



Seasonality Revisited

Perspectives on Seasonal Poverty



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**Why Risk Management has
trouble locating seasonality**

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Abstract

Attempting to draw general lessons from the theoretical, empirical and policy responses to seasonality leaves one slightly disappointed for a number of reasons. At one level there exists an instrumentalist response in the form of technical innovations to smooth production and consumption efficiencies that vary with the ‘cruel’ seasons. There is no limit to the number of studies that have been conducted and technologies implemented in this vein. At another level, the seminal work on seasonality (Chambers *et al*, Gill, Sahn) point to the integrated nature of seasonality and poverty, where seasonality defies definition, being nuanced by multiple and complex livelihoods. There is still another level of emerging literature that introduces unpredictability and chaos into analyses of seasonality. Few people would deny the striking effects of seasonality on poor people’s livelihoods, so in this paper we set out to ask 1) why seasonality has made little to no impression on risk management frameworks; 2) why seasonality has had such limited policy traction and; 3) what are some obstacles for policy in attempted to integrated seasonality considerations. In the second part of the paper we use data from an evaluation of the PSNP in Ethiopia to elucidate a number of our points and draw conclusions about how to encourage more explicit considerations of seasonality within policy responses to risk and vulnerability.

The problem with ‘seasonality’

Definitionally loose

A review of the conceptual writing on seasonality as well as the vast number of empirically based technical agricultural responses to seasonality leave a novice reader on the subject quite bemused and perplexed by the vagaries around definitions and concepts. First, the field is not definitionally tight, leading to a whole range of considerations being thrown into a seasonality pot. For some it is about predictability and cyclical changes related to weather and temperature. For others it is about predictability and cyclical changes over a range of factors, not just weather. Emerging literature introduces unpredictability and chaos into analyses of seasonality. Still others leave it undefined and simply focus on negative manifestations that occur periodically.

Inconsistent unit of analysis

Second, the unit of analysis is not consistent. At one level there exists an instrumentalist response in the form of technical innovations to smooth production and consumption inefficiencies that vary with the ‘cruel’ seasons. There is no limit to the number of studies that have been conducted and technologies implemented in this vein. Technical approaches to a study of seasonality (FAO) classically estimate seasonal effects on production and the necessary technologies to overcome seasonal constraints. Here we can think of the classic responses such as irrigation infrastructure, new crop strains that enable multiple cropping on an annual basis, and new energy-efficient technologies. The 70s and 80s also saw macro-level initiatives, such as grain reserve management and pan-territorial pricing as strategies to address seasonality. More recently these umbrella responses have given way to group or household level responses such as cash transfers and input subsidies. Although not explicitly stated, a commonality in all these instruments is the desire to stabilise income/production or consumption across the year (or across seasons). (Box 1, below, illustrates a typical instrumental response to the problem of seasonality.) At another level, the seminal work on seasonality (Chambers et al. 1981; Gill 1991 and Shan 1989) point to the integrated nature of seasonality and poverty, where seasonality defies definition, being nuanced by multiple and complex livelihoods. Seasonality is illustrated through an ‘integrated poverty lens’. Chambers states that:

Of all the dimensions of rural deprivation the most neglected is seasonality. Vulnerability, sickness, powerlessness, exploitation, material poverty, under-nutrition, prices. ... these are recognised, researched and written about. But among them again and again seasonality is overlooked and left out. Yet seasonality manifests in all these dimensions and in how they interlock. (Chambers, 2008: xvi)

This literature on seasonality moves the discussion away from technical responses to alleviate production and consumption inefficiencies to a call for a holistic response to addressing the many other inter-related effects of seasonality, such as health, labour, migration, malnutrition, education.

Climate as the binding constraint

Third, while the literatures are clearly differentiated according the remit of seasonality impacts addressed, most literature frames the relationship of the rural poor to agriculture in terms of changes in climate (rainfall and other weather conditions). There is a recognition that other

factors interact and thus become seasonal in effect also, but at the root of the analysis it is changes in weather patterns that is the fundamental binding problem. We would question this assumption based on the striking evidence from many northern countries that agricultural seasonality does not necessarily reflect seasonality of climate due to access to technology, such as irrigation, and international markets. We know that while seasons are very distinct in northern countries, consumption is largely aseasonal reflecting the ability of the more affluent to access food from around the globe all year around. Thus we want to critique the notion that changes in climate is the primary cause of downside seasonal impacts and instead think about wealth, and the politics of access and distribution as the fundamental drivers of the negative impacts of seasonality.

Seasonality as primarily a poor person's problem

The dependence of poor economies (particularly rural ones) on subsistence agriculture is a defining theme of much of the work on seasonality (Chambers *et al.* 1981; Gill 1991, Sahn 1989, Devereux *et al.* 2008). In fact, it is usually seasonally that poor rural people get poorer. Unfortunately, the proposed responses are not drawn out for the rich and poor / north and south alike and thus the work is heavily and erroneously framed as a poor-person's problem. Putting considerations of access and distribution at the heart of a seasonality analysis leads us to differentiate the impact of seasonality by location, wealth, gender and a range of other factors. Recognising the varied impacts across groups and socio-economic status also implies that we need to acknowledge the interconnectedness of prosperous a-seasonal living in one location or group with poverty entrenched seasonal livelihoods in another location or group.

By taking stock of understandings of seasonality, we wish, in this paper, to 1) position the seasonality discussion within the larger and established literature on risk and vulnerability and; 2) emphasise the problem of seasonality as inherently political as opposed to technical.

Seasonality and livelihoods

A prominent feature of poor rural livelihoods is their exposure to a variety of types and processes of **change** with shocks, trends, cycles (particularly seasonal cycles) and 'normal' random variation occurring in many different dimensions of the environment and interacting in their effects on prices, resource availability, resource productivity, and livelihood opportunities. Some of these changes are predictable in their occurrence (for instance seasonal variation) while others are not, and similarly some of the effects of change are predictable and others are not. Changes may be covariate (operating at macro- and meso-levels and affecting large numbers of communities and/ or people) or more idiosyncratic (affecting individual communities, households or people). Changes also arise within livelihoods, again with different patterns, dimensions and predictability. Some are the direct result of changes in exogenous factors (such as economic or physical factors) while others are more (but seldom completely) endogenous (for example accumulation or loss of assets as a result of household members' actions; or births, marriages and growing up and ageing processes affecting household demographics, consumption needs and labour resources). 'Endogenous' stresses may also be tied to relationships and power asymmetries within households or communities, relationships that create and exacerbate marginalisation and exclusion. New types and sources of change are also constantly emerging and affecting rural livelihoods in new ways as a result of global and

local processes and crises, including market liberalisation, potential impacts of climate change, the HIV/AIDS pandemic, civil conflict, and some aspects of the globalisation of agricultural trade.

The interaction of multiple objectives, multiple activities and multiple dimensions of predictable and unpredictable change means that poor rural livelihoods tend to be inherently complex so that any one change may have effects that are difficult to predict. An important consequence of the interactions between the multiple domestic and productive activities in poor peoples' livelihoods is that their productive activities are vulnerable to predictable and unpredictable stresses affecting their domestic activities, and vice versa. Thus adverse health (caused for example by accident, disease or ageing), food shortages, or major expenditures to meet social obligations or other domestic needs often affect labour and cash resources available for productive activities, with damaging short and long term effects. The stresses caused by the changes described above have profound implications for livelihood security and management and therefore also for growth and welfare. Understanding the sources and impact of these changes and stresses is critical for the design and implementation of policies supporting social protection and agricultural growth.

Seasonality represents a range of changes – it is predictable in occurrence, but the severity, cycle and resulting impact may be changing over time. As helpfully described by Hauenstein Swan,¹ seasonality represents the 'father of all famines', except it is predictable, analysable, and there are tested solutions to deal with its effects.' Critically what this quote does is distinguish between the notion of unpredictable shocks and predictable stress. Seasonality is concerned with perennial stress related to season and as such refers to events that are cyclical, periodic, repetitive, and generally regular and predictable in pattern. Of course, this does not mean that these events will be identical as we know from studying coping patterns and weather patterns over time trend patterns, severity patterns and lengths of seasonal effects are changing.¹

A review of the literature leads Hadley (2009) to conclude that 'seasonality, broadly, refers to anything exhibiting regular annual trends, like the weather.' However this does not necessarily imply predictability. For illustrative purposes 4 broad patterns of possible changes in seasonality effects can be identified:

1. Identical dips and ebbs in seasonal patterns
2. As above with upwards or downward trend
3. Dips of increasing length and closer together
4. Dips of increasing depth

The effects or impacts of seasonality as well as the effects of the changes in seasonality depend fundamentally upon individual, community and national coping mechanisms, or ability to manage the impact. The nature and content of portfolios of coping mechanisms and 'insurance' provisions are highly wealth dependent (where wealth here is understood broadly as income, assets, education, connections, etc). It is obvious then that the negatives effects of seasonality are disproportionately felt by poor people.

¹ (ie, an unexpected or extreme form of variation is not the same as seasonality – the difference is shock versus stress that contains an element of predictability).

Why Risk Management cannot locate seasonality

Armed with a familiarity with the broad literature on vulnerability and risk (Dercon, Holzmann, etc) it is tempting to react to ‘seasonality’ by asking why, as a livelihood stress, it requires special attention as compared to all the other types of livelihood stresses that people face. In fact, while conspicuously absent from the standard discussion of shocks in the WDR 2000/2001 and shock responses (see the classic social risk management framework), it appears to fit squarely within these established frameworks. Why then is it absent from this agenda? The answer is as follows. Dominant risk management frameworks deal with unpredictable shocks, not predictable stresses. We forward that this is because predictable stresses are, by nature, much more complex and complicated to model and provide technical fixes for; therefore, they are often left out of policy initiatives. Specifically, dominant risk management frameworks do not recognise the political and structure dimensions to shocks. As the effects of seasonality are so obviously played out through a maze of context specificity, relationships, and systemic rigidities, seasonality will never be able to locate itself within the currently conceived risk management policies. Below we discuss this more fully.

Risk management and why seasonality does not fit the mould

The World Bank’s Social Risk Management framework (SRM) has emerged as a dominant framework for conceptualising social protection. Social risk management “consists of a collection of public measures intended to assist individuals, households and communities in managing risks in order to reduce vulnerability, improve consumption smoothing, and enhance equity while contributing to economic development in a participatory manner” (Holzmann and Jørgensen 1999). The SRM framework is an analytical tool to identify alternative strategies and arrangements for dealing with risks, and it has four basic elements. First, ***the type of risk incurred***. This element traces the impacts of shocks and risks on various livelihood assets (financial, human capital, land, social assets). Second, ***the type of strategies to address income shocks*** which include risk reduction, risk mitigation and risk coping. Third, ***the type of instruments by formality of arrangements***. These range from informal or personal arrangements, such as real assets such as cattle or gold, community support; to market-based arrangements; to formal or publicly mandated or provided arrangements, such as rules, laws, social insurance, and welfare transfers. Finally, ***the type of institutions and actors involved***.

SRM implicitly defines shocks as changes that are unpredictable. Unpredictable shocks, such as death, floods, price shocks) impact a variety of capitals, (income, human, physical, natural). The framework does not accommodate slow onset shocks (impacts of HIV aids) or livelihood stresses more generally, such as discrimination, seasonality, alienation, chronic deprivations. This is perhaps a confusing observation as some of the most devastating processes in terms of poverty can be chronic and related to structure rather than related to exogenous unpredictable shocks. So why then does the SRM framework not deal with these types of stresses and risks? Probably because predictable stresses are much more messy to explain and address or ‘manage’ They are often the result of complex interactions between structural and exogenous change as well as having historical and cultural significance. Responses to predictable livelihood stresses such as exclusion, seasonality, aging and discrimination, disease and exclusion, seasonal health and consumption effects require a fundamentally different policy response than is offered by SRM – a policy response that must recognise structure constraints and deal with these.

Absent from the risk management framework is attention to chronic poverty. The ‘chronic poor’ include people who have never recovered from a severe shock, such as a disabling illness or loss of assets. Furthermore, due to their lack of resources and lack of options, cyclical stresses, such as seasonality, perpetuate the chronic and persistent nature of their poverty. In their analysis of chronic poverty and social protection, Barrientos and Shepherd (2003: 7) state that: “Although risk and vulnerability are key factors in explaining the descent into poverty, it is not clear ... how important they are in maintaining people in poverty, transmitting poverty from one generation to the next, and in preventing the interruption of poverty”. Importantly, Barrientos and Shepherd (2003: 3) highlight structural reasons related to “social, political and economic structures and relationships, and processes of exclusion and adverse incorporation”, that prevent some of the chronic poor from benefiting from development policies and market changes. The chronic poor “have fewer options, less freedom to take up available options, and so remain stuck in patterns of life which give them low returns to whatever few assets they have maintained” (Hulme, Moore and Shepherd, 2001: 8). Social, political and economic structures are typically the defining characteristics of livelihood risk, with the possible exception of some natural disasters - though even in these cases, the contribution of socio-political factors has persistently been under-appreciated (Bankoff, *et al.*, 2004). Seasonality, as one aspect of stress on livelihood, is part and parcel of the analysis of chronic poverty presented here. At the heart of the concern about the drivers of chronic poverty (seasonality being one factor) is the notion of vulnerability.

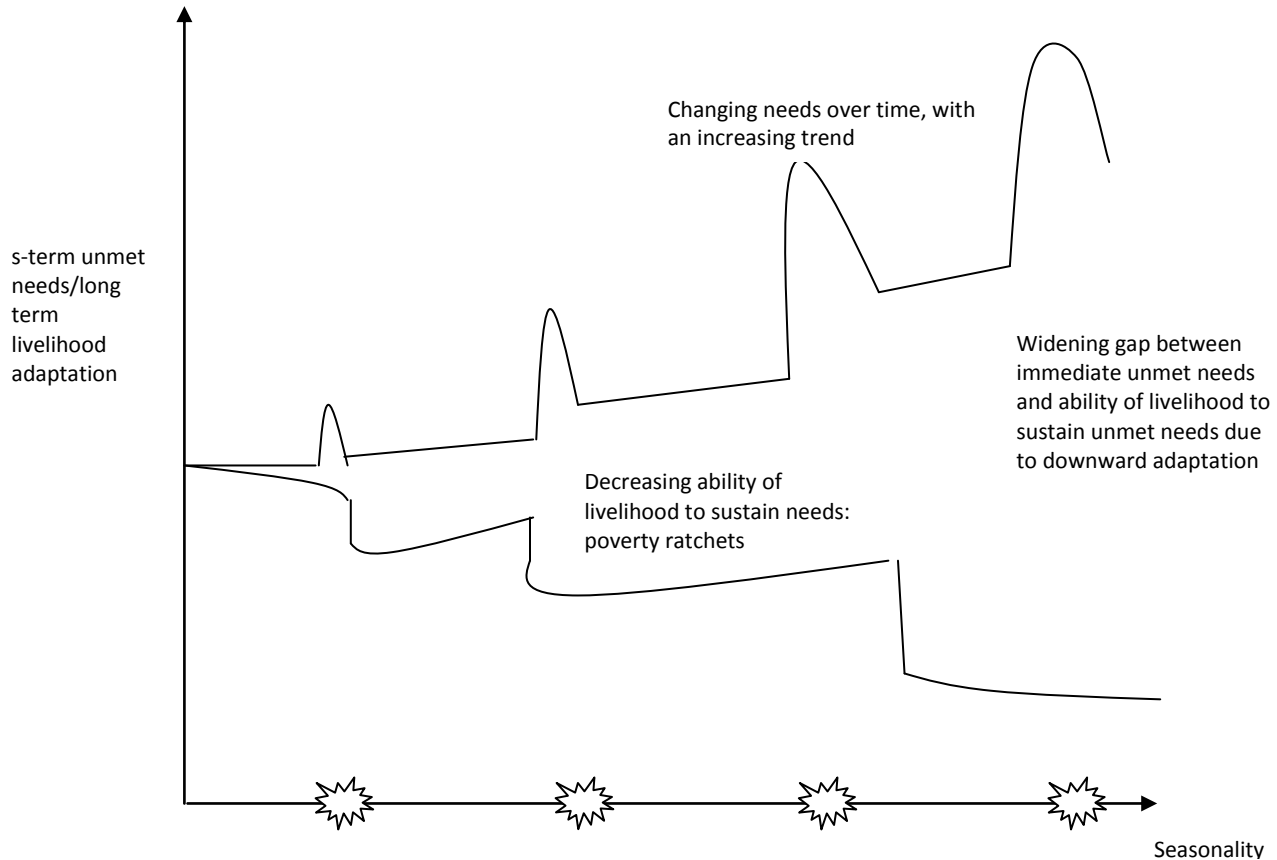
Vulnerability is typically defined as a function of exposure to a hazard (or shock) and the ability to manage the exposure. In order to fully understand the nature of vulnerability and an outcome of a shock, whether they are likely to be short or long-term, if they are changing over time and which groups of the population are likely to be more vulnerable, it is crucial that we understand what is meant by a shock and what is meant by ability to manage.

While we do not dispute the fact that income, consumption and assets are crucial in helping to overcome poverty and minimise livelihood shocks (as forwarded in the risk management literature), we would argue that ‘ability to manage’ is rather more complex than a simple focus on household income and asset portfolios. It is instead a complex function of existing behaviour, reflected in livelihood profiles that themselves represent long-term or structural adaptation to predictable shocks and stresses; crisis response behaviour (such as the ability to rely on formal and informal insurance and networks in times of crisis); and external (policy) responses to a predicted and actual crisis. Provision of consumption, income and asset insurance is only a partial response to vulnerability. An expanded view of social protection must incorporate responses to both chronic and structural vulnerability. Thus, an outcome of the effect of a seasonal episode, such as increased malnutrition, chronic poverty or increased food insecurity, depends on a complex array of factors that all need to be considered in policy formulation for risk and vulnerability reduction.

In a time of stress people respond by engaging in strategies to enable coping – be it in the form of consumption, income or asset smoothing (eg, borrowing, migration, eating less etc). In a period of stress ability to meet immediate needs is weakened and assets are hit, increase in vulnerability, increased need to support to manage crisis, settle back but probably not to original levels after the shock. The lines between shocks should be downward sloping. Ability to settle back to pre-shock level is constrained by the weakened livelihood. Overtime the repeated shocks increasingly weaken livelihood and so recovery is not as strong and the shock hits harder

next time. Clearly, seasonal episodes can act as regular shocks and serve to undermine livelihoods. To the extent that households are already living on the margins, repeated seasonal negative events can send them into destitution. The inability of the poor or disadvantaged (excluded) to recover from cyclical stresses leads to catastrophic problems. But seasonality per se is not the problem. It is the interaction of limited opportunities, disadvantage and weak fall back positions that is the problem.

Figure: Cumulative Effect of seasonality on Household Coping Strategies And The Ability Of The Livelihood To Sustain Needs Due to a slow onset Change.



The analysis above, from a risk and vulnerability perspective, resonates with work by Gill (1991). Gill conceptualises seasonal poverty through a simple mean-variance model pivots on mean consumption, critical consumption thresholds, inter-seasonal variation and inter-annual variation. Gill (1991) writes, “[the] full significance of a critical minimum level of consumption lies in the interaction between [inter-seasonal] and [inter-annual] variation in income around a low mean, since the critical level is clearly most likely to be reached in the hungry season of a bad year” (pp14). The analysis focuses on the interaction between rains, illness and poverty, and other shocks, that causes variation around a threshold that can push households to catastrophic consequences and actions. However, his analysis does not fully investigate the structural and persistent nature of these variations.

The implication of the reflections above for policy is that 1) seasonality is about the impacts on livelihoods of regular, cyclical fluctuations; 2) seasonality represents a predictable stress and as such needs to be built into risk management or social protection programmes in such a way that the programme is long-run, sustainable and appropriated timed; 3) seasonal effects are highly complicated, reflecting the way that different spheres of livelihoods are intimately connected and dependent upon each other, and 4) the way in which the impacts of seasonality are felt are location and group specific, but also mediated by systems of distribution and access.

To have policy traction seasonality requires 1) tighter definition; 2) a consistent unit of analysis and; 3) attention to differentiated impact. To minimise seasonal blind-spots, policy must recognise 1) seasonality as a predictable stress; 2) the complex and embedded nature of seasonality and; 3) that the impacts of seasonality are mediated by systems of access and distribution. Programme design needs to be sensitive to all these concerns. In the next part of this paper we look at the case of the Ethiopian Productive Safety Net Programme as an example of an initiative to recognise and address some aspects of seasonality and some of the difficulties of building these considerations into programmes design.

Case study: Seasonality and social protection in Ethiopia

Seasonality has significant impacts on well-being in rural Ethiopia, where livelihoods depend heavily on rain-fed agriculture. Ethiopians are acutely aware that seasonality is a major determinant of their poverty and food insecurity. In the World Bank's 'Consultations with the Poor' project in 1998: "Both urban and rural households listed seasonal variance in rainfall as the major cause of vulnerability" (World Bank 2006: 25).

Empirical evidence for the magnitude of seasonal variability in well-being comes from the Ethiopian Rural Household Survey (ERHS), a long-running panel survey that was implemented three times in 1994 and 1995 to capture seasonal effects (Dercon and Krishnan 2000). Across the panel of 1,411 households, food and non-food consumption were virtually constant between the first and third rounds, both of which were administered during the hunger season, but consumption was higher by 25% in the second round, which was conducted after the main annual harvest. These variations in consumption resulted in marked seasonal fluctuations in malnutrition. The percentage of adult males with a Body Mass Index (BMI) below 18.5 (a threshold for malnourishment) fell from 28% to 22% between rounds 1 and 2, but rose again to 26% in round 3. Mirroring these trends, the poverty headcount among the 1,411 households fell from 34.1% in the first hunger season to 26.9% around harvest time, then rose again to 35.4% in the next hunger season. The authors note: "These seasonal fluctuations are striking and not confined to a particular poverty line" (Dercon and Krishnan 2000: 32).

The Government of Ethiopia has introduced various social protection measures to address seasonal (as well as chronic and transitory/ acute) food insecurity. Every year since 2005, the government has delivered cash and/or food transfers to 7-8 million Ethiopians through the donor-supported 'Productive Safety Net Programme' (PSNP). After South Africa's extensive social grants system, this is the largest social protection programme in sub-Saharan Africa. A remarkable feature of the PSNP is that no mention of 'seasonality' can be found in any programme documentation, yet even if the PSNP was not conceptualised as a seasonal safety net, it is clearly seasonal in its design and implementation. For instance, the Programme

Implementation Manual (PIM) does not specify when the PSNP should be implemented, but in practice it is scheduled to run from January through June each year, stopping before the heavy rains – and peak on-farm labour requirements – of July-August.

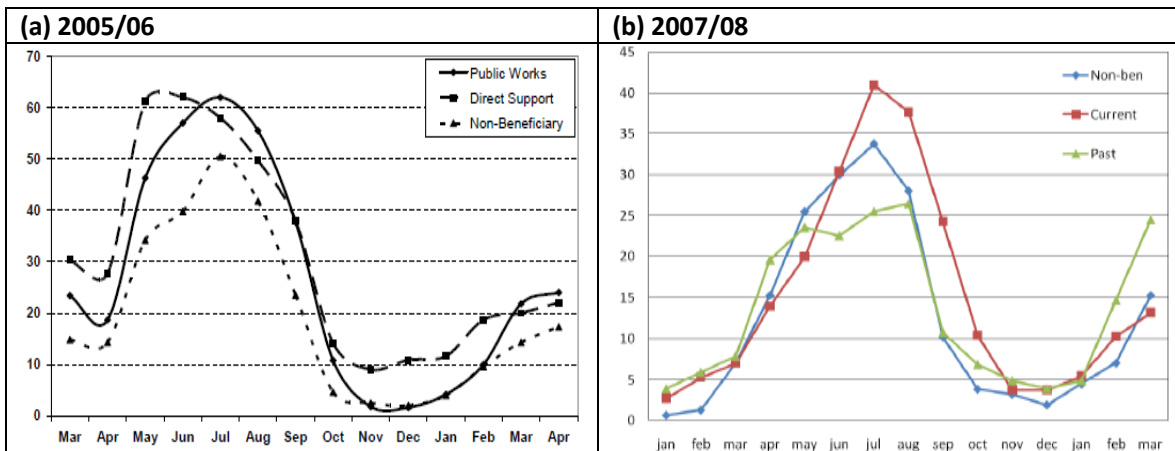
The Productive Safety Net Programme illustrates several points about seasonality and risk management that have relevance to social protection in Ethiopia and elsewhere, but are often overlooked. Several of these points are discussed as ‘lessons’ below. To summarise our key findings about seasonality: ***seasonality is relatively predictable in its timing and regularity, but not in the severity of its impacts across either individuals or places.*** Our evidence from two evaluations of the PSNP, which we led in 2006 and 2008, also provides several lessons for the design of counter-seasonal food security and social protection interventions. Summarising: ***social protection interventions can mitigate the adverse impacts of seasonality, but only if they are sensitively designed and delivered at the right time.***

Lesson #1: Seasonality is relatively predictable in its timing and regularity

The main (*Meher*) rains in Ethiopia fall between June and August, while many farming areas also have a second (*Belg*) rainy season between March and May. Household food security in rural Ethiopia depends on good *Meher* and/or *Belg* rains, but in recent years *Belg* rains have become particularly erratic and there have been several failed harvests in the past decade.

Seasonality in rainfall translates directly into seasonality in food availability and, especially in unimodal systems, seasonal hunger. Figure 1 illustrates the prevalence of self-reported food shortages by month in rural Ethiopia, disaggregated by PSNP participation status (Public Works participant, Direct Support beneficiary, non-participant in 2005/06; current beneficiary, past beneficiary in 2007/08). Figure 1a presents the results for 2005/06, while Figure 1b shows responses to the same question for 2007/08. Both figures illustrate that the experience of food insecurity in rural Ethiopia is markedly cyclical, peaking in mid-year (May-August) and being lowest around the turn of the year (October-January). The similarity in the shape of the graphs across the two periods confirms that cyclical food insecurity is predictably seasonal in nature, and is related to the timing of rains and harvests.

Figure 1. Self-reported food shortage in rural Ethiopia, by month and PSNP status

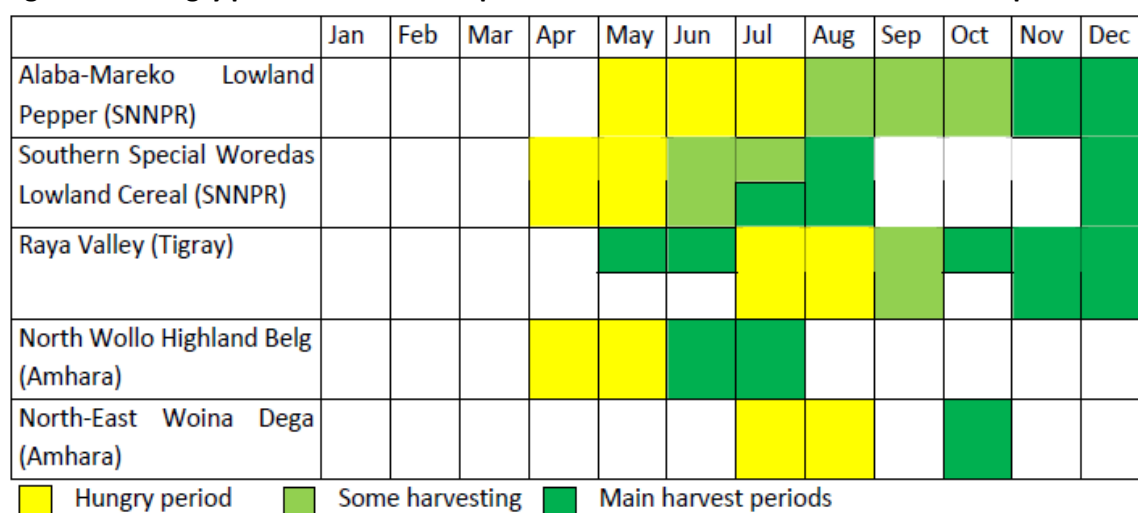


Source: Devereux *et al.* (2006, 2008)

Lesson #2: Seasonality impacts differently in different areas

‘Predictable’ seasonality does not mean that the cycle is identical everywhere. Across Africa, the shifting Inter-Tropical Convergence Zone (ITCZ) brings rains at different times of year, so that (for instance) the main annual harvest occurs in March-April in Malawi but in August-September in northern Ghana. Even within a single country, rainfall patterns can vary from north to south, and this is true in the case of Ethiopia. Figure 2 illustrates the consequences of variability in rainfall regimes on the timing of the annual harvests (and hence of the pre-harvest ‘hunger season’) in different parts of rural Ethiopia. In most areas, as noted, the *Meher* rains fall between June and August and the main annual harvest occurs towards the end of the year (November-December). In areas that have *Belg* rains (March-May), however, the harvest – or the first of two harvests – occurs in mid-year (June-July). As a result, the ‘hunger season’ occurs as early as April-May in some areas, but as late as July-August in others.

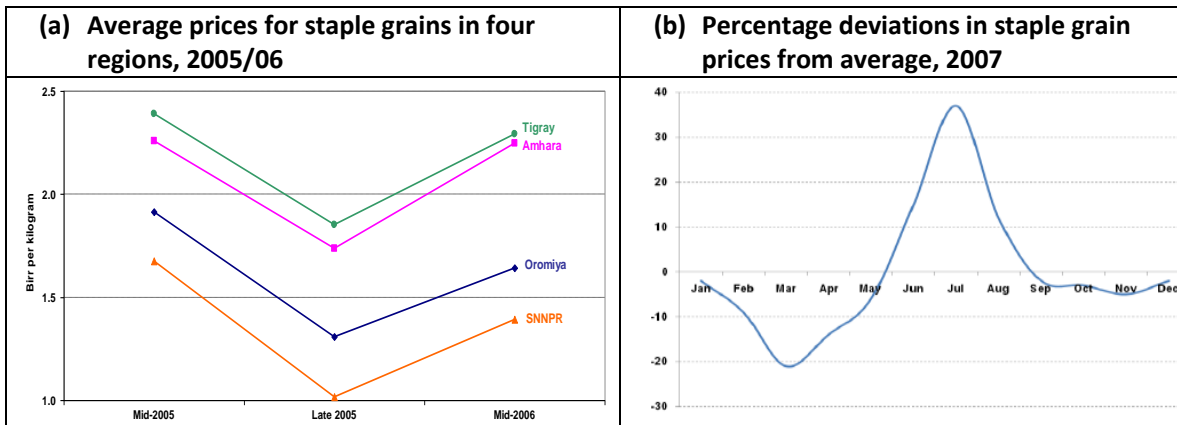
Figure 2. Hungry periods and harvest periods in selected livelihood zones of Ethiopia



Source: SC-UK (2008: 8)

Differences in seasonal rainfall cycles translate into different impacts – or different severity of impacts – in different places. This is strikingly evident in Ethiopia by comparing seasonal trends in food prices across different regions. Figure 3 reveals a pronounced seasonality in prices of staple food crops (averaged across the four most widely consumed food grains – barley, maize, sorghum and wheat) throughout rural Ethiopia, with prices being highest during the hunger season in mid-year, and lowest in the harvest period towards the end of each year. However, disaggregation by region reveals that grain prices are consistently highest in northern Ethiopia (Tigray), lower in central Ethiopia (Oromiya) and lowest in southern Ethiopia (SNNPR).

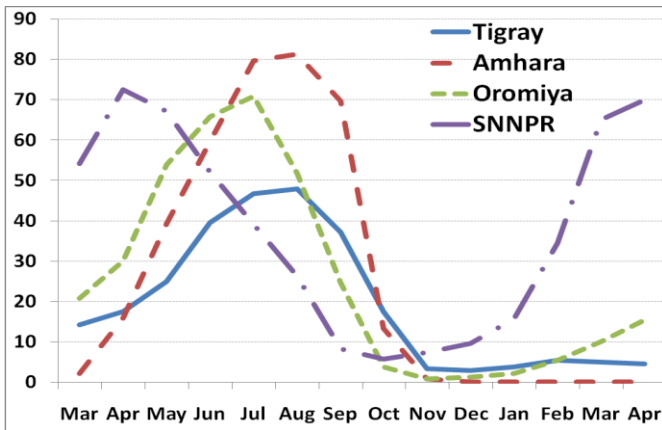
Figure 3. Food price seasonality in Ethiopia, 2005–2007



Source: Devereux *et al.* (2006, 2008)

The combination of seasonality in rainfall and food prices generates differences in the timing of food insecurity across regions. Disaggregating self-reported food shortage by region reveals that the most food insecure months in northern Ethiopia (Tigray) are July-August, but in southern Ethiopia (SNNPR), food insecurity peaks earlier in the year, in March-April (Figure 4).

Figure 4. Self-reported food shortage in rural Ethiopia by regions, 2005/06



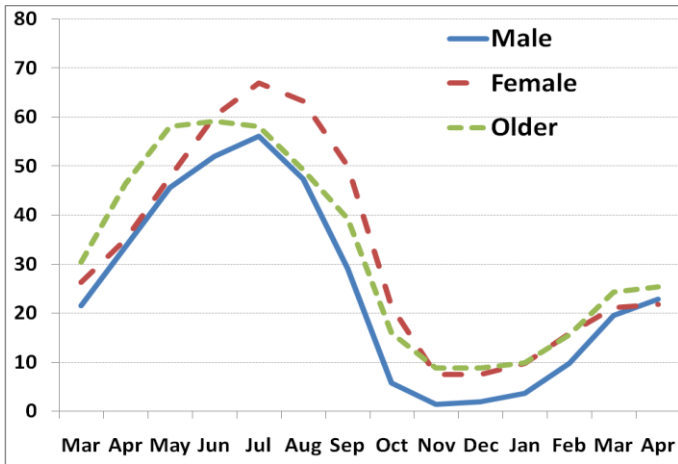
Source: Devereux *et al.* (2006)

Lesson #3: Seasonality affects different people differentially

People who are poor and lack ‘asset buffers’ – including savings and social networks (Swift 1989) – are more vulnerable than others to the worst consequences of seasonality. Our findings from Ethiopia confirm that female- and older-headed households – two widely recognised ‘vulnerable groups’, in Ethiopia and elsewhere – face consistently higher levels of food insecurity than do male-headed households (Figure 5). Even though all household types face deteriorating levels of food insecurity during the annual ‘hunger season’ (May-August), households headed by women and older persons are more likely to go hungry (in every month of the year). Female-headed households also suffer most intensely, followed by older-headed households, as is evident (from other survey data) in the ‘coping strategies’ they are forced to adopt, including rationing food

consumption more severely. For instance, during the peak of the hunger season in 2005, average meals per days dropped to 2.0 in male-headed households, but to just 1.9 in female- and older-headed households (Devereux *et al.* 2006). Nonetheless, male-headed households are almost as badly affected by seasonal hunger, and should not be overlooked since they comprise the majority of food insecure households in absolute numbers.

Figure 5. Self-reported food shortage in rural Ethiopia by household head, 2005/06

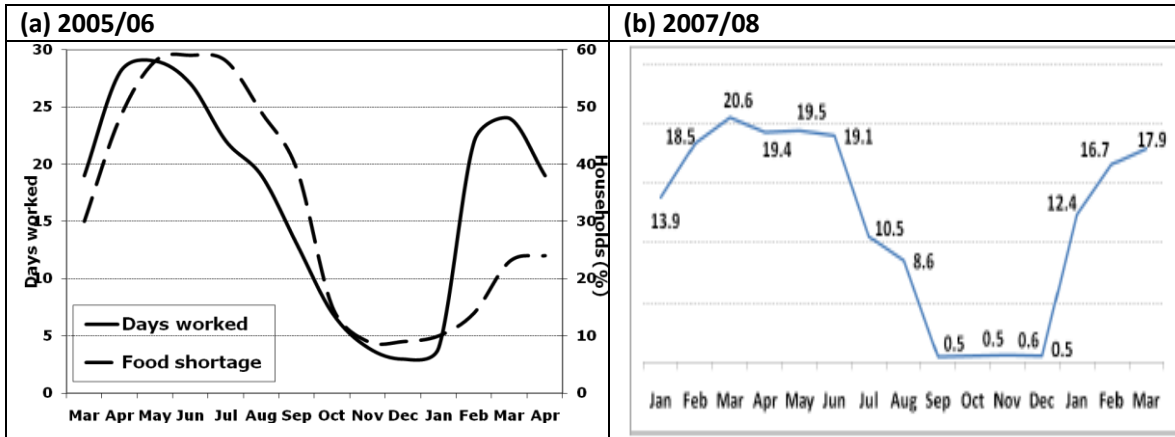


Source: Devereux *et al.* (2006)

Lesson #4: Well-timed interventions can mitigate the worst consequences of seasonality

The PSNP operates as a seasonal safety net, providing public works employment for people in rural Ethiopia who can work and unconditional transfers for people who cannot work, between January and June each year. The logic for this timing is that food insecurity is high in the first half of the year but generally lower towards the end of the year (as seen in Figure 1 above) – so the PSNP intervenes to provide social assistance to support households that face seasonal food deficits through to the next harvest. This seasonality can be clearly seen in Figure 6b – PSNP households worked between 14 and 21 days on public works projects every month between January and June in 2007, but this fell to 10.5 days in July and 8.6 days in August. From September to December the PSNP was closed, and days worked on public works fell to zero, before the next cycle began in January 2008. A similar employment cycle was followed in 2005/06. Figure 6a overlays days worked on PSNP public works with percentage of households reporting food shortage by month, and finds a striking correlation. The peak hunger period in these households is April-June, and these are also the months of peak PSNP activity each year.

Figure 6. Average days worked on PSNP public works by household per month, 2005/06 and 2007/08



Source: Devereux *et al.* (2006, 2008)

Lesson #5: Work requirements can undermine the effectiveness of seasonal safety nets

It is well known that the hunger season in tropical countries peaks during the pre-harvest months, which is also the farming season when labour demands on-farm are highest. For this reason, delivering social protection through public works programmes is problematic, because the work requirement means that farmers have to choose between working for food or cash on public works, or tending their fields to secure a good harvest – effectively a choice between food today or food tomorrow.

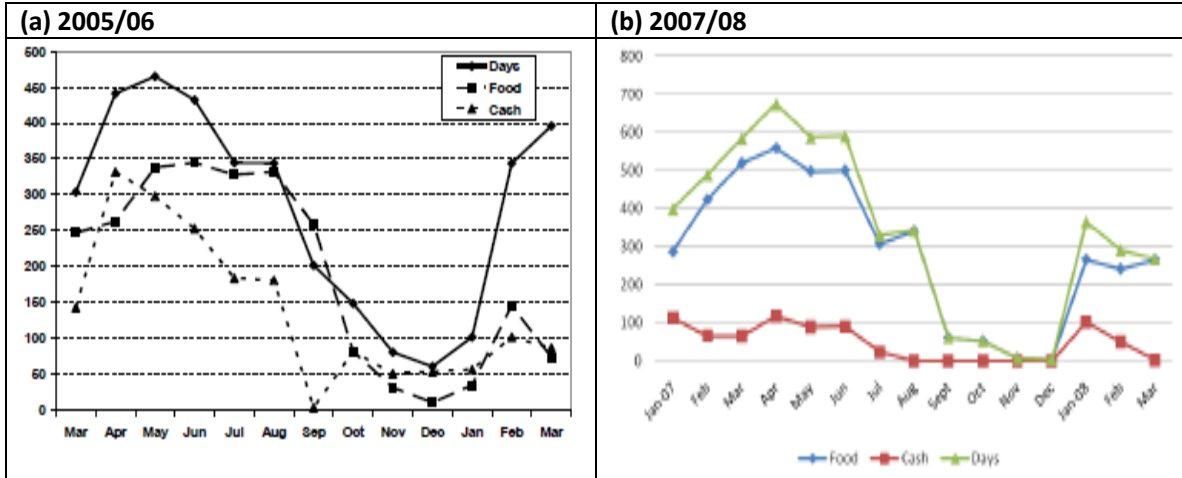
The PSNP delivers ‘seasonal social protection’ through two modalities: public works (which delivers transfers with a work requirement to over 80% of programme participants) and ‘direct support’ (unconditional transfers of cash or food to people who have no labour for farming or public works, reaching less than 20% of programme participants). Public works are supposed to stop before the farming season, but in both 2006 and 2008, PSNP participants in our survey complained that public works overlapped with their farming activities and with opportunities for paid agricultural work on other farms, for two reasons. Firstly, in 2005, when the PSNP had just started, public works projects were slow to get going, and activities continued in many places until as late as October (Figure 7a). Secondly, in ‘Belg-dependent’ areas, PSNP public works competed directly with family labour needs for farming during the March-May rainy season.

Unconditional transfers do not compete with on-farm labour requirements, but ‘direct support’ has also been adversely affected by the timing of PSNP public works projects. Because ‘direct support’ payments are made at the same time as payments to public works participants, delays in payments affected both categories equally. Furthermore, payments were often late (weeks or even months after work was completed), so food rations or cash wages were disbursed until November or even December in a few cases – i.e. during or after the harvest, when the need for food or cash is considerably less urgent than during the hunger season.

By 2007 this competition for household labour had receded to some extent, as programme efficiency improved and most public works activities finished earlier (by August). PSNP officials also built some flexibility into the schedule: public works stopped for a few days at times during

the Belg rains to allow farmers to work in their fields. Moreover, the lag between working and being paid had been almost eradicated. No food or cash payments were reported after August until the PSNP restarted in January 2008 (Figure 7b).

Figure 7. PSNP participation and payment by month, 2005/06 and 2007/08

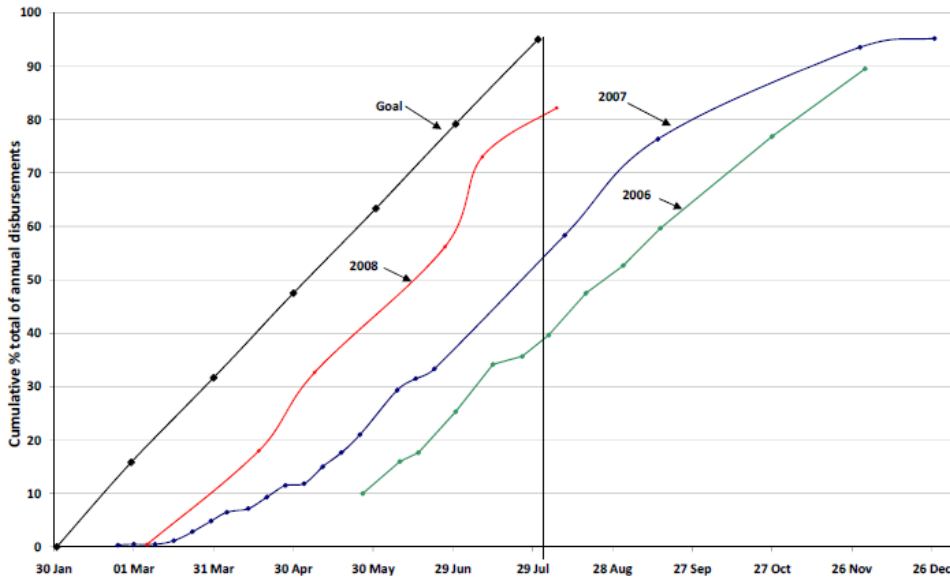


Source: Devereux *et al.* (2006, 2008)

Delays in payments are significant quite apart from their impact on farming and other livelihood activities, but also because they undermine the consumption smoothing objective of the PSNP. As noted above, seasonal food insecurity in Ethiopia manifests in reduced consumption and high rates of malnutrition in the ‘hunger season’, and the timing of the PSNP is intended to bolster food consumption precisely during these months. Late disbursements mean that PSNP cash or food transfers fail to address household food deficits during the ‘hunger season’.

Figure 8 shows how the time-lag in disbursement of PSNP cash transfers has shortened each year since 2006, from a very poor performance in 2006 to slightly better in 2007, to approaching the goal by 2008. This is likely to result in enhanced household food security, through positive impacts both on farming and on consumption smoothing.

Figure 8. Timing of PSNP cash transfer disbursements, 2006–2008



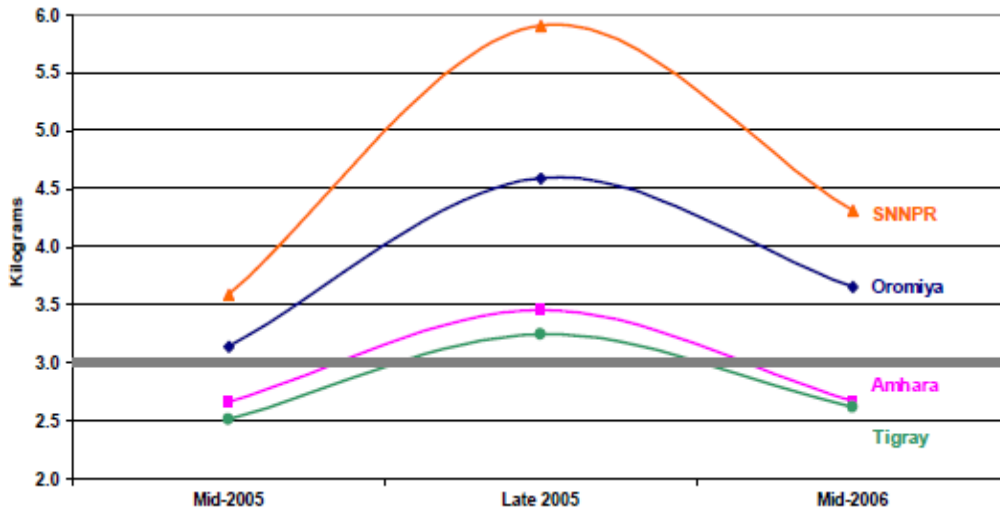
Source: SC-UK (2008: 8)

Lesson #6: Design flaws can undermine the effectiveness of seasonal safety nets

One objective of the PSNP was to shift humanitarian assistance programming in Ethiopia away from food aid towards cash transfers. In *woredas* (districts) with sound administrative capacity and well functioning markets, PSNP participants were paid in cash rather than food. The intention was to allow cash recipients to make their own choices about their food and other purchases, thereby allowing them to meet a wider range of basic needs while stimulating local production and trade. While these are powerful arguments in favour of cash transfers, there are problems associated with cash transfers that PSNP managers did not foresee.

Firstly, we saw above (Figure 3) that average food prices vary significantly across Ethiopia. The PSNP cash transfer was set at 6 Birr – enough to buy 3kg of staple cereal, the same as the WFP food ration – at prices prevailing in 2005. Because of localised price variability, 6 Birr could purchase 3.5kg of grain in southern Ethiopia (SNNPR) in mid-2005, but only 2.5kg in northern Ethiopia (Tigray) (Figure 9). So the PSNP objective of ensuring household food security was achieved in SNNPR and Oromiya regions, but not achieved in Tigray and Amhara regions. Seasonal price fluctuations meant that 6 Birr was more than enough to buy 3kg at harvest time in late 2005, making it appear that the transfer was adequate on average over the year – but seasonality makes ‘averages’ irrelevant. The critical issue is that during the ‘hunger seasons’ of mid-2005 and mid-2006, PSNP participants could not meet their subsistence food needs through PSNP cash transfers.

Figure 9. Purchasing power of PSNP cash transfer by region, 2005/06 (kg of staple grain for 6 Birr per day)



Source: Devereux *et al.* (2006)

Secondly, on top of seasonal cycles, food prices tend to increase over time, and this natural inflation was compounded, in Ethiopia as elsewhere, by the global food price crisis of 2008. By mid-2008 staple grain prices in Ethiopia had trebled since 2005, but the PSNP cash transfer had been increased by only 33%, from 6 Birr to 8 Birr per day. Failure to adjust cash transfers to account for either seasonal price variability or food price inflation undermines the purchasing power of the cash, especially at times of year when food is scarcest and hunger is most severe.

Conclusions

It is clear that attempts have been made by the PSNP to address the chronic nature of poverty in Ethiopia and its relationship to seasonality and annual cycles. Providing transfers for 6 months of the year, and in particular for the food insecure months, is a worthy design detail. Seasonal blindness continues to hamper optimal outcomes, as we see in the competing labour demands of public works requirements and on-farm labour demands. This is perhaps a technical design point that can be rectified. We also see seasonal price variations that are location specific that would need to be factored into a more efficient social transfer design. The more worrying lack of seasonal awareness is reflected in the distributional delays in transfer payment and the inability of the nature of payment to respond to beneficiary preferences. Whether we are asking too much of a social transfer programme is a question worth asking, however, at a minimum some design changes at the margins around seasonal fluctuations would have a large impact on chronic poverty outcomes.

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