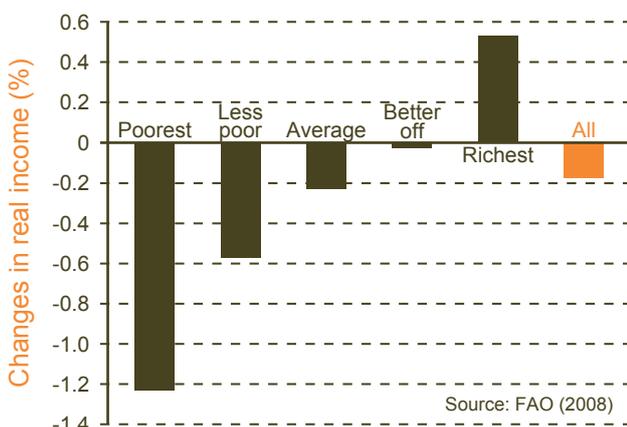
## 3. Price Indexing

A third priority is to index cash transfers to price trends. The recent global food price crisis has starkly illustrated how volatile prices can quickly lead to severe hunger. The same phenomenon underlies



annual cycles of seasonal deprivation. Some governments utilise price regulation or import/export barriers to maintain control over prices. An alternative to these approaches - which can be expensive, have negative impacts on other country trading partners and are in some nations very politically difficult to maintain - is to adjust assistance levels to price fluctuations. This strategy of 'indexing' has been applied on a pilot scale in Malawi and other countries and the results have been impressive<sup>4</sup>. All cash transfers, including employment benefits and pensions, should be indexed to follow market price trends.

**Figure 3: Projected Effect of a 10% Increase in Maize Prices on Welfare of Different Wealth Groups in Rural Malawi**



### Cost Effective Progress

While the three priority interventions outlined in this briefing paper are cost-effective, global implementation will not come without considerable financial commitments. In the book *Seasons of Hunger: Fighting Cycles of Quiet Starvation Among the World's Rural Poor*, Action Against Hunger calculates that global scale-up of treatment for the approximately 19 million children under the age of five who become severely acutely malnourished every year would cost between £1.2 and £2.4 billion. Global provision of seasonal employment would range between £15 and £27 billion annually. Pensions for all those unable to work would be an additional £6 to £12.2 billion.

These figures appear large, but the total annual cost of all these interventions together represents a small fraction of the resources that would be generated if the '0.7% of national income for development' target were met by all donor countries. It is also important to consider that the annual investment required for these interventions is likely to decline from year to year as poverty rates fall and public health systems are strengthened.

A thorough analysis of seasonal hunger in all affected



countries is urgently needed, particularly in sub-Saharan Africa. Detailed context-specific research to assess the costs and benefits of implementing the three priority recommendations above, as well as other seasonal hunger-focused interventions, are required.

### The Immediate Priority

Action Against Hunger concludes that the highest priority of all seasonally focused interventions is the treatment of the aforementioned 19 million severely

acutely malnourished children across the world. Thus far, despite proven-effective technical solutions and the possibility of saving hundreds of thousands of lives and protecting millions more from debilitating illness, no single international body or donor agency has stepped in to fill the leadership gap on this issue.

A pilot investment in nutritional services totalling between £50 and £100 million would allow treatment of the one million severely acutely malnourished children in five of the world's poorest countries (Ethiopia, Kenya, Malawi, Niger and Zambia) (table below).

**Figure 4: Pilot Investment for Treatment of One Million Severely Acutely Malnourished Children**

	Approximate number of children under age 5 who are severely acutely malnourished	Percentage of children under age 5 who are severely acutely malnourished <sup>5</sup>	Approximate cost of treatment, LOW estimate	Approximate cost of treatment, HIGH estimate
<b>Ethiopia</b>	656,171	4.7%	£32,808,562	£64,960,952
<b>Kenya</b>	130,259	2.4%	£6,512,946	£12,895,633
<b>Malawi</b>	74,153	3.2%	£3,707,640	£7,341,127
<b>Niger</b>	104,753	4.3%	£5,237,658	£10,370,563
<b>Zambia</b>	43,718	2.3%	£2,185,917	£4,328,115
<b>Total</b>	<b>1,009,054</b>	<b>3.9%</b>	<b>£50,452,722</b>	<b>£99,896,390</b>

About three-quarters of the funding would be used to operate Community Based Management programmes, including the cost of therapeutic food production/purchase, with the rest going to establish nutritional treatment inpatient facilities. With this funding the lives of tens of thousands of children could be saved and severe illness and permanent stunting among hundreds of thousands prevented.

The malnourished child population of these countries represents only a small fraction of the world's total (approximately 5%). However, a successful scale-up in these countries could pave the way for future expanded commitment to nutritional services, from the international donor community and developing country governments alike.

In short, the Millennium Development Goals (in particular MDG1, MDG4 and MDG6) are still achievable, but progress needs to be accelerated. In addition to scaling up investment to meet the target of dedicating 0.7% of national income for development, identifying leverage points for impact is the key to this acceleration. Seasonality is one of these leverage points. Interventions like pre-positioning nutrition and health resources, providing employment during the hunger period, and indexing benefits to prices will cost-effectively reduce poverty, hunger, child mortality and illness.

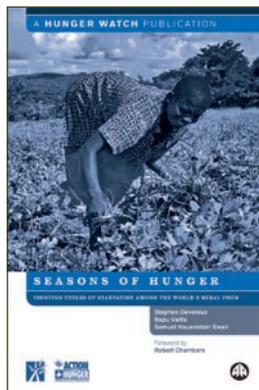
Briefing paper by **Bapu Vaitla**

**Seasons of Hunger**  
Fighting Cycles of Quiet  
Starvation Among the  
World's Rural Poor

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Foreword by Robert Chambers

Published 2008, by Pluto Press  
www.plutobooks.com



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**Endnotes**

1 We speak of ‘acute hunger’ in contrast to ‘chronic hunger’; the former signifies a short-term, severe collapse in food consumption, while the latter is a less visibly severe but more long-term deprivation. Both kinds of hunger contribute to sickness, developmental stunting and mortality, but it is acute hunger that is most often associated with death by starvation.

2 It should be noted that the often-quoted estimate of around 850 million undernourished people worldwide (from which the above 600 million rural hungry figure is taken) is one that does not take seasonal cycles into account. In reality, the number of people in the world who are hungry in any given year is highly dynamic, ranging from a post-harvest low to a hunger season high.

3 For an overview of these technical advances, see World Health Organisation (WHO) / World Food Programme / United Nations System Standing Committee on Nutrition / United Nations Children’s Fund (2007). Community-Based Management of severe acute malnutrition. Available at [www.unicef.org](http://www.unicef.org)

4 See Devereux, S. ‘Innovations in the Design and Delivery of Social Transfers: Lessons Learned from Malawi, 2008’. Brighton: Institute of Development Studies and Concern Worldwide.

5 Figures taken from the most recent year included for each country in the WHO Global Database on Child Growth and Malnutrition. Available at [www.who.int/nutgrowthdb/en/](http://www.who.int/nutgrowthdb/en/)

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