



High levels of undernutrition persist in many parts of the world; the UN projected a severe acute malnutrition (SAM) caseload of 1.02 million children under 5 in the Sahel region for 2013.¹ These unacceptable rates demonstrate that **current strategies to address undernutrition are insufficient**. Change in the way business is done is needed. Action Against Hunger | ACF International (ACF) believes that by incorporating a seasonal perspective to all aspects of our work – from tools used for programme design to choice of indicator monitored in surveillance systems – combined with national governments' commitment to implement policies which counter the adverse effects of seasonality – this change will happen. Governments have a real opportunity to reduce the number of people affected by seasonal undernutrition, addressing immediate needs and simultaneously building resilience to recurring crises. Strong analysis of the seasonal variation in the underlying causes of undernutrition is pivotal to this approach.

KEY MESSAGES

- Seasonality is integral to livelihoods for the majority of the world's poor. Repeated exposure to seasonal stress may lead to use of erosive coping mechanisms which in turn undermines households' ability to cope in the long term.
- To counter the adverse effects of seasonality, a seasonal perspective must be built into national governments' poverty reduction and resilience building strategies. At minimum, governments need to scale up seasonal social protection and pre-position health and nutrition stocks in risk prone areas well before the onset of the lean season.
- A flexible long-term perspective is needed; attempts to use short-term humanitarian funding alone to address seasonality are futile. Financing mechanisms must facilitate the integration of humanitarian response into development funds, and must be flexible enough to allow practitioners to adapt their activities to suit an evolving context, with rapidly changing needs.

Action Against Hunger | ACF International is an international humanitarian organisation committed to ending child hunger. Recognised as a leader in the fight against malnutrition, ACF works to save the lives of malnourished children while providing communities with sustainable access to safe water and long-term solutions to hunger. With 30 years of expertise in emergency situations of conflict, natural disaster and chronic food insecurity, ACF runs life-saving programmes in some 40 countries benefitting nearly 5 million people each year.





INTRODUCTION

This paper originates in the need to put seasonality firmly back on the agenda. Evidence suggests that for millions of poor households around the world, there is a particular time of year when ‘normal’ coping strategies are stretched and the risk of undernutrition elevated: the lean season. The problem is that for many poor households repeated exposure to these seasonal stresses leads to the use of erosive coping mechanisms which in turn undermines households’ ability to cope in the long-term. Indeed, as witnessed in the Horn of Africa in 2011 – where over 12 million people were affected – and a year later in the Sahel – where over 18 million people were affected – the cumulative effect of repeated seasonal shortfalls is devastating. This is not acceptable and is avoidable.

This paper demonstrates the importance of bringing seasonal thinking back into the various current hunger and nutrition debates in order to improve the effectiveness and impact of global efforts to tackle undernutrition. The current interest surrounding the broader resilience agenda and the drive for early warning to be translated into early action indicates

gathering momentum within the international community; for ACF this is an opportunity for seasonality to be brought back to the fore.

There are two parts of this paper. The first section provides the context: seasonality is defined and links with undernutrition are examined. This section also examines why analysis of seasonality is so important for stakeholders concerned with building resilience to recurring crises. Then, a clear set of recommendations which together make up a seasonal approach to addressing undernutrition from both programme and policy perspectives, is outlined.

SEASONALITY DEFINED

Seasonality refers to any regular pattern or variation that is correlated with the seasons. Adverse seasonality describes the potentially damaging consequences for human wellbeing of seasonal fluctuations in the weather and the full range of its associated impacts on lives and livelihoods.² Seasonality has been acknowledged by rural development experts since the seventies and by communities for centuries.³ As Robert Chambers noted back then, and again more



recently: *“As a dimension of poverty, seasonality is as glaringly obvious as it is still grossly neglected.”*⁴ Seasonality is predictable and regular in its occurrence but its precise timing, severity and impacts vary from year to year. Many studies have been done, all of which point to the integrated nature of seasonality and poverty, recognising that the negative effects of seasonality are felt disproportionately by poor people.⁵ That said, poverty is not the only determining factor; where you live – the livelihood zone – also determines the extent to which a household is affected by seasonality. For example, a poor household living in a pastoral zone of Ethiopia will be affected in a different way to a poor household in an agro-pastoral area.

It is well known that climate-related hazards are expected to magnify seasonal stresses on livelihoods, food, nutrition and water security.⁶ Increased water stress and heightened disease prevalence due to climate change have a direct effect on household food security and nutritional status. Also, climate change has a direct impact on the multiple underlying causes of undernutrition (food security, health, care practices and water and sanitation). It puts increasing pressure on households’ asset base with unpredictable harvests leading to variable food prices which in turn may lead to longer hunger gaps. Seasonality manifests itself in multiple dimensions of livelihoods – food availability, health, prices, employment, access to services – so accurate diagnosis and response is a challenging task. The ways in which seasonality interplays with the underlying causes of undernutrition are complex, but with the right tools, they can be analysed to enable more efficient and effective policies and programmes. ACF has developed a multi-sectoral seasonal calendar tool, which endeavours to do just that; further explanation is provided in Box 1, page 5.

Seasonality is integral to livelihoods for the majority of the world’s poor; their lives and livelihood options revolve around the seasons. They adopt different strategies throughout the year to provide food and earn income for their families. ACF’s 2008 publication,

‘Seasons of Hunger’ sets out an intervention framework for fighting seasonal hunger which addresses the immediate needs of families while also building their long-term resilience at the programme level. The framework includes interventions for the emergency phase through recovery to development. Emergency assistance targets those suffering from seasonal hunger and in need of immediate help. Social protection interventions aim to prevent households falling into hunger by limiting asset depletion through a combination of cash transfers, seasonal employment, price control and other policies. Agricultural livelihoods initiatives focus on improving productivity through better access to key inputs and work towards a time whereby rural households have high enough incomes so they do not need to access social protection safety nets.⁷ Water, sanitation and hygiene (WASH) interventions focussing on safe water supply, improved sanitation and hygiene promotion seeking to reduce risks of infections, an immediate cause of undernutrition, should also be added to the framework.

Traditional rural risk analysis and response are designed to deal with unpredictable shocks and model seasonality as a climate triggered shock. Seasonality is in fact a predictable stress requiring longer term tailored interventions implemented in parallel with those that are more short term. Perhaps one of the reasons this has happened is because traditional development approaches combine elements of Disaster Risk Reduction (DRR) and social protection, but fail to recognise that the impact of seasonality is mediated by systems of access and distribution, which makes seasonality a political not just a technical issue. Risk management and social protection programmes may partially smooth income and consumption over the year and go some way towards enabling households to cope with living in highly seasonal environments. However, it is the interaction of cyclical stresses with chronic deprivation, limited opportunities and weak fall back options that leave poor people unable to live ‘a-seasonal’ lives.⁸

⁴ Chambers, R., 2009 ⁵ Ibid ⁶ ACF 2010 ⁷ Hauenstein Swan, S., Vaitla, B., Devereux, S., 2008

⁸ Sabates-Wheeler, R., and Devereux, S., 2012



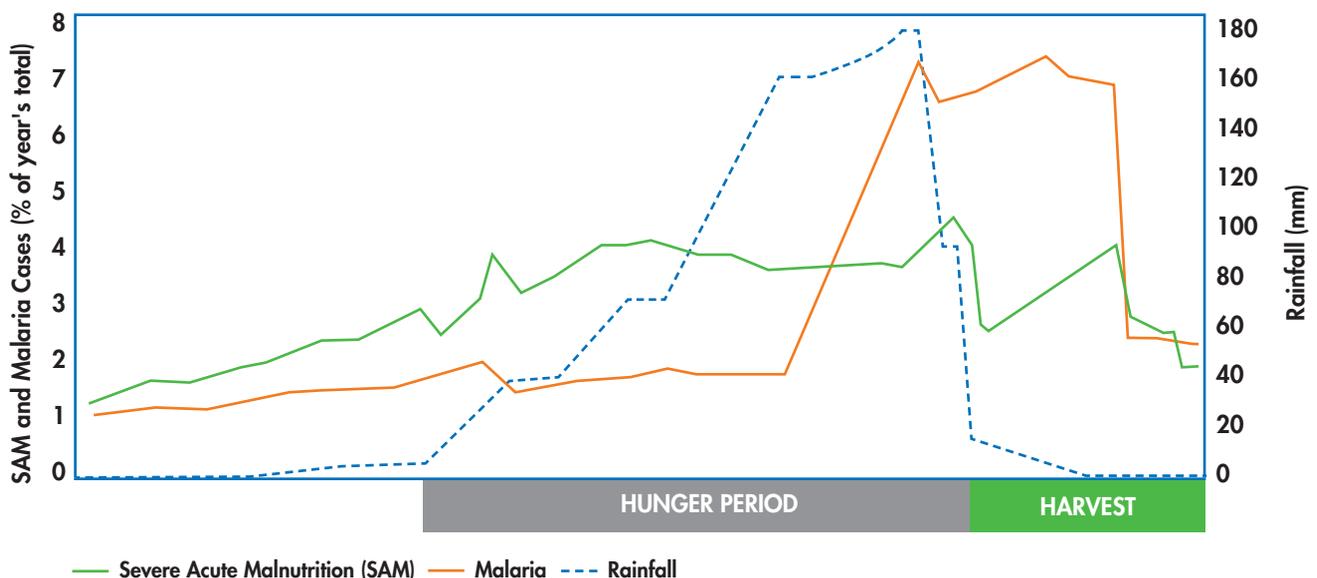
SEASONALITY AND UNDERLYING CAUSES OF UNDERNUTRITION

All of the underlying causes of undernutrition (inadequate care practices, poor public health and food insecurity) are subject to seasonal variation.⁹ Care practices change as work requirements change, which may be directly related to the agricultural cycle but also to off-farm income earning opportunities. It is not unusual for women to leave their infants with relatives while they are at work; this can mean that breastfeeding stops early or that weaning foods which may not be age appropriate are introduced earlier than recommended. Seasonal variations in temperature and rainfall can significantly impact public health risks and disease incidence. For example, the incidence of disease often peaks during the rainy season. At this time, households' access to good quality water can become difficult as can access to health centres in the event of disease outbreak. In terms of food security, availability of food decreases prior to harvest periods for agricultural producers and prior to rains for pastoralists. At the same time, food prices rise due to limited availability further impeding access for the majority of households reliant on the market to cover at least some of their food needs. This period

is commonly known as the 'lean' season, or hunger period, when many households are teetering on the edge of food insecurity, and usually coincides with the rainy season, when disease strikes hardest. The end result is seasonal peaks in acute malnutrition, as shown in Figure 1, below.

For poor households, opportunities to generate food and income vary throughout the year. Having a detailed understanding of the diverse livelihood activities and coping strategies which people employ at different times throughout the year is critical.¹¹ It is also imperative to analyse seasonal risks related to water, disease and sanitary environment. By understanding households' seasonal variations in livelihood options, and the seasonal variations in the other underlying causes of undernutrition such as inadequate sanitation or poor health, we are more likely to come up with appropriate policies and interventions which are directly relevant and specific to people's needs. We know that poor households rely heavily on the market to cover their food needs increasingly after harvests have run out. But affordability of food is not solely determined by food prices; it is also related to income and purchasing power which can change dramatically between seasons.

FIGURE 1: SEASONALITY IN UNDERNUTRITION, MALARIA AND RAINFALL IN NIGER, 2007¹⁰



⁹ See UNICEF 1990 ¹⁰ Vaitla, B. et al 2009 ¹¹ Save the Children has developed a seasonal perspective in its Cost of Diet Tool.

Identifying periods of low or high purchasing power is important to determine when household vulnerability is greatest.¹² Levels of social capital are also critical for poor households; the ability to draw on community networks in times of stress is key.

Understanding gaps in food affordability as well as prevailing public health risks, and how they change across the year, will help identify periods when households are particularly vulnerable and when nutrition outcomes are most affected. A systematic approach is required to measure and understand these factors throughout the year. More evidence is needed on the effect of seasonality on nutrition outcomes. We know that underlying causes of undernutrition are seasonally variable, but stakeholders do not have sufficient evidence across different contexts – drought, flood etc. – on exactly how that variability relates to nutrition outcomes. Thinking ‘seasonally’ in the planning process will help to accelerate progress towards reducing seasonal peaks in undernutrition.

Detailed seasonal analysis of the underlying causes of undernutrition will enable national governments, donors and other stakeholders to better understand the seasonal nature of undernutrition and implement appropriate policies and practices to build communities’

resilience to nutrition crises. National governments are not in a position to implement year round social protection activities, nor is it desirable for them to do so. Governments may lack the fiscal, administrative and/or infrastructural capacity to finance and deliver effective social protection year round. Seasonal social protection is the next best option, it is a starting point. By adopting a seasonal perspective, donors will be able to support governments to anticipate seasonal fluctuations in undernutrition and implement interventions accordingly.

At the programme level, seasonal analysis will enable NGOs to identify which types of programmes should be implemented at different times of year. Labour intensive activities, for example, should be implemented when participants do not have competing labour demands which might prevent them from participating (such as during the planting or harvesting periods). This was found to be an important lesson for the Ethiopian Productive Safety Net Programme (PSNP). Here, the hunger season peaks during pre-harvest months when demand for labour on the farm is highest. Delivering social protection through public works at this time of year is problematic because farmers have to choose between working on their own farms and participating in public works programmes.¹³ Seasonal

BOX 1: ACF’S MULTI SECTORAL SEASONAL CALENDAR TOOL

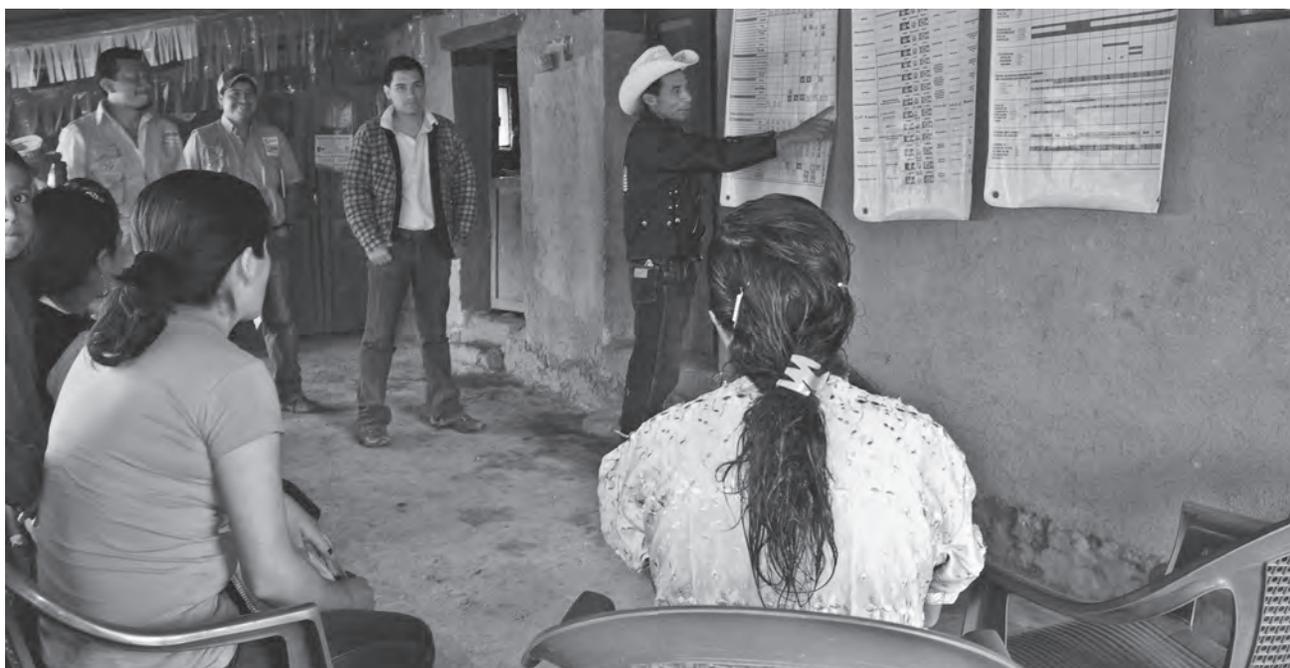
ACF uses the seasonal calendar tool to conduct rapid multi-sectoral analyses in order to better understand nutrition insecurity and the fluctuations (in particular, the peaks) of severe acute malnutrition in a given area of operation. By using the calendar, ACF will develop its seasonal thinking for strategic programming. Users will gain a seasonal perspective on all factors contributing to the risk of undernutrition. The tool allows users to build a clearer picture of the main characteristics of each season: the seasonal variation of undernutrition; identified risks – climate-related and other (e.g. malaria); caretaker and livelihood activities; staple food price fluctuations access to water etc. The calendar will also identify cultural events which may increase household level cash needs. The tool has been rolled out across the ACF network and feedback is good: it is easy to use at both community and macro level, enabling comprehensive information collection in a short time. Furthermore, it is easy to triangulate through information collection at different levels from the community to the national level. Application of the tool facilitate coordination between sectors (health, WASH, FSL) and it is essential for planning seasonally sensitive interventions, enabling stakeholders to identify the times of year in which particular risks are heightened and so plan accordingly.



¹² Berton, H., Hilton, J. and Taylor, A., 2009 ¹³ Devereux, S., Sabates-Wheeler, R., Longhurst, R., (eds.) 2012

employment programmes and other social protection interventions such as cash transfers, *warrantage* and destocking/restocking activities should be implemented at the appropriate time to ensure that households do not have to employ erosive coping mechanisms (such as reducing food intake or selling assets) which may compromise their capacity to cope with the next crisis in order to meet their immediate food needs.

Careful seasonal analysis will also determine which indicators should be monitored throughout the year. It is not enough simply to monitor staple food prices in the market; the impact of food price increases differs depending on income group and on proportion of household income spent on food.¹⁴ For example, the effect of a food price increase on a household that spends 10% of its income on food is far less severe



BOX 2: COMMUNITY SURVEILLANCE IN GUATEMALA

ACF Guatemala has been implementing an integrated programme combining cash-for-work (CFW) programmes with nutritional surveillance at the community level since 2010. The CFW element of the programme involved identification, cleaning and disinfection of contaminated wells as well as restoration of emergency health infrastructure. Therefore, as well as strengthening essential infrastructure, the CFW programmes have increased cash availability at the household level and helped vulnerable households through seasonal lean periods. Also sentinel surveillance sites have been set up in various locations and community representatives and government personnel have been trained. This has led to increased accountability of government workers. A coherent system is now in place in which community representatives gather relevant indicators (nutrition admission rates, prices, and climate related data) at regular intervals. The indicators collected are context specific and are selected by the communities themselves based on local people's extensive knowledge of their own communities. Furthermore, thresholds for intervention are also decided upon by communities. Information flows from community to municipal, regional and national levels. Trained committees at regional and national levels are then tasked with devising an action plan in the event of warning signs such as unusually high prices or prediction of poor rains.



BOX 3: WARRANTAGE IN NIGER

ACF FSL programmes in Niger provide a good example of programmes which counter the negative effects of seasonal changes in food availability and food price fluctuations. ACF has developed and incorporated a warrantage system (also known as grain banking) in FSL programmes since 2006. Warrantage buffers small farmers against the effects of market price fluctuations. Warrantage aims to counter the vicious cycle where farmers are obliged to sell their crops at harvest time, at low prices, in order to purchase additional food and other essentials or to pay back loans taken during the lean season. Farmers do not have to sell at low prices, following harvests, and during lean seasons. Rather, farmers receive credit through micro finance institutions (MFI), using part of their harvest as collateral. Using the harvest as a guarantee, small farmers can access credit which they can then invest in other activities, while their harvest is stored until prices rise. Also, targeted cash transfers prior to, and during harvest time, ensure very poor households are able to cover their basic and urgent needs, thus protecting their harvests, and avoiding having to sell at low rates.¹⁷ Furthermore, strengthened links within the community has led to stronger bargaining power amongst communities and businesses, allowing them to negotiate agriculture inputs at lower prices in preparation of the next rainy season and future harvests. Specific cash transfer activities protect harvests, and ensure the security of harvests, thereby increasing producers' profits.

than its effect on a poor household spending 50% or more of its income on food.¹⁵ Food security of the rural poor is determined less by households own levels of food stock but instead by their success in securing casual wages.¹⁶ Seasonal labour migration to an urban area is one increasingly common strategy to maximise earning potential. It is common for male household members to migrate for several months of the year in search of casual labour. Also informal off-farm employment and petty trade opportunities (not connected to agriculture) now have increasing significance for many households. Many households end up with patterns of income generation which are quite distinct from the local agricultural calendar, so it is important to also look beyond agriculture and analyse seasonal changes in other livelihood activities such as off-farm income generating opportunities.

Without cash, households are less likely to be able to overcome the adverse consequences of seasonality, so fighting seasonal income fluctuation is critical. One way of doing this is to promote off-season strategies to boost household food and income generation during periods of scarcity. ACF has set up health gardens in which women grow vegetables in Burkina Faso, Niger

and Mauritania. Whilst the primary aim of these health gardens is to boost dietary diversity (particularly of children under 5), in the best case, participants are also able to generate some additional income in the off-season. Other examples of off-season activities implemented by ACF in West Africa include irrigated agricultural production in river areas, flood recession agriculture and livestock destocking and restocking programmes.

Well-functioning markets can also reduce the effects of seasonality by facilitating inter-area trade. Not only that, governments can stabilise markets counter seasonally to ensure that price fluctuations are minimised. Despite the fact that government intervention in markets is no longer in favour, there is renewed interest in reinvigorating grain reserves both as a humanitarian intervention and as a means to stabilise prices. In West Africa, ECOWAS has developed a proposal for the establishment of a Regional Food Security Reserve in order to have a third line of defence in the event of a food crisis to complement the local and national food security stocks which may also be deployed or bolstered as appropriate.¹⁸ It is important that both the mandate and volume of these reserves

¹⁵ Dorward, A. 2011 ¹⁶ Berton, H., Hilton, J. and Taylor, A 2009

¹⁷ ACF response to Sahel Crisis II 2012: From Emergency to Recovery Phase. DFID funding proposal ¹⁸ ECOWAS 2012





are adequately set up according to the goals. For the time being, neither the volumes nor the mandate are proportioned to control market volatility; their main purpose is to mitigate impact over short time periods.¹⁹

Surveillance systems need to understand and better capture incomes of poorest households, particularly changes in local casual labour and migration rates. Information needs to help policy makers identify when households are becoming more vulnerable so interventions can be implemented in order to

BOX 4: SEASONAL CASH FOR WORK

ACF's integrated WASH and FSL programme for cholera prevention in Guinea-Conakry provides a good example of seasonal thinking. In 2010, ACF implemented a Cash-for-Work programme in Conakry in order to strengthen WASH infrastructure in areas at risk of cholera. Focus was put on sanitation and solid waste collection. Activities were organised in two to three month cycles, and were timed to coincide with periods of greatest risk.

prevent the situation deteriorating further. Choosing appropriate indicators relating to food prices, production and changes in livelihood activities as well as public health risks is crucial, especially as they can be misinterpreted. For example using severe acute malnutrition (SAM) admission rates in isolation is not ideal, admissions often peak after mass screenings which has little to do with seasonality. Furthermore if undernourished children are detected, it is usually too late for NGOs to intervene and prevent a crisis developing. When a more effective monitoring and surveillance system exists, a better assessment of the real impact of seasonality on poor households can be made and interventions targeted accordingly.

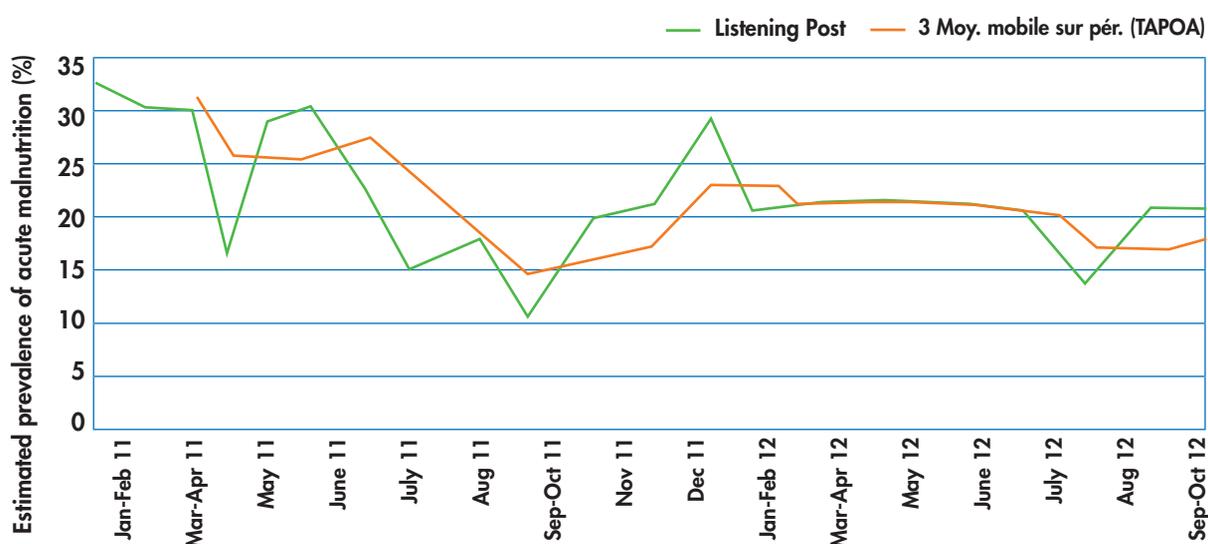
If stakeholders embrace a seasonal perspective, if they think seasonally, and design programmes accordingly, the risk of seasonal periods of scarcity (when public health risks are high) transforming into crises should be reduced. Effective public health and food security monitoring and surveillance systems which monitor appropriate indicators are crucial for galvanising action when tipping points are reached.



BOX 5: ACF LISTENING POST, BURKINA FASO

In Burkina Faso, following the implementation of a surveillance system, ACF realised that acute malnutrition peaks twice during the year: in December-January and then in May-June, as shown in the graph below.

ACF now implements nutritional seasonal safety nets (distribution of enriched flour) for children between 6 and 24 months during the hungry season between March and July in order to guarantee a rich and balanced diet at a time when accessing food is difficult. To complement this, CFW or CFT is implemented either before planting, to support the growing season, or after the harvest to increase food availability.



Lessons learned from the Horn of Africa in 2011 demonstrate that even though good surveillance systems were in place, the response was insufficient and came too late. Early warning did not translate into early action. This was partly due to the choice of indicators included in the surveillance system, but was also related to the flawed decision making process once donors had received the warnings. Famine early warning systems have a good track record of predicting food crises but a poor track record of triggering early action. Long lead times provide the opportunity for decisive early action but also the opportunity for inaction. For donors and national governments delay is often a politically rational strategy. National government may suppress early warnings if it has the potential to challenge their record on hunger reduction or for domestic political reasons.²⁰ In addition, acting

on the basis of risk of a crisis unfolding rather than certainty can be politically difficult. ACF believes that by incorporating a strong seasonal analysis into the early warning framework, there will be a greater chance of early warning translating into early action.

SEASONALITY AND RESILIENCE

For ACF, resilience is “the ability of countries, communities and households to manage change, by maintaining or transforming living standards in the face of shocks or stresses... without compromising their long-term prospects.”²¹ An important additional component of this definition is the ability to manage change in the face of such a shock without having to compromise dignity or health. Evidence shows that poor households in the Sahel and the Horn of Africa face recurrent stresses on a seasonal basis – food

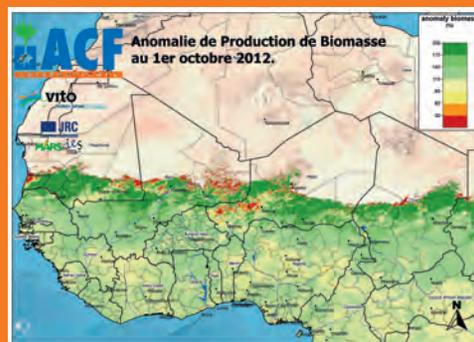
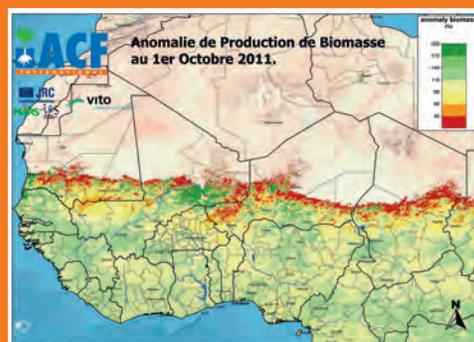
²⁰ Bailey, R. 2013 ²¹ ACF 2013. Definition based on DFID 2011b.



BOX 6: GIS IN THE SAHEL

The Sahel demonstrates the importance of having a coherent surveillance system in place. A significant proportion of the population in the region are pastoralists, reliant on extensive livestock production systems. Their livelihoods are based on inter-seasonal movements closely linked to the availability of two natural resources: water and pasture. The region is characterised by low population density and pastoralists often move vast distances in search of pasture. These factors combined with high rainfall variability, mean that conventional monitoring systems are redundant. Therefore since 2009, ACF, in partnership with the national food crisis systems in Mali and Niger, has developed tools based on GIS. The tools monitor both surface water and biomass, thereby enabling ACF to assess pastoral population vulnerability at a regional scale and make an important contribution to early warning in the region.

Pastoral movements and areas of concentrated grazing may vary depending on resources available. However, the “usual” movements of pastoralists can be determined and compared to their actual movements each year. Added to the information on surface water and biomass, this translates into a vulnerability model which is currently under development. It will enable ACF to understand the possible adaptive strategies of breeders and anticipate potential future crisis spots thereby supporting vulnerability analyses and optimising geographical targeting in the region.²²



shortages occur at the same time each year, and limited access to safe water and increased health risks occur within the same months of the year, year after year. It follows then that fighting the adverse effects of seasonality is one of the central components of resilience building. In order to do this, stakeholders must have a detailed understanding of seasonality and its implications for nutrition. This must be accompanied by implementation of appropriate policies to mitigate the adverse effects of seasonality on poor households. Only then will real progress in building resilience in the long-term be possible.

Over the last year or so, the resilience agenda has gained momentum, with donors such as DFID, the EU and USAID setting up new initiatives.²³ National governments are also putting more emphasis on the

need to build resilience in order to prevent future crises. Donors and governments are increasingly recognising that early humanitarian response is far more cost effective than late response. In fact, a recent study found that economic concerns over false early response are unwarranted. Evidence from case studies in Kenya, Ethiopia, Mozambique, Bangladesh and Niger found that the costs of responding early – even if crises do not actually materialise – are consistently lower than the costs of late response.²⁴ There is no doubt then, that taking a proactive approach – taking early action – makes financial sense: it is between four and seven times less expensive to spend money before situations reach crisis point, rather than on reactive humanitarian operations. Irrespective of this, recurring crisis are typically perceived as “humanitarian” issues in need of an immediate, short-term response when



²² ACF 2011 ²³ See ACF 2013a ²⁴ Cabot-Venton, C. 2013



there is little evidence to support this. In fact, the opposite is true. The constantly changing situation requires that practitioners must have the flexibility to implement overlapping humanitarian response or rehabilitation programmes or longer term resilience building activities at the same time, if the need arises. They are currently unable to do so due to the rigid funding mechanisms in place.

ACF welcomes the current high level political commitment to resilience building, particularly given that donors, governments and NGOs alike have traditionally placed too little focus on building resilience within communities before crises occur, choosing instead to focus on tackling hunger and disease during or after the crisis. It is now essential that the existing rhetoric becomes reality.

CONCLUSIONS

ACF recognises that both the Sahel and the Horn of Africa regions experience a seasonal hunger gap which is underpinned by acute structural vulnerability. ACF is calling for an innovative approach – a seasonal system – which enables governments to systematically tackle seasonal peaks of nutrition vulnerability

through social protection programmes such as seasonal employment and cash transfer schemes and implement humanitarian response when ‘normal’ seasonal peaks in undernutrition reach crisis point. Structural vulnerability must be tackled from the root and requires long-term commitment from government and donors alike.

The persistent and recurrent food and nutrition insecurity situation in the Sahel and the Horn of Africa questions the effectiveness of strategies and responses implemented to date. The limited ability of populations to respond to recurring crises has become a hallmark of both these regions, where households are no longer capable of rebuilding their livelihoods following frequent crises, often one after another, and cumulatively impacting negatively on their coping mechanisms. Changes in approach are clearly needed.

By thinking seasonally, and planning accordingly, and by combining humanitarian and development efforts, governments, NGOs and donors can put in place predictable interventions to strengthen the resilience of populations in order to prevent the seasonal peaks in undernutrition reaching critical levels. If stakeholders



are serious about reducing the number of people affected undernutrition, if they really want to improve and save lives, to transform rhetoric into reality, a seasonal approach is imperative.

RECOMMENDATIONS

NATIONAL GOVERNMENT should:

- Build a seasonal perspective into poverty reduction strategies and resilience building programmes; programmes must be tailored to the local seasonal context. A context specific analysis of vulnerability, its multiple dimensions and its seasonality is crucial. Interventions must be sequenced accordingly. Interventions which address immediate needs should be run in parallel with longer term programmes aiming to build communities' resilience to recurring crisis.

NATIONAL GOVERNMENT and AGENCIES should:

- Pre-position resources in risk prone areas. Health and nutrition resources must be in place well before the onset of the lean season in order to reduce the risk of households reaching crisis point.

- Scale up seasonal social protection programmes. Interventions such as Cash for Work, warrantage, destocking /restocking and health gardens should be promoted. Cash transfers must be index linked in order to reduce the risk of household purchasing power becoming debilitated by fluctuating market prices at a time when cash resources are limited. Microcredit and incentivised community based child growth promotion activities should also be promoted.
- Ensure timing of interventions is linked to seasonal demands on households. Labour intensive activities, for example, should be implemented when participants do not have competing demands on their labour which means they will not be able to participate.
- Support income diversification for poor households, including support to rural-urban linkages. Off-farm income earning work is one of the best buffers against seasonal stress. Governments need to invest in training schemes to build peoples' skill sets which will, in turn, boost their income generating potential, thereby building resilience to recurring crises.





- Ensure that appropriate indicators are developed to enable seasonal analysis to inform existing early warning systems. In particular, market price indicators must be able to detect seasonal household level fluctuations in purchasing power. Donors, national governments and regional bodies must ensure that early warning is translated into early action.
 - Conduct further research into the effect of seasonality on nutrition outcomes across different contexts.
- DONORS should:**
- **Recognise that a flexible *long-term* perspective is needed;** attempts to use short-term humanitarian funding alone to address seasonality are futile. Financing mechanisms must facilitate the integration of humanitarian response into development funds, and must be flexible enough to allow practitioners to adapt their activities to suit an evolving context, with rapidly changing needs.
 - **Be prepared to act on the basis of risk.** Evidence based decision making must be grounded in sound contextual analysis in support of approaches that account for different types of risk.
 - **Ensure that early warning is translated into early action.** Early warning systems must trigger early action prior to levels of undernutrition reaching their peak. This will happen if the system incorporates seasonal analysis of nutrition indicators.



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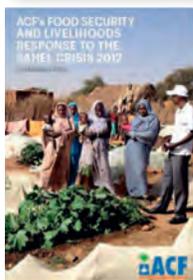
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FURTHER READING

ACF International analysed the impact of rural-urban linkages on household food security and child nutrition in Guinea, Zimbabwe, and Guatemala. We found that rural-urban linkages often follow strongly seasonal patterns; opportunities and constraints of rural and urban households vary over the course of the year. Designing with seasonality in mind can amplify the impact of development interventions.



This paper sets out lessons learned from the emergency and recovery phases of ACF International's FSL response to the West African Sahel Food Crisis in 2012. Interventions that counter seasonality are highlighted as good practice.

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