Southern Africa

Food and Nutrition Security Working Group (FNSWG)

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EXECUTIVE SUMMARY

The Climate Prediction Centre is predicting El Niño climatic conditions during the main 2018-19 growing season with 70-75% probability while IRI has increased the probability to more than 85%. Furthermore, the forecasts suggest a likelihood of a weak to moderate El Niño event. Historically El Niño climatic conditions have resulted in reduced rainfall across the southern part of Southern Africa.

The SARCOF forecast is also predicting an enhanced chance of normal to below normal rainfall, and normal to above-normal temperatures across most parts of the region. This forecast aligns with typically experienced El Niño impacts.

The likely impact is a reduction in agricultural production to 18-30 per cent below the 5-year average as well as increased livestock losses. This is expected to result in increased food insecurity.

Historic evidence suggest that the humanitarian impact extends beyond food insecurity; with a risk of increasing levels of acute malnutrition in the short term and chronic malnutrition in the medium to longer term and difficulty in accessing water as well as higher school drop-out rates, increased incidence of communicable diseases, and rural to urban migration. The impact is compounded by the below average rainfall and harvest in the 2017/18 season, leading to limited carry-over stocks and chronic vulnerability in many of the affected countries.

To mitigate the immediate impact governments and partners should encourage farmers to diversify crop production with drought- and disease-tolerant crops, early maturing crops and high-yield varieties. In addition, they should advocate for water conservation and harvesting techniques for improved accessibility and availability and the adoption of staggered planting dates for crops. Increased investment in irrigation is also encouraged. Some water reservoirs and irrigation systems need to be rehabilitated to improve and maximize irrigation in farming activities. Likewise, the use of water harvesting technologies should be intensified to fully utilize rains and reduce the negative impacts of dry spells. Promotion of optimal infant and young child feeding practices, especially breastfeeding, good sanitation and hygiene practices, ensuring children are fully vaccinated, and extending community screening and referral of malnourished children will also help to protect children against undernutrition.

Where markets are functioning and basic supplies are readily available, governments and partners can provide emergency cash assistance through existing systems. The region has a basic network of safety nets that provide cash and non-cash to the most vulnerable, though efficiency, coverage, and targeting can be improved.
1 - INTRODUCTION

The probability of an El Nino climatic conditions during the main 2018-19 growing season has increased to 70-75% and this is expected to lead to depressed rainfall. This Bulletin sets out the likely consequences, issues to monitor throughout the season and mitigating actions that can be taken to reduce the impact.

Climate outlook

The Climate Prediction Centre is predicting that there is a 70-75% chance of El Niño conditions during the main 2018-19 growing season, with the Mid-Oct. IRI/CPC Model-Based Probabilistic ENSO Forecast indicating a strong tendency towards highs of 80s of El Niño conditions persisting into March/April 2019. Furthermore, they are leaning toward having a weak to moderate El Niño event. A climate phenomenon known as the El Niño Southern Oscillation (ENSO) influences weather patterns in many parts of the world.

The El Niño Southern Oscillation (ENSO) is one of the main systems that affects rainfall in southern Africa. Conditions in the Indian Ocean and Atlantic also significantly affect rainfall systems in the region. Forecast analysis by climate forecasters tries to assess the combined impact of the different systems. The impact of El Niño will start before ENSO reaches peak values and will continue after the ENSO have return to neutral conditions. This note sets out some of the impacts that are likely going to be observed.

El Nino is historically associated with increased chances of (a) increased rainfall in the northern part of the region and (b) depressed rainfall in the middle belt of the region and the southern half of the region. Several studies have shown a relationship between ENSO and food production in Southern Africa. Cane et al. (1994) found a strong relationship between Southern Oscillation Index (SOI) and maize yields in Zimbabwe. SOI and sea surface temperatures (SST) parameters are both related to seasonal rainfall in the SADC region (Matariria and Unganai, 1995; Mason et al., 1994). In El Nino seasons, during October-December, drier than average conditions affect mostly the border areas of Northeastern South Africa, Mozambique and Zimbabwe as well as southern Madagascar. Similar conditions affect southwestern South Africa though rainfall amounts are small. Vegetation shows similar patterns. These are typical of the late arrival of the rains and consequent severe delays in the start of the season. Midway through El Nino affected seasons, drier than average conditions are
widespread, extending from Namibia across Zambia, Zimbabwe and into Mozambique and Northeastern South Africa and Swaziland. Extensive vegetation deficits are also evident. Long term satellite data identifies the regions of northeastern South Africa, southern Mozambique and south and western Zimbabwe as those most strongly affected by El Nino events.

The Southern African Regional Climate Outlook Forum (SARCOF) held in August 2018 issued a forecast for normal to below-normal rainfall being expected for most parts of the SADC region. Some of the central/northern parts of the region however have expectation of normal to above-normal rainfall. A few countries that have since released their national forecast confirm the SARCOF regional forecast, especially those in the southern half of the region where the forecast bias is towards below average rainfall. SARCOF also released a forecast of normal to above normal temperatures in most parts of the region, although the first half of the season is expected to have higher chances of above-normal temperature in the southern parts of the region. The configuration of the forecast is generally consistent with El Nino impacts, which tend to have below average rainfall and above-average temperatures in many parts of the region. Areas that typically experience dry spells may experience the same this season, of which such dry spells may particularly negatively impact crop production. Close monitoring of the season is required.
In analogous years with El Niño conditions present, such as 2014/15 and 2015/16 [the latter being a strong El Niño] depressed rainfall was observed but it is the geographical distribution varied considerably.

Issues to monitor
Close monitoring of the rainfall season and lead indicators of potential late onset, extended dry spells, and reduced cumulative precipitation.

2 - AGRICULTURAL AND LIVESTOCK PRODUCTION

Reduced rainfall will first and foremost impact agricultural and livestock production across the region.

Agricultural Production

**Agricultural production in the region is expected to decline to 18-30% below the 5-year average.** Prolonged dry spells during this period can have severe impacts on maize crop production. The mono-cropping of maize, a particularly drought-sensitive crop, leaves many highly exposed. Historically poor rainfall performance has led to delayed planting, poor germination and widespread crop failure. Drought conditions and high temperatures could amplify or increase outbreaks of transboundary crop pests such as the newly introduced Fall Armyworm (FAW) and the occasional but devastating African Armyworm. Historical records underline the clear link between El Niño events and drops in national maize yield. However, there is considerable uncertainty about the exact rainfall pattern and the impact on agricultural output. It is insightful to consider what happened in analogue years. In 2014/15 scientists were similarly uncertain about El Niño, and the region experienced an El Niño-like impact with cereal production 18% below 5-year average. Following a strong El Niño cereal production in 2015/16 was 30% below the 5-year average.

*Source: WFP*
Fall Armyworm (FAW)
Given the potential for the Fall Army (FAW) to have a significant impact on food security, especially in countries already facing multiple crises, FAO has developed the FAW Risk approach to calculate the risk of food insecurity associated with FAW. The risk is calculated by the FAW Risk-Index and communicated through the FAW Risk-Map application. Countries in the region facing food insecurity are also having the highest risk of the FAW infestation and lowest capacities to cope with the menace. There is need to support the most affected countries in managing the FAW for improved food security.

Issues to monitor
- Using satellite imagery to monitor vegetation index
- Regular Farm assessment to monitor crop development and any water stress
- Monitor Fall armyworm prevalence and African armyworm outbreaks for early warning and early action

Recommended mitigation measures
- Support governments in developing and operationalization of National Contingency plans
- Create awareness on scaled down seasonal forecasts among farmers and other key stakeholders
- Diversify crop production with drought- and disease-tolerant crops; early maturing crops; and high-yield varieties;
- Make available agricultural inputs to farmers before the onset of the rains;
- Employ water conservation and harvesting techniques for improved accessibility and availability;
- Adopt staggered planting dates for crops so as to spread the risk;
- Increase investment in irrigation and sustainable energy support technologies; and
- Employ post-harvest techniques to avoid losses.

Pasture and Livestock
The livestock sector is a key contributor to food and nutrition security in the region. The vegetation conditions in grazing areas of some of the countries in Southern Africa
region will impact very much on the availability of pastures and hence the livelihood of communities that are dependent on livestock.

An El Niño event will lead to water scarcity, low veld quality and limited pasture availability, resulting in poor body conditions, increased morbidity and livestock deaths. Incidences of transboundary diseases such as foot-and-mouth disease, peste des petits ruminants will occur due to increased movement of livestock in search of pasture and water.

**Issues to monitor**

- Using satellite imagery/vegetation index to monitor forage quantity and quality
- Monitor outbreaks of transboundary livestock diseases for early warning and early action
- Livestock conditions, including excess mortality and conception rates
- Livestock culling rates and prices

**Recommendations**

Support the activation of actions and activities in the National Contingency Plans. In order to protect livestock, there will be need for undertaking of emergency livestock feeding, disease vaccinations and establishment or rehabilitation of livestock watering points. Some countries with drought mitigation strategies have already begun to source information of suppliers and availability of animal survival feed stocks. Field extension staff are sensitizing farmers on the need for early destocking through selective culling in the event of an El Niño episode, so that famers get best value for money before the condition of animals deteriorate. In addition, countries piloting the weather index-based insurance package are sensitizing insurance houses
on the possibility of a drought as well as encouraging stock owners to engage the insurance companies to enable purchase feed and remedies to support their animals.

3 - FOOD PRICES

**Carry-over stocks from the current season are limited and lower than previously reported.** In the final production estimates for South Africa’s 2017/18 commercial maize crop, the Crop Estimate Committee revised the figure down by 2% to 12.9 million tons.

**Food prices are expected to rise.** Given that households’ demand for maize is relatively inelastic to income a shortage of maize could cause prices to spike. During the 2015/16 season prices in Malawi and Mozambique were double in comparison with the previous season. It is likely that prices will rise ahead of a maize shortage arising due to speculative behaviour of traders.

**In the southern African region, maize prices are showing mixed trends.** In countries such as Malawi and South Africa, national average maize prices have been on an upward trend, while in others, such as Tanzania and Zambia, they have remained relatively stable. In Zambia, however, this belies price increases in pockets of areas which experienced a poor harvest. A look at the Alert for Price Spikes (ALPS) shows more markets in Zambia experiencing stress earlier this year. In July, 7 markets were experiencing high prices (compared to only 1 market last July) and in August this increased to 11 markets (compared to 9 markets last August).

Currency fluctuations in the region must also be monitored. In September, nearly all currencies in the region depreciated vis-à-vis the USD on a month-on-month (August 2018 - September 2018) and year-on-year (September 2017 - September 2018) basis. This will likely increase the cost of importing goods and services, including food.

![Status of Monitored Food Markets in Southern Africa: July and August – ALPS (Maize)](image)

For more details on the ALPS indicator
Source: WFP ALPS / Data available as of October 11th, 2018
In general, factors such as higher fuel costs are also pushing prices up, and as households deplete their stocks and turn to markets, prices are expected to further rise.

**Prices of cereals on futures markets**

One way to anticipate future food price development is by monitoring the price of cereal on the future market. In general, following the main harvest season, maize prices tend to be relatively low in July. In the past four years, with the exception of 2015/16 (El Niño), SAFEX white maize spot prices in July have fallen in the lower quartile range. However, this July, spot prices were slightly higher, averaging 2,000 R/t, and as of September 2018, white maize prices for July 2019 were averaging approximately 2,600 R/t – equivalent to a 30% increase year-on-year.

**SAFEX White Maize Spot Price and Future Prices (R/t)**

![Graph showing Safex white maize prices from 2014 to 2018](image)

**Issues to monitor**
- Food prices
- Cereal prices on future markets

**Recommendations**

*Avoid the imposition of export restriction which can exacerbate the situation and could impact humanitarian operations in eastern Africa.* Countries facing production shocks may be tempted to impose restrictions on food exports. The food crisis of 2008 nevertheless suggested that imposing trade restriction only worsened the situation at the regional and global levels, as pushing international prices up prompted retaliation by partners. At the national level it also implies reducing farmers’ remuneration. In addition, humanitarian operations in Eastern Africa are dependent on imports from excess producers in countries in Southern Africa, like Zambia and South Africa.
4 - FOOD INSECURITY AND MALNUTRITION

A reduction in agricultural production amongst small holder farmers in rural areas and rising food prices in urban areas will lead to rising food insecurity. The El Nino in 2015/16 caused the worst drought in 35 years leaving 14.1 million people in need of emergency assistance across the region.

For 2018/19, the total food insecure population in SADC [excluding DRC and South Africa] member states is estimated at slightly over 9.6 million. The current situation is somewhat comparable to 2014/15, when the possibility of an El Niño was borderline, and following which, in 2015/16, the total food insecure population in SADC member states was estimated at slightly 14.1 million.

### Food Insecure Population in SADC Member States

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**Final Maize End of Season Map**

*June 2016*  |  *July 2018*  

**Conditions:**  
- Exceptional  
- Favourable  
- Watch  
- Poor  
- Failure  
- Out-of-Season  
- No Data
Due to the current precarious situation as a result of a prolonged dry spell and poor onset of rains in the region, a further occurrence of an unfavorable season in 2018/19 will compound the expected food security situation. This year’s maize season ended with poor crop conditions in parts of southern Madagascar, Malawi, Mozambique, Zambia, Zimbabwe, Angola, and Lesotho. These areas also experienced poor crop conditions following the 2015/16 El Niño. If an El Niño materializes, or the region is hit by a dry spell, these same areas are likely to experience crop failure again.

Women and girls face a greater burden during times of food insecurity, being the primary family caregivers and given their need to collect water and food. The distances covered in search of water, firewood (cooking fuel) and food thus increases their exposure to increased gender-based violence, impacts on their health and nutritional needs, and affects their caring responsibilities for other family members, including children, the elderly and those with disabilities. In drought-affected areas, women and girls adopt coping mechanisms to ensure food on the table for the family by self-apportioning less food and water to ensure the health of their children and male relatives. In some areas, women are reported to exchange sex for food or water.

Scenarios
There is considerable uncertainty about the exact reduction in rainfall, the geographical variation of this reduction, and the impact on food insecurity. It is therefore prudent to consider various scenarios

Most likely: People are already vulnerable and carry-over stocks will be low going into the next season. A weak El Niño causes erratic and reduced rainfall, reducing crop production and casual labour opportunities in the agricultural sector. Reduced precipitation results in falling water levels at crucial dams which interrupts electricity supply negatively impacting economic activity. Significant increase in food insecurity expected.

Worst case: People are already vulnerable and carry-over stocks will be low going into the next season. El Niño, coupled with non-favourable Indian Ocean conditions causes erratic start to rainy season, and severely depressed rainfall in most of the region, disrupting even irrigated agriculture.¹ Compounding the situation is the implementation of forced land re-distribution in South Africa causing a sharp reduction in availability of cereals leading to sharp price increases across the region and high levels of food insecurity. Below average rainfall is the second-most-likely scenario that was forecast by SARCOF in Aug 2018

Best case: No El Niño – near-normal rainfall with good temporal distribution

¹ The extent to which this occurs depends on the current status of dams and groundwater. The impact of the irrigation availability on food security would depend on the percentage contribution of irrigation to total production and percentage livelihoods dependent on irrigation – if anyone can obtain and share either of these two sources of information, this would be very helpful to the analysis
Malnutrition
Chronically high levels of stunting across eSwatini, Lesotho, Madagascar, Malawi, Mozambique and Zimbabwe affected countries highlight an existing nutritional vulnerability. Such levels of nutritional vulnerability can then be further exacerbated during shocks such as an El Nino, as children who are already stunted have a greatly increased risk of death if they become wasted that children who are not stunted. Equally, episodes of wasting will contribute to stunting for those children who survive. Based on the 2016 response and learning, key preparedness and response strategies to an El Nino drought include a multi sectoral response of nutrition, WASH, social protection, livelihoods, behavior change and health interventions to prevent both chronic and acute malnutrition and increase the community’s resilience to shocks. Further the importance of investing in the governments capacity at various levels to respond by strengthening systems to provide reliable and timely nutrition information, strengthened coordination and an integrated response, are essential. Geographical areas of concerns in the sub region at this point are eSwatini, Malawi and Southern Madagascar where levels of acute malnutrition are already of concern.

Acute malnutrition is generally low across the southern Africa region, and all countries except for Madagascar and Comoros have a national average of acute malnutrition within the 5-9% WHO ‘poor’ category. The national average for Madagascar is above the 15% emergency threshold, however this data is 15 years old (2004), and is currently being up-dated. There are pockets of acute malnutrition above the 10% WHO ‘serious’ threshold in Luapula Province, Zambia and Cunene, Angola as well as the southern provinces of Madagascar.
While progress is being made to reduce stunting in some countries, it is not at a fast-enough rate and none of the Southern Africa countries are on track to meet the World Health Assembly target of a 40% reduction in the number of stunted children by 2025. Only 4 southern Africa countries have a prevalence of stunting classified as ‘Medium’ (none are classified as ‘low’). There are pockets of extremely high stunting (≥50%) in Northern Province, Zambia, in Bie and Cuanza Sul, Angola; and in Capo Delgado and Nampula in Mozambique.

5 - ECONOMIC IMPACTS: SLOWDOWN AND DETERIORATION BALANCE OF PAYMENT

Declining exports and pressure on balance of payment. The exports of agricultural produce [maize, coffee, tea] is likely to fall due to reduced production and export restriction. On the other side there is an increased import requirement at higher prices – this could lead to currency depreciation. In some cases, the effects may be felt with a time lag. This could put pressure on currencies

Further economic slowdown. With at least 70 per cent of the population relying on agriculture for their livelihoods, the effects of El Niño will likely have a direct impact through loss of income from crop and livestock value chains, as well as reduced income-generating opportunities for vulnerable people who provide seasonal agricultural labour. This can compound existing economic slow-down. GDP per capita is already projected to contract in Angola, Eswatini, South Africa and Zimbabwe this year, according to the IMF. Mounting debt and currency depreciation will also have an aggravating impact for countries like Zambia.

Interruption in electricity supply compounding economic slowdown. Currently 90 per cent of national electricity generation in Malawi, Mozambique, Namibia and Zambia comes from hydropower. River flows in many of Africa’s river basins are highly

*Surveys range from 2003 – 2017
IMF data. May 2018 Update
sensitive to changes in rainfall. For example, the Kariba Dam (the main source of hydro-electric power for Zimbabwe and Zambia) could see falling water levels reducing the hydro-electric generating capacity. Malawi, Tanzania, Zambia and Zimbabwe experienced electricity outages due in part to dry conditions during the 2015–2016 El Niño. The lack of reliable power will have a knock-on effect on the economy, as people and business struggle to operate without electricity. For example, lack of power negatively impacted the copper industry in Zambia, in 2015. This in turn reduced government revenue and its capacity to respond to a humanitarian crisis.

- Eswatini: As of mid-September, dam levels were: Maguga Dam – 86.6%; Lubovane – 94.2%; Mnjoli – 78%; Hawane – 76%; Luphohlo – 48.3%. Eswatini imports 80% of its electricity from South Africa, and the remaining 20% is generated locally by hydropower. During the 2015 drought, when there was very low rainfall, electricity generation in Eswatini dropped by 50%.

- Lesotho: As of early August, dam levels were: Katse Dam – 65%, Mohale Dam – 31%. Lesotho imports approximately half of its electricity from South Africa.

- Zambia: As of mid-September, the dam level at Kariba Lake was 48%. 96% of the country’s electricity is generated by hydropower.

**Rising poverty and rural-urban migration**: According to the World Bank LINKAGE model and other studies (Smith & Ubilava 2017) poverty rates are expected to rise as a result of drought due to reduced agricultural income, disrupted electricity supply and rising food prices. This is particularly relevant in countries with a large percentage of the population dependent on rain-fed agriculture. Some farmers are likely to abandon their land, leading to increased migration from rural to urban areas.
Issues to monitor
- Export, import, debt and foreign currency reserves
- GDP growth
- Water levels at major hydro-electric dams
- Labour opportunity and the trend of daily wages used, as it will impact incomes access (and so food access) for significant number of households.

Recommendations
- Continue with the importation of power and expedite the completion of internal power projects.

6 - WATER, SANITATION AND HYGIENE

Due to a lack of infrastructure, only 61 per cent of the sub-region’s population normally has access to safe drinking water and 39 per cent access to adequate sanitation facilities. An El Nino drought has the potential of greatly worsening conditions for those people who already had low access and thus no resilience to worsening conditions in water and sanitation. From past El Nino events, water scarcity for human use can be acute at the height of the drought, with people using unprotected water sources, often sharing these with livestock. Water shortages from the drought have had multiple negative impacts: on health (including people living with HIV), nutrition, school attendance, functioning of clinics, risks of violence and can cause migration;

The WASH response will therefore aim at reducing mortality/morbidity associated with water shortage, malnutrition, food insecurity and cholera/AWD outbreaks in the context of an El Nino induced crisis. A multi-pronged approach is therefore required in many areas which can address these different stresses together. The specific stresses and needs of particular communities should be determined through a multi-sectoral community-based needs assessment

Issues to monitor
- Decrease in water coverage and hygiene behaviors in communities, schools and health centers;
- Increase in water prices and queuing time at water points
- Incorporation of WASH indicators in VAC/Food security assessments to quantify impact of El Nino on WASH services and enable a better targeting of the response;

Recommendations
- Prioritize the charging of depleted reservoirs;
- Undertake a simulation exercise to test water allocation guidelines;
- Develop water management scenarios;
- Increased investment in irrigation is encouraged.
• Some water reservoirs and irrigation systems need to be rehabilitated to improve and maximize irrigation in farming activities. Likewise, the use of water harvesting technologies should be intensified to fully utilize rains and reduce the negative impacts of dry spells
• Improve WASH real time information management systems to enable the collection, analysis and sharing of data and information in real time to better understand the impact of future droughts on WASH services and to quickly identify urgent gaps in the most affected geographical areas;
• Strengthen resilience in WASH programming with activities such as integrated water resource management, rainwater harvesting, promotion of improved and sustained hygiene knowledge/practices, increased access to climate resilient WASH infrastructure in communities, schools and health centres,
• Update emergency preparedness plans to reflect the projected El Nino scenarios in the various countries
• Activate WASH Emergency coordination mechanisms and strengthen inter-sectoral collaboration at the country level to enable multi-sector assessments as well as multi sector preparedness and response modalities.

7- HEALTH

Increased incidents pests and animal diseases. The Southern Africa region is prone to pests and animal diseases such Fall Army Worm, Foot and Mouth disease and Rift Valley Fever. The region has been experiencing the impacts of the Fall Armyworm (FAW) since early 2017. The pest continues to spread throughout Southern Africa. The FAW infestations could continue to cause significant crop losses. The adverse effects of the El Niño could create favorable conditions that could amplify the spread of FAW and resurgence of other pests and diseases.

In contrast vector-borne animal diseases such as Rift valley fever, tick-borne diseases, sleeping sickness (from tsetse) etc. are more prevalent with high rainfall.

An El Niño-induced food crisis may have also decrease service utilisation and adherence to ART and TB treatment, lack of food being one of the reasons for people to stop taking their medication, since one side effect of the medicine is increased feeling of hunger. Uninterrupted access and adherence to treatment is crucial to prevent later Multi-Drug Resistant Tuberculosis (MDR-TB) in countries already having very high level of and expensive 2nd/3rd lines ART regimens. Poor nutrition may also reduce immunity and increase risk co-infections and malnutrition in TB patients and HIV-positive children not on ART. Food insecurity pressures households into unsustainable coping strategies and can lead to HIV-risk behaviour (e.g., transactional sex), which drives new HIV infections. The combination of HIV, pregnancy and food insecurity can have even more devastating consequences.
Public health and the risk of communicable disease spread is also a concern. El Niño condition in the region is likely to elevate the risks of environment related diseases due to changes in environmental conditions and water borne vector diseases primarily arising from lack of access to water and hygiene. Schools and hospitals struggle to operate without water, as is being seen in Swaziland in 2016, where 80 per cent of schools experienced a water and sanitation crisis, leading to a high prevalence of intestinal parasites, which also impacted on nutrition. Increased use of unprotected water sources can lead to increased cases of trachoma, cholera, typhoid and bilharzia. Recent research published in Proceedings of the National Academy of Sciences with a focus on South-east Asia states that El Niño could spark dengue fever epidemic, due to elevated temperatures. It is also reported in a recent publication that 22 countries in the Africa Region experienced sporadic cases or outbreaks of dengue fever between 1960 and 2010 (Amarasinghe A. et al). More recently, outbreaks were reported in Kenya (2011, 2013) and Seychelles (2011, 2013, and 2016), respectively. Floods in the Northern part of the region can create breeding sites for dengue vectors. The Seychelles epidemic followed exceptionally heavy rains and floods.

Issues to monitor
- Outbreaks of animal diseases such as Foot and Mouth disease and Rift Valley Fever
- Outbreaks and incidence rate of trachoma, cholera, dengue, typhoid and bilharzia
8 - EDUCATION

The drought could impact children’s attendance at school, as water sources become scarce and further away from their homes. Children, especially girls, are responsible for the collection of water for household consumption in many areas. Without access to water in schools, school feeding programmes are often discontinued as water is required to cook the meals.

A reduction in school attendance in the previous droughts was observed in the following areas: Malawi and eSwatini, Zimbabwe, Lesotho, southern areas of Madagascar, Mozambique and Angola. Areas with highest levels of drop out coincided (unsurprisingly) with higher IPC levels and in particular where WASH in schools and school meals were lacking. However, information gathering and data analysis where noted as weaknesses within most Education systems, which typically collect stats annually and are not nimble enough to adapt to a much faster information flow requirement. Zimbabwe and Lesotho are examples of use and exploration of RapidPro/ SMS based monitoring.

Issues to monitor

- “Live” dropout rates combined with WASH in schools status (including existence, functionality and per learner ratios). IPC levels are a good proxy indicator.
- Number of children who have dropped out of school / Increase of school drop-out rate / Increase of out-of-school children.
- Number of unaccompanied and separated children identified through [food distribution campaigns; NFI fairs; referral pathways; community-based child protection mechanisms; health facilities; etc.].
- Increased number of GBV cases reported through [referral pathways; the police; community-based protection mechanisms].
- Increased number of abandoned children.

9 - ABILITY TO RESPOND

Government-run social protection programmes and systems exist in every country in the region, though variations exist in efficiency, coverage, and targeting. Where markets are functioning and basic supplies are readily available, governments and partners can provide emergency cash assistance through such existing systems.

Recent analysis shows the significant potential for improved impacts and cost-savings of investing in longer-term social protection approaches to avert humanitarian crises. World Bank analysis in 117 countries estimates that post-disaster social protection transfers bring an estimated USD 1.30 in benefits per USD 1 spent.² A USAID-commissioned study on the economics of resilience in three drought-prone countries (Ethiopia, Kenya, and Somalia) echoes this, estimating that a proactive

drought response which integrated social safety nets would save an estimated USD 3.5 billion over a 15-year period when avoided losses are captured. A World Bank study of post-disaster recovery in Fiji estimated that top-ups for beneficiaries of the Poverty Benefit Scheme had a cost-benefit ratio of 4, and reduced the impact of the disaster on low-income Fijians by 20 percent. The same report shows that rural farmers in Ethiopia covered by the Productive Safety Net Programme (PSNP) in 2005 and 2011 droughts had consumption losses 25 percent lower than other rural farmers. In line with the growing body of evidence supporting the use of national social protection systems to effectively deliver on disaster prevention and response, there are efforts under way in several countries in the region to align humanitarian cash transfer programmes to national safety nets and to promote closer working which strengthens the capacity of national systems to respond to shocks.

Impact of social safety nets
Impact evaluations indicate that cash transfers increase household crop production, lead to changes in types of crops cultivated, and increase consumption and sales of homegrown production. Further, they reduce the use of detrimental coping strategies, such as distress sales of assets, that can impede households’ resilience. An evaluation of programs in seven Sub-Saharan African countries found significant impacts in all these areas, even though their magnitude varied across countries (Daidone et al. 2016). Crop production increased in Zambia and Lesotho. The value of the overall production in Zambia almost doubled, boosting postprogram per capita consumption to a level 25 percent higher than the transfer itself (Davis et al. 2016). In Ethiopia, Malawi, and Zimbabwe, transfers led to changes in the types of crops cultivated. In Kenya and Malawi-Mchinji, the cash transfer increased consumption of the home-grown production (Davis et al. 2016). The Malawi Social Cash Transfer Program reports the largest consumption impact, at 179 percent of the transfer value.

The review by Bastagli et al. (2016) found that cash transfers improved household consumption in 25 of 35 studies looking at this effect. Their review also found an increase in livestock ownership/purchase, agricultural assets and inputs, and savings (although not for all programs or for all types of livestock, assets, or inputs). The Transfer Project (2016) found significant impacts on the increase in livestock ownership in five of the eight countries studied. The effect of households investing in diverse types of animals was large in Malawi and Zambia, whereas more limited effects were observed in Kenya, Lesotho, and Zimbabwe, where small livestock were acquired. Impacts were not found in Ghana. The meta-data analysis by Ralston, Andrews, and Hsiao (2017) confirms these findings by estimating a combined average increase of 34 percent in livestock ownership across programs in seven countries (four were significant).

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5 These countries include, *inter alia*, Ethiopia, Kenya, Lesotho, Madagascar, Malawi, Mozambique, Somalia, and Uganda.
Most programs had significant impacts on the purchase/use of agricultural inputs such as seeds, fertilizer, and pesticides, although the magnitude of these impacts varied across countries. In terms of agricultural assets (for example, axes, hoes, picks, and other tools), positive impacts were observed in Ethiopia, Malawi, Zambia, and Zimbabwe. Impacts were not observed in Kenya, Lesotho, and Ghana. Even though all impacts were not always significant, all countries reported positive significant results for population subgroups, type of animal, or asset (Daidone et al. 2016; Davis et al. 2016; Handa et al. 2017).

Case studies

**Lesotho**

Oxford Policy Management review of the El-Niño-induced drought and food insecurity which affected Lesotho and many of its neighbours in 2015–16. The food subsidy is reported to have been partially effective in stabilising prices and enabling some households to obtain part of their food requirements. It reduced the cost of food assistance for NGOs and the school feeding programme. However, it may not have reduced the cost of items more commonly purchased by the poorest. Demand for the subsidized products increased more than expected which posed problems for the government budget. The implementation of the school feeding programme (not adjusted in the drought) was somewhat affected by the shock because of the rising cost of food, though not everywhere.

There is cautious agreement that, on balance, it was better to make use of the Child Grant Programme (CGP) than not to use it, and might be in future provided it is part of a broader package. Warmth towards its use was greater among agencies that were involved in its implementation. There are many caveats around its limited geographical reach, the fact that it only covers households with children and the fact that its recipients are households who were deemed the poorest some years ago. Looking at some of the key reasons why agencies might use social protection as an emergency response—namely to improve the comprehensiveness, timeliness and/or predictability of assistance, and reduce duplication—the CGP helped with the comprehensiveness of the response to El Niño as it reached over 100,000 people. However, it was not the timeliest or predictably funded.

Lesotho’s National Information System for Social Assistance (NISSA) is expected to be complete by the end of 2018, and will capture information on every households in the country. Updates of information for existing households will commence in 2019. There are ongoing efforts to link NISSA to climate mapping and disaster risk databases, to facilitate response through national social protection systems in future emergencies.

**Malawi**

Progress in building a more integrated social protection system has positive potential for responding to shocks. Malawi has all the components necessary to facilitate transformative change, the country requires critical shifts in policy, institutional, and investment priorities. Following the 2016 El Niño, development partners supported the
The government to test vertical and horizontal expansion of the national Social Cash Transfer programme, reached agreement on the automatic inclusion of SCT beneficiaries in affected districts in humanitarian caseload, and is developing both system and policy changes which should increase the speed and efficiency of the response. The report suggests that the country should consider commitment to a national financing strategy that re-channels fiscal spending to a more effective mix of social protection programs.

Current coverage
On average, developing countries in sub-Saharan Africa spend 1.5 percent of GDP on social safety net programmes, in line with global averages. However, these figures hide significant heterogeneity. Some of the world’s top spenders, such as Lesotho (7 percent of GDP) are in Southern Africa. Lesotho is among the top spenders because their SSN programs include a universal old age minimum social pension. Lesotho spends 2 percent of GDP on old-age social pensions. But so are many countries that spend very little on SSN as a percentage of GDP. Those include Cameroon, Republic of Congo, Côte d’Ivoire, Guinea-Bissau, Madagascar, São Tomé and Príncipe, Somalia, and Togo, which spend less than 0.2 percent of GDP on SSN.

Many countries in Sub-Saharan Africa are introducing flagship SSN programs and are rapidly expanding coverage. However, these initiatives, like all investments, come at a fiscal cost. In Tanzania, the Productive Safety Net Program expanded from 0.4 to 10 percent of the population from its launch in 2013 to 2016 (figure 2.13, panel a). This coverage expansion was accompanied by a commensurate increase in program spending, from 0.03 to almost 0.3 percent of GDP in two years.

According to the World Bank a few countries in Africa have extensive coverage of the poorest quintile, such as Mauritius (79 percent) and South Africa (62 percent) and the programs with the largest coverage of the poor, among the countries with adequate data, is in Botswana (86 percent). Zambia’s Social Cash Transfer Program sets its benefits close to the price of a 50-pound bag of maize (corn) monthly, which would allow a household to eat a second meal each day (Schüring 2010; Garcia and Moore 2012). South Africa also shows high coverage and benefit levels for the poor (96 and 72 percent, respectively), leading to a poverty headcount reduction of 40 percent. Mauritius also shows high coverage and benefit levels for the poorest quintile (55 percent), leading to a poverty gap reduction of 61 percent.

Government fiscal space
Adequate fiscal buffers are essential for Governments to respond to droughts, whether in terms of purchasing grains, implementing emergency works or scaling up their safety-nets. Yet it has proved notoriously hard for Governments to adopt sound countercyclical fiscal policies (saving in good years for the bad ones). To address this, several countries in the region have adopted or are currently designing contingency

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6 Beegle et al 2018 – Realizing the full potential of social safety nets in Africa
8 These include, but are not limited to, Eswatini, Ethiopia, Kenya, Lesotho, Madagascar, Mozambique, South Africa, and Uganda.
financing mechanisms, sovereign insurance contracts, or other risk financing options as part of their efforts to fund domestically finance preventative investments which will lower the overall cost of humanitarian response.

Some of the governments in countries that are likely impacted by El Niño climatic conditions, also have the least capacity to respond, due to rising budget deficits (Angola, South Africa, Zambia and Zimbabwe), high existing debt (Mozambique, Zimbabwe and Zambia) lack of access to the international financial market (Zimbabwe) or severed relations with IFI’s (Mozambique).

**Recommendations**
The most flexible fiscal instrument that governments can turn to in times of crisis is the use of their own **contingency reserve funds** that they have built up during productive times. When an emergency or economic crisis hits, these reserves are used to provide a response through, for example, price subsidies, social safety net support, or infrastructure investment. Governments with sound fiscal management also have the possibility of negotiating **contingent loans** from multilateral development banks to provide access to resources in the immediate aftermath of a natural disaster.

Key lessons learned from the 2015/2016 El Nino response (as per the 2017 RIASCO Action Plan Review Report), include the following:

**LL 1**: Cash-based responses were not systematically coordinated and coordination often took place outside existing national coordination fora.

**Recommendation 1**: Under government leadership, humanitarian and development partners should coordinate social protection interventions, in particular cash transfers, and apply a common system of targeting, transfer size and information management to ensure maximum harmonization in delivering support. Coordination should be based around existing national coordination platforms.

**LL 2**: In general, national social cash transfer programmes were not strong enough to rapidly respond to the needs of affected people through horizontal and vertical expansion, leading to the implementation of parallel cash-based interventions.

**Recommendation 2**: Provide support to Governments in the region to develop shock-responsive social protection systems, including single register, in order to facilitate the effective and rapid horizontal and vertical expansion of nationally led interventions in time of shocks. In some cases, national social protection systems were not adequately equipped to expand vertically or horizontally to rapidly respond to the needs of people affected by emergencies. Humanitarian responses, including cash-based responses, were largely not coordinated through national social protection working groups or coordination mechanisms, contributing to parallel humanitarian responses.

**LL 3**: Prior to the onset of shocks, development partners should provide support to Governments in the region to develop effective, scalable shock-responsive social protection systems, including single and/or integrated registries, in order to facilitate...
the effective and rapid horizontal and vertical expansion of nationally-led interventions in time of shocks.

**Recommendation 3:** While humanitarian cash transfers were largely coordinated within sectoral working groups and clusters, particularly for the Food Security Cluster, there was little coordination on target populations and benefit levels among clusters, and benefit levels were generally not aligned with national social protection coordination mechanisms.

**LL 4:** Existing national social protection coordination platform were seldom used to coordinate cash transfers interventions. Coordination and planning around cash transfer values, key populations, coverage and contingency funding, needs to happen in advance of an emergency to be effective.

**Recommendation 4:** Social protection responses to crises, including cash based programming, should be coordinated through governments’ national social protection coordination mechanisms where they exist. This will help to ensure standardized benefit levels and inclusion of social protection beneficiaries within emergency responses, and focus short-term cash responses on reinforcing government-led systems.