RIASCO ACTION PLAN FOR SOUTHERN AFRICA

RESPONSE PLAN FOR THE EL NIÑO-INDUCED DROUGHT IN SOUTHERN AFRICA

MAY 2016 - APRIL 2017

REGIONAL INTER-AGENCY STANDING COMMITTEE (RIASCO)

Photo credit: OCHA/Tamara van Vliet

TABLE OF CONTENTS

Foreword

The 2015-16 El Niño event has resulted in the worst drought in much of southern Africa in 35 years. This has had a catastrophic effect on the food security of millions of people across the region. Beyond a food security crisis, the region has wider humanitarian needs that result from water scarcity, including impacts on access to water and sanitation, education, health services and livelihoods. Similarly, the effects extend beyond the immediate live-saving measures of humanitarian assistance, impacting development programs aimed at building the resilience of people to overcome shocks in the future.

In recognition of the magnitude of the shock, the Regional Inter-agency Standing Committee (RIASCO) has developed this action plan for Southern Africa. This plan addresses not only the immediate humanitarian needs, but also outlines what needs to be done to build the resilience of the affected population to better handle future shocks, and lay out the macro-economic measures required to better enable the countries of the region to respond to such crises now and in the future. This plan is informed by the 2016 SADC Vulnerability Assessment Committee (VAC) results and reflects the country level responses as reported in national response plans. Many of these are currently being updated to reflect the latest vulnerability data from SADC. The RIASCO Action Plan has been developed together with and is complementary to the appeal recently launched by the South African Development Community (SADC). It can be considered a sub-set of the SADC Appeal, as it captures the effects of El Niño in the seven most-affected countries (Angola, Lesotho, Madagascar, Malawi, Mozambique, Swaziland and Zimbabwe), as opposed to the SADC Appeal that includes all member states except for DRC and Tanzania. Furthermore, the RIASCO plan is limited to the international community's response in the seven countries whilst the SADC Appeal expresses member state's needs beyond the international requirements. In short, readers should see the two processes as complementary.

This Action Plan seeks to support Governments to ensure that alongside the necessary humanitarian response they can address systemic issues necessary to avoid repeat shocks and build resilience. This latest crisis provides a unique opportunity for joint action amongst diverse stakeholders, by enhancing our collective understanding of the range of response options along the humanitarian, resilience, macro-economic and risk management spectrum. The objective of the RIASCO Action Plan is to break down traditional siloes typical of emergency responses, and encourage governments, humanitarian relief agencies, and development partners to work together to meet the immediate humanitarian needs whilst also taking into account the need to build the resilience of the affected population to better handle future shocks. Furthermore, a range of macro-economic and risk management instruments are required to better enable the countries of the region to respond to such crises now and in the future.

The Action Plan is therefore structured along three main pillars: Humanitarian response, Resilience, and Macro-economic and risk management. The humanitarian pillar was co-led by WFP, OCHA and UNICEF; the resilience pillar was co-led by World Vision, FAO and UNDP and the macro-economic and risk management pillar was co-led by the World Bank, with inputs from AfDB, OCHA and ARC. In addition the Action Plan benefitted from WHO's contribution.

This Action Plan provides a framework for a sequenced and prioritized cross-sectoral framework of relief and recovery actions to be implemented in the short (0-12 months), medium (12-36 months) and long-term (+36 months) which seeks to balance humanitarian needs alongside more systemic resilience and risk mitigating measures. It also seeks to provide a prioritization of countries most in need of humanitarian assistance, using a multi-indicator model that recognizes the need to guide donors to strategically allocate funds for maximum impact.

This is a slow onset crisis with wide ranging effects over a period of time. Those involved in developing this plan recognize that it's not exhaustive and as such will need to be revisited in October, once further assessments and analyses of the unfolding crisis are undertaken. This also allows for a clearer picture of the likelihood and impacts of the La Niña risk in the region to be further understood.

HUMANITARIAN DASHBOARD

KEY FIGURES[1,2]

Drought

Worst in 35 years

76%
LA NINA PROBABILITY

Agricultural output

15%
below 5 year average

Livestock deaths

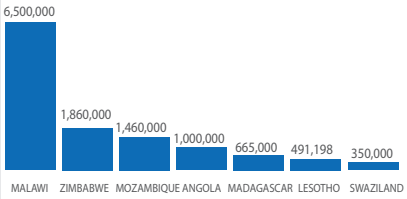
634,000

People affected

32 million
(total population: 236 M)

People targeted

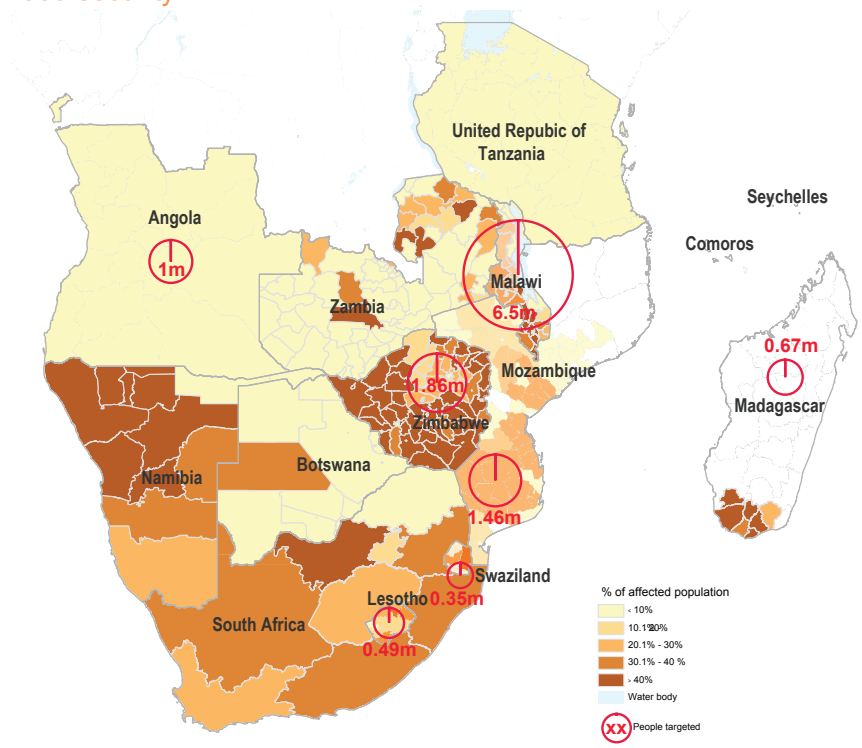
12.3 million



Cholera cases

39,000

Food security[1]



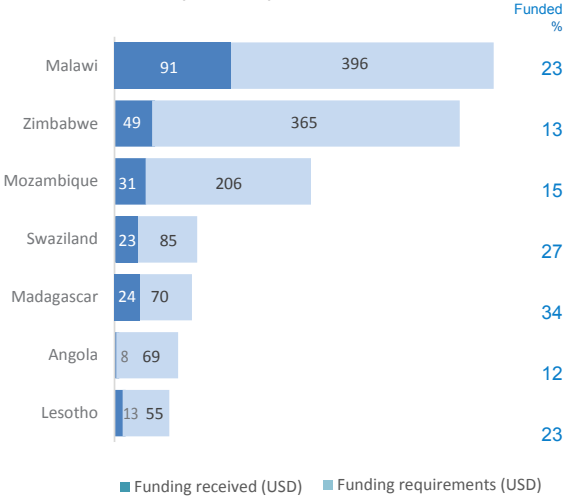
RIASCO Funding[3]

$ 1.2 billion
REQUESTED (US$)

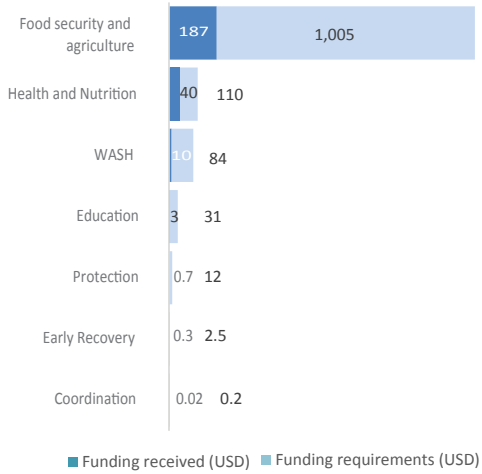
19%
FUNDED

237 m
RECEIVED

Requirements by country (million $) Per cent funded by country



Funding by sector ($)

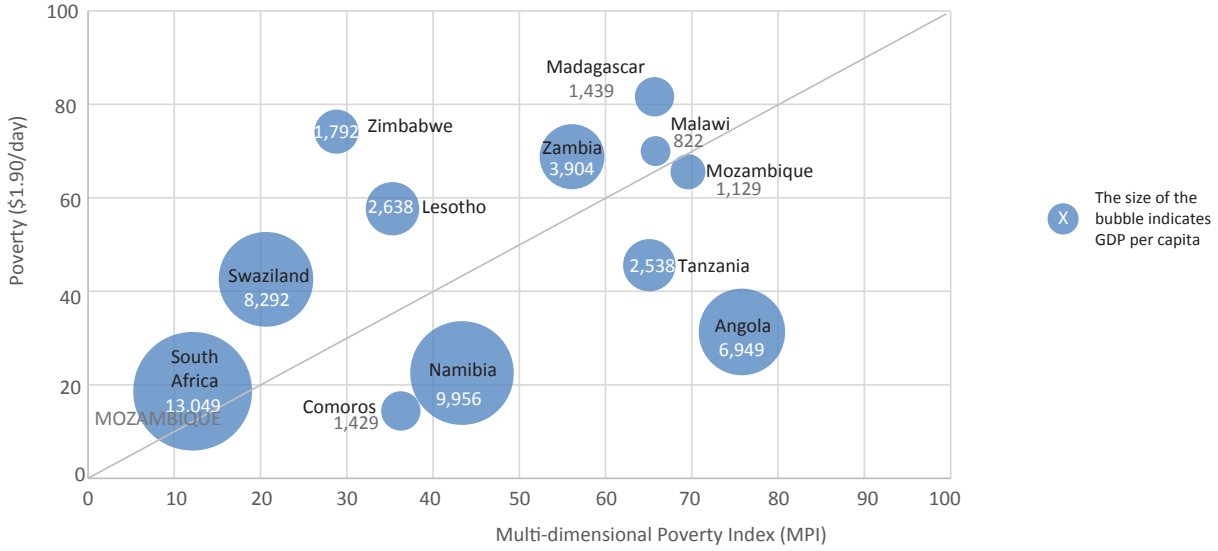


Creation date: 20 Jul 2016
Sources: 1. Total Food insecure (SADC data), 2. SADC & UN Country Response Plans, 3. RIASCO, 4. World Bank(WDI), 5. OPHI, 6. Social Safety Net Atlas (WB)

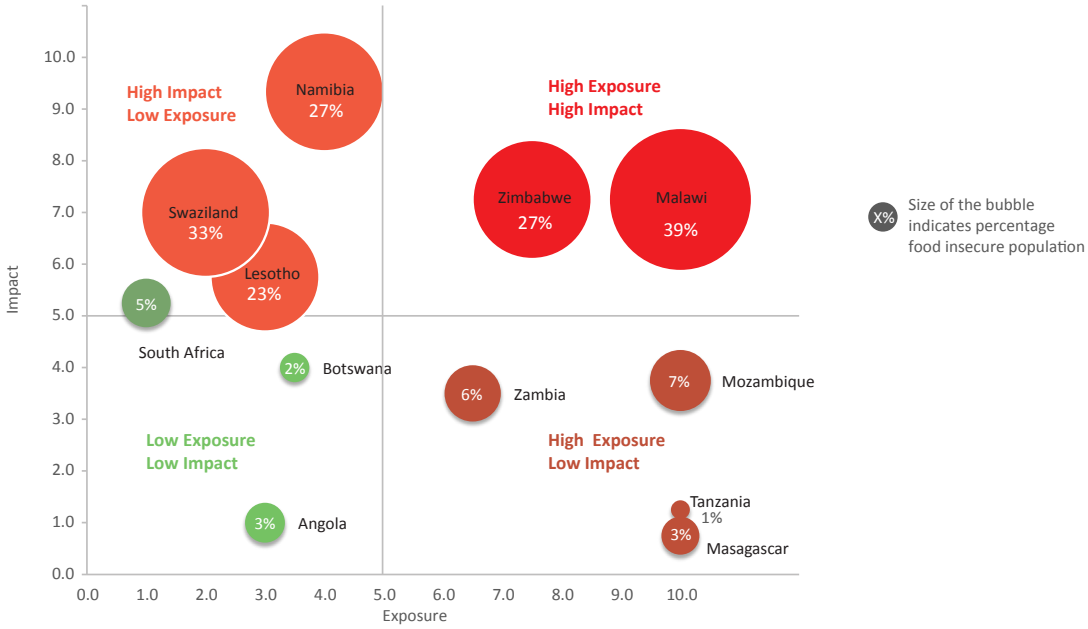
HUMANITARIAN DASHBOARD

VULNERABILITY[4,5]

GDP per capita

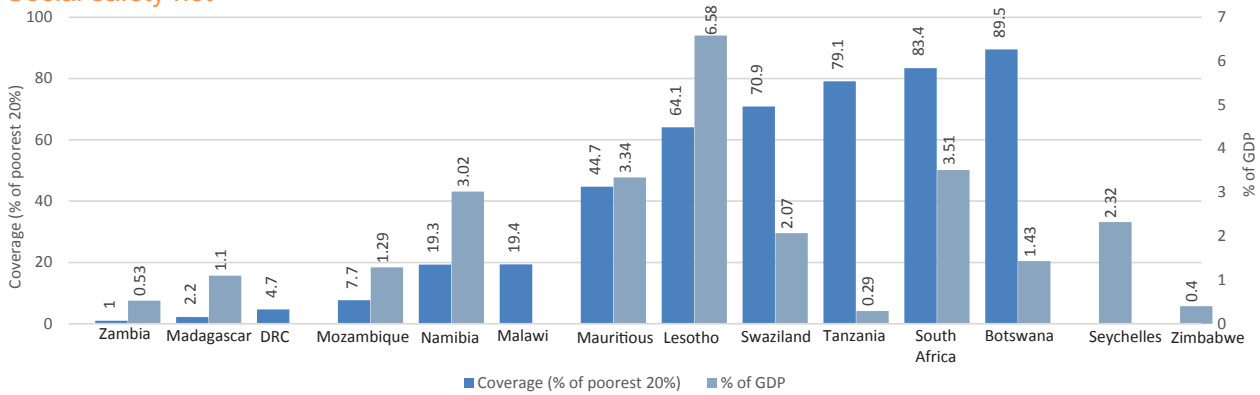


EXPOSURE and IMPACT[1,2,4]



CAPACITY TO COPE[6]

Social safety net



Creation date: 20 Jul 2016

Sources: 1. Total Food insecure (SADC data), 2. SADC & UN Country Response Plans, 3. RIASCO, 4. World Bank(WDI), 5. OPHI, 6. Social Safety Net Atlas (WB)

CHAPEAU

Key messages

The El Niño climatic event has caused the worst drought in 35 years in Southern Africa. The drought has compounded existing vulnerabilities resulting in severe food shortages, particularly in Lesotho, Malawi, Swaziland and Zimbabwe.

An estimated 32 million people will be food insecure between June 2016 and March 2017 including some 18.6 million who will require urgent humanitarian assistance. These figures could change significantly.

The humanitarian impact extends beyond food insecurity; increased levels of malnutrition and difficulty in accessing water have been reported as well as higher school drop-out rates, increased incidence of communicable diseases, and rural to urban migration.

The humanitarian impact is compounded by communicable disease outbreaks, especially yellow fever, economic shocks as well as the risk of civil unrest and conflict, especially in those countries going to the polls.

While the current diminished harvest provides some temporary respite, the lean season will start earlier than normal, and at its peak 12.3 million people will require international humanitarian assistance, costing US$ 1.2 billion, of which 19 per cent has been contributed to date. An additional US $ 200 million is urgently needed to ensure timely procurement and avoid pipeline breaks.

There is an increasing probability of La Niña occurring toward the end of the year, and contingency plans need to incorporate the possibility of localized flooding as well as interventions enabling people to capitalize on potentially good rains.

This Action Plan combines immediate life-saving humanitarian action, with a range of practical options to address systemic issues necessary to avoid repeated shocks and build resilience.

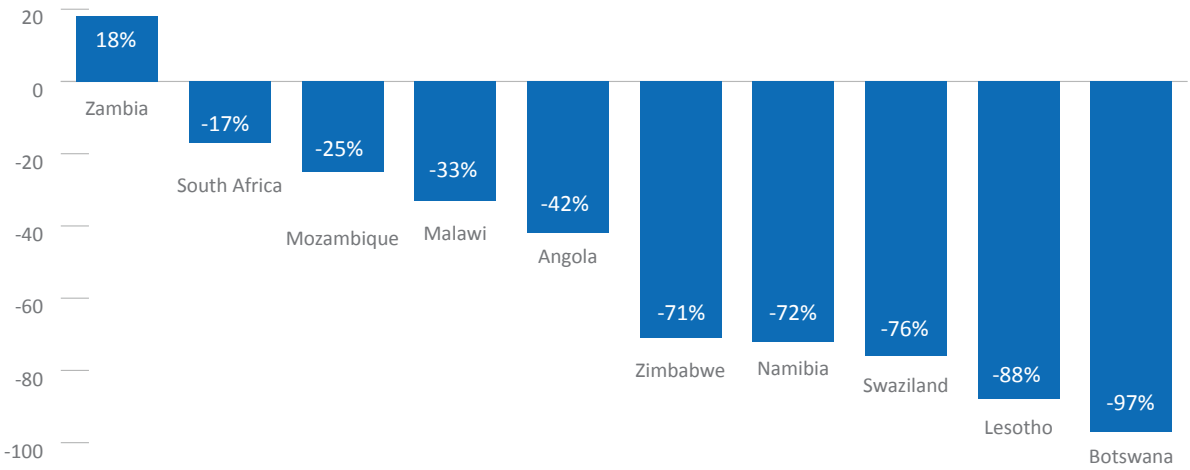
SITUATION OVERVIEW

Vulnerable population severely impacted by El Niño

Southern Africa[1] has been severely impacted by the effects of the 2015-2016 El Niño weather event, causing the worst drought in 35 years. The rainy season, which normally runs between October and April, did not begin in many areas until February 2016, after most crops had already withered. Maize production from the April to June 2016 harvest is expected to be 10 per cent lower than last year. However, the previous growing season of October 2014 to April 2015 was also characterized by extensive rainfall deficits during its key stages – which led to a delayed start of the season and dry spells during the flowering and grain filling stages of the staple maize crop. This season's agricultural production represents a 15 per cent decrease against the five-year average, and the regional cereal deficit through April 2017 is estimated to be 9.3 million tons according to SADC. Livestock production, a critical component of livelihoods in the region, has also been affected, with more than 643,000 cattle deaths reported as a result of El Niño-induced diseases, poor pasture and lack of water.

Southern Africa is home to many chronically vulnerable people. While economic growth has been robust, it has not necessarily translated in poverty reduction because of high levels of income inequality in Southern Africa with six of the world's 10 most unequal countries[2]. Access to healthcare and education, while improving, is still lacking for many, which is reflected in multi-dimensional poverty rates in excess of 50 per cent in half of the countries of the region. The vulnerability is also a consequence of undiversified livelihoods. For more than 50 per cent of the population of the region, rain-fed agriculture is the main source of livelihood, however with wide variation between countries. The mono-cropping of maize, a particularly drought-sensitive crop, leaves many highly exposed to increasingly erratic climatic conditions, which is only predicted to worsen according to the Intergovernmental Panel on Climate Change (IPCC), and will become the new normal.

CEREAL SURPLUS/DEFICIT VS REQUIREMENT (2015/16)



1. The Southern Africa region, as referenced in this appeal, comprises 15 countries, including Angola, Botswana, Comoros, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia, and Zimbabwe. The region is slightly different from the 15-member SADC, which includes the same countries with the exception of Comoros and the addition of DR Congo.
2. Beegle, Kathleen, Luc Christiaensen, Andrew Dabalen, and Isis Gaddis, 2016, Poverty in a Rising Africa, Washington, DC: World Bank

There is, however, **considerable variation between countries of the effect of the drought** due to the severity of the drought and the relative importance of the agricultural sector in the overall economy. In Zimbabwe, where approximately 60 per cent of people work in the agriculture sector, agricultural production declined by 49 per cent. In contrast, while agricultural output is expected to decline by 73 per cent in Botswana, the sector only accounts for 2 per cent of GDP. Zambia is the only country in the region that is expecting a cereal surplus.

The current regional cereal deficit continues to put **upward pressure on market prices**. The poor harvests and resulting cereal deficits have caused food prices to rise faster than non-food inflation, with white maize prices about 50 per cent above the 5 year average for this time of year in most countries. Mozambique has been particularly affected, with prices now more than twice the five-year average.

The effects of the drought have been further **compounded by the macro-economic deterioration** in the region. The decline in commodity prices and the reversal in capital flows due to rising global uncertainty is reducing government revenues at a time when social safety nets need expanding and leading to currency devaluation that increases the cost of food imports, diminishes purchasing power and thereby reduces food access. At least half of the countries in the region have experienced currency devaluation of between 30 and 40 per cent.

As a result of the decline in agricultural production, **poverty is expected to rise**, jeopardizing decades of hard-won developmental gains. Some farmers are likely to abandon their land, leading to increased migration from rural to urban areas. Cross-border movement may be fuelled as desperate people search for food and livelihood opportunities elsewhere.

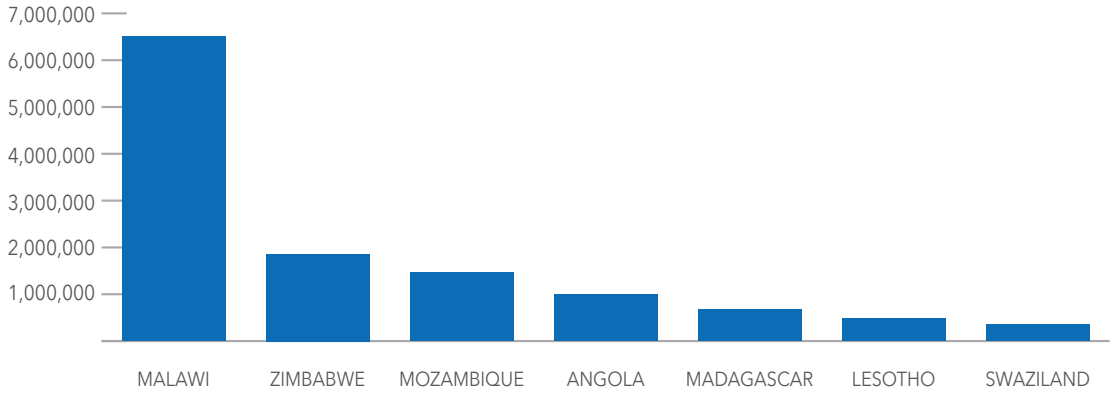
The chance that the 2015-2016 El Niño could be followed by a La Niña developing in fourth quarter of 2016 has increased to 76 per cent.[3] The effect of a La Niña event is uncertain, but it typically impacts the same regions as El Niño with extreme weather. The southern half of the Southern Africa region is likely to face above average rainfall, and possibly flooding, especially in Mozambique and Malawi, during the 2016-2017 cropping season. To be prepared for the possibility of a La Niña event, the humanitarian and development response to the El Niño drought must include preparedness and early action measures for localized flooding and no-regret interventions to enable farmer to capitalize on potentially good rains.

The humanitarian impact of El Niño is overwhelming national response capacities. Food insecurity is forecast to increase and remain elevated through the 2017 harvest, with the number of food insecure people expected to peak at 32.3 million. The meagre 2016 harvest is temporarily improving food access in parts of the region during the harvest period, however food security is expected to begin deteriorating again by July, reaching its peak between December 2016 and April 2017, the period before the next harvest. Current projections indicate that more than 18.7 million people in these 12 countries are expected to be severely food insecure (IPC phases 3 and 4, or Household Economic Approach (HEA) survival threshold) during the 2016-17 lean season.

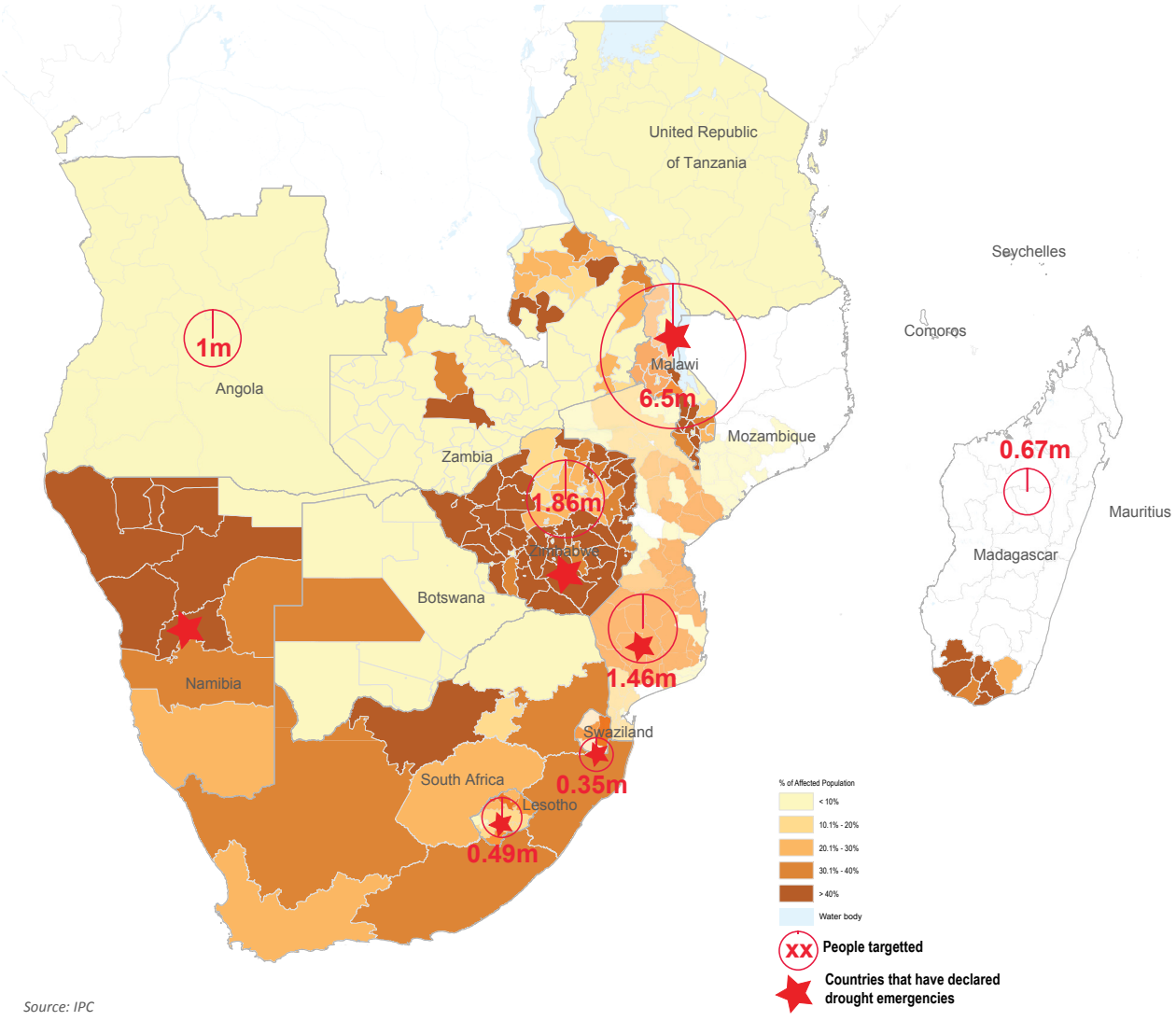
Prioritization and targeting: The countries where the population has been most severely impacted by the drought are Lesotho, Malawi, Namibia, Swaziland, and Zimbabwe. Namibia has a relatively high standard of living and tax base and is expected to be able to cover the needs of the most affected people. The compounded impact of Yellow fever, dramatic decline in the oil price and a sizable number of chronically food insecure makes Angola a concern. Madagascar, with drought in the south in combination with high levels of poverty, has significant humanitarian needs. The decline in agricultural output, conflict risk and highest cereal price increase in the region make Mozambique a country of concern as well. As a result, the humanitarian portion of this action plan will target these seven countries for assistance: Angola, Lesotho, Madagascar, Malawi, Mozambique, Swaziland, and Zimbabwe.

3. IRI ENSO Forecast - CPC/IRI Official Probabilistic ENSO Forecast, 12 May 2016

PEOPLE TARGETED FOR ASSISTANCE



FOOD RESPONSE AND DROUGHT EMERGENCIES



Source: IPC

Current projections indicate that more than 14.1 million people in these seven countries are expected to be severely food insecure during the 2016-17 lean season, and 12.3 million will be targeted for assistance under the humanitarian pillar of this regional action plan.

The humanitarian impact extends beyond food insecurity, including increased levels of malnutrition, reduced access to water, higher school drop-out rates, increased incidence of communicable diseases, high rates of sexual abuse, increasing unhealthy behavior, such as exchanging sex for food; increasing incidents of sexually transmitted infections, HIV and Aids including unwanted pregnancies and gender-based violence and rural to urban migration.

Malnutrition in Southern Africa is chronic, with stunting affecting three in ten children in the region. The region is facing a major crisis as the cumulative and negative impact of pre-drought nutrition vulnerabilities; increased incidence of severe acute malnutrition (SAM) and moderate acute malnutrition (MAM), and subsequent increased risk of death for young children; severe food insecurity; and high prevalence of HIV. As food insecurity tightens and water scarcity increases due to the drought, there are signs of worsening rates of malnutrition. In Angola, for example, severe acute malnutrition (SAM) in the three most affected provinces now exceeds 10 per cent. People with greater nutritional needs remain most at risk, including young children, pregnant and lactating women, the elderly and those living with tuberculosis and/or HIV. Shortages of food also affect access to health services as many people prioritize food over the costs of healthcare.

Country	Region (SADC data)		Action Plan		
	Total food insecure population at peak of lean season (June 2016 - March 2017)	Food insecure requiring emergency assistance[5]	Total food insecure	Food insecure requiring emergency assistance	Targeted for assistance under pre-existing country plans
Angola*	755,930[6]	75,593	755,930	75,593	1,000,000[7]
Botswana	57,411	37,748			
Lesotho	709,394	491,198	709,394	491,198	
Madagascar*	1,140,000	665,000	1,140,000	665,000	665,000
Malawi**	6,500,000[8]	6,500,000[9]	6,500,000	6,500,000	6,500,000
Mozambique*	1,980,000[10]	1,980,000	1,980,000	1,980,000	1,460,000
Namibia	729,134	596,000			
South Africa	14,349,445[11]	2,516,860[12]			
Swaziland	638,251	350,069[13]	638,251	350,069	350,000
Tanzania*	358,505	358,505			
Zambia	975,738	975,738			
Zimbabwe**	4,071,233	4,071,233	4,071,233	4,071,233	1,860,000
	32,265,041	**18,617,944**	**15,794,808**	**14,133,093**	**12,326,198**

5 - The numbers are projections and could change (either way) as the lean season progress and early assumptions are revisited.
6 - This is the estimated number in need of emergency assistance
7 - Predicted figure for 2016
8 - Refers to the peak number of people with survival deficit during the period between May/16-Mar/17
9 - Although IPC analysis were carried out in 13 Southern districts and identified 40% of the households in IPC Phase 3 and 4 for the projected Period Jul-Sep 2016 (no projection was done for the period Oct/16 to Feb/17), the findings presented include direct outcomes of the Household Economy Approach (HEA), where 73% of households are identified in crisis or emergency in these same 13 districts at peak time.
10 - Estimated for peak number of people in need of assistance includes projected IPC figures where between 30-45% of rural population are in need of assistance between Oct/16-Feb/17 and estimates done by SETSAN in March 2015.
11 - The 14.3 million people includes those food insecure in both urban and rural as reported in the General Household Survey of 2015.
12 2.5 million refers only to the rural population requiring immediate assistance.
13 - IPC analysis was carried out in all districts covering all projection periods (Jul-Oct and Nov-Mar) and identified 350,069 households in IPC Phase 3 and 4 at peak of lean season in Nov-Mar (up from 314,000 in Jul-Oct/16).

* Figures are preliminary based on assessments conducted in the consumption year of 2015/16 and will be updated between June-August/ September 2016 based on field assessment carried out in June-July 2016.
** Figures are preliminary pending country validation.

The drought has impacted 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. Unavailability of food caused by low crop yields in times of drought or unreliable rainfall is one of the main reasons why children drop out of school, as during food crises families concentrate their efforts on finding food. This may result in additional protection risks as people may be forced into risky behaviours such as transactional sex. Water scarcity also compromises personal hygiene, resulting in some girls staying back at home during the menstrual period.

Women and girls are among the most vulnerable groups to which we must pay special attention. Indeed, the severe food insecurity has resulted in a sharp increase in the vulnerability of women and girls and a sharp decrease of resilience. Weakened by a calorie deficit and malnutrition, pregnant women are at high risk of complications of pregnancy or childbirth, resulting in increased maternal death. The precarious nutritional status of pregnant and lactating women negatively impact on the growth of the foetus, causing low birth weight, and factor of morbidity and neonatal mortality.

Public health and the risk of communicable disease spread is also a concern. Schools and hospitals struggle to operate without water, as is being seen in Swaziland, where 80 per cent of schools are experiencing a water and sanitation crisis, leading to a high prevalence of intestinal parasites, which also impacts on nutrition. More than 39,000 cholera cases have been reported over the past 12 months in the region, with on-going outbreaks in Zambia and Tanzania. In Angola, a yellow fever outbreak has killed 345 people, and 3,137 people are suspected to be suffering from the disease. The effects of El Niño could exacerbate vulnerabilities by worsening conditions and increasing migration. Yellow fever from Angola has spread to the Democratic Republic of Congo (DRC), and cases have been confirmed in Kenya.

Rural to urban migration is also beginning to increase due to the drought as people search for alternative livelihoods, in a context where many urban areas do not have the capacity to sustain increased flows of people.

Scale of need overwhelming national response capacity. Much has already been done through Government-led efforts to assist vulnerable populations cope with shocks, with a number of government-led response plans developed, including in Lesotho, Mozambique, Swaziland and Zimbabwe. In addition many countries have government led social safety programmes, which, for example, cover 89.5 and 64.1 per cent of the poorest quintile in Botswana and Lesotho respectively. In addition, these social safety nets are among the most effective. For example, the proportion of social safety net beneficiary households in Malawi owning a chicken or a goat/sheep has increased by 59 and 52 per cent respectively. The scale of the drought across the region, however, is stretching national coping capacity to the limits. Five countries – Lesotho, Malawi, Namibia, Swaziland, and Zimbabwe – have already declared national emergencies, in addition to eight out of nine provinces in South Africa that collectively account for 90 per cent of the country's maize production. Mozambique has also issued an institutional red alert for its most affected central and southern provinces.

HUMANITARIAN RESPONSE

SECTORS	People in Need	People Targeted	Funding requirement	Funding received	Outstanding Funding Gap
FOOD SECURITY AND AGRICULTURE	15,034,557	12,326,198	$996,733,024	$183,712,810	$813,020,214
WASH	6,417,507	4,017,254	$83,705,715	$10,174,178	$73,531,537
HEALTH AND NUTRITION	11,546,330	4,555,744	$110,490,166	$39,658,358	$70,831,808
EDUCATION	2,528,623	1,265,157	$30,813,755	$2,747,000	$28,066,755
PROTECTION	8,457,276	4,419,114	$11,654,312	$680,393	$10,973,919
EARLY RECOVERY	1,460,000	250,000	$2,500,000	$130,602	$2,369,398
COORDINATION			$8,472,221	$240,000	$8,232,221
TOTAL	**15,001,557**	**12,326,198**	**$1,244,369,193**	**$237,343,342**	**$1,007,025,851**

Current projections indicate that more than 14.1 million people across the seven priority countries in the region are expected to be severely food insecure (equivalent to IPC phases 3 and 4) during the 2016-17 lean season, and 12.3 million will be targeted for assistance under the humanitarian pillar of this regional action plan. To address the priority humanitarian needs of these vulnerable people, humanitarian partners require $ 1,244 million, of which $ 237 has already been contributed.

With elevated levels of ***food insecurity*** after successive years of drought, a large part of the humanitarian response will be the delivery of food and agricultural assistance to those who are most vulnerable households, including children, pregnant and lactating women, the elderly, and people living with HIV. Humanitarian partners require $ 997 million to provide 12.3 million people with food assistance and support to restore agricultural production. To reduce the risk of children dropping out of school, school-feeding programmes for children will be implemented. To the extent possible, humanitarian partners are encouraged to utilise existing social safety net systems, supporting governments to increase their capacity to expand and contract during crises. $ 184 million has been contributed to delivering food and agricultural assistance to date, but a further $ 200 million is urgently needed to ensure timely procurement and avoid pipeline breaks.

To improve agricultural production of the most vulnerable farming households during the 2016-2017 season, the humanitarian partners are targeting farmers for distribution of agricultural inputs, including seeds and tools. Safeguarding agricultural assets, such as livestock and drought resistant and short cycle and seed varieties for planting, is necessary to ensure food security. To prevent the loss of additional livestock, especially core breeding herds, pastoralists require assistance with survival feeding, fodder seeds, and support for restocking with small ruminants.

To ensure the most vulnerable families, including women and children suffering from acute ***malnutrition***, have access to the healthcare they need, humanitarian partners require $ 110.5 million, of which $39.7 million has been contributed to date. Under the RIASCO Action Plan, children and pregnant and lactating women, especially those living with HIV/AIDS and/or TB, will be targeted for assistance to prevent acute malnutrition. Humanitarian partners will support therapeutic treatment of 237,000 children under age 5 with severe acute malnutrition (SAM) and manage the out-patient care of those with moderate acute malnutrition (MAM). To prevent the spread of communicable diseases exacerbated by the scarcity of water, and to ensure access to health care for vulnerable populations, health facilities will be supported with drugs and supplies, and reliable water and sanitation systems. To ensure timely response to outbreaks, disease surveillance systems will be established and strengthened.

Humanitarian partners require $83.7 million to provide urgent ***water and sanitation assistance*** to 4.0 million people. $ 10.2 million has been contributed to date. To ensure the provision of safe water access in the short-term, water will be delivered by truck to the most urgent locations. At the same time, existing water points will be rehabilitated and upgraded. To ensure that schools and health facilities are able to continue function, these facilities are prioritised for water and sanitation programmes.

Education programmes designed to safeguard school attendance in drought-affected areas require close collaboration across humanitarian sectors. School feeding programmes require water availability in schools to prepare meals. Improved sanitation facilities can increase school attendance, especially among girls. Education partners require $30.8 million to support education programming, of which $2.7 million has been contributed to date.

The food insecurity caused by the El Niño-induced drought raises protection concerns among vulnerable people, especially women and children, as the prevalence of sexual and gender based violence (SGBV) increases during periods of household stress. Protection programming, including support for SGBV survivors and improving monitoring of child migration, requires $11.7 million, of which $0.7 has been received.

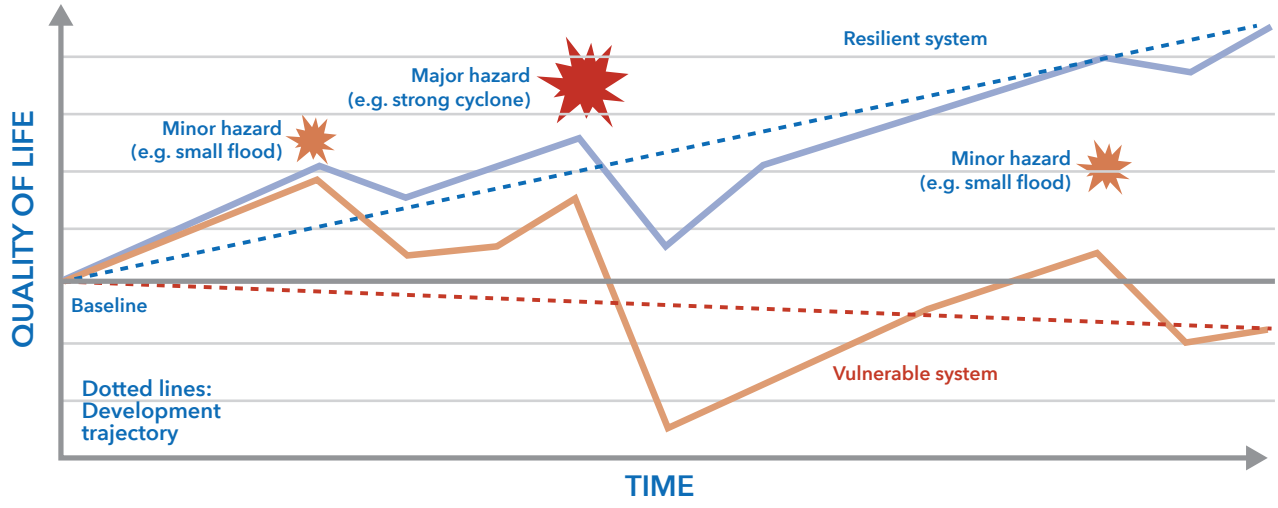
Since the last food crises of 2002 and 2008, Southern African countries have made important strides in terms of better emergency preparedness plans, Government-led vulnerability assessment committees, on-going development orientated resilience programs, and expanding national safety nets.

However, more needs to be done to enhance countries' ability to manage and withstand shocks. This is particularly important since it increasingly unlikely that large-scale international humanitarian appeals are being adequately funded.

Building resilience[14] in the region

Much of the regional response to drought has focused on the most acute humanitarian needs, but humanitarian action alone will be unable to break the cycle of recurrent crises. The most effective way to handle recurring shocks is by building the capacity of vulnerable communities to withstand the impact and recover from their effects. Humanitarian assistance and development approaches must be linked more effectively through the adoption of "resilience" as an overarching objective. **Resilience focuses on the capacity of individuals, communities, national or regional institutions to cope with, adapt to, and recover from inevitable shocks and stresses in disaster-prone areas.**

RESILIENCE AND VULNERABILITY COMPARED



The chart shows how the quality of life changes over time in two communities - one that is resilient (blue) and one that is vulnerable (orange). Over the observed time frame, both vilages are affected three times by a hazard. Three observations are made for the resilient village: First, the immediate hazard impact is smaller, second, the recovery is faster; and third, the overall development trajectory is more positive. The implication of these observations is that reinforcing resilience is important not just in the context of crisis-risk management, but also of development. From Banyaneer (2013).

14. For a good overview of resilience, see https://docs.unocha.org/sites/dms/CERF/OCHA%20Position%20Paper%20Resilience%20FINAL.pdf

The resilience approach builds on the shared interest between humanitarian and development actors to prevent, prepare for, and respond to crises. Resilience includes Disaster Risk Reduction and Preparedness, and is a joint responsibility of national governments, and humanitarian and development actors.

The cost-effectiveness of resilience programming fully justifies the longer-term commitment necessary to build in the affected countries the coping and recovering capacities needed, at all levels, to progressively reduce the financial, administrative and resource burdens of responding to recurrent humanitarian crises. Investing in resilience protects development gains by reducing development losses due to such crises and ensures development opportunities are not missed as acute crises gradually decrease in duration and impact.

Being resilient against climatic shocks means not being dependent on rain-fed agriculture, having early warning of a climatic shocks that translates into prompt action, and access to functioning basic services and social protection mechanisms to avoid falling on a vulnerability pathway.

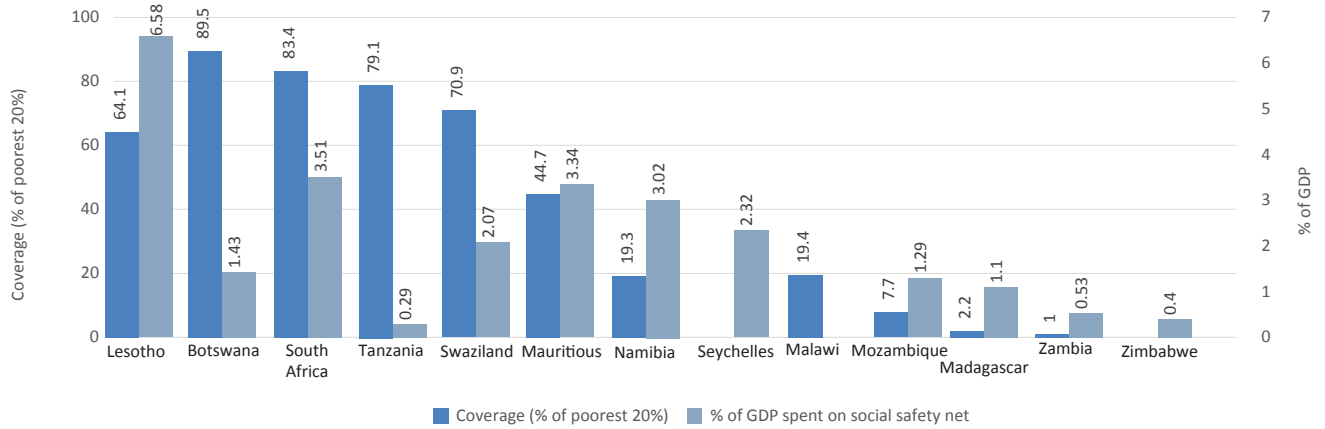
1. Economic and productive diversification: Most of the rural populations in Southern Africa are dependent on the extractive use of natural resources through farming, fishing, crafts, and the harvesting of forestry products. In addition there is overdependence on maize as a single, soil-depleting crop, which is vulnerable to drought. Due to technological gaps, poor physical infrastructure, inadequate support services, dependence on rain-fed agriculture as well as the eroding impact of frequent shocks (such as drought, floods, trans-boundary pests and diseases), vulnerable farmers' production capacity is extremely low, relegating households and communities to a perpetual life of subsistence. There is an acute need for economic diversification (adopting a wider range of economic activities, e.g. off-farm income), as well as productive diversification to reduce the overdependence.

2. Access to basic services: Continued access to basic social services – health, nutrition, water, education – and protection is critical for communities, particularly when faced with prolonged external shocks. The impacts of 2015/2016 drought caused by El Niño have exposed the increased vulnerability of communities who have limited or no access to basic social services. Only 46 per cent of the population had access to improved sanitation facilities in 2015 and The near collapse of the health services in several countries in the region shows clearly how these investments should become a key priority in shocks prone countries.

3. Preparedness and Early Warning: There is an increased probability of La Nina occurring in the second half of this year – from historic data we know this results in above average rainfall. So contingency plans need to include flood risk, while at the same time enable farmers to capitalize on the opportunity of above average rainfall through no regret interventions.

4. Expand social safety nets: The region has a basic network of safety nets that provide cash to the most vulnerable, though efficiency, coverage, and targeting can be improved. Where markets are functioning and basic supplies are readily available, governments and partners can provide emergency cash assistance through such existing systems. In the medium to long term improvements to the systems contribute to increased resilience and ability to cope with next crisis.

SOCIAL SAFETY NET



Source: World Bank

To support the poorest and most vulnerable households, especially those reliant upon subsistence rain-fed agriculture, governments often implement blanket price subsidies of basic commodities. Recent experience, however, shows that such subsidies rarely reach the poorest, and can encourage hording and resale, negatively impacting the market. Governments can more effectively assist the most need through cash and food transfers through targeted **household safety nets**. To effectively provide assistance after a shock or natural disaster, the safety nets should be capable of scaling up and adjusting as required. Potential beneficiaries, those who are vulnerable to different kinds of shock, would need to be identified in advance, together with targeting mechanisms that can identify and enrol households in need of assistance.

In Malawi, the emergency response is planned to be built on the national cash transfer programme that is implemented in 18 of 28 districts and reaches 170,000 households.

Cash-based assistance in humanitarian programmes should be synchronised with existing government-led transfer systems, where possible. Decisions about the mechanisms by which emergency assistance is delivered should always be based on the humanitarian imperative and market realities. Where it is possible to use these the use of existing systems will build greater coherence in beneficiary targeting and linkages among the major government programmes such as delivering top-up assistance and linking to complementary nutrition interventions. Care should be taken to ensure that regular social cash transfer beneficiaries are automatically registered on beneficiary lists and decisions about further humanitarian assistance based on economic criteria, to ensure that they are not excluded from additional humanitarian assistance they may require.

While Government led safety-nets have been expanded over the past decade; there are often multiple programs with limited, overlapping and insufficiently pro-poor coverage, resulting in high administrative costs and limited flexibility to adapt and respond to new needs.

Ultimately, for both donors and multilateral organisations, a paradigm shift is required to support/design risk informed programmes (founded on a thorough analysis of the national and sub-national structural vulnerabilities) containing both development and emergency elements to deal with the acute/transitory crisis, grounded on risk management rather than risk aversion and on the use of crisis modifiers.

Macro-economic risk management options

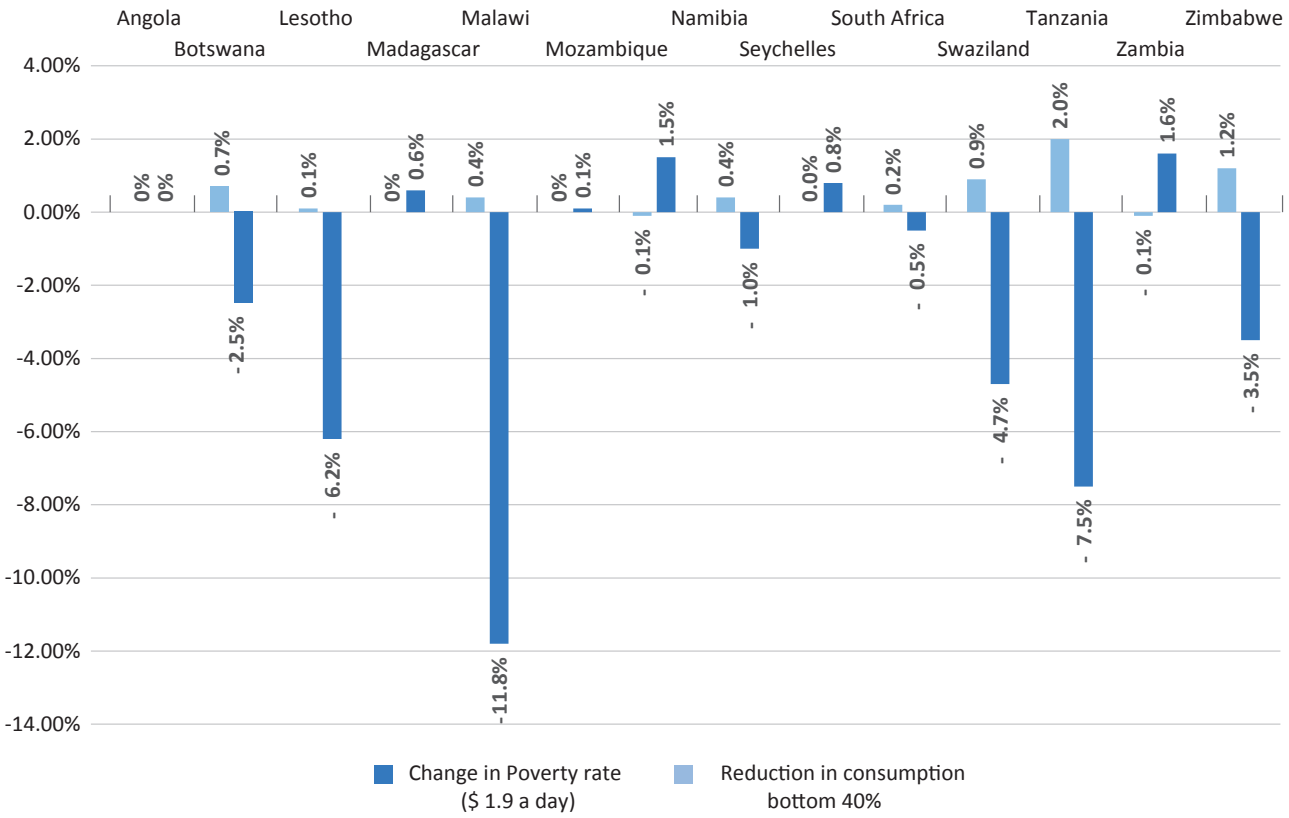
The drought does not only have an impact on food insecurity, but also on GDP and consumption and the World Bank has modelled the aggregate impact and the impact on the poorest 40%. This underscores the importance of resilience building for the most vulnerable.

Not only should individuals be more resilient, the same is true for Governments. 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).

Most of the governments in countries that are hardest hit by the drought, also have the least capacity to respond, due to high existing budget deficits (Lesotho and Malawi), high existing debt (Mozambique and Malawi) lack of access to the international financial market (Zimbabwe) or severed relations with IFI's (Mozambique).

At the macro-economic level, the countries of the region have a range of risk management instruments available to them that can help to mitigate the impacts of drought and other natural disasters. These instruments can be divided into three categories, instruments that enhance fiscal buffers, those that support domestic food supply, and those that support poor and vulnerable groups.

THE SOCIAL IMPACT ON EL NINO IN 2016



Source: World Bank staff calculations using LINKAGE model

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. In Southern Africa, a contingent loan has been implemented in the Seychelles. An analysis of economic indicators of countries in the region shows that among the countries that are expected to be most economically affected by El Niño (those countries where the cost is expected to be greater than 0.5 per cent of GDP), five countries do not have sufficient reserves or will likely have difficulty finding external financing: Lesotho, Malawi, Mozambique, Zambia, and Zimbabwe.

When fiscal reserves and contingent loans are not available, **market-based risk transfer solutions, such as insurance/reinsurance,** can be used to finance disaster response. Such risk transfer solutions are financial contracts based on an underlying weather index that transfer the risk to the financial markets. In return for payment of a premium, countries are insured against the risk of adverse weather events, payments are triggered when adverse weather events occur. Drought insurance has been used in Malawi between 2008 and 2011. **Regional risk pools** are another option for governments to access market-based insurance at a lower cost than for an individual country. African Risk Capacity (ARC) is an example of a risk pool in which Malawi is currently participating.

In an effort to ensure the domestic supply of food in markets during times of crisis, governments often raise trade barriers, including import/export duties and trade restrictions. Such policies, however, can worsen the situation by pushing up prices, lowering supply and exacerbating inequalities between countries in the region. Lowering of trade restrictions on food products can help ensure imports remain competitively priced. South Africa has recently raised import duties on wheat and Zambia imposed a temporary ban on exports of maize, which, if expanded and continued could aggravate regional welfare losses.

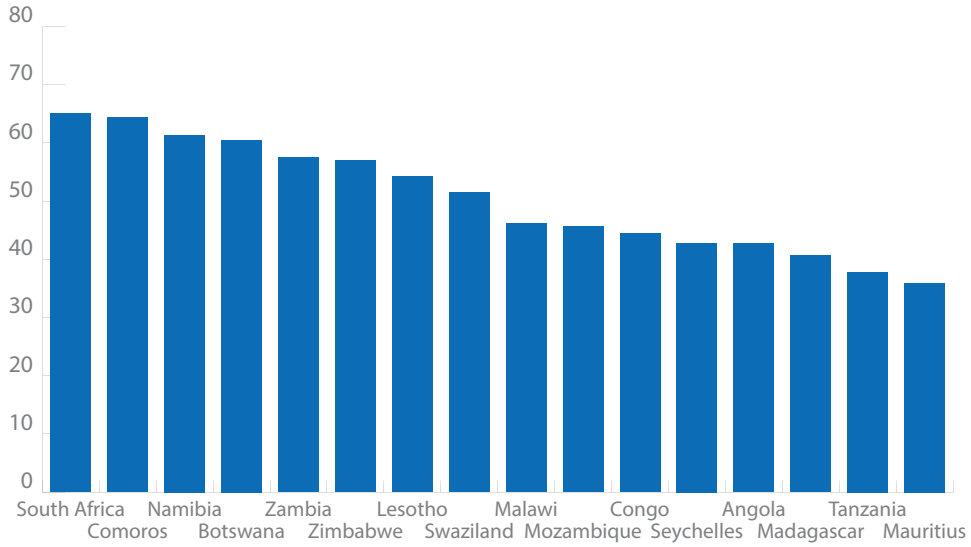
Instead of imposing trade barriers, governments can achieve food security and price stabilization more cost-effectively, with fewer market-distortions, by adapting **market-based solutions**. Such solutions can be structured as **storage instruments**, such as a) strategic grain reserves, which provide protection against supply disruptions but also contribute to domestic and international price stabilization, b) **physical hedging instruments**, such as forward contracts, contingent contracts (min/max contracts and physical options), and repurchase agreements (REPO), which can also create the basis for "virtual" reserves, and c) **financial hedging instruments**, such as futures, options, collar contracts, and commodity-linked loans.

Finally, **micro-level insurance programmes** are being developed that transfer risk from individual small-holder farmers to the market, such as insurance and reinsurance companies. **Micro-level index insurance** and **area yield index insurance** can mitigate the impact of agricultural shocks such as droughts on poor producers. These insurance schemes provide a social safety net to vulnerable producers and promote increased productivity among semi-commercial producers. However, it is crucial that insurance is not seen as the only answer. It should be accompanied by risk reduction measures, and continued efforts to expand (and improve the targeting and transparency of) social protection schemes so that the poorest, who cannot afford insurance, are not excluded.

EXISTING VULNERABILITIES

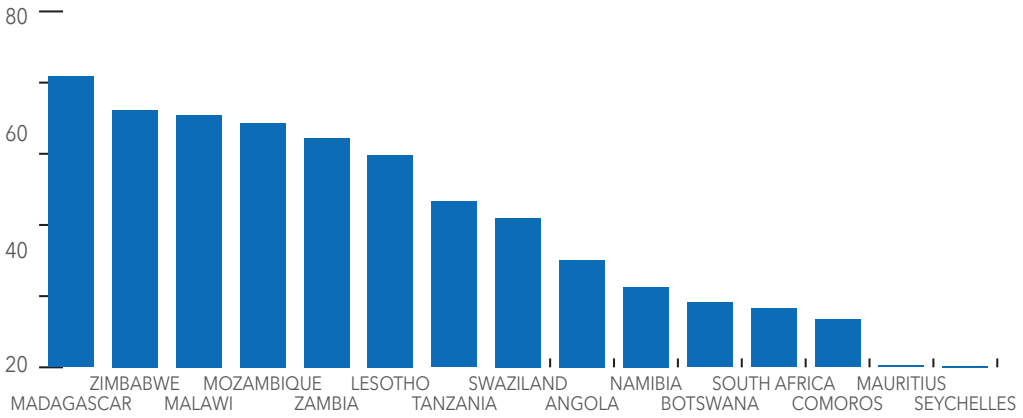
Southern Africa is home to chronically vulnerable people. Economic growth has not necessarily translated in a reduction of poverty because of high levels of income inequality. Six of the world's 10 most unequal countries are found in Southern Africa.[15]

INCOME INEQUALITY (GINI COEFFICIENT)



15. Beegle, Kathleen, Luc Christiansen, Andrew Dabalen, and Isis Gaddis. 2016. Poverty in a Rising Africa. Washington, DC: World Bank

PERCENTAGE OF POPULATION LIVING IN POVERTY

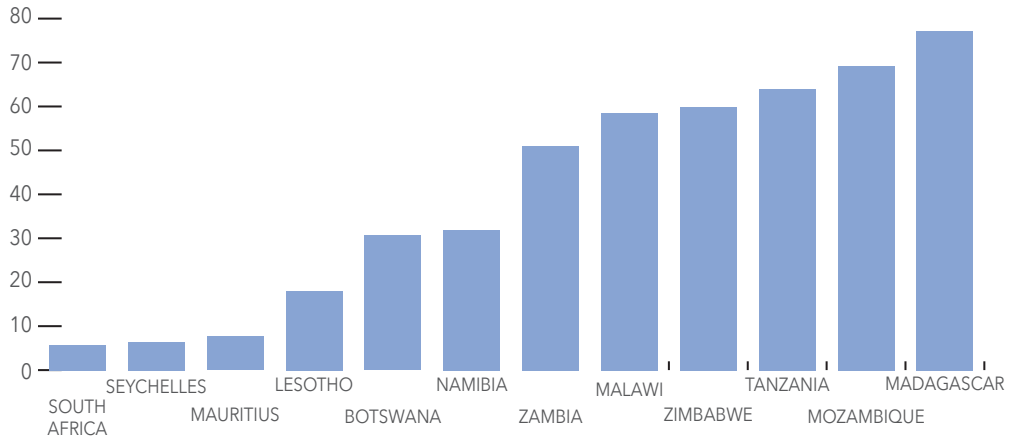


Source World development Indicators, World Bank

As a result, levels of poverty remain high, and exceed 50 per cent in seven countries in the region. These chronically poor households are unable to create and sustain economic activities, and, as a result, accumulate few resources to cope with and recover from shocks. Lack of sufficient access to financial markets, loans, or insurance products, which could help farmers recover from regular climate disruptions, and social protection schemes for those who cannot access the capital required to purchases financial products contributes to the vulnerability of households reliant upon agriculture and further degrades livelihood conditions.

More than 50 per cent of the population in six countries in the region is reliant upon agriculture for their employment. Because no country has more than 5 per cent irrigated land (apart from Mauritius at 22 per cent), the region is left vulnerable to climatic shocks. The lack of irrigation is compounded by the lack of diversified cropping, with maize the most important field crop and the main food. This has led to an undiversified diet and high levels of vulnerability to shocks.

AGRICULTURE EMPLOYMENT

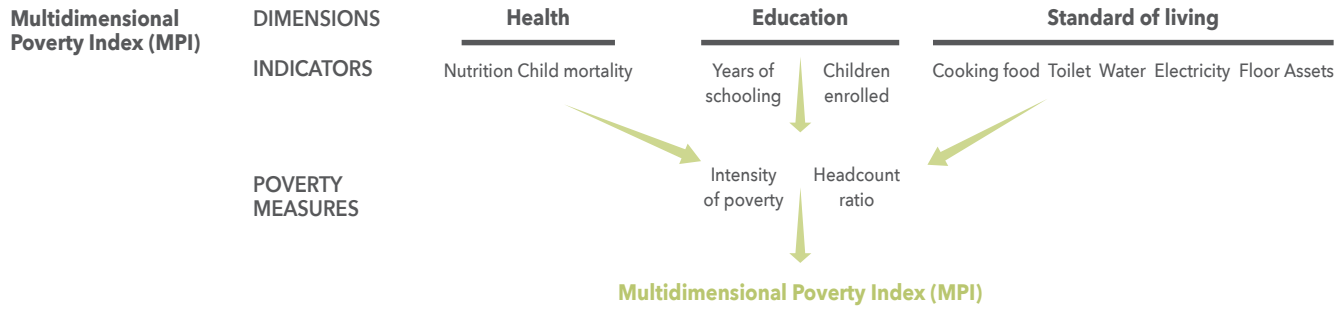


Source World development Indicators, World Bank[16]

16. Note there are other sources providing a higher figure for Lesotho

Poverty is not merely a lack of income and savings. Weak educational attainment limits people's capacity to access paid jobs and unskilled workers have limited options for employment outside the agricultural sector. The reduced productivity of commercial farms during droughts, however, means fewer employment opportunities for unskilled workers. High levels of unemployment increase the likelihood of migration towards urban centres or to other countries in the region, putting pressure on governments, which are already struggling to provide basic services.

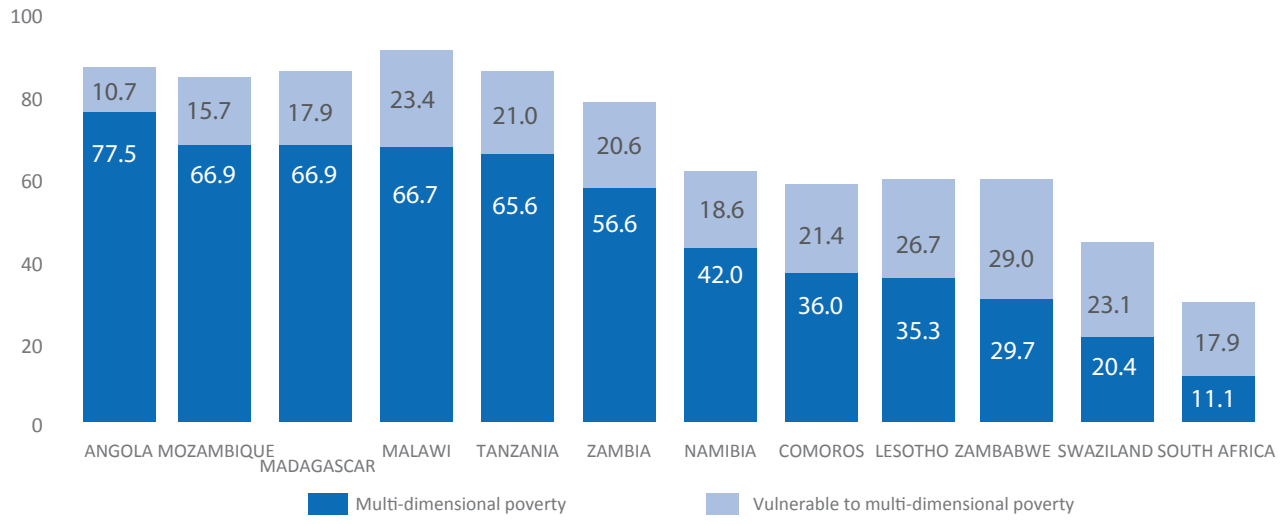
Like development, poverty is multidimensional — but this is traditionally ignored by headline money metric measures of poverty ($1.90/day). The Multidimensional Poverty Index (MPI), complements monetary measures of poverty by considering overlapping deprivations suffered at the same time. The index identifies deprivations across the same three dimensions as the Human Development Index (HDI) and shows the number of people who are multi-dimensionally poor.



There has been noticeable improvement in the access to basic services and as a result there are important differences between the percentage MPI poor and the percentage of $1.90/day poor. In Lesotho, Swaziland, Malawi, Madagascar, Zambia and South Africa, the MPI is lower than money metric measures of poverty. Despite progress, the majority of people in most countries are still multi-dimensionally poor.

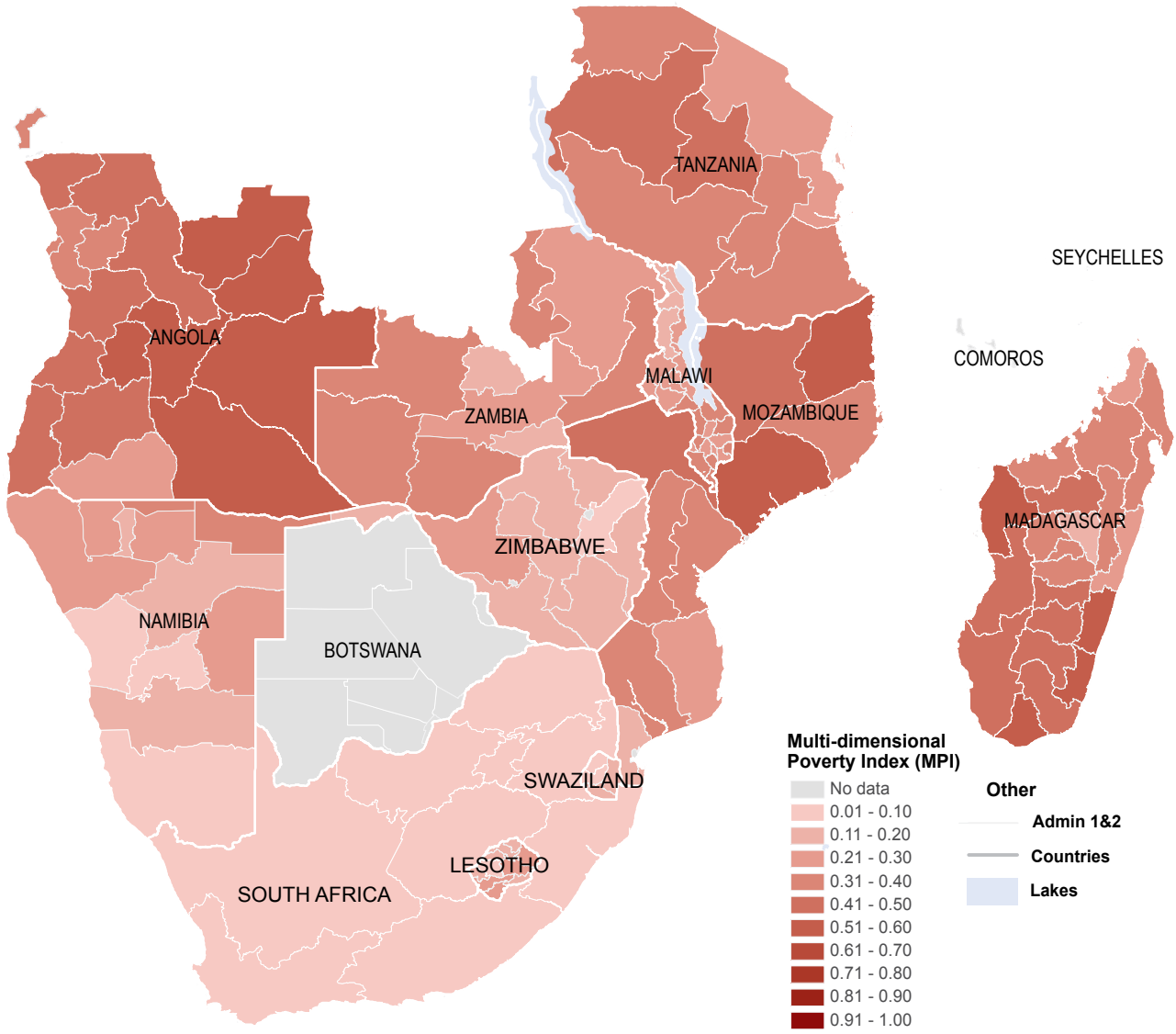
Significant progress on reducing multiple dimensions of poverty has been achieved in some countries. In Comoros and Mozambique, for example, every MPI indicator was significantly reduced between 2004-11 and 2003-11 respectively. The degree of deprivation varies more widely within countries than between countries. National-level analysis can obscure regional variation, and thus hotspots of chronic vulnerability

MULTI-DIMENSIONAL POVERTY



Sources: United States Department of Agriculture, OPHI

SOUTHERN AFRICA: MULTI-DIMENSIONAL POVERTY INDEX (MPI)



Sources: Oxford Poverty & Human Development Initiative (OPHI) 2016, South African MPI (Statistics South African, SAMPI 2014), Angola HRD 2011 report (UNDP).

and those at risk of acute humanitarian need. To better identify those most vulnerable to climatic shocks multi-dimensional poverty is mapped at a sub-national level.

In addition, poverty statistics do not capture the presence of particularly vulnerable groups like internally displaced people, migrants, and those suffering from HIV/AIDS.

Forced displacement and economic migrants

The combined effect of climate change, economic forces and socio-political conditions has increased the frequency and severity of risk exposure among vulnerable populations. The worst affected population groups have also been those forced or obliged to vacate their homes, or places of habitual residence and rebuild their livelihoods elsewhere often under much more precarious circumstances.

Food security shocks and chronic food insecurity are some of the major motives for migration, particularly to urban areas and neighbouring countries perceived to have more stable economies. For instance, the collapse of Zimbabwe's economy exacerbated by recurrent food shortages, partly as a result of extreme weather phenomena, pushed hundreds of thousands of people out of the country leading to the current agricultural labour constraints and cross-border migration crises. Due to internal rural-urban migration this also resulted in increased urban poverty and mushrooming of irregular settlements.

Southern Africa currently hosts more than half a million people of concern to the UN High Commissioner for Refugees (UNHCR). As of mid-2015 it included approximately 179,837 refugees, 860,500 asylum seekers and nearly 2,902 returnees who were repatriated to their country of origin.

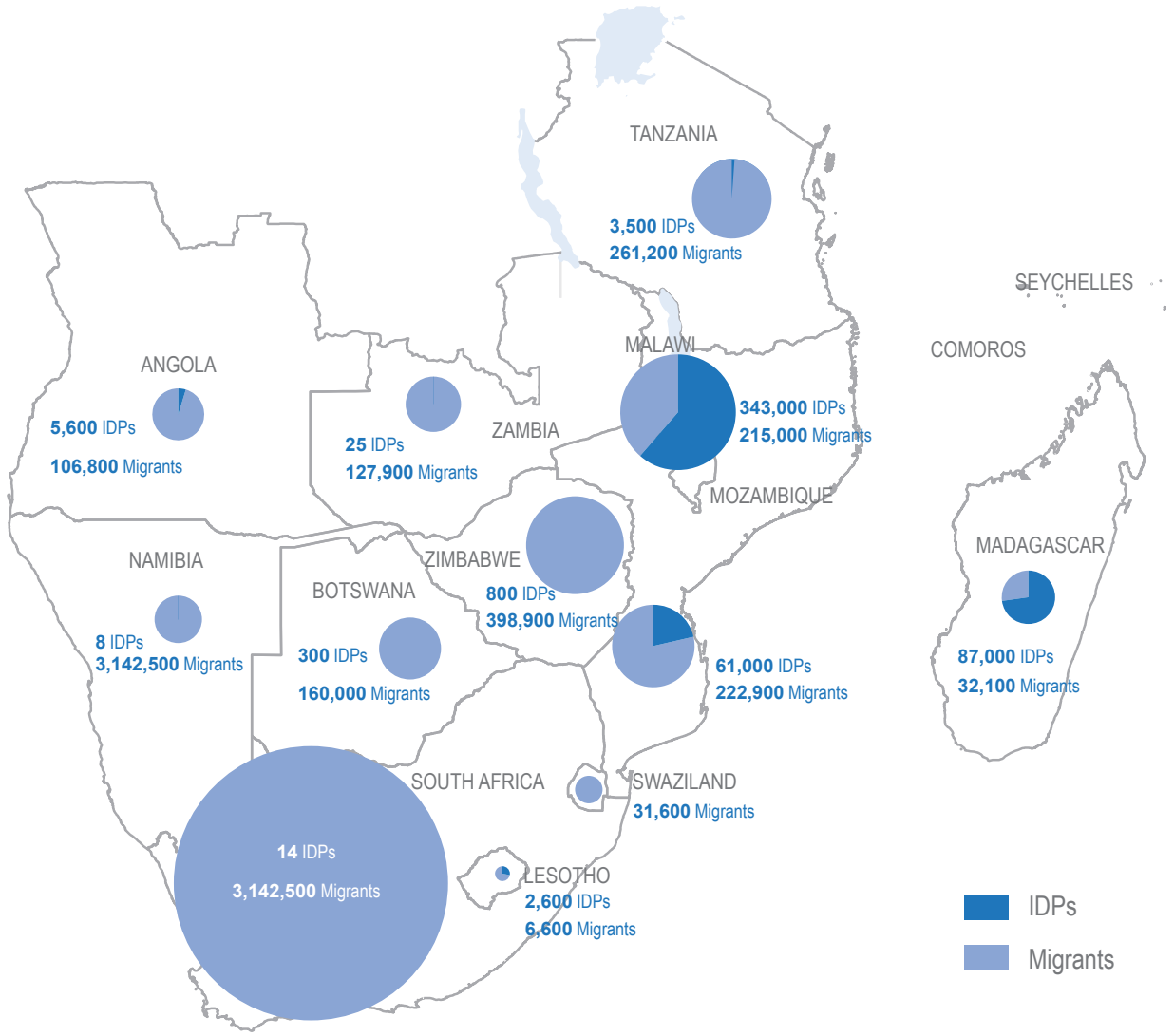
Identifying people in need of international refugee protection is difficult due to the severe capacity constraints faced by the national asylum systems in the countries of the region. While nearly all countries in the region are party to the 1951 Refugee Convention, its 1967 Protocol, and the 1969 OAU Convention, most have done so with reservations regarding freedom of movement and access to employment. Nearly all countries in the region, with the exception of Angola and South Africa, implement encampment policies that restrict freedom of movement and limit possibilities for self-reliance. While South Africa is the traditional main destination country, countries such as Malawi, Mozambique and Zambia are increasingly being viewed as alternative destinations.

As of March 2016, a cumulative total of 11,746 Mozambican asylum seekers have been registered in Kapisa, Malawi – a sharp increase from July 2015 when a cumulative total of 700 asylum seekers had been recorded since the beginning of the year. The number of Mozambican asylum-seekers being registered at Kapise has decreased significantly since mid-March, from 250 per day to an average of 45 persons per day. Asylum-seekers report that the presence of Mozambican soldiers patrolling the Malawi border has compelled them to use other border entry points, notably Ntcheu and Dedza.

Southern Africa currently does not have a large caseload of internally displaced people, although floods and drought displace many thousands annually. In 2015, 343,000 people in Malawi and 61,000 people in Mozambique were internally displaced due to flooding. In many parts of the region, communities regularly move to temporary shelter for a part of the year, returning to the flood plains once waters have subsided, as is the case in northern Namibia. Urban displacement is also a regular feature of the flood season, particularly around Antananarivo, Madagascar's capital. As the second half of the flood season begins in late 2016/early 2017, especially if a La Niña event occurs, displacement is likely across the region. Internally displaced persons are also at greatest risk of food insecurity and malnutrition as well as income insecurity as they are disconnected from their sources of livelihoods and are often resettled in more fragile environments. Temporary camps usually require support in camp coordination and camp management.

The protection of cross-border displaced population in the context of natural disasters and effects of climate change is a matter that requires cooperation by states in Southern Africa.

SOUTHERN AFRICA: DISPLACEMENT



The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

Creation date: 1 July 2016 **Sources:** IDMC 2016 Global Report on Internal Displacement report. http://www.internal-displacement.org/globalreport2016/

Most regional migration has been to South Africa, which hosts more than 3.1 million migrants, but countries such as Malawi, Mozambique, and Zimbabwe receive high numbers.

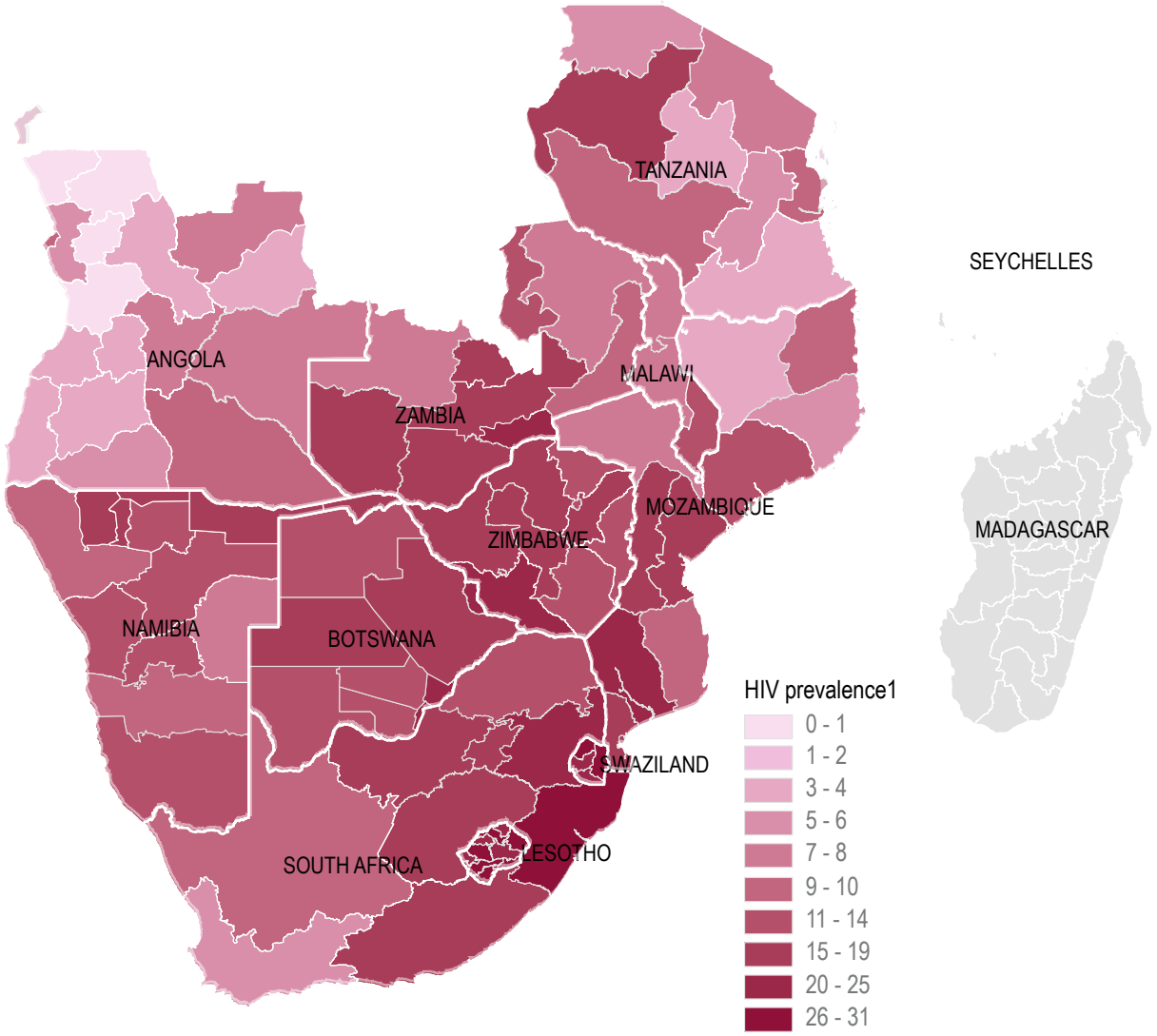
It is through mobility decisions that individuals, households and communities access opportunities for poverty alleviation, risk reduction, coping and shape their well-being. Migration can either contribute to the resilience of communities by creating opportunities for positive and sustainable economic development or diminish resilience by exposing communities to increased fragility, vulnerability and disaster risk.

Rural households buy some or most of their food with cash from family members who have moved within the country or across borders to earn income. Research shows that cash remittances are a crucial source of income in Southern Africa, with 74 per cent of all migrant-sending households receiving remittances. The vast majority of households (93 per cent) buy food and groceries with this income. No other expenditure category comes close, although a significant minority pay for transportation, clothing, education and medical expenses. A mere 15 per cent spend income on agricultural inputs.

HIV/AIDS prevalence and TB co-infection rates

Southern Africa, with 3.3 per cent of the world's population, accounts for one-third of all people living with HIV (PLHIV) worldwide and remains the global epicentre of the AIDS pandemic. In 8 out of the 14 most El Niño affected countries, HIV prevalence rate among people 15 to 49 years is over 10 per cent (Botswana, Lesotho, Malawi, Mozambique, South Africa, Swaziland, Zambia and Zimbabwe). At an estimated 28.8 per cent, Swaziland has the highest adult HIV prevalence in the world, followed by Lesotho (22.7 per cent) and Botswana (22.2 per cent). With 6.7 million people living with HIV (19.2 per cent of the population), South Africa is home to the world's largest epidemic.[17] Similarly, the region continues to face HIV/TB co-infection with TB remaining the leading cause of death among people living with HIV. Incidence of TB cases per 100,000 people ranks from 235 in Madagascar to 8,343 in South Africa.[18] At least 73 per cent of patients with TB are co-infected by HIV in Swaziland, and 74 per cent in Lesotho.[19]

SOUTHERN AFRICA: HIV PREVALENCE



The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

Creation Date: 18 Feb 2016 **Source:** UNAIDS

17. All HIV prevalence data from UNAIDS AIDSinfo, 2015 estimates (http://aidsinfo.unaids.org/)
18. WHO 2014 Estimated TB cases and deaths database
19. Lesotho GARPR 2015

Though these countries are part of the 35 priority `Fast-Track' countries of UNAIDS' strategy 2016-2021, and for ending AIDS globally by 2030, El Niño's disruption of health services may have compromised the case management of patients. Similarly, the closure of health facilities due to lack of water supplies has affected ART access.

The 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.

Gender and food insecurity: El Niño's impact on women and girls

Disasters have a disproportionate impact on women. Structural inequalities, existing gender discrimination and unequal power relations mean they are often hardest hit, take longer to recover, and may not recover as fully as men. Similarly, the way women experience vulnerability is very different to men. Lack of access to, or control over, resources, and exclusion from claiming basic entitlements, increase women's vulnerability and under-mine their ability to cope with the impacts of disasters, including those induced by climate change.

Women and girls face a greater burden during times of food insecurity, being primary family caregivers and 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.

Women and girls face a heightened risk of protection concerns and loss of education due to socio-economic roles, including supporting vulnerable family members and migrating to cities in search of work[20]. Where men have left the communities in search of employment, women have assumed the role of head of household under precarious conditions. Vulnerability has increased among single female caregivers, pregnant and lactating women, caregivers with a disability, the extremely poor, those with low literacy and educational levels, and those with cultural restrictions on their travel.

Existing gender inequalities may also be exacerbated while changing gender roles in times of crises can also create new or additional disparities. Most of these protection challenges in disaster situations are long-standing protection and human rights concerns, which are brought to light and further exacerbated by the emergency.

There are increasing reports of child marriage among some affected communities in Lesotho as well as an increasing number of girl students being withdrawn from school. The prevalence of child marriage increases during periods of food insecurity in an effort to reduce the number of mouths to feed, increase the girls' chances of being fed by wealthier husbands, and increase family resources through the collection of a dowry. Child marriage is considered SGBV, and child brides are at greater risk of domestic violence and psychological trauma.

20 UNOCHA, Humanitarian Needs Overview, Zimbabwe, March 2016 https://www.humanitarianresponse.info/en/system/files/documents/files/zimbabwe-humanitarian-needs-overview-2016_0.pdf

Women play a key role in household livelihoods and within communities, and their knowledge and leadership needs to be incorporated into preparedness, response, recovery and resilience planning and implementation. The specific needs of women and girls have traditionally been excluded from initial rapid assessments, and are often not addressed in responses and reliable sex-disaggregated data is lacking to inform sectoral interventions.

Infrastructure

The lack of investment in adequate infrastructure in risk-prone areas (droughts as well as floods) impacts national economies by driving up costs for different sectors, including transport (damage to infrastructure such as bridges), water, agriculture (damage to irrigation infrastructure) and health (spread of disease through contaminated water). The heavy repair costs have been highlighted in Namibia after the 2008-2009 floods, coupled with reduced access to public services and loss of lives.

KEY RISKS

1. El Niño and La Niña Climatic shocks

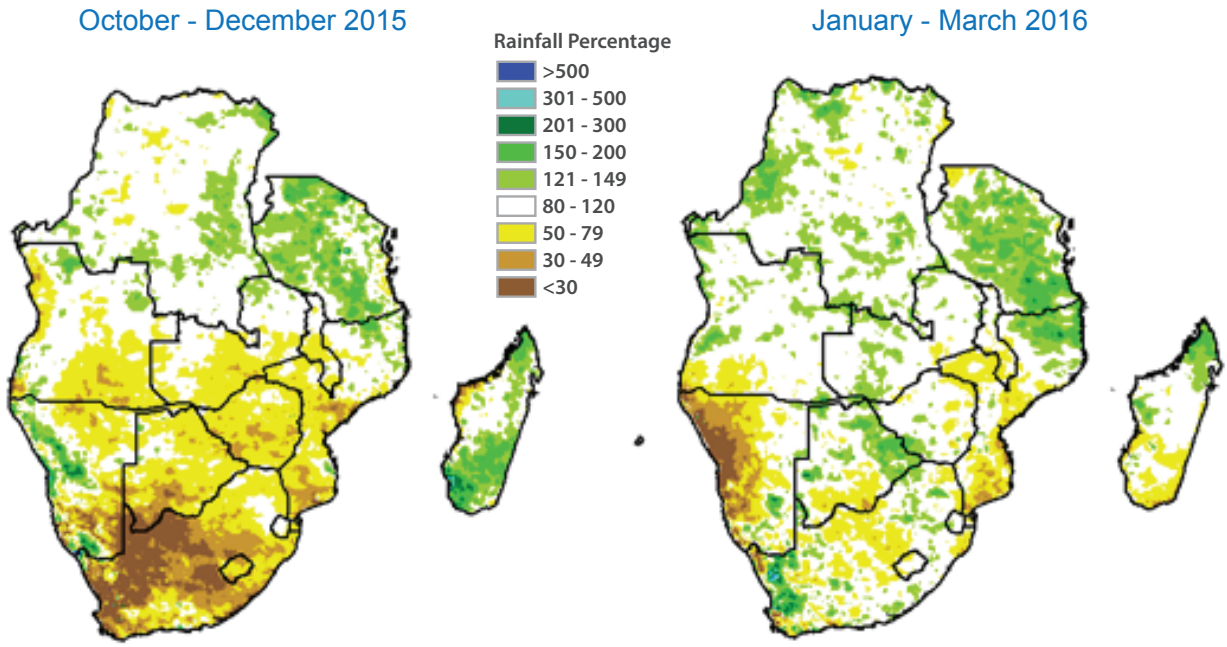
The current El Niño was officially declared in March 2015. It reached its peak intensity and has almost unwound back to neutral conditions.

Historic impact: Several studies have shown a relationship between El Niño–Southern Oscillation (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). Historical records underline the clear link between El Niño events and drops in national maize yield. This link is strongest for the main maize producer (South Africa) and one of the most food insecure countries (Zimbabwe). The growing season (October 2015 to April 2016) in Southern Africa developed during the peak stage of one of the strongest El Niño events on record. There is also a compounded element to this. Unlike previous events, the official onset of this El Niño in March 2015 was preceded by a borderline El Niño weather event that caused drought conditions and loss of production during the previous growing season.

The early stages of the 2015-2016 season were characterized by markedly drier than average conditions and widespread delays in the start of the rains, particularly in eastern South Africa. Vegetation cover was particularly affected given the cumulative effects of the previous season's poor rainfall.

21 El Niño and Health, Protection of the Human Environment Task Force on Climate and Health, Geneva, 1999

OVERVIEW OF 2015 / 2016 RAINFALL - PERCENTAGE OF AVERAGE RAINFALL



Cumulative deficit: The previous growing season of October 2014 to April 2015 had poor rainfall during keying growing stages, which led to late planting and dry spells during the flowering and grain filling stages of the staple maize crop. Furthermore, localized flooding in Malawi and northern Mozambique further reduced the 2015 harvest. As a result, crop production was poor across the region with particularly acute deficits in South Africa, Zimbabwe and Malawi. Much of the possible impact was mitigated by the extensive stocks from the bumper crop of the 2013-2014 season. The remaining stocks are insufficient to address the current regional deficit.

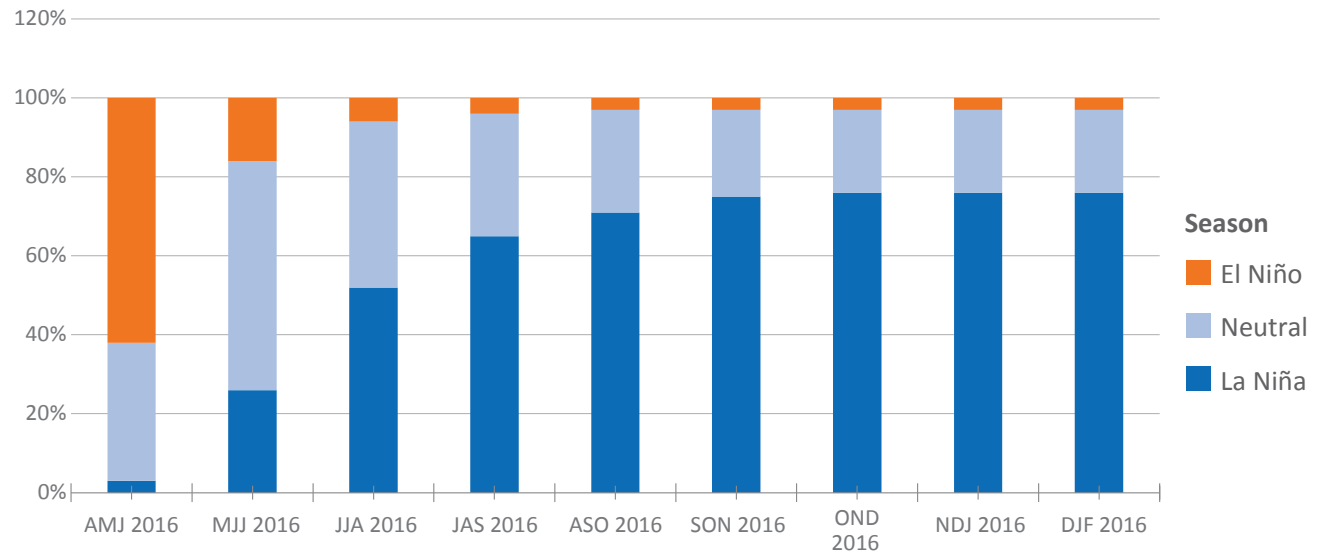
Historic comparison: The 1992-93 drought provides insight into the scale and complexity of severe climate-related processes in Southern Africa, and underlines the trans-boundary character of the region's risks. The 1992 drought was triggered by an intense El Niño, and compounded a range of vulnerabilities and resulted in a regional maize harvest shortfall greater than 50% (Holloway, 2000:262). This included a reduction of around 50% in South African production (ibid). Livelihood impacts that affected more than 20 million people were experienced across the eleven affected countries, reflected in the estimated deaths of more than a million livestock in Zimbabwe alone and precarious urban water supplies in Bulawayo, Mutare and Chegutu (Secretariat, National Civil Protection Coordination Committee, 1993:19, 22).[22]

Climatic outlook – increasing probability of La Niña

In May 2016, the NOAA Climate Prediction Centre (CPC) released a La Niña Watch[22], stating that La Niña is likely to develop mid-2016, with a 76 per cent chance of full La Niña conditions in the third and fourth quarter of 2016. The current 2015/16 El Niño phenomenon (the third strongest on record) has already devastated livelihoods and eroded people's coping capacities in the region. Its continuing humanitarian impact could become worse if La Niña strikes as predicted.

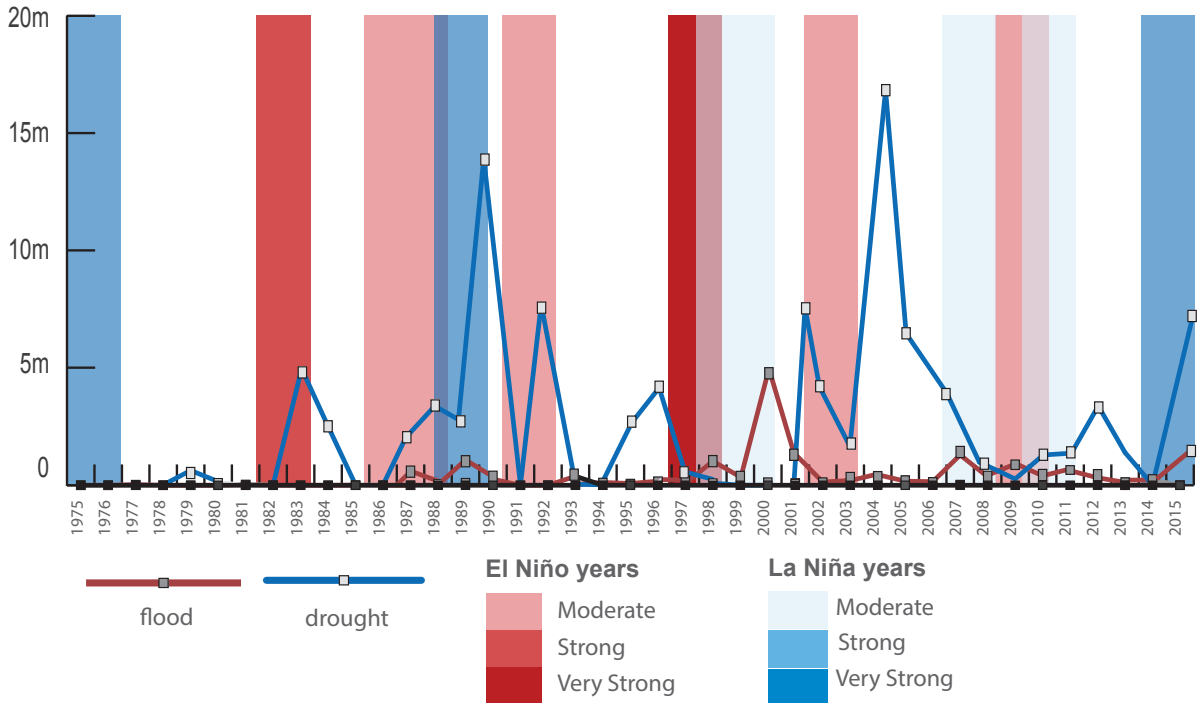
22 Humanitarian Trends in Southern Africa, Challenges and Opportunities
23 A watch is issued when climatic conditions are favourable for the development of El Niño or La Niña conditions within the next six months.

CPC/IRI EARLY - MONTH OFFICIAL ENSO FORECAST PROBABILITIES



Historical patterns show that, when La Niña immediately follows an El Niño period, it often has an even greater overall humanitarian impact, as coping capacities are eroded, meaning millions more people are at risk of hunger, disease, water shortages and displacement in late 2016.

DROUGHT AND FLOOD AFFECTED PEOPLE IN SOUTHERN AFRICA BY YEAR

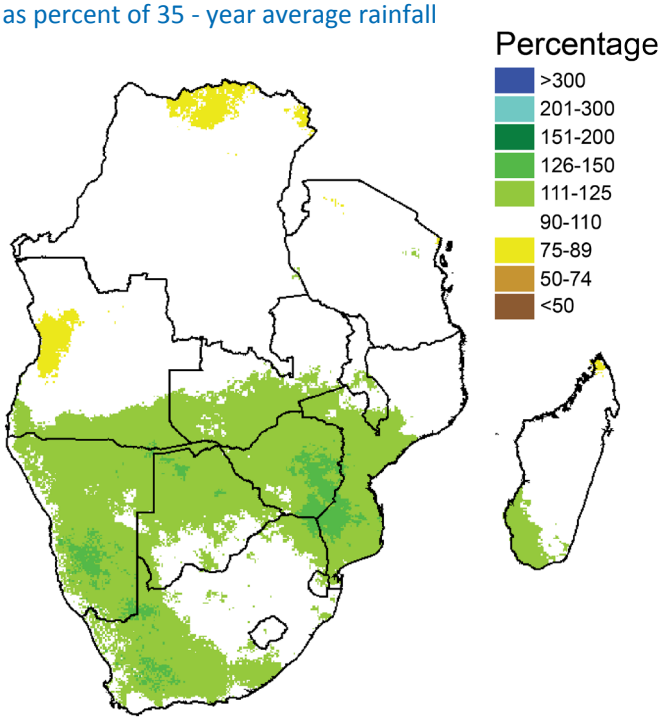


Source: http://ggweather.com/enso/oni.htm/EMDAT

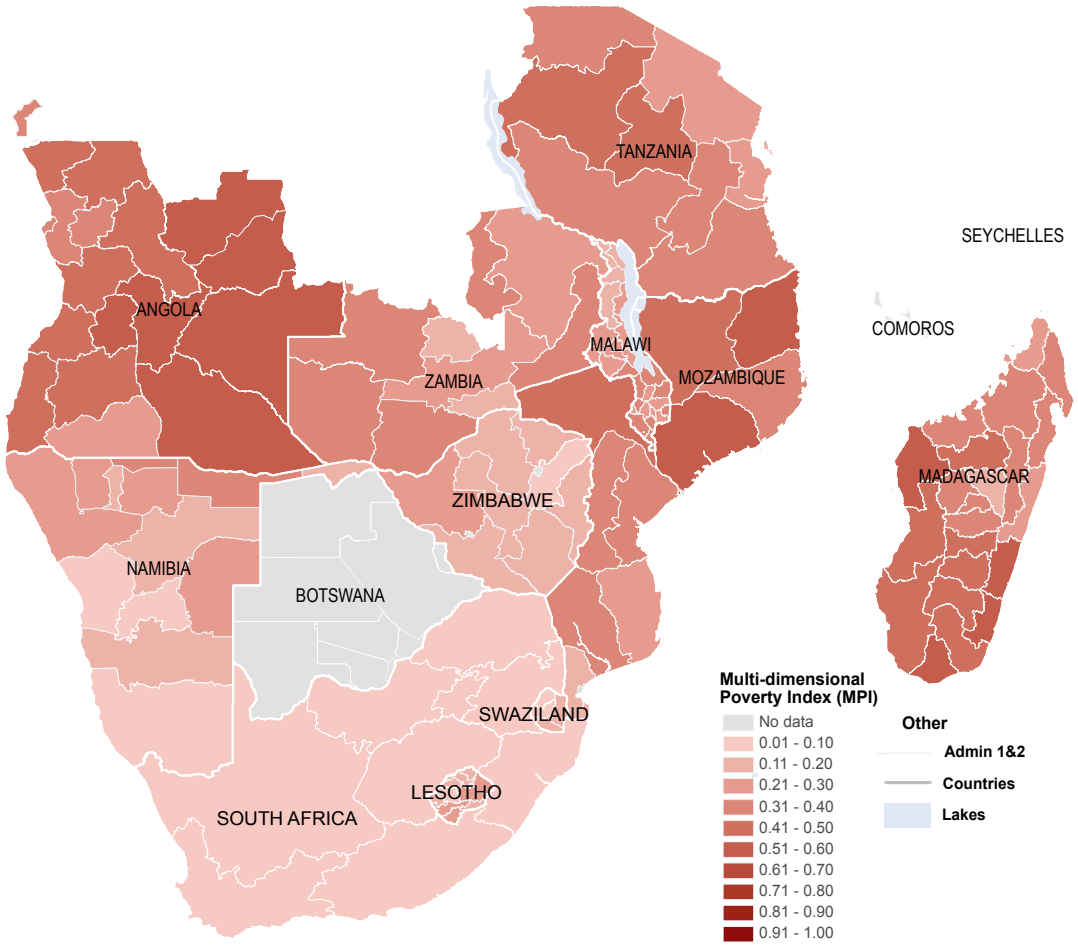
The poor 2014/15 agricultural season, compounded by a poor 2015/2016 season, has had a cumulative eroding effect on the production capacities of farmers for the 2016/17 agricultural season. For Southern Africa, La Niña is generally associated with above average December to March rainfall particularly in the southern half of the region. A La Niña may help reduce water deficit accumulated over the past two seasons and potentially facilitate a recovery of the agricultural and livestock sectors.

Average Dec-Mar rainfall for 9 La Niña events between 1981 and 2015

expressed as percent of 35 - year average rainfall



SOUTHERN AFRICA: MULTI-DIMENSIONAL POVERTY INDEX (MPI)

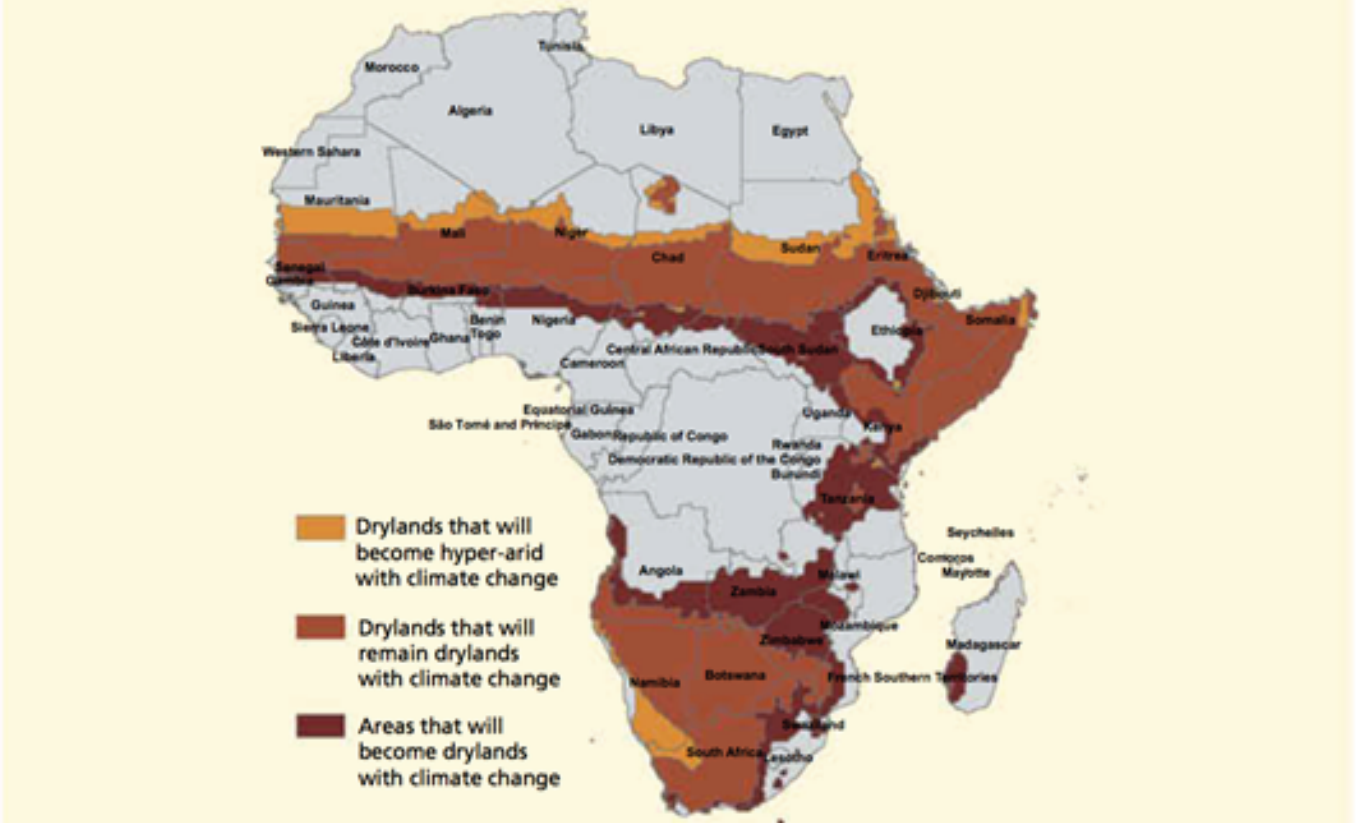


Sources: Oxford Poverty & Human Development Initiative (OPHI) 2016, South African MPI (Statistics South African, SAMPI 2014), Angola HRD 2011 report (UNDP).

Future Climate Change: A recent African Development Forum study projects that by 2030, the number of people living in rural areas of "dryland" countries will grow between 40 and 120 per cent.[24] Dryland countries are those classified as arid, semi-arid or dry sub-humid and able to support crop and livestock activities (including parts of Tanzania, Uganda, Kenya, Ethiopia, Eritrea, South Sudan, Sudan, and Somalia), and which are exposed to droughts and other shocks (shocks comprise: meteorological; health; price; and conflict). In addition, the areas within these countries that are considered "drylands" are expected to increase by up to 20 per cent under some scenarios.

Although the study predicts that the share of the population who are dependent on crop farming and livestock-keeping will drop, in real terms the number will increase in line with projected population growth.[25] These populations are amongst the poorest in their respective countries, and many lack access to basic services and are politically and/or socially marginalized. They are most vulnerable to recurrent and severe shocks, particularly droughts, which limit their livelihood opportunities and relentlessly hamper efforts to eradicate poverty. "As competition for resources intensifies, conflicts over land, water, and feed are likely to multiply, reducing the ability of governments, development agencies, and local communities to manage the impacts of droughts and other shocks".[26] Looking ahead then, there is little doubt that unless steps are taken to increase the resilience of communities to shocks, the frequency and intensity of violent conflict in the region will likely increase.

SHIFT AND EXPANSION BY 2050 OF DRYLAND AREAS DUE TO CLIMATE CHANGE



Source: Estimates based on intergovernmental Panel on Climate Change (IPCC) data.

Note: The map shows the extent to which drylands (defined to include all zones with an aridity index of 0.05 - 0.65) could shift and expand by 2050 as a result of climate change. To visualize the largest possible impacts, the map reflects the fastest growth of GHG (greenhouse gas) concentration (RCP 8.5 [Representative Concentration Pathways]) under the driest of a set of over 40 climate models.

24 Confronting Droughts in Africa's Drylands: Opportunities for Enhancing Resilience, Raffaello Cervigni and Michael Morris (eds.), Africa Development Forum
25 ibid, pg. 67.
26 ibid, pg. 3.

According to the study, of the 1,300 reported disasters between 1970 and 2014, 40 per cent affected the dryland countries of Sub-Saharan Africa. While these countries contain one-third of the region's population, they accounted for 50 per cent of those affected by disasters and 80 per cent of the casualties from disasters.

2. Communicable Disease outbreaks

Public health and the risk of communicable disease spread is also a concern. Schools and hospitals struggle to operate without water, as is being seen in Swaziland, where 80 per cent of schools are experiencing a water and sanitation crisis, leading to a high prevalence of intestinal parasites, which also impact on nutrition. Mosquito-borne diseases generally increase following dry conditions (Malaria, Yellow Fever, Dengue etc). Increased use of unprotected water sources can lead to increased cases of trachoma, cholera, typhoid and bilharzia.

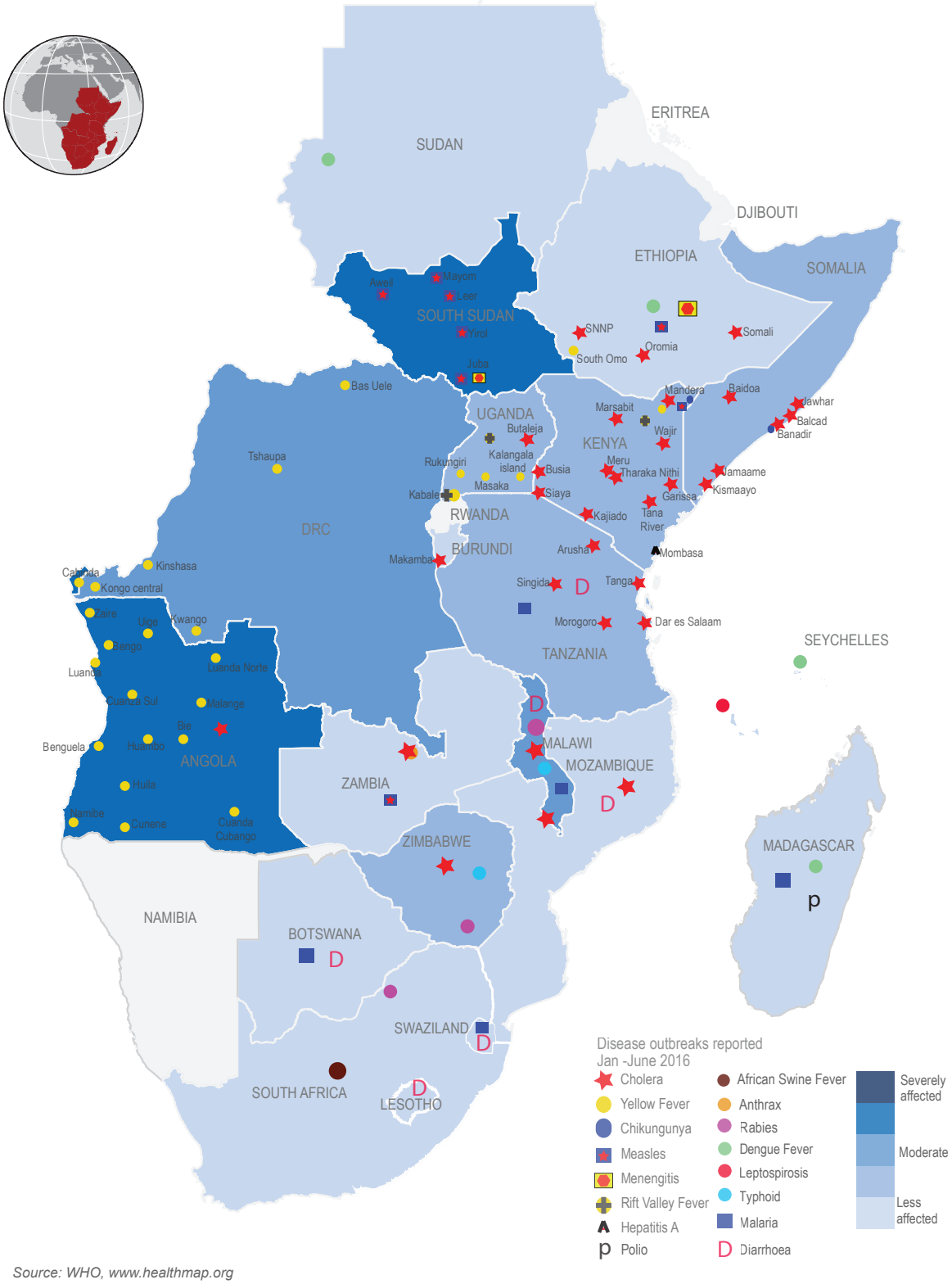
Cholera: More than 39,000 cholera cases have been reported over the past 12 months in the region, with on-going outbreaks in Malawi, Tanzania, and Zambia. In Malawi, 1,591 cholera cases were reported, including 41 deaths from December 2015 to May 2016 compared to 602 cases during the same period 2014-2015.

Typhoid and Dysentery: A total of 1,438 suspected typhoid cases, 74 of which were confirmed, and 6 deaths were reported in Zimbabwe during week 23, 2016. During the same period, 19,606 dysentery cases and 36 deaths were also reported in the country.

Yellow Fever: As of 19 June, 3,294 suspected cases, including 342 deaths, had been reported from all the 18 provinces of Angola. A total of 861 cases had been laboratory-confirmed. Luanda and Huambo remain the most affected provinces with 1,778 cases (489 confirmed) and 508 cases (126 confirmed), respectively. The other most affected provinces are Benguela (291 suspected cases), Huila (135 suspected cases), Cuanza Sul (99 suspected cases) and Uige (54 suspected cases). The majority of the cases are aged 15 to 24 years. The epidemiological trend and pattern show that YF virus circulation continues to extend to other provinces and **the risk for exportation to other countries with close linkages to Angola continues to exist**. As of 20 June, the total number of notified suspected cases in the Democratic Republic of Congo (DRC) is 1,106, with 68 confirmed cases and 75 deaths reported in 22 health zones in five provinces. Two cases have also been confirmed in Kenya that originated in Angola.

Dengue fever: Recent re-search published in Proceedings of the National Academy of Sciences with a focus on South-east Asia states that El Niño could spark dengue fever epi¬demic, due to high 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 can create breed¬ing sites needed by the for dengue vectors. The Seychelles epidemic followed exceptionally heavy rains and floods. The increased risk of a La Niña event could affect dengue through rains and floods.

COMMUNICABLE DISEASES

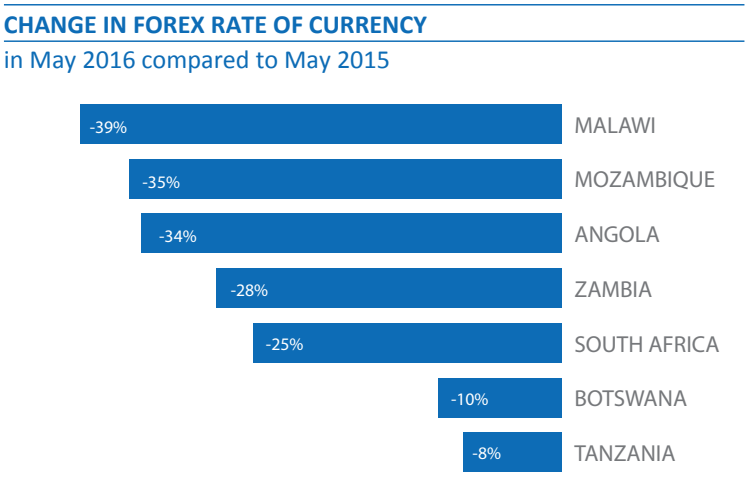


Source: WHO, www.healthmap.org

3. Economic shocks

Countries in the Southern Africa region are also coping with a variety of economic shocks. According to the IMF, the rebalancing and slowdown of the Chinese economy is a driving force behind low commodity prices. Together with lower oil prices — associated also with increased global supply — and tighter global financing conditions, are adversely affecting sub Saharan growth outlook.

Many countries in the region are affected by weak exports volumes and a decline in primary commodity values, such as in Angola, which relies on oil to generate over 90 per cent of its export earnings and 70 per cent of its government revenue, and Zambia, which relies on copper, reducing foreign currency income and fiscal revenue. The decline in commodity values generates downward pressure on currencies (see graph). This is causing inflationary pressure as the price of imported goods is increasing.



The depreciation the African Rand versus the U.S. dollar has also had an impact on other countries. For example, the value of remittances to Lesotho and Zimbabwe has declined – the latter by 16% in the first quarter of 2016. **Zimbabwe** cash shortages have escalated into the worst liquidity challenge that the country has seen since dollarization in 2009 – it has had to postpone payments to its military due to the lack of fiscal income, potentially creating a destabilizing factor.

4. Conflict Risk

The combination of elections, climatic shocks and economic shocks increase the probability of conflict.

Elections are potential flashpoints that can trigger conflict and humanitarian need as a result. Historically, violence affects between 19 and 25 per cent of elections in Africa.[27] Various elections (DRC, Zambia, South Africa, Seychelles) and the Constitutional referendum (Tanzania) are due to take place before the end of the year.

Presidential and legislative elections in DRC due in November 2016 are increasingly likely to be delayed. Protests, some violent, erupted in December 2015 and January 2016 at the announcement of electoral delays. Opposition activists accuse President Joseph Kabila of trying to stall the election to remain in power. The Constitutional Court on 11 May ruled that, in the event elections are delayed, President Kabila should stay in power until a newly-elected President takes office. Given the restriction on political freedoms and the lack of avenues for democratic opposition, along with the government's heavy-handed use of security forces to maintain authority, the likelihood of political tensions escalating into violent clashes in urban centres is high. While the ruling party could attempt to change the constitution, the most likely scenario remains delayed elections into 2017, a move which would likely trigger wide political unrest in a situation similar to that of post-electoral Burundi, which could impact the wider region.

Climate shocks: In 2015, well-publicised meta-analysis by Hsiang, Burke and Miguel reviewed the emerging literature on climate change and conflict. Via a summary of 55 separate studies, it found that changes from moderate temperatures and precipitation patterns systematically increase conflict risk. One key finding is that temperature has the largest average impact, with each one-degree increase in temperature increasing

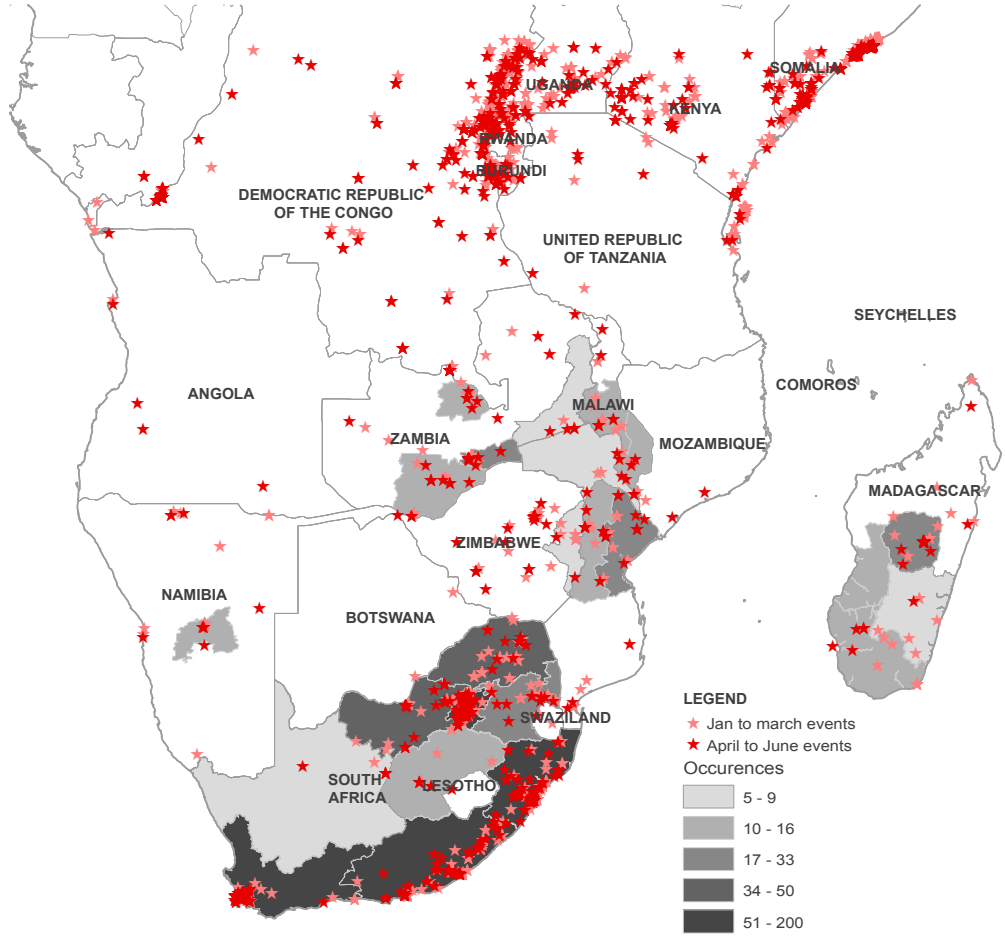
27 Quoted in USIP, 2010, Trends in Electoral Violence in Sub-Saharan Africa. Original source reference: Dorina Bekoe counts an election as violent if one person is killed; 25 percent meet this criterion ("Managing Electoral Conflict in Africa," unpublished manuscript, March 2009); Scott Straus and Charles Taylor assigned gradations of violence, with 19 percent representing those elections which feature repression, a violent campaign, and incidents leading to 20 or more deaths in a paper entitled, "Redistricting by Other Means: Democratization and Violence in Sub-Saharan Africa, 1990-2007," for a USIP Workshop on electoral violence in Africa, June 16-17, 2009. In a more general paper on electoral violence, Fischer finds that 24.5 percent of elections resulted in violence (Jeff Fischer. "Electoral Conflict and Violence: A Strategy for Study and Prevention." IFES White Paper, 2002-01, February 5, 2002 (electronic version), pp. 17-18.

interpersonal conflict by 2.4 per cent and intergroup conflict by 11.3 per cent.

OCHA developed the Resource and Climate Vulnerability Index (RCVI) which is composed of nine variables to measure volatility and dependency within agricultural and water resources, as well as the risk of sudden- and slow-onset weather disasters that are linked to the destruction of capital, production and increased displacement. Madagascar has the highest RCVI score globally followed by Mozambique in third place. The RCVI provides a measurement of comparison to those economies that are at risk of economic and social volatility due to resource scarcity and weather patterns. However, the link to broader social and economic institutions is not represented. By looking at countries that have weak institutions and low resilience to deal with grievances as well as climate change, vulnerability to the conflict-climate nexus can be measured. Again **Mozambique** and **Madagascar** and **Zimbabwe** are in the bottom quintile of the positive peace index.

Mozambique is of particular concern and has recently seen an escalation in violence between the ruling Front for Liberation of Mozambique (FRELIMO) party and the opposition Mozambique Resistance Movement (RENAMO) party. While a return to full-scale conflict is unlikely due to RENAMO's limited capacity, a failure to find a political solution to the growing tension means RENAMO's low-level insurgency is likely to continue in south and central Mozambique. The conflict is driven by the government's increasingly thin restraint on the use of force, as well as by the fact that RENAMO's leader is under pressure to demonstrate the group's capacity, for fear of losing credibility. The escalation in conflict will continue to generate displacement, both internally (rural to town) and into Malawi (11,500 refugees since mid-December 2015). There is a high likelihood that the refugee flow to Malawi will quickly become unsustainable due to severe food shortages caused by the drought.

CONFLICT EVENTS



Source: Armed Conflict Location & Event Data Project (ACLED)

PRIORITIZATION

While according to SADC 39 million people are directly or indirectly affected by the drought, not all require humanitarian assistance, nor are their needs equivalent. There is a need to prioritize international humanitarian intervention, which can be done by using available evidence about the existing vulnerability of the population, the exposure to climatic change the impact of the drought, and the capacity of the government to cope.

1. High existing vulnerability

Countries in the region have varying levels of existing vulnerability, which can be measured in multiple ways, but here we use both poverty and multi-dimensional poverty (see preceding vulnerability section for an explanation). Combined these give us a vulnerability ranking which shows that Madagascar and Malawi are the most vulnerable followed by Mozambique and Zimbabwe. Of course country averages obscure variations within countries, with certain areas being considerably more deprived, for example the southern part of Angola, and southern Madagascar.

	Multi-Dimensional poverty	MDP Rank	Poverty ($1.90/day, 2011 PPP) last reported	PPP Rank	
Angola	77.4	8.0	30.13	4.0	6.0
Botswana			18.24	2.0	2.0
Comoros	36.0	4.0	13.47	2.0	3.0
Congo, Dem. Rep.	75.1	8.0	77.18	8.0	8.0
Lesotho	35.3	4.0	59.65	6.0	5.0
Madagascar	66.9	7.0	81.76	9.0	8.0
Malawi	66.7	7.0	70.91	8.0	7.5
Mauritius			0.53	1.0	1.0
Mozambique	69.6	7.0	68.74	7.0	7.0
Namibia	42.0	5.0	22.60	3.0	4.0
Seychelles			0.37	1.0	1.0
South Africa	11.1	2.0	16.56	2.0	2.0
Swaziland	20.4	3.0	42.03	5.0	4.0
Tanzania	65.6	7.0	46.60	5.0	6.0
Zambia	56.6	6.0	64.43	7.0	6.5
Zimbabwe	29.7	3.0	72.30	8.0	5.5

2. Severely affected by El Nino – exposure and impact

The severity of impact of El Nino depends on the importance of the agricultural sector both in terms of how many people are employed in the sector and its contribution to GDP. The countries which are most exposed to shocks to the agricultural sector are Comoros, Madagascar, Malawi, Mozambique and Tanzania.

In addition it depends on how badly the agricultural sector is affected, measured by the reduction in output, increase in food prices and the percentage of the population that is food insecure. Namibia, followed by Malawi and Zimbabwe are most impacted

	Agriculture employment (WDI last available data)	Agricultural Employment WDI Rank	Agriculture as share of GDP	Agriculture as percentage of GDP Rank	Exposure
Angola			8	3.0	3.0
Botswana	30.7	6.0	2	1.0	3.5
Comoros			36	10.0	10.0
Lesotho	18	3.0	8	3.0	3.0
Madagascar	77.2	10.0	26	10.0	10.0
Malawi	58.5	10.0	33	10.0	10.0
Mauritius	7.7	1.0	3	1.0	1.0
Mozambique	69.2	10.0	25	10.0	10.0
Namibia	31.9	6.0	7	2.0	4.0
Seychelles	6.4	1.0	2	1.0	1.0
South Africa	5.7	1.0	2	1.0	1.0
Swaziland			6	2.0	2.0
Tanzania	64	10.0	31	10.0	10.0
Zambia	51	10.0	10	3.0	6.5
Zimbabwe	59.9	10.0	14	5.0	7.5

	Reduction in agri-cultural output vs 2014/15 (USDA)	Agri-cultural output Reduction Rank	Current retail price compared to 5 year April average price (%) - WFP	Food Price Increase Rank	Food insecure as percentage of total population	IPC Tot % Rank	Food insecure as a per-centage of rural population	IPC Rur % Rank	Impact
Angola	11	0.0			3%	2.0	6%	1.0	1.0
Botswana	-73	10.0			2%	1.0	4%	1.0	4.0
Comoros					0%	1.0	0%	1.0	1.0
Lesotho	-14	2.0	58.1	5.0	23%	10.0	32%	6.0	5.8
Madagascar	23	0.0	1.4	0.0	3%	2.0	4%	1.0	0.8
Malawi	-29	5.0	63.5	6.0	39%	10.0	45%	8.0	7.3
Mauritius					0%	1.0	0%	1.0	1.0
Mozambique	11	0.0	130.1	10.0	7%	3.0	11%	2.0	3.8
Namibia	-44	8.0			25%	10.0	47%	9.0	9.0
Seychelles					0%	1.0	0%	1.0	1.0
South Africa	-39	7.0	100.2	10.0	5%	2.0	13%	2.0	5.3
Swaziland	-31	6.0	46.4	4.0	33%	10.0	41%	8.0	7.0
Tanzania	-11	2.0	11.8	1.0	1%	1.0	1%	1.0	1.3
Zambia	-20	3.0	66.1	6.0	6%	3.0	11%	2.0	3.5
Zimbabwe	-49	9.0	29.7	2.0	27%	10.0	40%	8.0	7.3

Overall we multiply and normalize these two scores to arrive at an exposure and impact score, showing that Malawi is by far most exposed and impacted followed by Zimbabwe, and Mozambique and Namibia.

	Exposure	Impact	Exposure and Impact
Angola	3.0	1.0	1.7
Botswana	3.5	4.0	3.7
Comoros	10.0	1.0	3.2
Lesotho	3.0	5.8	4.2
Madagascar	10.0	0.8	2.7
Malawi	10.0	7.3	8.5
Mauritius	1.0	1.0	1.0
Mozambique	10.0	3.8	6.1
Namibia	4.0	9.3	6.0
Seychelles	1.0	1.0	1.0
South Africa	1.0	5.3	2.3
Swaziland	2.0	7.0	3.7
Tanzania	10.0	1.3	3.5
Zambia	6.5	3.5	4.8
Zimbabwe	7.5	7.3	7.4

3. Lack the capacity to respond

The degree a country needs an international humanitarian response depends on how well it is able to cope, which is a function of the standard of living, the fiscal position of the government, the availability of food reserves. This analysis shows that national capacity to cope is the lowest in Malawi and Mozambique, with Comoros, Lesotho, Madagascar and Zimbabwe also having limited national capacity to respond.

	GDP Per Capita Rank	Insurance Rank	Forex Reserves Rank	Macro-Fisc Stab Rank	IMF Fiscal Balance Rank	Govt Debt Rank	Govt Policy Rank	Grain Reserve Rank	% Poorest Rank	%GDP Rank	Soc Saf Net Rank	Lack of Capacity to cope
Angola	4.0	10.0	4.0	7.0	4.0	8.0	6.0	10.0				6.2
Botswana	1.0	10.0	1.0	5.5	0.0	2.0	1.0	10.0	2.0	9.0	5.5	4.0
Comoros	9.0	10.0	5.0	7.5	8.0	3.0	5.5					7.8
Congo, Dem. Rep.	10.0	10.0	10.0	10.0	1.0	2.0	1.5		10.0	10.0	10.0	8.3
Lesotho	8.0	10.0	5.0	7.5	6.0	7.0	6.5	8.0	4.0	1.0	2.5	6.8
Madagascar	9.0	10.0	8.0	9.0	3.0	4.0	3.5		10.0	9.0	9.5	8.0
Malawi	10.0	0.0	7.0	3.5	5.0	8.0	6.5	10.0	9.0		9.0	8.2
Mauritius	1.0	10.0	4.0	7.0	1.0	6.0	3.5		6.0	5.0	5.5	3.6
Mozambique	9.0	10.0	8.0	9.0	4.0	9.0	6.5	8.0	10.0	9.0	9.5	8.5
Namibia	1.0	10.0	8.0	9.0	3.0	4.0	3.5	9.0	9.0	5.0	7.0	5.1
Seychelles	1.0	10.0	6.0	8.0	0.0	7.0	3.5			7.0	7.0	4.1
South Africa	1.0	10.0	4.0	7.0	2.0	6.0	4.0	6.0	2.0	4.0	3.0	3.7
Swaziland	2.0	10.0	7.0	8.5	3.0	3.0	3.0	9.0	3.0	7.0	5.0	4.9
Tanzania	8.0	10.0	6.0	8.0	7.0	5.0	6.0		3.0	10.0	6.5	7.3
Zambia	7.0	10.0	7.0	8.5	4.0	6.0	5.0	4.0	10.0	10.0	10.0	6.9
Zimbabwe	9.0	0.0	10.0	5.0	1.0	6.0	3.5	9.0		10.0	10.0	7.6

Overall prioritization

Combining these scores, in a similar way as the INFORM[28] model, provides the following ranking as in the table below. **Malawi** and **Mozambique** are most in need, followed by **Zimbabwe**. While Zambia is not scoring amongst the highest in any category, overall it should remain on the watch list.

Tier 1

The three countries in tier 1 account for 77 per cent of the humanitarian funding requirement.

Malawi scores poorly in all categories, with marked vulnerability due to pervasive poverty. It's very exposed to climatic shocks as nearly 60% of the workforce is reliant on agriculture, which constitutes one third of GDP. Nearly half (45%) of the rural population is food insecure, exacerbated by increased food prices. Government capacity to respond to the increased needs is negatively affected by high debt Following a major public financial management scandal in 2013, the level of on budget development assistance received by Malawi has declined significantly.

	Vulnerability	Exposue and impact	Lack of Capacity to cope	Risk Score
Angola	6.0	1.7	6.2	4.0
Botswana	2.0	3.7	4.0	3.1
Comoros	3.0	3.2	7.8	4.2
Lesotho	5.0	4.2	6.8	5.2
Madagascar	8.0	2.7	8.0	5.6
Malawi	7.5	8.5	8.2	8.0
Mauritius	1.0	1.0	3.6	1.5
Mozambique	7.0	6.1	8.5	7.1
Namibia	4.0	6.0	5.1	5.0
Seychelles	1.0	1.0	4.1	1.6
South Africa	2.0	2.3	3.7	2.6
Swaziland	4.0	3.7	4.9	4.2
Tanzania	6.0	3.5	7.3	5.4
Zambia	6.5	4.8	6.9	6.0
Zimbabwe	5.5	7.4	7.6	6.8

Mozambique suffers the highest food price increases in the region at 130% above the 5-year average and is very exposed to shocks in the agricultural sector as nearly 70% of the population is reliant on this for employment. The lack of capacity to cope is marked by low GDP per capita, high government debt, recent disclosures of previously undisclosed external debt, and very limited social safety nets that cover less than 8% of the poorest 20%. There is significant regional variation in the multi- dimensional poverty index, exacerbated by ongoing violence and political instability in the country.

Zimbabwe's exposure to agricultural shocks is high as 60% of the population relies on agriculture for income, with 40% of the rural population affected by food insecurity, compounded by a nearly 50% reduction in agricultural output. The capacity to cope is hindered by low GDP per capita, limited grain reserves and the worst overall ranking of Forex reserves. In Zimbabwe, the ongoing non-cooperation status currently prevents IFIs to extend lending, and severely limits fiscal and external borrowing space .

Tier 2:

Angola has a highly vulnerable population. Although its aggregate agricultural output is unaffected, the South is suffering from high levels of food insecurity and the country is facing a Yellow fever outbreak. Its high GDP per capita masks regional variation, and government capacity to respond is hindered by high debt

28. Information for Risk Management

and low grain reserves compounded by the current fiscal pressure resulting from low oil prices.

Lesotho's relatively small agricultural sector makes it comparatively less exposed, yet the government's poor economic performance, including high government debt and poor fiscal balance, make it difficult to meet the needs of a food insecure population which exceeds 30% of the rural population. Food prices have increased by nearly 60%, which negatively impacts a chronically vulnerable population where three in five people live below the poverty line. This is somewhat offset by the investment in social safety nets, which cover two thirds of the poorest 20% and account for 6.6% of GDP - by far the highest in the region.

Madagascar has the most vulnerable population in the region as four out of five people live below the poverty line. Even though national agricultural output is not affected, this masks regional variation, with the drought having affected the South of the country. The agricultural sector employs 77% of the population, the highest proportion in the region, constituting one quarter of GDP, which makes it highly exposed to climatic shocks. The government has limited capacity to respond as GDP per capita is low and little has been invested in social safety nets, with only 2.2% of the poorest 20% covered, which represents a meagre 1% of GDP.

Swaziland's agricultural sector is relatively small but is severely impacted by the drought with a 30% reduction in agricultural outputs. Over 40% of the rural population is food insecure, or one third of the total population. Government grain reserves are limited and its middle income status is not sufficient for it to respond to the magnitude of the shock.

Tier 3: Close monitoring watch list

Namibia's agricultural sector is severely affected by drought, with a 44% reduction in outputs and a almost half of the rural population facing food insecurity. As a middle income country, the government is fairly well equipped economically to cope with the increased need despite very limited grain reserves, and considering the low levels of vulnerability.

Tanzania has high exposure to climatic shocks as two thirds of the population is engaged in agriculture, representing one third of GDP, however the impact on the sector is minimal. The government's fiscal balance ranking is poor and although social safety nets have good coverage, reaching nearly 80% of the poorest 20%, investment is minimal at 0.3% of GDP.

Zambia's vulnerability ranking is the same as Mozambique's as it suffers from both MDP and absolute poverty. Over half (51%) of the population is dependent on the agricultural sector, but this represents only 10% of GDP. Despite producing a surplus, food prices are 66% above the 5-year average, but only 6% of the total population is food insecure. Government capacity to cope is mixed, with only 1% of the poorest 20% being covered by social safety nets, the lowest in the region, offset by the highest recorded grain reserves.

Tier 4: Affected by drought by sufficient coping capacity

Botswana and South Africa both have low levels of vulnerability and strong government capacity to cope with shocks, made possible by high levels of GDP per capita and extensive social safety nets that cover over 80% of the poorest. Both countries, however, have been severely impacted by the drought, with agricultural outputs falling by 73% and 39% respectively. Food prices in South Africa have increased by 100% and falling commodity prices continue to put downward pressure on the economy.

Tier 5: Unaffected by the drought an no humanitarian need

Mauritius, Seychelles and Comoros have the lowest needs, given their middle income status and the negligible impact on the agricultural sector, despite the high exposure in Comoros with agriculture constituting 36% of GDP.

PILLAR 1

REGIONAL HUMANITARIAN NEEDS AND RESPONSE

Overview of chapter

The humanitarian pillar of the RIASCO Action Plan for Southern Africa represents the consolidated priority humanitarian needs, response plans and funding requirements of the seven Southern African countries that require urgent international assistance: Angola, Lesotho, Madagascar, Malawi, Mozambique, Swaziland, and Zimbabwe. The regional humanitarian plan has been prepared in close coordination with the Resident Coordinators, the Humanitarian Country Teams (or equivalent), the humanitarian sectors, and government representatives in these seven countries. The humanitarian needs and response included in the RIASCO Action Plan supports the needs identified in the SADC Appeal.

The regional RIASCO plan requires $1.2 billion to address the urgent humanitarian needs of 12.3 million people affected by the El Niño-induced drought during the period May 2016 to April 2017. At the time of the publication of this action plan, $237 million had been received, leaving a funding deficit of $1.0 billion. Humanitarian needs, response actions, and funding requirements are presented over the following pages for each humanitarian sector. Country overviews and response activities are available in the annex.

Country	Total Food insecure (SADC data)	Food insecure emergency (SADC data)	Action Plan targeted	HCT funding requirements (USD)	IFRC funding requirements	Action Plan funding requirements (USD)
Angola	755,930	75,593	1,000,000	69,185,200		69,185,200
Botswana	57,411	37,748		-		-
Lesotho	709,394	491,198	491,198	54,769,899	698,000	55,467,899
Madagascar[28]	1,140,000	665,000	665,000	69,910,754		69,910,754
Malawi	6,500,000	6,500,000	6,500,000	395,131,811	782,000	395,913,811
Mozambique	1,980,000	1,980,000	1,460,000	204,300,000	1,776,000	206,076,000
Namibia	729,134	639,914		-	0	
South Africa	14,349,445	2,516,860		-		-
Swaziland	638,251	350,069	350,000	84,760,000		84,760,000
Tanzania	358,505	358,505		-		-
Zambia	975,738	975,738		-		-
Zimbabwe[29]	4,071,233	4,071,233	1,860,000	359,861,529	5,388,000	365,249,529
Regional				6,450,000		6,450,000
	32,265,041	18,661,858	12,326,198	1,244,369,193	8,644,000	1,253,013,193

28 Madagascar Joint Humanitarian response plan (April 2016 – April 2017) will be revised in September 2016 following the findings of the on-going joint multi-sector assessment.
29 Zimbabwe Humanitarian Response Plan (April 2016-March 2017) will be revised in July/August 2016, following the official release of the latest vulnerability assessment results. The SADC data of 4,071,2333 food insecure is based on the latest vulnerability assessment, while the target and funding requirements indicated in the Action Plan is based on the results of the February 2016 rapid assessment.

HUMANITARIAN RESPONSE

SECTORS	People in Need	People Targeted	Funding requirement	Funding received	Outstanding Funding Gap
FOOD SECURITY AND AGRICULTURE	15,034,557	12,326,198	$996,733,024	$183,712,810	$813,020,214
WASH	6,417,507	4,017,254	$83,705,715	$10,174,178	$73,531,537
HEALTH AND NUTRITION	11,546,330	4,555,744	$110,490,166	$39,658,358	$70,831,808
EDUCATION	2,528,623	1,265,157	$30,813,755	$2,747,000	$28,066,755
PROTECTION	8,457,276	4,419,114	$11,654,312	$680,393	$10,973,919
EARLY RECOVERY	1,460,000	250,000	$2,500,000	$130,602	$2,369,398
COORDINATION			$8,472,221	$240,000	$8,232,221
TOTAL	**15,001,557**	**12,326,198**	**$1,244,369,193**	**$237,343,342**	**$1,007,025,851**

Humanitarian response plans have been prepared independently by several regional governments, jointly with HCTs, and HCTs have also prepared complementary plans. The following table shows the countries that have developed which kind of plans, with the total requirements for each plan. For countries with separate government and HCT plans, the total requirements of the country can not necessarily be added to each other, as HCT plans often overlap with government plans.

Country	Existing Government plans	Existing Joint plans	Existing HCT plans	Comment
Angola			Being developed	
Lesotho	$37.2 million		$54.8 million	Funding requirements of HCT plan are separate from andverlapwith government plan
Madagascar		$69.9 million		Plan is expected to be revised in September 2016
Malawi		$395.1 million		
Mozambique	$238 million		$204.3 million	HCT plan is expected to be revised in August 2016
Swaziland	$71.8 million[30]		$71.80 million[31]	HCT plan is a subset of government plan
Zimbabwe	$600 million		$359.9 million	HCT plan is expected to be revised in July 2016. Requirements are separate from government plan and may overlap.
Total	$946.9 million	$465.0 million	$703.8 million	

30 Total NERMAP requirements ($USm) immediate-medium activities, not incl. urban water, environment/energy and storm damage repair
31 Swaziland HRP yet to be launched

Assessment, co-ordination and preparedness

There is a challenge in assessing needs of a major new crisis in a largely developmental setting with differing assessment methodologies and monitoring and surveillance capabilities. However, considerable progress has been made to food security (roll-out of IPC) and nutrition (SMART surveys) while assessments in other sectors remains work in progress. There is a challenge to raise resource to support sectoral and inter-sectoral co-ordination at national and regional levels to support comparable assessment in Southern Africa, especially given the global competition for limited humanitarian resources.

Methodology followed to identify overall people in need in Southern Africa

Countries in the region have used different approaches to identify the people in need. International partners have worked with governments to conduct needs assessments using the Household Economic Approach (HEA), the Integrated Food Security Phase Classification (IPC), and the Consolidated Approach for Reporting Indicators (CARI), and in some countries, estimates were based upon preliminary assessments or previous years. Even though there has been agreement to use the IPC method in order to produce more coherent results, it has been used in only four countries (Lesotho, Malawi, Mozambique, and Swaziland).

The table below includes figures of food insecure across the region, and those in need of emergency assistance, as agreed by SADC member states, with support from members of RIASCO. The RIASCO action plan will target for assistance only the seven countries highlighted in blue. Botswana, Namibia , South Africa, Tanzania, and Zambia have not requested support from the international community to assist their populations in need. The figures for the food insecure include an equivalent of the IPC phase 2-4, and the HEA livelihood threshold, whereas the figures for those requiring urgent assistance are the equivalent of IPC phase 3-4 and the HEA survival threshold. The SADC appeal includes 39.7 million food insecure people and 23.2 million people in need of emergency food security assistance.

Guide to the numbers: Because this Action Plan does not include the Democratic Republic of Congo, the totals presented here do not match those of the SADC appeal as they are reduced by the DRC caseload.

Country	Rural Population	Food insecure population at peak	People requiring emergency assistance	Vulnerability Assessment	Classification method
Angola	12,767,654	755,930	75,593[ii]	2015 assessment with secondary data	Composite Indicator
Botswana	875,105	57,411	37,748	HEA	HEA[A]
Lesotho	1,541,072	709,394	491,198	HEA, HH Survey	IPC [B]
Madagascar	15,727,662	1,140,000	665,000	HH Survey	CARI [C]
Malawi	14,492,248	6,500,000[i]	6,500,000[iv]	SMART Survey, HEA	IPC and HEA
Mozambique	18,384,814	1,980,000[ii]	1,980,000[iv]	HH Survey	IPC and composite indicato
Namibia	1,276,090	729,134	596,000	HEA	HEA
South Africa	18,828,580	14,349,445[iii]	2,516,860[v]	HH Survey	Composite Indicator
Swaziland	1,011,606	638,251	350,069	HEA, HH Survey	IPC
Tanzania	35,762,641	358,505	358,505	HH Survey	IPC
Zambia	9,168,601	975,738[ii]	975,738	HH Survey	CARI
Zimbabwe	10,174,849	4,071,233[ii]	4,071,233	HH Survey	Composite Indicator
Total	140,010,922	32,265,041	18,617,944		

32 The President declared a drought emergency on 24 June 2016 but has not issued a call for international support.

Footnotes on food insecurity estimates

i Refers to people with survival deficit during the period between May-Jun/16. IPC done for 13 districts in the southern part while HEA used for the remaining of the country. This equates to 47% of total rural population in the country.

ii Number of people in need of emergency assistance is equivalent to total number food insecure people.

iii Includes both urban and rural as reported in the General Household Survey of 2015.

iv Estimated for peak number of people in need of assistance includes projected IPC figures where between 30-45% of rural population are in need of assistance between Oct/16-Feb/17 and estimates done by SETSAN in March 2015.

v Estimate of South African rural population requiring immediate assistance.

vi IPC analysis was carried out in all districts covering all projection periods (Jul-Oct and Nov-Mar) and identified 350,069 households in IPC Phase 3 and 4 at peak of lean season in Nov-Mar (up from 314,000 in Jul-Oct/16).

Footnotes on vulnerability assessment process

1 Figures are preliminary based on assessments conducted in the consumption year of 2015/16 and will be updated between June-August 2016 based on field assessment carried out in June-July 2016.

2 Figures are preliminary pending country validation.

Footnotes on Classification Methods

A - Household Economy Approach uses a combination of baseline and on-going monitoring information to analyse the impact of shocks on food and income access by households and this is done through a process called outcome analysis.

B - Integrated Food Security Phase Classification products are evidence-based consensus based on a convergence of evidence of a minimum of 5 indicators, including at least one food security outcome. Populations estimated in need of emergency assistance refers to those in IPC Phase 3 and 4 while those acutely food insecure refers to those in Phase 2, 3 and 4.

C - Consolidated Approach to Reporting Food Security Indicators (CARI) is a composite indicator of food consumption score, economic vulnerability index and livelihood coping strategies. Populations estimated in need of emergency assistance refers to those classified as moderately or severely food insecure.

COUNTRY	Rural Population	Food insecure population at peak	People requiring emergency assistance	People targeted by Action Plan	Funding Requirement (HCTs)	Funding Requirements IFRC	Total Funding Requirements (RIASCO)
ANGOLA	12,767,654	755,930	75,593	1,000,000	69,185,200	-	69,185,200
LESOTHO	1,541,072	709,394	491,198	491,198	54,769,899	698,000	55,467,899
MADAGASCAR	15,727,662	1,140,000	665,000	665,000	69,910,754	-	69,910,754
MALAWI	14,492,248	6,500,000	6,500,000	6,500,000	395,131,811	782,000	395,913,811
MOZAMBIQUE	18,384,814	1,980,000	1,980,000	1,460,000	204,300,000	1,776,000	206,076,000
SWAZILAND	1,011,606	638,251	353,000	350,000	84,760,000	0	84,760,000
ZIMBABWE	10,174,849	4,071,233	4,071,233	1,860,000	359,861,529	5,388,000	365,249,529
TOTAL	**74,099,905**	**15,794,808**	**14,133,093**	**12,326,198**	**1,244,369,193**	**8,644,000**	**1,253,848,193**

Preparedness

There is a need that minimum preparedness actions are undertaken to address all new and emerging threats as outlined in the risk section. The Emergency Response Preparedness provides extremely useful guidance for these preparedness actions and is an approach, which is a practical, flexible, responsive and resource-light system for understanding and preparing for potential emergencies. Focusing on large-scale emergencies with multiple actors, the ERP[33] enables readiness for an immediate in-country response by the broader humanitarian community and in conjunction with national action, vital in dealing with an unfolding emergency. With a strong base in planning, readiness and knowledge and understanding of risks, ERP is a guide to preparing for both slow- and sudden-onset crises (other than refugee crises). It is based on three key elements:

1. Risk Analysis and Monitoring: understanding the country and context-specific risks that may trigger a crisis is a fundamental part of ERP. Analysis helps to identify hazards and create a risk ranking, while monitoring provides an early warning system to trigger early action.

2. Minimum Preparedness Actions (MPA): a set of general activities implemented by the HCT and requiring few additional resources. Implementation of MPAs provides a baseline for maintaining readiness and flexibility to respond to potential emergencies.

3. Advanced Preparedness Actions and Contingency Planning: complementary activities initiated concurrently to plan for perceived high-risk situations. Advanced Preparedness Actions are risk-specific and increase readiness in response to early warning, whilst a Contingency Plan sets out a needs-specific strategy for the first days of an unfolding emergency.

In the context of slow onset emergencies, like we are currently witnessing in Southern Africa, preparedness planning should be undertaken jointly with the Government, and response strategies included in revised nationally-owned response strategies.

Coordination at a Regional Level

The Regional Inter-Agency Standing Committee (Southern Africa) RIASCO is part of the accountability framework of the Regional UNDG for Eastern and Southern Africa (R UNDG ESA) on Emergency Preparedness and Response Cluster[34]. As the chair of RIASCO, OCHA ensures the link to R UNDG ESA

33 https://www.humanitarianresponse.info/en/system/files/documents/files/emergency_response_preparedness_2015_final.pdf
34 There are 4 clusters in the RDT: HIV/AIDS, Food security, Environment, Gender, Health and EPR. All clusters have being advised to revise their TORs and report back to the next Deputy RDT meeting in December 2012.

(which to date has been UN-centric), thereby ensuring two-way information flow on activities and decisions. Through this link, National Disaster Management Teams/Humanitarian Country Teams ensure broader political buy-in and advantage for humanitarian concerns identified at national level.

The RIASCO Strategic objective seeks to strengthen humanitarian coordination for effective disaster risk management (Strengthening information management, Mobilizing regional resources & institutional partnerships & response, preparedness, knowledge management & advocacy).

RIASCO key partners include UN agencies operating at regional level, as well as key international NGO partners (IASC members), the Red Cross family, IOM and some regional donors. With the impact of El Niño, RIASCO proposed a new approach to addressing the impact of the drought by not only focusing on humanitarian needs, but also to specifically include a resilience-building approach built on the regional Resilience Framework. Working within a resilience framework means transforming 'business as usual' by changing or enhancing existing practices through focusing on:

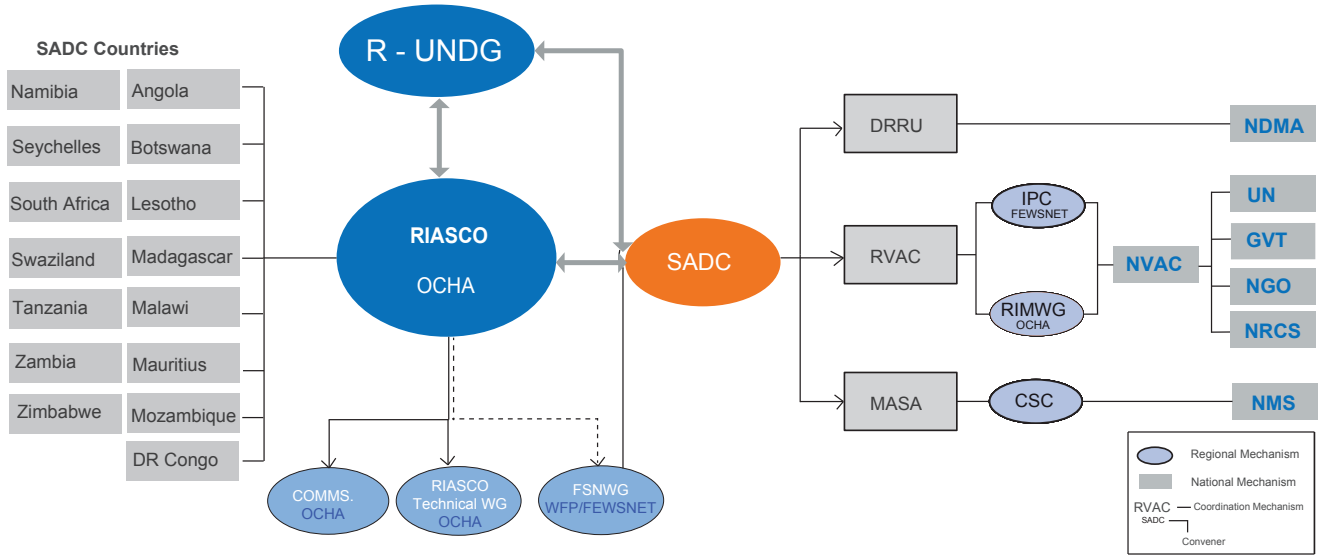
- Bridging the humanitarian and development approaches

- Increasing multi-stakeholder, multi-sectoral synergies through partnerships

- Implementing risk-informed, multi-year programming that incorporates joint analysis and broadens participation, with the involvement of World Bank, African Development Bank, Africa Risk Capacity to ensure linkages between Humanitarian & development programmes.

RIASCO has always supported SADC initiatives and the humanitarian connection with SADC has helped build support among national governments. The R UNDG side meeting on El Niño in Dakar in April 2016, emphasized the importance of using the RIASCO platform as the interagency mechanism for coordination and response at regional level, including support to actions that build longer term resilience and capacities of communities in Southern Africa.

RIASCO COORDINATION MECHANISM



Acad	Academia	HCT	Humanitarian Coordination Team
CoE	SADC Centre of Excellence	IPC	Food Security Phase Classification
CSC	SADC Climate Service Centre	NDMA	National Disaster Management Authority
DRRU	Disaster Risk Reduction Unit	NMS	National Meteorological Services
NVAC	National Vulnerability Assessment Committee	RVAC	Regional Vulnerability Assessment Committee
RCO	Resident Coordinators Office	MASA	Meteorological Association of Southern Africa
NRCS	National Red Cross Society	RIMWG	Regional Information Management Working Group

RIASCO Members - NGO/UN/ICRC/DONOR/ACAD/WB/AFDB/ARC/PRIVATE SECTOR

RIASCO ToR
1. Strengthening information management among regional and national partners; Provision/brokering of technical advice and support for addressing chronic and transitory vulnerability;
2. Mobilizing and leveraging regional resources and institutional partnerships to reduce vulnerability to hazards;
3. Ensuring more humanitarian coherent and effective response by mobilizing groups of agencies, organisations and NGOs to respond in a strategic manner across all key sectors or areas of activity;
4. Providing quality technical and programming support to countries and their international partners on issues of humanitarian concerns and in particular on disaster response preparedness;
5. Managing, stimulating and supporting the use of a regional knowledge repository of strategic information and best practices on DRR and humanitarian action;
6. Conducting advocacy for an effective humanitarian response; and
7. To ensure adequate reporting and effective information sharing (with OCHA support).

FOOD SECURITY / AGRICULTURE AND LIVELIHOODS

COUNTRY	People in Need	People Targeted by Action Plan	Funding Requirement	Funding Received	Funding Gap
ANGOLA	755,930	1,000,000	$22,500,000	$1,283,500	$21,216,500
LESOTHO	709,394	491,198	$42,789,256	$11,601,651	$31,187,605
MADAGASCAR	665,000	665,000	$42,172,000	$16,097,766	$26,074,234
MALAWI	6,500,000	6,500,000	$338,305,000	$65,860,000	$272,445,000
MOZAMBIQUE	1,980,000	1,460,000	$179,800,000	$23,125,310	$156,674,690
SWAZILAND	353,000	353,000	$75,000,000	$19,100,000	$55,900,000
ZIMBABWE	4,071,233	1,860,000	$296,166,768	$46,644,583	$249,522,185
TOTAL	**15,034,557**	**12,329,198**	**$996,733,024**	**$183,712,810**	**$813,020,214**

Because the planning for food security and agriculture sectors in Angola, Lesotho, Madagascar, Swaziland, and Zimbabwe are conducted jointly, these sectors have been combined for the purposes of overall requirements. See country pages for disaggregated food security and agriculture requirements for Malawi and Mozambique.

Food security

The cumulative effect of two poor agricultural seasons has led to a 25.6 per cent increase in the number of people who are food insecure since 2015. The recent release of the national vulnerability analysis assessment results on 6-9 June in Pretoria indicates that over 15 million people are food insecure in the seven countries covered by Pillar 1 of this action plan, and 12.3 million are being targeted under this Action Plan. These figures may rise as country plans are revised.

Malawi's number of food insecure has increased by 169 per cent to 6.5 million, which is half the total rural population. Mozambique has increased to nearly 1.98 million food insecure people impacting those in the central and southern regions. The number of people in need in Swaziland nearly doubled (99 per cent), with hardest hit regions including Lubomobo and Shiselwani. Lesotho figures have increased by 53 per cent. Also of concern are the figures for Zimbabwe, with 4.0 million people affected by food insecurity across eight provinces, an increase of 43 per cent from February 2016. The results for Madagascar in 2016-17 include only provinces in the south, as opposed to national results previously, making year-to-year comparisons problematic. New figures for Angola are not yet available, but areas most affected by drought include those bordering with Namibia.

Several factors contribute to exacerbating the food security situation in the region. These include poor macro-economic conditions, falling international commodity prices and currency depreciations, unpredictable border crossings, logistics access constraints and an unstable transport market. Maize prices in the region have increased on average by 60 per cent from the five year average, with hardest hit countries including

Mozambique (130 per cent), South Africa (100 per cent) and Zambia (66 per cent), severely affecting household's purchasing power and contributing to reduced dietary intake and diversity.

This region has one third of all people living with HIV, who are particularly vulnerable when faced with food insecurity; there is a correlation between El Niño-induced drought and HIV prevalence, as infection rates in HIV-endemic rural areas increase by around 11 per cent with every drought. Food insecurity can threaten treatment compliance which can lead to drug resistance, or it may push households into negative coping strategies that are conducive to HIV transmission. Priority responses to food insecurity include supporting those on HIV or TB treatment programs to promote their adherence and retention in care, in particular by strengthening efforts to monitor, prevent and actively follow up on missed appointments. It is also important to ramp up effective prevention strategies, especially for adolescents and young people in drought affected areas.

In the face of such extensive food insecurity, strong government and inter-agency collaboration and coordination are crucial to allow for joint planning and programming thus ensuring more effective responses, resource mobilization and utilization of funds.

Strategy for Action:

Given the extent of food insecurity across the region, responses depend heavily on targeting those who are most vulnerable, including children, pregnant and lactating women, the elderly, and people living with HIV and/or TB. Life-saving food assistance can take the form of in-kind or cash/ vouchers, depending on the functionality of the markets in worst hit areas. Partners are encouraged to coordinate responses through the Food Security and Cash Working Groups. As much as possible, partners responding to food insecurity look to channel assistance through existing safety nets, including the augmentation of school feeding to help children stay at school and learn. Food assistance responses also include food for assets, whereby asset creation for and by communities is intended to build resilience to future shocks.

There is a recognised need for accurate, reliable and up to date and integrated data on the food security situation that is comparable across the region. The FNSWG proposes to do this through:

- Continued use IPC analysis to translate data into a comparable scale and severity,crucial for prioritization and response.
- Advocate for development of institutionalized FNS monitoring systems.
- Trend analysis of assessments
- Integration of nutrition/HIV/gender issues for holistic programming (Malawi, Swaziland, Zimbabwe, Lesotho)
- Developing guidelines for market assessment and monitoring tools.
- Increased monitoring of medium and shorter range forecasts for the possibility of La Niña.
- Information management to support emergency preparedness and mitigation against flooding (so there are "no surprises" for La Nina).

Agriculture and livelihoods

El Niño's impact on rain-fed agriculture has been devastating, and the worst is still to come. More than 50 per cent of the population in the Southern Africa region depend on farming or livestock for their livelihoods. Cereals, especially maize, are central to food security, and the regional production has fallen by 26 per cent compared to the five year average. Malawi, Mozambique, Zimbabwe Lesotho and the north of South Africa are the most affected areas. High numbers of livestock deaths (500,000 in Angola, 200,000 cattle in South

Africa, 67,000 in Swaziland, more than 22,000 in Zimbabwe) are reported, affecting communities' income, but also impacting on their nutrition.

Access to potable water is essential (in quality and quantity) for the survival of the communities, but water is also essential for farmers' work, their crops and their herds.

Poor harvests have also had a negative impact on households, the most vulnerable have been reduced to negative coping mechanisms (eating the seeds, destocking or selling their reproductive animals, etc). They also affected the markets negatively, the basic commodities prices have increased all throughout the region, and the availability of nutritious food has decreased.

Urgent livelihood assistance is needed now, to support the farming communities' capacity to produce their own food, and ensure livelihoods wherever possible. Agricultural cycles are such that a lost harvest means months and months of further food assistance.

Country early recovery needs

Angola: 150,000 people

- Distribute agricultural inputs with accompanying technical assistance to vulnerable households
- Livestock vaccinations
- Strengthen early warning information systems for food and nutrition security

Lesotho: 679,437 people

- Distribution of home gardening kits to vulnerable households
- Cash top-ups of social protection schemes for input support to the most vulnerable.
- Control, response and surveillance of anthrax and other animal trans-boundary disease outbreaks

Madagascar: 102,000 households (612,000 people)

- Seed and urgent livelihood input support

Malawi: 1,800,000 people

Mozambique: 500,000 people

- Provision of agricultural inputs such as seeds for the second period of the agricultural season to 500,000 farmers.
- Water harvesting for crop production
- Protection of livestock and poultry

Namibia:

- Provision of water for agriculture and livestock in affected areas

- Livestock destocking/restocking scheme

South Africa:

- Support to emergency livestock feeding

Swaziland: 450,000 people

- Strengthen livelihoods through the provision of agricultural inputs (improved seeds and fodder), extension services,
- Rehabilitation and extension of existing watering points

Zambia: 13,699 households (estimated 82,194 people)

- Seed and other agricultural inputs support

Zimbabwe: 200,000 Households (an estimated 1 million people

- Seed and other agricultural inputs support
- Livestock health and production interventions

Strategy for Action:

Response actions should aim at ensuring that farmers are supported to stay on the land and to produce food for their households in the 2016/17 agricultural season. Immediate relief and recovery interventions should include assisting pastoralist, agro-pastoralists affected by drought through:

- Survival feeding to protect and preserve the core breeding herd (pregnant, lactating, dry productive female animals) of the vulnerable pastoral and agro-pastoral households in the worst affected areas.
- fodder seeds and associated inputs should be provided to communities with access to irrigated lands to produce fodder, increase availability and cost of survival feeding.
- Promote irrigation of food crops
- Restocking with small ruminants, protective animal health treatment
- Rehabilitation of water points for livestock
- Destocking weak animals through hygienic slaughter providing meat and income to affected families
- Scaling up of good practices that have been proven in various countries
- Assisting smallholder farming communities affected by drought through direct provision of seeds, other inputs and tools and through Cash and Voucher Schemes

NUTRITION AND HEALTH

COUNTRY	People in Need	People Targeted by Action Plan	Funding Requirement	Funding Received	Funding Gap
ANGOLA	756,000	604,800	$36,630,627	$5,356,152	$31,274,475
LESOTHO	45,400	45,400	$6,682,613	$572,530	$6,110,083
MADAGASCAR	665,000	665,000	$13,634,000	$3,704,500	$9,929,500
MALAWI	6,500,000	2,520,000	$30,195,130	$25,461,712	$4,733,418
MOZAMBIQUE	1,460,000	-	$9,750,000	$3,150,019	$6,599,981
SWAZILAND	353,000	317,196	$2,430,000	$840,000	$1,590,000
ZIMBABWE	1,800,000	403,348	$11,167,796	$573,445	$10,594,351
TOTAL	**11,579,330**	**4,555,744**	**$110,490,166**	**$39,658,358**	**$70,831,808**

Because the planning for health and nutrition sectors in Lesotho, Swaziland, and Zimbabwe are conducted jointly, these sectors have been combined for the purposes of overall requirements. See country pages for disaggregated health and nutrition requirements for Angola, Madagascar, Malawi, and Mozambique.

Nutrition

Food insecurity, water scarcity and other factors continue to aggravate the countries' fragile nutrition situation and is worsening maternal and child malnutrition in Angola, Lesotho, Madagascar, Malawi, Mozambique, Namibia, Swaziland, Zimbabwe and Botswana. Data from eight Southern African countries (Madagascar, Mozambique, Angola, Malawi, Zambia, Zimbabwe, Lesotho, Swaziland) indicate that the number of children in need of treatment for severe acute malnutrition in 2016 is 579,000. In Southern African countries, people with greater nutritional needs remain most at risk, including young children, pregnant and lactating mothers, the elderly and those living with tuberculosis and/or HIV on treatment. Untreated episodes of severe (SAM) and moderate acute malnutrition (MAM) will expose affected children to increased risk of mortality and lead to a further deterioration of the already high chronic malnutrition rates and may threaten the significant gains made on the HIV situation. The last eight months have already seen a deterioration of the nutrition situation in drought-hit areas of Zimbabwe, Malawi, Madagascar, Lesotho, Swaziland, Angola and Mozambique. Five districts in Southern Madagascar currently experience high malnutrition rates, some above emergency levels. In Zimbabwe, the ZimVAC earlier this year reported the worst malnutrition situation experienced in 15 years in some areas of the country and rates of acute malnutrition rose up to 5.7 per cent. Between February and March 2016, admissions for SAM into treatment programme have doubled in two districts (Buhera and Lupane) in Zimbabwe. In Malawi, a marked increase (2.8 fold) of SAM cases admissions was seen between November-December 2015 and January-February 2016 versus an average of 1.8 fold in previous years. The number of SAM cases admissions between January and April 2016 (23,455) has surpassed the number reached – 22,409 - in the first six months of 2015. In Angola, the National Programme for Nutrition and partners estimates that in seven provinces about 95,877 children had suffered from SAM and 150,010 children form MAM Moderate Acute Malnutrition in the 7

most affected provinces.

Swaziland: According to the Comprehensive drought, health and nutrition report of March 2016, a total of 17,832 children were screened for SAM and MAM from September 2015 to February 2016. Of these 359 (2%) had MAM and 249 (1.4%) had SAM. Although early 2016 malnutrition rates were slightly lower than in late 2015, the drought effects are likely to impact more on acute malnutrition in the coming months as food stocks run out (October planting season affected by drought and little or no harvest expected in April).

A SMART survey covering four regions in March 2016 found that Global Acute Malnutrition (GAM) was 3.1% (range, 1.3%-7.2%) and Severe Acute Malnutrition (SAM) was 2.5% (range, 0.9%-7.1%) based on weight-for-height or the presence of bilateral oedema (9 cases all from two regions). Total stunting (chronic malnutrition) was 21.1% (range, 16.8%-26.1%) and severe stunting was 4.4% (range, 2.8-6.8%).

Madagascar: Nutrition data from Ministry of Health and UNICEF in February 2016 presented by district for 6 of the 8 districts most affected by El Nino showed Global acute malnutrition among children aged 6-59 months increased from October 2015 to February 2016 in Amboasary (from 5% to8.54%), Tsihombe (from 9.2% to 14.01%), Bekily (from 7.6% to 8.81%) and Ambovombe (from 2.1% to 4.47%) The situation had clearly worsened between October 2015 and February 2016

Mozambique: According to Mozambique drought humanitarian report in March 2016 by UNICEF in Sofala province, 15.3% of children under-5 and 42% of pregnant and lactating women had GAM. In Tete province, 15.5% of children under-5 and 28.3% of pregnant and lactating women had GAM.

In the countries listed above, stunting among young children is classified by WHO as a public health concern (medium to very high). The prevalence of stunting, ranging from 25.5 per cent in Swaziland to 49.2 per cent in Madagascar[35], highlights the pre-crisis vulnerability of the population, particularly among young children and women of child-bearing age. Existing poor rates of exclusive breastfeeding and quality complementary feeding along with a high disease burden and vulnerability due to HIV and TB, compound the risks of malnutrition. As such, the region is facing a major crisis as the cumulative and negative impact of (1) pre-drought nutrition vulnerabilities; (2) increased incidence of SAM and MAM, and subsequent increased risk of death for young children; (3) severe food insecurity; and (4) high prevalence of HIV and TB.

An additional complexity of the El Niño is the water scarcity, which has been affecting the normal functioning of hospitals, health centres and schools and exposed the most vulnerable to breaks in services and treatment adherence as well as water-borne diseases and other health related problems. This situation puts additional pressure on women, which may result in less time for child nutrition and care and carry additional gender-based violence and protection risks. High food prices in the region and an overall economic downturn in many countries add another layer of complexity - this may lead to adoption of negative coping mechanisms such as transactional sex, which increases vulnerability to HIV infection, as well as sexual exploitation and abuse. There are already signs of a deteriorating HIV situation e.g. in Malawi, Lesotho and Swaziland where higher mortality in food insecure ART clients has been reported along with breaks in adherence to treatment as well as in prevention of mother to child transmission (PMTCT) services due to the lack of antenatal care.

There is a general challenge in obtaining regular nutrition data and seeing outputs of nutrition trend analysis. Although integrated analysis of nutrition, gender, HIV information in this crisis to further substantiate the impact of El Nino has nit been typically done information have been integrated in a number of recent representative surveys (e.g. Swaziland, Lesotho and Zimbabwe). However, most countries' nutrition information systems need to be strengthened or established to ensure continuous monitoring and trend analysis of nutrition and HIV and gender data and to enable timely and responsive decision-making.

35 UNICEF, WHO, WB, 2015

Strategy for Action

Nutrition and HIV issues must be viewed in a **multi-sectoral manner** acknowledging that nutrition and HIV vulnerability can be affected through a number of intertwined mechanisms and **strong government and Inter-agency collaboration and coordination** are crucial to allow for joint planning and programming. This will ensure a more effective responses, resource mobilization and utilization of funds. To ensure a **strong evidence base**, a continued integration of nutrition and HIV in gender-sensitive VAA assessments is essential along with strengthened and integrated monitoring of nutrition and HIV indicators through existing national surveillance systems in a multi-sectoral manner.

An **effective and integrated drought response** linking nutrition, HIV, gender **in addition to food security emergency response** is critical for and will serve to curb the effects of an upcoming La Niña in Southern Africa. A **preventative approach** is essential to ensure any further deterioration of the nutrition situation and **resilience efforts** will to enable more robust communities and individuals during future crisis. The nutrition response strategy **invests in existing structures** and personnel to better manage the nutrition response and integrates a risk informed programming approach into routine nutrition programmes.

Unless urgent steps are taken to ensure that the emergency response is both **HIV-specific and HIV-sensitive,** the El Niño phenomenon has the **potential to reverse developmental gains** that have been made through previous HIV investments and response in the region.

The following activities define the **recommended nutrition/HIV package:**

1. Strengthen nutrition information systems linking Nutrition, HIV and Gender into vulnerability assessment and analysis.

2. Ensure that children and pregnant or lactating women are screened for severe and moderate acute malnutrition and referred to treatment facilities when needed for nutritional rehabilitation.

3. Ensure that children being treated for SAM and MAM are tested for HIV.

4. Protect, promote and support infant and young child feeding (IYCF) practices in the context of drought and HIV.

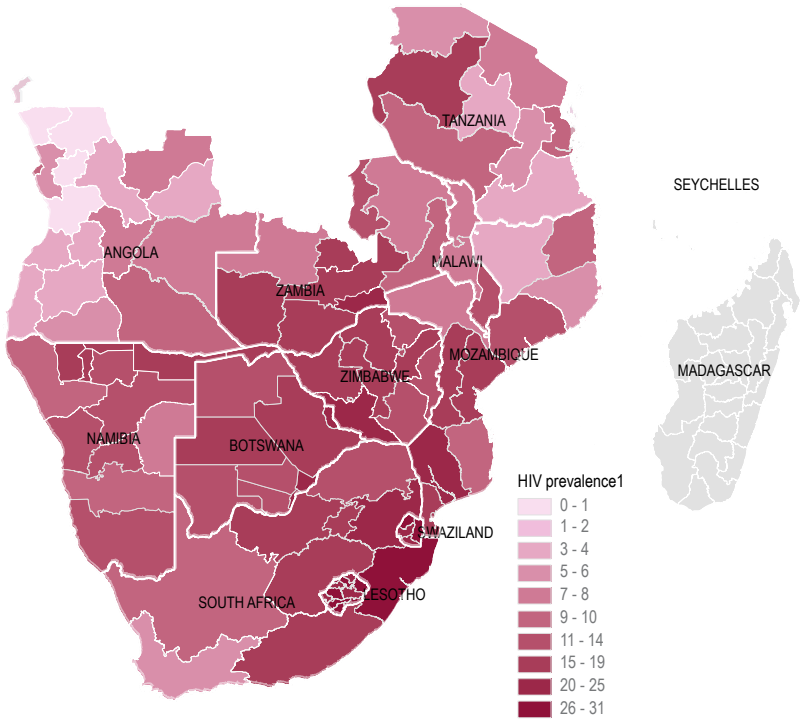
5. Offer food for prescription where available to food insecure PLHIV, especially children and pregnant and breastfeeding women.

6. Sensitize communities on nutrition/HIV key messages and messages.

7. Strengthen multi-sectoral collaboration and coordination through clusters and other platforms.

The underpinning condition for a successful response is its focus on **strengthening existing systems** (in lieu of creating parallel ones) and community resilience to tackle these cycles of drought in Southern Africa.

SOUTHERN AFRICA: HIV PREVALENCE



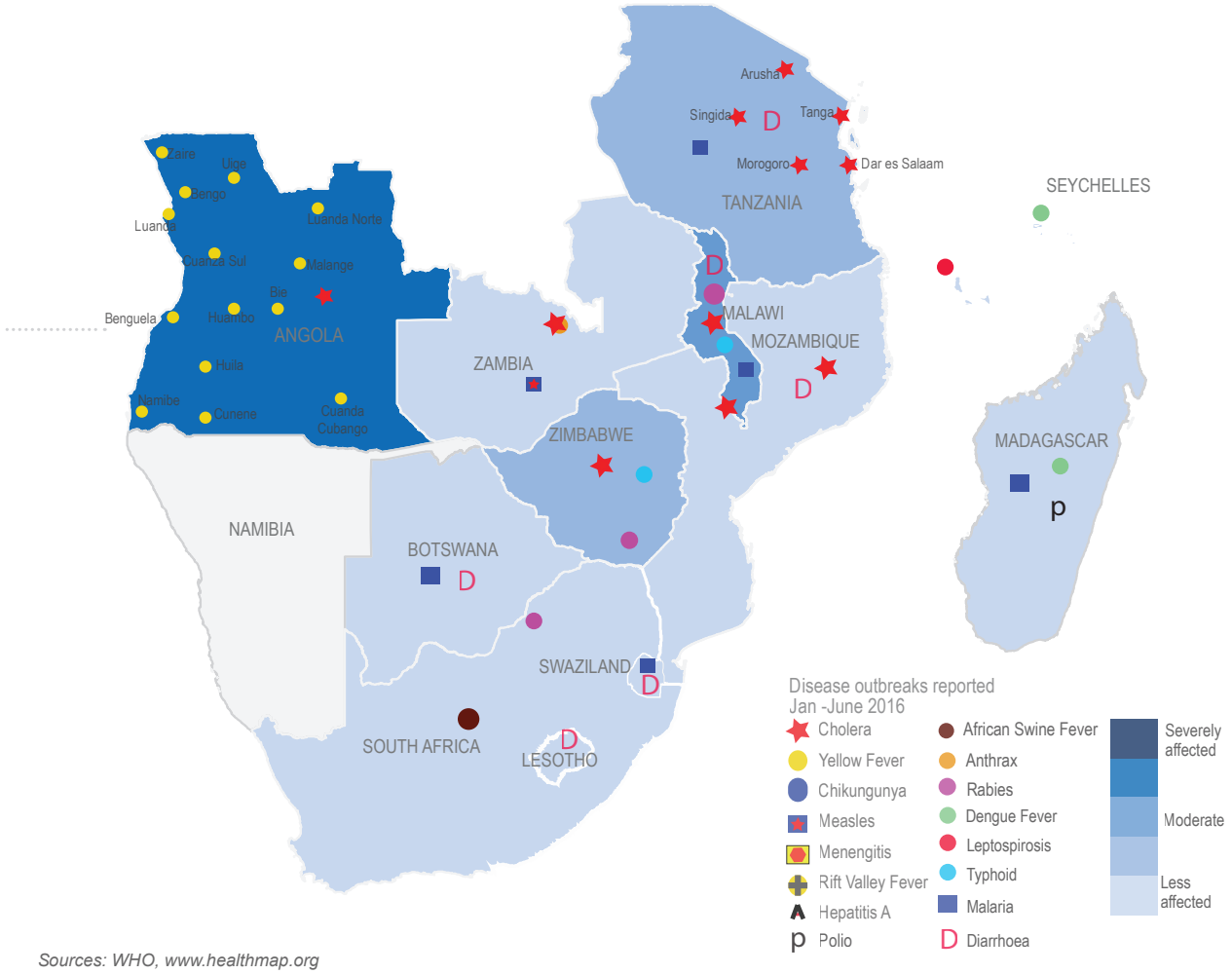
The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

Creation Date: 18 Feb 2016 **Source:** UNAIDS

A number of countries including Zimbabwe, Malawi, Lesotho and Swaziland have integrated nutrition, HIV and gender into vulnerability assessments thereby allowing for a more comprehensive understanding of the impact of the crisis and the ability to adequately respond.

In 2016, about 237,000 children will be targeted for SAM treatment, including the 20% who may require an inpatient care and treatment. WFP and partners will in the same period support governments in the region to treat moderate malnutrition children under age 5, pregnant and lactating women and PLHIV for MAM. In addition to this, children 6-23 months and pregnant and lactating women from food insecure households in Malawi, Swaziland, Zimbabwe and Mozambique, will be provided with specialised nutritious foods alongside transfer assistance to prevent a further deterioration of the nutrition situation recognizing the most vulnerable 1000 days. Nutritional screening and messages will be attached to these activities where possible to ensure linkages to treatment. A number of countries have ongoing nutrition activities e.g. stunting prevention in Madagascar and Zimbabwe, which will complement the El Nino responses and help to prevent a nutritional deterioration. Regional contingency planning is ongoing to ensure that adequate amounts of specialised nutritious foods are available to sufficiently address the needs.

COMMUNICABLE DISEASES



Sources: WHO, www.healthmap.org

Health

The El Niño event and its consequences have severally affected human health, directly through injury, morbidity and mortality caused by exceptional floods in some part of countries already affected by severe drought, and indirectly through its effect on the socio-economic and environmental determinants of health (water, sanitation, food security and safety, nutrition, secure shelter, and reduced household income). Shortage of food due to drought has increased malnutrition rates and incidence of diseases and access to essential lifesaving services caused by scarcity of potable water and poor hygiene, while flooding has caused outbreaks of vector and water-borne diseases such as cholera, typhoid fever, diarrhoeal diseases, malaria, dengue, and Yellow Fever. As of end of May 2016, at least 135 Health districts out of 404 remain affected by El Niño consequences: 45/70 in Angola, 10/11 in Lesotho, 7/112 in Madagascar, 25/29 in Malawi, 54/144 in Mozambique, 4/4 in Swaziland, and 15/63 in Zimbabwe.

Before the El Niño event, access to health services was already affected by economic, geographical, socio-political and cultural factors in some of the El Niño affected countries. El Niño has led to further demands on health systems, weakening of existing services and decreased performance. Flooding in Malawi caused significant damage to health infrastructure, reducing access to health services already overwhelmed by an increase of in patients suffering from waterborne or vector borne diseases. In several countries, hospitals and clinics were not able to maintain their basic services. The loss of revenue caused by drought and the decline in agricultural production has made vulnerable groups less able to reach health facilities due to the distance and the cost of transport. In Madagascar, with the deterioration of access to essential health services, under-5 mortality rate – already high before the crisis – now exceeds the 2 deaths per day alert threshold for 10,000 children in some areas. A significant reduction in attendance at outpatient consultations at the beginning of the year 2016, compared to previous years has also been observed. In Zimbabwe, 1,438 suspected typhoid cases, 74 of which were confirmed, and 6 deaths, were reported during 2016 through June. Some 19,606 dysentery cases and 36 deaths were also reported during the same period.

In Lesotho, shortage of water has compromised the functioning of health facilities, leading to the suspension of some health services. Patients have been required to bring water to the health centres.

In flood-affected areas waterborne disease outbreaks were mainly due to drinking of non-potable water and faecal contamination caused by the destruction of water points, water pipes and latrines. In drought-affected areas, served mostly by shallow wells or boreholes, many started using unprotected water sources when regular sources went dry.

Fourteen disease outbreaks have been notified or reported the region: cholera (Malawi, Mozambique, Zambia and Zimbabwe, Typhoid fever (Malawi, Zimbabwe), diarrhoeas (Lesotho, Malawi, Mozambique and Swaziland) Dysentery (Zimbabwe), Yellow Fever (Angola), malaria (Botswana Madagascar) Dengue (Seychelles and **cVDPV1 (Polio)**(Madagascar).

Strategy for Action

- Orient community health workers and primary health clinic nurses in management of neonatal and childhood illnesses (IMNCI), integrated management of pregnancy, childbirth and postnatal care, linkages with integrated management of acute malnutrition (IMAM), HIV, TB and specific attention to drought-related illnesses using national protocols and guidelines
- Continuous pediatric and PMTCT treatment, community action/ prevention campaign to prevent/ mitigate risks for drought related migration, in particular in relation to gender and HIV
- Scale up routine immunization services to sustain high coverage of all antigens by reaching every child,

including through outreach, and as necessary, through multi-antigen catch-up campaigns.

• Ensure uninterrupted availability of lifesaving essential medical supplies, particularly those needed to manage disease outbreaks. Include strengthening primary health care (training health cadres, supplies, communication for development) in most affected districts.

• Ensure provision of emergency water and sanitation services in health facilities.

• Provide community-based and referral health services for all emergency referrals, outbreak investigation, early case detection, and case management.

• Support social mobilization to create timely health seeking behaviour; build trust for the health system, reinforce positive health promotion and disease preventive action.

• Support integration of malnutrition in the integrated disease surveillance system and response to monitor trend of malnutrition and other outbreak prone diseases for timely and effective response.

In addition to the above, development programmes should accelerate focus on:

• Strengthen disaster risk management program for health to build a resilient health system.

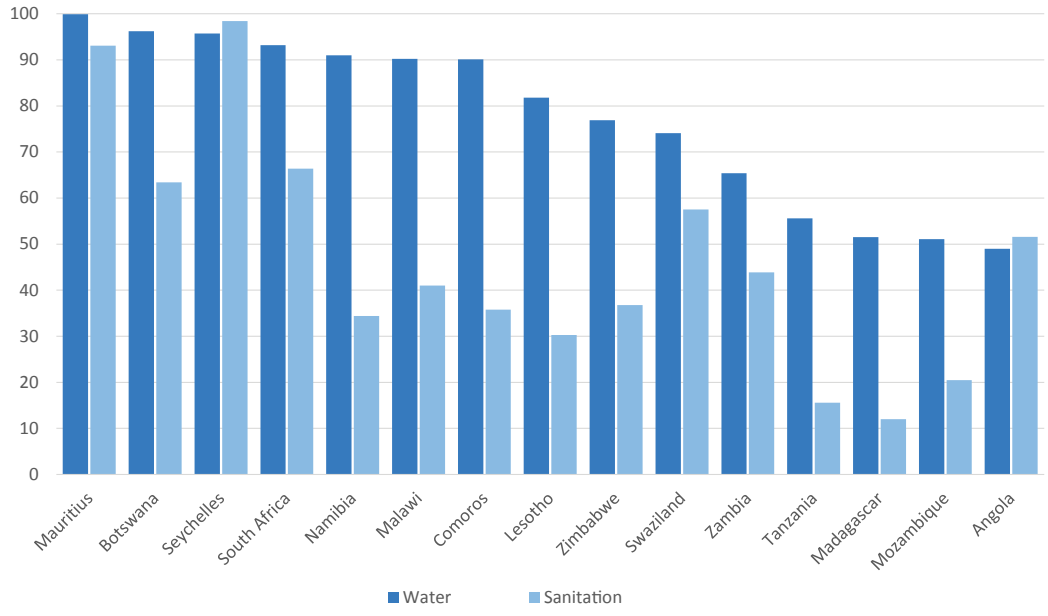
• Capacitate country-led coordination platforms to sharpen national and local response plans; and effectively oversee and monitor El Niño response, including the differential impacts on women, girls and boys, and vulnerable households.

WATER, SANITATION AND HYGIENE (WASH)

COUNTRY	People in Need	People Targeted by Action Plan	Funding Requirement	Funding Received	Funding Gap
ANGOLA	420,000	420,000	$6,479,215	$1,322,863	$5,156,352
LESOTHO	302,507	267,254	$4,938,030	$532,896	$4,405,134
MADAGASCAR	665,000	665,000	$9,202,785	$2,505,622	$6,697,163
MALAWI	1,550,000	775,000	$22,087,500	$-	$22,087,500
MOZAMBIQUE	500,000	300,000	$12,000,000	$4,372,797	$7,627,203
SWAZILAND	200,,000	175,000	$3,400,000	$1,440,000	$1,960,000
ZIMBABWE	2,780,000	1,415,000	$25,598,185	$-	$25,598,185
TOTAL	**6,417,507**	**4,017,254**	**$83,705,715**	**$10,174,178**	**$73,531,537**

The impact of the drought in Southern Africa on WASH is already observed in places where the drought has been more acute and where coverage was already low. Due to a lack of infrastructure, only 61 per cent of the region's population normally has access to safe drinking water and 39 per cent has access to adequate sanitation facilities. Water scarcity is forcing many communities to resort to using unprotected water sources, often sharing these with livestock, further compounding the negative effects of the drought. A comparison of national improved water coverages between the 2015 Joint Monitoring Program (JMP) and the 2016 VAC shows a substantial decrease. This deterioration is likely to increase over the next months as the region is entering the dry season.

ACCESS TO IMPROVED WATER AND SANITATION



Source: World Development Indicators (World Bank)

An assessment conducted in Lesotho in January 2016 found that up to 56 per cent of communities were using unprotected water sources, an increase from 44 per cent normally. Another assessment in Swaziland indicated that 52 per cent and 33 per cent of households in Shiselweni and Lubombo regions respectively have had to change their primary water source, with some communities left without safe sources. In Zimbabwe, the ZIMVAC found that 35 per cent of households were accessing inadequate amounts of water for domestic use in January, and 81 per cent of households reported the lack of availability of water for agricultural purposes.

Water shortages from the drought are having serious health/nutrition effects on communities. Parasitic infections and diarrhoea seriously affect the health and nutrition of the most vulnerable, particularly children. In Lesotho, for example, cases of severe diarrhoea in children under age 5 have increased 275 per cent over a one-year period.[36] In Swaziland, an assessment in March 2016 found that health facilities experienced a 31 per cent increase in the number of diarrhoeal cases treated. In Mozambique, the drought affected regions have seen a substantial increase in acute malnutrition, with estimates that up to 72,000 children will become malnourished over the next 6 months.

In addition, incidences of SGBV can increase with drought and concomitant food and water scarcity. Women as family caretakers and sometimes supported girls may have to trek long distances to remote locations to collect water for household use, and this may expose them to sexual harassment, violence and rape.

Strategy for Action

There is urgent need to provide communities with live-saving water supply interventions and hygiene/ sanitation promotion. This will reduce mortality/morbidity associated with diarrhoea, malnutrition and other drought-related illnesses. Water collection distances will also be reduced thus favouring school attendance of children and diminishing SGBV risks to women and young girls. Health facilities are the preventative and curative centres for the affected communities and hence they must have water supply on a daily basis to ensure that those affected at least have a place to receive treatment for diarrhoea; and any other drought-related illnesses. As children are considered as 'agents of change', it is also paramount to ensure daily water supply to schools and to conduct hygiene sensitisation using schools and health facilities as community gateways for mass communication.

The WASH response will be targeted at communities whose WASH conditions have been affected by the current drought -based a reduction of the availability of water, an increased incidence of WASH related diseases and/or hotspots of malnutrition, due to the deterioration of these conditions.

As such, the following activities need to be undertaken in the identified drought-affected communities:

- **Provision of temporary access to safe water:** This is achieved by implementing short-term temporary solutions such as water trucking, chlorination of water systems and distribution of household water treatment products.

- **Provision of permanent access to safe water:** Existing water sources will be rehabilitated as needed and upgraded when possible with a focus on maximizing the use of perennial sources. Construction of new water systems will be considered when technically feasible and when other sources of water are not available;

- **Improvement of WASH conditions in institutions (schools and health centres):** This will consist in providing a minimum WASH package in institutions through the construction/rehabilitation of WASH infrastructure, hygiene education and the reinforcement of management systems;

- **Hygiene/sanitation promotion in affected communities:** This will focus on the promotion of hand-washing, safe and efficient use of water and sanitation self-supply.

- **Provision of critical WASH non-food items** (water containers, soap) - particularly for the most vulnerable families - to ensure water is kept safe and personal hygiene can be practiced.

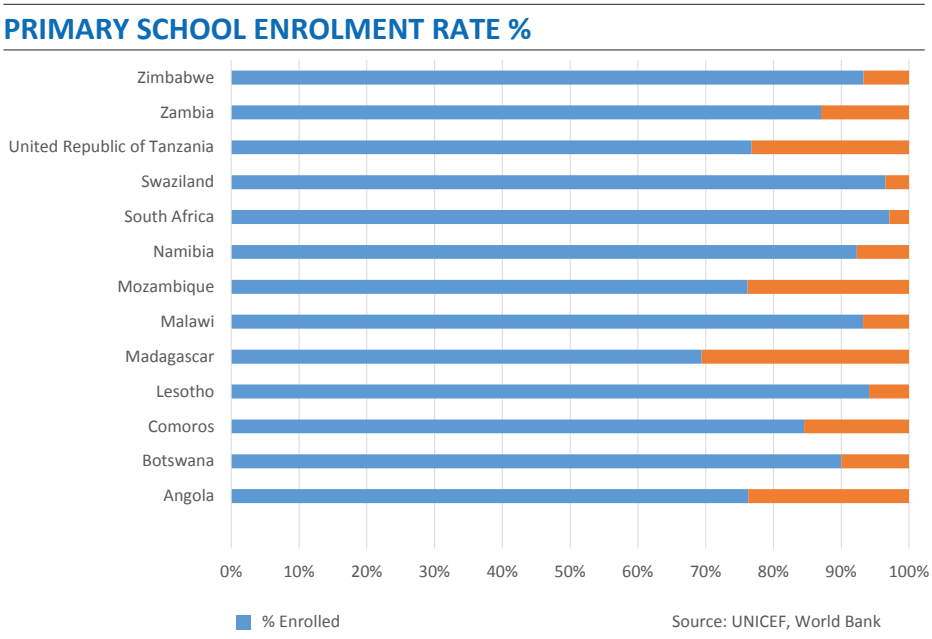
36 Needs source

EDUCATION

COUNTRY	People in Need	People Targeted by Action Plan	Funding Requirement	Funding Received	Funding Gap
LESOTHO	310,000	310,000	$215,000	$27,000	$188,000
MADAGASCAR	150,000	150,000	$4,500,000	$1,500,000	$3,000,000
MALAWI	520,000	208,000	$4,237,255	$-	$4,237,255
SWAZILAND	258,623	197,157	$2,960,000	$1,220,000	$1,740,000
ZIMBABWE	1,290,000	400,000	$18,901,500	$-	$18,901,500
TOTAL	**2,528,623**	**1,265,157**	**$30,813,755**	**$2,747,000**	**$28,066,755**

Access to quality learning for approximately 2 million school-aged children[37] is at increasingly at risk due to the negative impact of El Niño in Southern Africa. In drought-affected areas, attrition is increasing, caused by the need for children - particularly girls - to travel further each day to collect water, fodder for livestock, or support families whose coping strategies are exhausted. Citing hunger and the need to help out with house or farm work, some 6,000 children in Matabeleland North of Zimbabwe and nearly 5,000 children in Chigubo and Guija districts of Gaza province of Mozambique have dropped out of school. Many areas most impacted by El Niño had pre-existing low levels of school attendance, such as in Madagascar, indicating their vulnerability even before the drought. In severely drought-affected areas, such as Swaziland, the lack of water at school exacerbates the fall in attendance rates. Increasing food prices leave households with fewer resources, often leaving no money for school-related expenses, thus jeopardising their children's access to education. In Mozambique, school drop-outs in vulnerable provinces were reported to exceed 10 per cent during the first quarter of 2016.

Forty per cent of households reported removing children from school as a drought coping strategy in Lesotho[38]; preliminary data from an education and WASH assessment in Early Childhood Development (ECD) Centres in 5 districts revealed that 189 schools out of 510 schools that participated in the survey were in urgent need of water supply, including for the preparation of school meals. There is insufficient water for nearly 30 per cent of children attending ECD facilities in these 5 districts and drop-outs result. El Niño affected



37 Based on a calculation using the approximate figure of 24 per cent of the overall population being school-aged.
38 Lesotho Drought Impact Assessment, February 2016

learners that are still able to attend school are struggling to concentrate in class due to thirst and hunger, causing untold negative effects on learning outcomes and attainment. Examination results at the end of the academic year will reveal the true extent of this state.

The 2016 drought has affected 42 per cent of primary schools in Malawi, forcing over 137,489 boys and girls to drop out of school. Care and support for teaching and learning processes have been compromised as a result of drought, and 13 per cent of boreholes and 21 per cent of water taps in schools are not functioning.

Gains that had been made in increasing school enrolment and attendance have been lost as increasing numbers of school-aged children become malnourished and prone to communicable diseases such as acute watery diarrhoea (AWD), cholera and malaria. These diseases are of particular concern in Angola, with the current yellow fever epidemic, and Malawi, where 42 per cent of children are stunted. National Disaster Management authorities throughout the region lack sufficient capacity and are extremely under-resourced, particularly in the area of education.

In Swaziland, Ministry of Education and Training Regional Officers have indicated that schools in areas that are reliant on water trucking have reprioritized their budgets to ensure that water is delivered, however this is at the expense of certain subjects, especially those with a practical element. If water shortages continue, the schools will have insufficient budget to continue paying for water.

Community level discussions in Zimbabwe indicate erratic attendance and reduced participation in class due to limited availability of food at among vulnerable households.

Priority locations:

Priority countries are Zimbabwe, Malawi, Swaziland and Lesotho.

While the drought has impacted all of Zimbabwe, the provinces of Midlands, Manicaland, Mashonaland Central, Masvingo, Matabeleland South and North are the most food insecure. In Malawi, there are an estimated 1.3 million children who will be unable to meet their annual food requirements in 2016/2017 and 520,000 school-aged children are in need of education support. Of these children, 208,000 of the most vulnerable children are being targeted.

The Lowveld areas of Swaziland are hardest hit, mostly in the regions of Shiselweni and Lubombo, however there are pockets of Manzini and Hhohho that are also affected. In Lesotho, schools in the Quthing district are being prioritized; other areas will be identified upon completion of data collection.

Limitations in monitoring and evaluation:

Concrete and longitudinal data demonstrating the impact of the drought on education systems is lacking; direct school based water supply figures pre- and post- drought are not available, but qualitative data and observation demonstrates severe impact on attendance and learning. Data collection is on-going on districts yet to be assessed in Lesotho. Proxy and anecdotal indicators are currently guiding response strategies while Real Time Monitoring systems, such as RapidPro, are being put in place to measure the effect of the drought on teachers and learners in Zimbabwe, Malawi and Swaziland.

Programmatic responses:

To mitigate the rising attrition rates and increase access to education, tailored humanitarian preparedness and response measures are needed. The longer children stay out of school, the less likely it is for them to return. Education in Emergencies preparedness and response plans are in place in affected countries, which identify the most vulnerable populations, their specific educational needs, budgetary requirements and those

responsible for and capable of implementing response actions. Priority gaps in education programming include hygiene in schools, significantly affecting adolescent girls, and the anticipated protracted water and food shortages. In severely drought-affected areas, schools require urgent support to provide them with potable water, hygiene promotion education and nutritious school meals to increase and maintain attendance rates.

The Education sector prioritizes programmatic interventions that directly save lives and reduce short-term hunger. School meals and take home rations have been proposed as a programming response to the drought and as a mechanism to maintain children's access to and participation in education. However, due to limited resources, only 400,000 Zimbabwean school children in the worst affected districts as per ZimVAC report will be provided with school meals. This partial provision due to lack of adequate funding is commonly the case in all El Niño affected areas. The Ministry of Primary and Secondary Education (MoPSE) in Zimbabwe is implementing a short-term, emergency response to the drought while working on a longer-term National School Feeding programme that aims to provide at least one nutritious hot meal to each learner per day. Schools will be assisted to establish nutritional gardens and will receive nutrition training. In order to ensure safe food handling and hygiene, School Feeding Committees will receive training on hygiene promotion and will be provided with hygienic cooking utensils.

Education and WASH Sectors are working together to assist schools to construct hand washing facilities that are age and ability appropriate. The rehabilitation of dysfunctional boreholes or drill boreholes at schools- while as an interim, water is provided regularly by tankers- results in the provision of safe water. Refresher and trainings on hygiene practices and drought coping strategies will be conducted for teachers and other Education personnel.

Strategy for action:

• Service delivery is planned during periods of vulnerability in the areas most affected by drought and/or flooding, not only during the school calendar, in order to use the school as a platform for appropriate response to children's needs. This is the case in Malawi.

• Coordinate with the Ministry of Education to assess vulnerability and response options to reduce the impact of the drought on children's education.

• A cross sectoral response, with collaboration with the WASH and Food Security sectors, as is implemented in Lesotho, Malawi, Swaziland and in Mozambique;.

• Using a resilience framework to increase awareness of El Niño, La Niña and their effects; applying child-led Disaster Risk Reduction actions within the classroom; and ensuring water and sanitation systems, and hygiene education in schools. In Zimbabwe, capacity building trainings for MoPSE Provincial and district personnel in affected districts on EiE preparedness and response and Disaster Risk Reduction will be conducted.

• Response strategies are planned around short-term actions that transition to medium and long-term measures. In Swaziland, water-trucking will transition to the provision on-site rainwater harvesting and bore drilling, however given the limited rainfall and lowered water table there is currently little alternative to water tankering. Where cash transfers are made to affected households, such as in Lesotho and Zimbabwe, close monitoring and evaluation of the impact on school attendance and learning outcomes are tracked. Monitoring systems that track both outputs and outcomes are linked to information sharing protocol, in order to track the impact of El Niño on the education system and the impact of education responses on learners' access to quality education. In Malawi, the government targets 170,000 of the poorest households, including those with Primary and Secondary school aged children, for Social Protection support. The Education Sector is closely monitoring the targeting process and the impact of the programme on learners.

PROTECTION

COUNTRY	People in Need	People Targeted by Action Plan	Funding Requirement	Funding Received	Funding Gap
ANGOLA	756,000	604,800	$2,651,106	$150,000	$2,501,106
LESOTHO	206,666	206,666	$145,000	$11,000	$134,000
MALAWI	6,500,000	3,000,000	$306,926.00	$-	$306,926
MOZAMBIQUE	500,000	200,000	$250,000	$49,393	$200,607
SWAZILAND	162,680	75,648	$640,000	$470,000	$170,000
ZIMBABWE	332,000	332,000	$7,661,280	$-	$7,661,280
TOTAL	**8,457,276**	**4,419,114**	**$11,654,312**	**$680,393**	**$10,973,919**

For Madagascar, based on the local context, protection is not a stand-alone sector. GBV requirements have been integrated into the health sector, and child protection into education.

Child Protection

The El Niño emergency poses specific and significant threats to the protection of children, including sexual violence, child labour, and absence from school. An early-stage child protection rapid assessment was undertaken between March and May 2016 to determine and prioritise the protection risks of children affected by El Niño.

The assessment found that governments in the region have not sufficiently recognized the specific vulnerabilities of boys and girls. Key findings include: increased migration and unaccompanied and separated children (UASC) of 5 to 14 year olds; exposure and risks to violence against children, including sexual violence and exploitation; increased child labour and school drop outs. The assessment also recommends governments to scale up efforts, given the El Niño context and this research, to deliver on their commitments to the African Union campaign to end child marriage and adolescent pregnancies. The assessment recommended that international and regional actors to cooperate with governments to ensure the safety and protection of children on the move, expand social safety nets and include targeted feeding programmes to facilitate the inclusion of children attending school. With an increased likelihood of further population movement, there is a need for enhanced monitoring of child migration and related risks, including unlawful arrest or illegal detention.

Strategy for Action:

• Enhanced monitoring of child migration by service providers with standby arrangements to be put in place for the potential establishment of cross border mechanisms. Responses should be based on approaches incorporating individual assessment and case management and to the extent possible build on existing government led child protection systems.

• Ensure communities are informed of service providers' code of conduct or child safeguarding policies and how issues can be reported.

• Accountability of service providers to uphold the relevant standards through their policies and programmes in accordance with The Minimum Standards for Child Protection in Humanitarian Action (2012) as they relate to key CP issues impacted by El Niño.

• Conduct awareness campaigns on national law around child labour and domestic labour

Sexual and gender-based violence SGBV

The incidence of SGBV increases during food and water scarcity. Food scarcity may lead to tensions within the household, thus increasing the likelihood of domestic violence. Women may also suffer reprisal attacks by their partners for their participation in assistance activities in some communities. Women and girls walking far distances, unaccompanied, in search of water and food, are at increased risk of sexual violence. People in situations of displacement have an exacerbated risk of SGBV.

When affected by food insecurity and water scarcity, women and girls in particular may be forced into exploitative behaviours, including sexual abuse, to obtain resources for themselves and their families. Aid workers, and others in positions of authority, have, reportedly, sexually exploited women in exchange for access to relief assistance. In Lesotho, VAC assessments revealed that sexual exploitation and abuse primarily related to sex for water, sex for food, sex for transportation of water and/ or food were, mainly, perpetrated by community water managers and relief workers. This situation subjects the powerless victims, the majority being adolescent girls and women, to emotional trauma, physical injury, HIV and other sexually transmitted diseases, unwanted pregnancies, and increased school drop-out rates. Awareness that sexual exploitation and SGBV violates an individual's rights continues to be low.

In Malawi, girls have reportedly been driven by poverty to engage in transactional sex and both boys and girls have been forced to discontinue schooling in order to contribute to the household economy. Casual labour contracts often include transactional sex. In Zimbabwe, the recent VAC found that gender-based violence was increasing in most districts.

Strategy for Action:

Short term:

• Rapid gender assessment, response plan and budget for the region by early June in collaboration with other UN agencies, led by OCHA.

• Sectoral-level gender analysis to be incorporated into regional reporting and response plans.

• All agencies to collect and report sex-and age- disaggregated data where possible, including in situation reports, and humanitarian updates and requirements.

• Mainstreaming IASC GBV in emergencies guidelines across sectoral interventions: Deploy a GBV-in-emergencies (GBViE) adviser to support effective monitoring.

• Deploy a GenCap advisor to Southern Africa.

• Support for lifesaving GBV interventions that include: integrated approach to care for survivors of GBV, GBV prevention interventions, collection analysis and dissemination of disaggregated data.

Medium/ long term:

• Continued advocacy for gender-sensitive programming with disaster risk reduction.

• Support for the roll out of IASC gender and GBV guidelines across all sectors as part of the recovery plan.

• Involvement of men and boys in the fight against GBV

• Involvement of women and young people in recovery and resilience building programming.

PILLAR 2

RESILIENCE PRIORITIES FOR RESPONDING TO EL NIÑO

Adopting the resilience lens at the onset of an emergency requires bridging the existing division between humanitarian and development programming to ensure that short-term actions lay the groundwork for medium to long-term interventions. On a very practical level "*humanitarian and development actions converge around the need to prevent, prepare for and respond to crises, particularly with regard to the most vulnerable and at risk populations*"[39].

The principles of a resilience-building response[40] and the need to support a people-centred, inclusive approach to decide on collective outcomes, led by the Government but also involving affected persons and communities, civil society and other stakeholders are generally agreed upon by a number of stakeholders in the southern Africa region. However, in spite of multiple efforts at country and regional level, the translation of the theory into action has been less than perfect. There is in particular a widespread misconception that resilience is introduced as a new approach requiring a formalised resilience strategy. It is true that over the past few years, Zimbabwe and Malawi have both developed a national Resilience Strategic Framework. In **Malawi**, the UN in collaboration with the government and several RIASCO partners and donors, developed a Resilience Strategy for Food Security in 2012. Additionally, the country conducted a Post Disaster Needs Assessment, which details out potential recovery and resilience activities. The PDNA is yet to be finalized and launched but it is expected to complement responses under the response plan by taking care of medium term and longer-term response activities arising out of the impact of El Nino. The **Zimbabwe** Resilience Strategic Framework is focused around improving food and nutrition security, sustainable livelihoods and capacities to manage risks; increasing access to social/basic services; social protection; and mainstreaming resilience in relevant sector policies. **Lesotho** also hosted two national resilience workshops in 2014 and 2015 and progress is on-going to complete the drafting of a new Resilience Strategic Framework. Also **Madagascar** is soon to embark in a multi-stakeholder discussion to draft a comprehensive recovery and resilience plan for the most drought-affected provinces in the South of the country.

However, resilience-building efforts have long been taking place even in the absence of a formal strategy or framework, and a nationally-owned and nationally-led understanding of resilience in the context of the individual countries might be already in place. It is now the effort of national and international practitioners to map these existing efforts and identify space for improvement, adjustments or scaling up.

Investing in resilience means engaging over the medium to long term with national actors to: strengthen their capacities to build a commonly understood analysis of key vulnerabilities and recurring hazards (including climate extremes and environmental degradation); conduct a thorough countrywide mapping of these hazards and the existing resilience building blocks, and identify priority geographical or thematic areas for action; and formulate a multi-sectorial context-specific and coordinated response that directly addresses the identified key vulnerabilities while, at the same time, strengthening preparedness and mitigating the impact of the identified recurring hazards. A comprehensive overview of the regional vulnerabilities is included at the beginning of the present action plan, however a few common elements (social, economic, environmental and institutional) are recalled below:

39 After the World Humanitarian Summit: Better Humanitarian-Development Cooperation for Sustainable Results on the Ground (2016) p.6
40 A nationally-owned and people-centric, multi-sectoral and multi-layered, sustainable and cost-efficient response, built on joint context analysis and enhanced partnerships

• Deteriorating economic and social environment, and in particular high levels of unemployment (especially among youth), coupled with inconsistence in some formal and informal government policies. Limited Government assistance during and after disasters or for planning and implementation of risk reduction measures, in particular in the face of recurring crises.

• Low agriculture production and productivity (poor quality inputs and soil degradation) resulting in country being imports-dependent to meet the demand for domestic consumption and industrial needs. Limited access to markets for inputs (e.g. seeds and fertilizers) and outputs (especially for higher value cash crops). Insufficient investment in processing, storage, at household and community level, to decrease the very high post-harvest losses in the region - and value-addition, due mainly to lack of funding. Limited access to financial capital to strengthen existing livelihoods strategies or to diversify to new strategies (e.g. land tenure and bankable leases) resulting in low income diversification and the consequent skills flight and erosion of private and public financing. Gaps in quality and availability of agricultural extension support, meteorology and seasonal forecasting, for instance embryonic weather-related insurance schemes to protect farmers income.

• Gender imbalances - women are generally responsible for food security within the household. However, their capacity to withstand the negative effects of increasing and frequent shocks such as drought is very weak. More so, their vulnerability is aggravated by limited participation in income generating projects, low purchasing power and limited access to resources, poor access to markets and high levels of food insecurity. Furthermore, across the Southern Africa region the majority of cooking is done by women, and women are by far the most affected by all concerns related to firewood and household energy in general, including protection, health and safety risks and reduction of livelihood opportunities.

• Limitations in access to basic services – particularly to smallholder farmers - and poor infrastructure constrain options for strengthening and diversifying livelihoods to manage climate risks.

From an economic perspective, and especially in a context where more must be achieved with shrinking resources, the long-term commitment to investing in resilience building to ultimately reduce the financial, administrative and resource burdens of responding to recurrent crises can be considered entirely cost-effective. It also protects development gains by reducing development losses due to such crises and ensures development opportunities are not missed as acute crises gradually decrease in duration and impact.

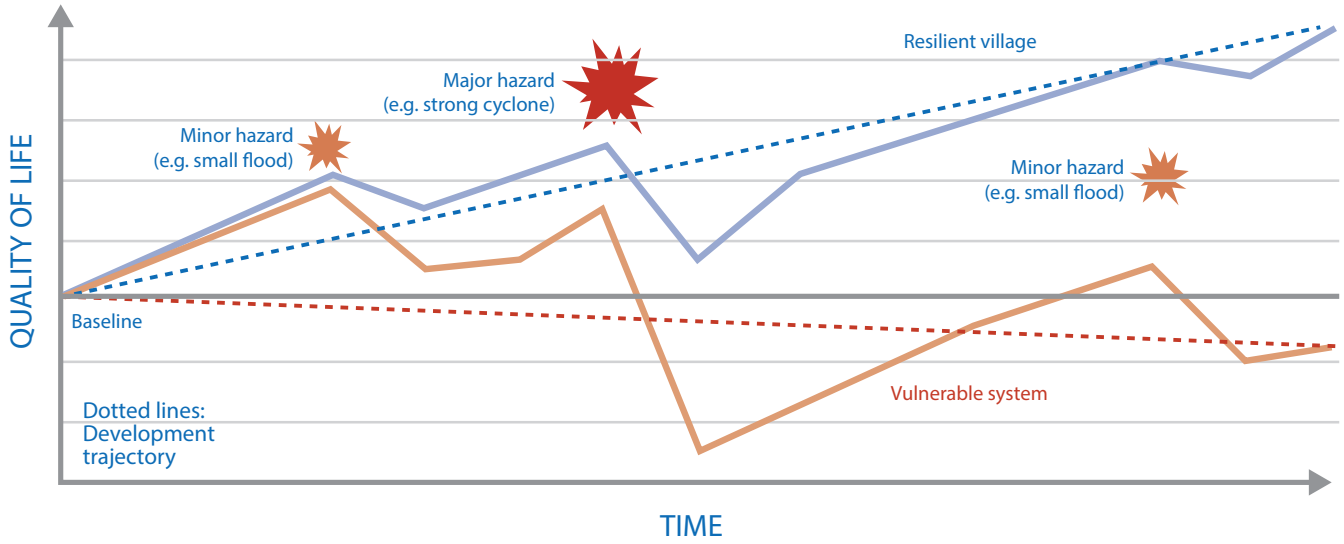
While this action plan specifically includes recommendations, at country and regional level, to address the key vulnerabilities that the occurrence of the El Niño Southern Oscillation (ENSO)[41] strongly brings to attention of the national and international community, it is important to notice that the concept of resilience building goes beyond the response to a single crisis, and rather focus on those structural weaknesses that make a system (country or region) vulnerable to any external stress, regardless of their natural or man-made root.

It is also essential to note that while the 2015-2016 El Niño phase can be considered over, there is strong evidence that a La Niña phase will hit the Southern Africa region by the end of 2016. In light of this evidence, and despite the fact that is still unclear what the overall effect of the cooling phase will be, the action plan places strong emphasis on preparedness and early warning actions to avoid that further suffering is added to the already vast humanitarian caseload. Above average rainfall can cause reduced crop yields, through nutrient leaching, and reduced solar radiation as a result of extended cloud cover. In the worse-case scenario, heavy rains may lead to flooding and loss of lives; displacement of population; destruction of properties and infrastructure; interrupt access to basic social services; and to possible outbreak of secondary hazards associated with water and vector borne diseases. However they could also be an opportunity waiting to be seized to replenish water reservoirs, increase power generation opportunities, and jump start the

41 The ENSO includes both the El Niño and La Niña phases.

accumulation of grain reserves and the diversification of crops throughout the region. The impact of La Nina will be ultimately linked to how well prepared countries are at mitigating its impact (and rapidly adjust response from a drought to a high rainfall scenario) and at harnessing the inherent opportunities.

In direct reference to the Southern African Resilience Framework[42], and its articulation along the three pillars of Livelihoods, Productivity and Production, Social and Basic Services, and Social Protection, what follows is a set of recommendations for action, articulated in keeping to the collective vision for the resilience-building agenda in the region, and with a specific focus on the cross-cutting issue of early warning and coordination. In addition to the country level recommendations a specific set of recommendation for regional level support is included in the discussion.



Summary of key recommendations

1. Risk-informed programming for resilience, be it in the humanitarian or development phase, must be founded on a thorough analysis of the national and sub-national structural vulnerabilities, that is constantly monitored and periodically updated[43]. Scientifically sound data collection is pivotal to the vulnerability analysis, be it in terms of market and prices trends, of nutrition or food security surveillance data, or meteorological information. All countries in the region should be supported to identify, across sectors, relevant information to feed into and strengthen national platforms on DRR information sharing. Countries are also strongly encouraged to harmonise their data collection methods and adopt, whenever possible, existing tools and standards (i.e. the Integrated Food Security Phase Classification - IPC) to allow for cross-country comparability, joint regional context analysis and hazard mapping, to support risk-informed regional resilience frameworks and programming, and to roll out a regional integrated early warning system.

2. As any truly sustainable response should make the most of existing capacities, knowledge, resources and technology available in the country, resilience-fostering interventions must ensure system-wide commitment by engaging multiple stakeholders at all levels of society and government to create a policy environment that accommodates and supports the resilience agenda. The accountability to Affected Populations (AAP) is particularly important to design relevant and effective programmes.

3. Ineffective Early Warning Systems (EWS) are a major concern for all countries in the Southern Africa region. Despite various country-specific preparedness measures, most of the countries in the region have demonstrated to be inadequately equipped to meet the needs of the affected populations and have requested

42 A Framework for Building Resilience in Southern Africa – July 2014
43 This analysis must include analysis of communities' exposure to shocks (including economic shocks, natural disasters and conflict, among others) or stresses as well as an understanding of communities' vulnerabilities and capacities (including analyses of equity, seasonality, climate change and gender considerations), as a basis for intervention

support - both technical and financial - to respond more effectively to anticipated impacts. Strengthening or where necessary creating, at country and regional level, systems to manage risks of climate variability in the face of weak national and local governance capacities would contribute to limiting the recurrence of acute food insecurity and livelihood crisis that may result from future impacts of extreme weather events. It would support and strengthen governments to be more responsive and to be able to take quick decision through advocacy in order to avoid delays on response and to ensure that early action is taken in due time. Furthermore, it is recommended that a strong investment is made, at national and sub-national level, in systems for the delivery of basic services that incorporate and operationalise DRR planning (i.e. investment in drought-resilient health infrastructure to ensure that services continue to be delivered amidst a crisis). More broadly, it is recommended that contingency planning is streamlined across all relevant Ministries and local authorities at national and subnational level. The establishment of the regional disaster preparedness fund should be prioritised.

4. Although the ENSO is a natural cycle, climate change, and the mismanagement of natural resources, is progressively causing the impacts of the oscillation to intensify and to increase in frequency, with each iteration exacerbating the region's vulnerability to future disasters – depleting both the environment, and the social systems that depend on it. The effects of climate change are threatening to undermine decades of development gains and future development trajectories. Especially in presence of disaster induced displacement, competition between locals and displaced populations for scarce natural resources can easily result in conflict. As environments are degraded and natural resources become scarcer, the problem of access to water, fuel, and firewood increases. A resilience building response must thus encourage the sustainable use and management of ecosystems, including through better land- and water-use planning to reduce risk and vulnerabilities. This translates into integrated environmental and natural resource management approaches that incorporate disaster risk reduction such as integrated flood management and appropriate management of fragile ecosystems.

5. Investing in well-designed social-protection mechanisms is necessary, even during non-crisis periods, to ensure protection for the most vulnerable and address some of the root causes of social and economic exclusion. Most countries in the region already have national transfer systems through which they provide cash and other social assistance to the most vulnerable. These programmes are nationally-owned and at least partly domestically-funded. The action plan strongly advises further investment in a predictable, scalable social safety nets system based on a single beneficiary register and on a set of agreed upon parametric triggers that signal the activation or de-activation of an emergency scaling up to help protecting development gains during a crisis. It is also recommended that investments are made in gathering evidence on the protective function of crisis modifiers/ safety net scale up and that the evidence is used to advocate for risk transfer mechanisms.

6. Climate smart technologies (i.e. drought tolerant varieties, conservation agriculture, water harvesting) are also a priority area for action, and a necessary step to move away from the current over-reliance on rain-fed agriculture. Over the shorter term actions aiming to diversify the livelihood support systems should be promoted, including the investment in agricultural research and innovation, investments in agriculture support services, value chains and market infrastructure. Over the medium term, structural agrarian reforms should be encouraged. Urban livelihoods and production have received comparatively less attention than the rural counterpart from Governments, humanitarian and development practitioners alike: in light of the widespread impact of the recurring El Nino/La Nina phenomenon, of the particular sensitivity to food price increases of urban landless households, and the resulting economic migration towards urban centres, more attention must be paid to building the sustainability of urban services and economic opportunities.

7. For both donors and multilateral organisations, a paradigm shift is required to support/design joint programmes containing both development and emergency elements to deal with the acute/transitory crisis, grounded on risk management rather than risk aversion and on the use of crisis modifiers. From a crisis management perspective, this requires enabling the coordinated use of humanitarian, development, climate change and other instruments and activities, based on a common understanding of the context, risks and requirements on the ground and comparative advantage.

Regional level support – a cross-sectoral strategy for action

While country level support must be tailored to the specific needs and circumstances, the trans-boundary nature of the El Niño impact in the region requires a coordinated approach to facilitate better integration of different interventions and promote linkages and synergies between sectors and stakeholders.

Regional and national resilience builders can harness lessons learned and good practices identified in order to scale out promising Climate Smart Agriculture (CSA) practices and use such as for evidence base advocacy among policy makers as well as sharing tools, approaches and models to inform resilience programming. The Southern Africa Development Community should be empowered to play a leading and pivotal knowledge management role to encourage cross-country learning and informed decision making and to coordinate donors and government investments in resilience in the region. As a first step in this direction, in-depth mapping of the resilience efforts already ongoing, and their provisional results, must be conducted to evaluate the opportunity to strengthen or scale up. At the same time, existing coordination mechanisms and partnerships at country level should also be mapped to evaluate their effectiveness and to extract lessons learned.

In addition, and in consideration of the cross-border spill-over effect of these initiatives, it is recommended that key policies and strategies (as they relate to resilience) around national resource management, trans-boundary migration (especially if this occurred as a result of desertification and loss of livelihoods) and trade, access to social protection and social services, land tenure and climate-smart agriculture, are, as much as possible, harmonised across the region. Common standard operating procedures can be established for scaling up social safety nets in the event of a collective shock.

Furthermore, a joint regional context analysis and hazard mapping should take place to highlight common risks and challenges and support risk-informed regional resilience frameworks and programming and to roll out a regional integrated early warning system by strengthening and linking the country-level early warning systems. To achieve this, it is advisable that data collection and measurement of common vulnerabilities and hazards are harmonised across countries to allow for comparability and common analysis. The SADC Climate Services Centre should be supported in the production of early warning bulletins and alerts, to be systematized and institutionalized in accordance with regional and national mandates and protocols.

Livelihoods, productivity and production

Most of the rural populations in Southern Africa are dependent on the extractive use of natural resources through farming, fishing, crafts, and the harvesting of forestry products. Women, normally responsible for a large share of the agricultural workload, seem to be disproportionately affected by the dwindling water supply and serious protections concerns have been highlighted in several of the SADC countries, in particular related to the distance women and girls need to walk to fetch water.

Due to technological gaps, poor physical infrastructure, inadequate support services[44], and the eroding

44 Extension services but also lack of access to storage, inputs, financial options etc.

impact of frequent shocks (drought, floods, but also trans-boundary pests and diseases) on farmer production capacity, productivity and production of rain-fed agriculture is extremely low[45], relegating households and communities to a perpetual life of subsistence. Livestock which are important as household fall-back assets after a shock are affected by poor productivity and production due to depleted pastures and water and the outbreak of transboundary diseases.

The key underlying factors for low on farm productivity and extremely relevant post-harvest losses, can be identified in inadequate risk management strategies against shocks by farmers, as well as soil degradation and the use of inappropriate, unskilled farming methods and practices – including very limited crop diversification. Increasing agricultural productivity requires building new capacities, creating the necessary awareness, and ensuring that relevant support services in livestock, input and outputs markets and infrastructure are functioning.

A strategy for action:

There is an urgent need to support the following actions in the short to medium term:

0-12 months

• Train and create awareness in farmers at high risk as a way of building their capacity to prepare, anticipate and manage known climatic and non-climatic risks in their environment, taking into account the gender dimension in the design of the interventions.

• Provide support to scaling up the adoption and application of Climate-Smart Agriculture for crops and livestock by farmers at high risk to the impact of shocks and hazards. Based on contextualized analysis, train and expose farmers to Conservation Agriculture (CA), the application of Good Agricultural Practices and use of appropriate crop varieties in response to a specific forecasted climate situations.

• Support appropriate livestock saving interventions such as emergency feeding and water provisions, vaccinations against endemic diseases that are precipitated by shocks in order to protect livestock, linking them up as appropriate to social safety nets.

• Facilitate livestock de-stocking and re-stocking in a sustainable manner that protects income and livestock reproductive capacity at household level.

• Facilitate sustainable mechanisms for ensuring cost effective, timely availability and access to appropriate inputs and produce markets[46]. Strengthening the capacity of local agro-dealers based on private sector motivation can contribute to sustainability. Use of mobile mediate transactions for agricultural subsidies and social security nets supporting agricultural inputs has been used successfully in a number of countries.

• From a regulatory perspective, provide support, where needed, to changes in policies in land reform and national resource management to support farmer and trade groups.

• Invest in innovative technologies to share weather information and early warning messages to most at risk communities, as well as collecting programme feedback from the communities.

• Develop a comprehensive feedback and complaints mechanisms to ensure accountability to affected populations.

45 About 50% of the region also lacks good arable soil and sufficient rainfall
46 For example through Purchase for Progress schemes or linking to the private sector/institutional feeding schemes to promote sustainability.

12-24 months

Provide support to income diversification by supporting high risk communities and households to decrease risks they incur when one source of livelihood fails due to the impact of a shock or hazard:

- Create or recognize new opportunities for communities and households
- Train communities and households in business and marketing skills, including basic (financial) literacy;
- Strengthening extension services (crops and livestock) and market access to improve knowledge transfer among target communities;
- Strengthen value chains, and access to market information through innovative technologies such as mobile based communication. Partnership with the private sector is key for sustainability. A good example of success in these activities has been exemplified by the collaboration of FAO, the Ministry of Agriculture's CASU project in Zambia in which small scale farmers are being supported to diversify the cropping enterprises from maize by integrating legumes which are more drought tolerant, while an available market is provided by WFP through private buyers.
- Facilitate improved access to financial services (supply and demand), weather insurance schemes, and other safety nets for small scale shock-vulnerable farmers to enable investments in productive assets;
- Re-stock with a variety of appropriate livestock breeds that are tolerant to particular hazard situations
- Support the introduction of new crop varieties tolerant to particular bio-physical environments or hazard conditions.
- Regarding urban livelihoods, there is clear need to focus on the youth as a key target group, as well as to include gender analysis and considerations in the urban job creation opportunities. Peri-urban agriculture to be considered (vegetable gardens, small animals or poultry)

24-36 months

- As above
- Advocate and support the restructuring of the regulatory environment to stimulate the creation of an enabling business climate.
- Improve rural infrastructure.

Social and basic services

Continued access to basic social services - health, nutrition, water and education – is critical for communities, particularly when faced with prolonged external shocks. The impacts of 2015/2016 drought caused by El Nino have exposed the increased vulnerability of communities who have limited or no access to basic social services. The latest UNICEF/WHO Joint Monitoring Programme (JMP[47]) figures show 75 per cent of the SADC region's population having access to safe drinking water and only 46 per cent accessing improved sanitation facilities in 2015. This makes the impact of drought especially severe, as many are forced to make use of increasingly unsafe, frequently contaminated water sources, both in rural and urban areas, in particular among the most vulnerable groups, including children. Data gathered by Vulnerability Assessment Committees in several countries in the region have shown that due to the drought, health facilities have been overwhelmed by an increased demand for services while at the same time being unable to properly operate

47 NICEF, WHO Joint Monitoring Programme. Progress on Sanitation and Drinking water 2015 update & MDG assessment.

in the absence of water and power; fewer pregnant mothers in severely affected drought areas in Lesotho and Swaziland are reportedly attending pregnancy and delivery care due to lack of water in health facilities; and how the access to safe drinking water has decreased compared to the pre-crisis level. The crisis has also exacerbated nutrition problems across all countries in the SADC region: almost all countries are registering stunting and wasting levels dramatically higher than acceptable.

Building systems at all levels (regional as well as national and subnational) for the delivery of social services that incorporate early warning and preparedness to recurrent shocks while maintaining the flexibility and capacity to scale up/adjust in times of need while continuing to address the root causes of vulnerability are key components of resilience programming.

A strategy for action:

0-12 months

• Conduct a detailed analysis of the risk factors that can disrupt access to basic/social service during crises, including the differential impacts on women, girls and boys, and vulnerable households. Invest on building capacities of national and sub-national sector/ line ministries in multi-hazard risk planning.

• Support increased and effective coverage of inclusive and quality services in areas of high vulnerability and chronic drought/ crisis. Promoting capacity strengthening of government staff to operate in crisis environment. Integrate into education curriculum elements promoting behaviour change on sustainable living as well as life skills such as disaster risk reduction (i.e. effective management of energy and water resources, at all levels, including household).

• Strengthen sector information management systems to include real-time monitoring/early warning systems (i.e. nutrition surveillance and information system)

• Invest on strengthening system-wide collaborative efforts to inform people of their right to basic services.

• Support multi-sectoral area based programming in most vulnerable communities (governance, livelihood, basic social services).

12-24 months

• Support integration of disaster risk management in the national development strategies encouraging a continuous flow of information between national and local level service providers to exchange early-warning information and service-delivery data.

• Investing in participatory decision making geared towards community based solutions to the present and anticipated future needs of the people.

• Identify and support decentralized and adaptive modalities of accessing basic social services in risk prone areas (i.e expansion of community management of acute malnutrition).

• Foster engaged in multi-lateral programmes (i.e. Health Extension Programme, national CMAM roll-out, National Nutrition Programmes and REACH and SUN platform).

• Support innovative partnerships with the private sector in supporting social services – including through market-driven technological advances related to information sharing, health screening and diagnosis.

24-36 months

• Invest on building cost effective disaster- resilient service facilities and scalable waste management.

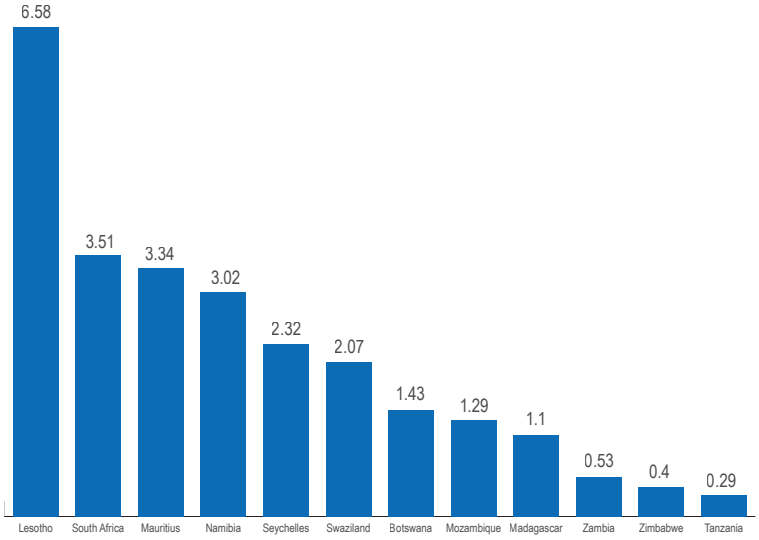
• Promote shifting to renewal energy sources and technology-driven solution for water collection, purification and distribution (i.e. rainwater harvesting and aquifer-recharge systems can be introduced as a sustainable alternative to contaminated piped water).

Social protection

Resilient social protection systems are a key element in breaking the vicious circle of crises and shocks that place affected communities on a vulnerability pathway. Both chronically food insecure households, and households who are vulnerable to food insecurity can benefit from social safety nets as a response modality to help initial beneficiaries onto a resilient pathway. Additional households are protected from losing their productive assets and prevented from adopting negative coping practices. At the same time, well-designed social-protection mechanisms can, even during non-crisis periods, ensure protection for the most vulnerable and address some of the root causes of social and economic exclusion by removing the social and economic barriers to uptake of services. Social safety nets in the form of cash transfers also support the continued functioning, or restoration of local market systems impacted by the effects of climate extremes.

Most countries in the region already have national transfer systems through which they provide cash and other social assistance to the most vulnerable (including school feeding programmes, social pensions) with an average spending of 2% of the GDP and reaching on average 40% of the households in the poorest quintile (with wide inter-country variability). These programmes are nationally-owned and at least partly domestically-funded. Food and in-kind transfers are the dominant component of total safety net spending in the region (27 per cent, on average), according to the World Bank. Among cash-based transfers, social pensions account for the highest share of expenditures. The region is home to some of the largest scale social pension schemes introduced to date.

SPENDING ON SOCIAL SAFETY NETS (AS PERCENTAGE OF GDP)



Source: World Bank 2015. The State of Social Safety-Nets

Despite the remarkable efforts made in this area, however, weaknesses remain in terms of coherence and targeting of the different social protection initiatives, including linkages between the agricultural sector (and smallholders) and the institutional demand. In particular, there is still a tendency, when faced with reduced crop production, to implement universal food subsidy schemes, particularly staples such as maize. These interventions ultimately fail to reach the most vulnerable households while encouraging black market re-sale of subsidised food items.

A strategy for action:

0-12 months

• Improve communities' awareness of eligibility criteria for social protection services and promote community empowerment/consultations on social protection programmes.

• Link humanitarian social protection transfers to development initiatives and promote graduation. Support introduction of smart subsidies to vulnerable farming households or vulnerable urban populations.

• Promote investment in risk transfer mechanisms and climate change services (i.e. local weather–indexed insurance or mobile weather stations) to strengthen communities' risk management strategies (including community early warning or group savings).

• Invest in dynamic vulnerability mapping and planning, and in the introduction and mainstreaming of crisis modifiers to rapidly scale up coverage of social safety nets at the onset of a crisis. Gather evidence on the protective function of crisis modifiers/ safety net scale up and use the evidence to advocate for risk transfer mechanisms.

12-36 months

• Support Governments to improve the coordination and coherence of different social protection mechanisms and the introduction of a single beneficiary registry including a list of potential new beneficiaries vulnerable to shocks. Support restructuring of social protection mechanisms delivery systems.

• Conduct an in-depth analysis of the areas/social groups that are particularly affected by climate extremes in order to increase their access to public services/support.

• Champion the abandonment of untargeted social protection mechanisms (i.e. food subsidies) in favour of targeted interventions, which leverage and expand existing safety-net systems (whether in cash or in-kind).

• Support predictable funding of social protection mechanisms (see Pillar 3).

Cross cutting: early warning for early action

Ineffective Early Warning Systems (EWS) are a major concern for all countries in the Southern Africa region. Despite various country-specific preparedness measures, most of the countries in the region have demonstrated to be inadequately equipped to meet the needs of the affected populations and have requested support - both technical and financial - to respond more effectively to anticipated impacts. The most serious identified technical capacity constraints comprise:

• Inadequate analysis, limited data and information on climate extremes (El Niño, La Niña).

• Institutional and policy constraints on Disaster Risk Reduction, recovery and pre-disaster recovery planning.

• Inability to translate global weather forecasts related to El Niño and La Niña into locally usable information available to all groups irrespective of age, gender and vulnerability, and local action.

Strengthening or, where necessary, creating systems at country and regional level to manage risks of climate variability in the face of weak national and local governance capacities would contribute to limiting the recurrence of acute food insecurity and livelihood crisis that may result from future impacts of extreme weather events. Such systems would support and strengthen governments to take quick decisions at the very onset of a crisis and to avoid delays in the response – both in terms of early action and in terms of advocacy/ resource mobilisation.

A strategy for action:

0-12 months

• Invest on strengthening coordination at national level to ensure coherence and synergies in the way the support is planned and delivered, including:

o Systematic assessment and monitoring of risks (hazards, vulnerabilities/capacities and exposure) in order to provide evidence base for risk-informed action, including the differential impacts on women, girls and boys, and vulnerable households.

o Generation of data;

o Data analysis;

o Information management and sharing mechanisms within the government and the humanitarian/development teams to enable as near to real time as possible a clear view of the direct and indirect impacts of El Nino on children, women and families; and fine-tune responses to address emerging issues and trends. In particular, promote inter-institutional coordination to ensure smooth information flow, consistency of interventions, knowledge exchange, and promote synergies among multiple actors.

• Capacitate country-led coordination platforms to lead and charter the resilience course within the existing national planning and priorities; to sharpen national and local response plans; and effectively oversee and monitor El Niño response; to conduct post-disaster needs assessments. Promote clear identification of focal points or bodies tasked to promote the resilience agenda.

• Support the introduction and use of crisis modifiers to evaluate the likely impact of, and react quickly to the onset of a crisis – both in terms of scaling up existing initiatives, advocacy and timely allocation of resources.

• Support national Meteorological Departments to generate reliable weather forecasts and prediction, as well as, enhancing communication channels to widely disseminate relevant information on El Niño and La Niña.

12-24 months

• Build strong institutional basis for disaster risk reduction and climate change adaptation. Work with National Disaster Management Centres to improve DRR and resilience building capacity at local and national level, in parallel and supporting the process of domestication of the SDGs.

• Promote the use of risk information in order to inform policies, national and local/urban development plans, and sector strategies and as a knowledge base for recovery and risk transfer mechanisms in order to stimulate demand for investment in risk reduction.

• Support countries on the establishment of predictable and flexible financing mechanisms, such as Trust Funds and utilization of local/national financial resources for resilience building. Support the development and operationalization of Strategic Frameworks and Investment Programmes at national level.

24-36 months

• Support stronger coherence between DRR and Climate Change through more harmonized policies and integrated institutional arrangements at national and local level.

• Invest in hydro-meteorological institutions and innovative communication to share actionable warning messages with sector users and at-risk-communities.

PILLAR 3

ECONOMIC IMPACTS AND POTENTIAL MITIGATION SOLUTIONS[48]

The scope is of this pillar is threefold. First, to provide an analytically rigorous estimate of the macro-economic and poverty impacts of the El Nino 2015/2016 induced drought on maize outputs. Second, to showcase the range of risk management tools available in the short, medium and longer-term to enhance fiscal buffers, strengthen food supply chains and protect vulnerable groups. And, third, to outline the range of interventions supported by the World Bank in Southern Africa in response to this crisis and options for scaling up.

1. Quantifying the Macroeconomic Impact of Reduced Maize Output in 2016

El Niño-related droughts can impact SADC countries through several channels. Prolonged droughts can severely curtail the availability of water for domestic consumption (resulting in the failure of local sources such as springs and shallow boreholes, and rationing of urban bulk water supplies), which typically places an increased burden on women and children, with knock-on income generation, health and educational outcomes. Industrial activity may also be affected, notably through declining hydroelectricity production and ensuing power shortages.

However, one of the most immediate socio-economic impacts of droughts is on the farming sector which experiences a fall in crop production, due to inadequate and poorly distributed rainfall (the sector's acute susceptibility to hydrological variability is exacerbated by limited land and soil management practices, poorly-adapted low quality seeds, inadequate inputs and over-reliance on mono-cropping and restricted irrigation coverage). Farmers are faced with an inadequate harvest to feed their families and to sell excess crop on the market to finance other expenditure. A decline in agricultural production will in turn drive up prices, assuming that agricultural goods, staples in particular, constitute essential goods for households. Droughts also affect the livestock sector. Lack of pasture and fodder and availability of water impacts the heath of cattle. Fertility levels and the timing of conception are strongly related to the nutritional status of female animals, and milk output falls as a female's access to fodder is reduced. Drought-related reduced crop production (yellow maize in particular) also affects livestock production, as being widely used to feed cattle.

This section aims to assess the short-term impact of reduced maize production on economic and social indicators in SADC countries. Absent sufficient information on projected hydroelectricity production, cattle destocking, and the impact of the drought on other crops, this section concentrates on the short-term impact of reduced maize production in SADC countries on macroeconomic aggregates and poverty indicators. But for Madagascar[49], maize constitutes SADC households' main staple, and it is believed that

48 Cleared by Jamal Saghir, Senior Regional Advisor, Africa Region. This report constitutes the World Bank contribution to the UN RIASCO led El Nino Action Plan for SADC countries. It was prepared by a team co-led by Catherine Tovey and Sebastien Dessus, and comprising Paolo Belli, Victor Sulla, Csilla Lakatos, Yashvir Algu, Gregory Smith, Johannes Herderschee, Marko Kwaramba, Asli Senkal, Marek Hanusch, William G. Battaile, Syud Amer Ahmed, Julie Dana, Holger Kray, Christoph Push, Chloe Dugger, Maddalena Honorati, Lucilla Maria Bruni, Barry Patrick Maher, Doina Petrescu, Gayle Martin, Doekle Geert Wielinga, Ayaz Parvez, Andre Bald, Mark Austin and Dirk-Jan Omtzigt. The report benefited from the guidance of Guang Chen, Mark Lundell, Bela Bird and Moustapha Ndiaye and was peer reviewed by Maurizio Bussolo and Michael Morris. It benefited from comments by Souleymane Coulibaly, Pete Manfield, Yutaka Yoshino, and Geremia Palomba.

49 In Madagascar, rice constitutes the main staple consumed by households. USDA projects in 2015/16 a decline of 6% in Madagascar rice production compared to 2014/15, bringing it back to its 2013/14 level. 6% represents a small annual variation that can be considered within the range of normal weather related volatility in Madagascar.

the impact on maize production constitutes the largest channel through which El Niño affect households' welfare. The section neither aims to assess (i) the longer term impacts of the current droughts (which could take different forms: protracted contraction in maize production with reduced seeds availability; irreversibility in human capital formation as nutrition is affected by lower food consumption and school attendance decline) or (ii) subnational impacts which could result from mismatch between maize supply and demand at the local level due to market segmentation. Finally, for the sake of clarity, the assessment does not consider potential short and medium term policy responses to the crisis (discussed in Section II and III). As such, estimates discussed in this section can be considered as conservative lower bound estimates of the overall impact of El Nino.

Projected impact of El Nino droughts on Maize Production

By May 2016, rains' levels and frequency recorded in recent months were announcing very poor harvests in many SADC countries, and the United States Department of Agriculture (USDA) projected that maize production could decline by 19% on average between 2015 and 2016, though with considerable differences across countries and still high uncertainty.[50] Actual production numbers will only be known in September when harvests will be completed.

Projected changes in production would have very different impact on import needs across countries. While the SADC zone was, on aggregate almost self-sufficient in 2014/15 (producing 31.2 million tons and consuming 31.7 million tons), some countries were relying much more on imports than on domestic production to satisfy their consumption. This is the case notably of Botswana, Lesotho, Namibia, and Swaziland. Thus, the projected decline in production in these countries may not call for substantially increased reliance on external markets to protect consumption. In contrast, larger producers traditionally relying less on imports may be forced to suddenly turn to import large volumes of maize to satisfy their consumption. Zimbabwe, South Africa, and Malawi, for instance, would respectively suddenly need to import the equivalent of 38%, 35% and 31% of their consumption volumes in 2014/2015 to offset the impact of declining domestic production between 2014/15 and 2015/16. As discussed below, relying in additional imports could likely be costly, given (i) implied logistical costs, (ii) high regional maize prices given depressed production throughout most SADC countries, and (iii) high import costs from non SADC countries given recent currency depreciations in most SADC countries. In 2011, 56% of SADC imports of cereal grains (including maize, excluding paddy rice and wheat) were originating from other SADC countries: Botswana, Lesotho, Malawi, Mozambique, Namibia, Tanzania, Swaziland, Zambia and Zimbabwe were importing more than 70% of their cereal grains from other SADC countries, 98% of which from South Africa, Malawi and Zambia combined.[51]

Projected Maize Production in 2016

	Domestic Production (000s tons)		Annual variation	Domestic Consumptior (000s tons)	Variation in production ove initial consumption
	2014/15	2015/16		2014/15	
Angola	1,687	1,878	11%	1,700	11%
Botswana	15	4	-73%	215	-5%
D.R. Congo	1,400	1,400	0%	1,400	0%
Lesotho	91	78	-14%	206	-6%
Madagascar	366	450	23%	375	22%
Malawi	3,929	2,776	-29%	3,750	-31%
Mauritius	n-a.	n-a.		n-a.	n-a.
Mozambique	1,357	1,500	11%	1,450	10%
Namibia	68	38	-44%	200	-15%
Seychelles	n-a.	n-a.		n-a.	n-a.
South Africa	10,629	6,500	-39%	11,800	-35%
Swaziland	119	82	-31%	212	-17%
Tanzania	6,737	6,000	-11%	5,950	-12%
Zambia	3,351	3,677	10%	2,500	13%
Zimbabwe	1,456	742	-49%	1,900	-38%
SADC	31,205	25,125	-19%	31,658	-19%

Sources: USDA and national sources (Zambia), May 2016. Notes: n-a: non-available.

50 For the sake of comparability, USDA projections are preferred to national sources throughout the analysis, except for Zambia, where USDA projects a significant decline while national official sources project an increase.
51 Source: GTAP9 dataset, Global Trade Analysis Project, Purdue University, West Lafayette, Indiana.

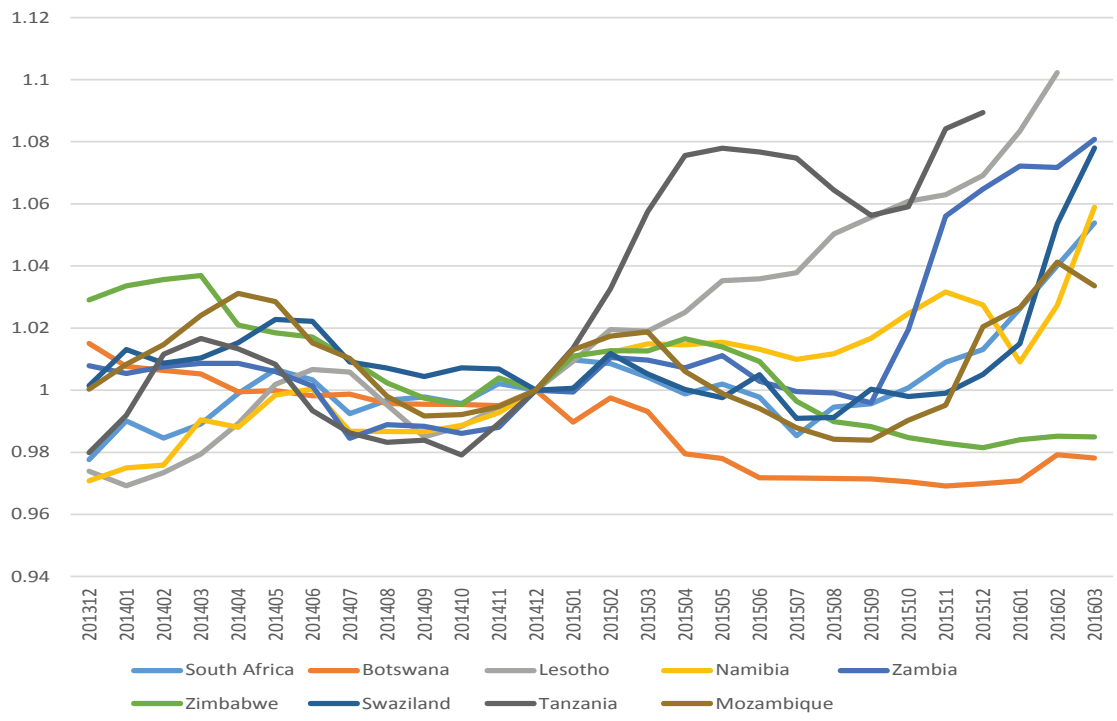
Recorded price variations in domestic maize and food markets

Recent price variations in domestic markets tend to support projections of significant drops in maize production. Recorded market prices constitute partial information on the anticipated decline in food supply by markets. Between March 2015 and March 2016, retail prices of white maize recorded the following variations: Zimbabwe: +20%; Zambia: +41%; Tanzania: +64%; Swaziland: +54%; South Africa: +98%; Mozambique: +121%; Malawi: +152%; Lesotho: +33%.[52]

However, changes in food prices observed on markets cannot necessarily be fully attributed to lower food supplies. Indeed, since 2015 SADC countries have seen their overall macroeconomic situation deteriorating under the influence of two main factors: the decline in commodity prices, and the reversal in capital flows due to rising global uncertainty. As a result, GDP growth in SADC decelerated from 3.8% in 2013 and 3.0% in 2014 to 2.3% in 2015, and is projected at 2% in 2016. Reversal in capital flows and lower export receipts led to sharp currency depreciation in a number of SADC countries, pressures on the balance of payment, and accelerated inflation from exchange rate pass-through.

The relative price of food inflation to non-food inflation is thus used to approximate the effect of the El Nino on food prices, as neutralizing the impact of exchange rate depreciation on prices. As depicted in Chart 1, food inflation started to deviate from non-food inflation by end-2015. The exceptions are Zimbabwe and Botswana, which saw a drop in the food inflation/non-food inflation index. Zimbabwe's relatively lower food prices is attributed to the country dollarizing, thus benefitting from the lower international agricultural prices.[53] A pick-up in non-food inflation in Botswana explains the shift the relative index. Notably, beef is the top agricultural export, and meat inflation decelerated considerably in Botswana in part due to increased slaughter of cattle in light of lack of water and barren grazing grounds (this phenomenon could be observed across the region although insufficient data limits a systematic analysis here). Thus, both the observed increases in the prices of food over non-food and the exception for meat producers are consistent with the anticipation of large declines in food production in most SADC countries.

FOOD INFLATION / NON-FOOD INFLATION



52 Source: World Food Programme, June 2016.
53 Zimbabwe's modest increase in food prices could also be explained by strong market segmentation and excess supply on some markets, urban markets in particular.

Simulating the Impact of El Niño on economic and social indicators

In the absence of already sufficient information to assess the impact of El Niño, we resort on modelling simulations to estimate the potential economic effects of projected declines in maize production in 2016. The impact of El Nino is measured through the comparison of a baseline "business as usual" scenario where maize output would prolong past long terms trends with a counterfactual scenario in which the total factor productivity of maize sectors is altered to replicate USDA maize output projections for the harvest season 2015/16. In order to do so we use the World Bank LINKAGE Computable General Equilibrium Model, see Box 1. Effects to be captured by the model include supply effects (higher production costs of maize and other products using maize as input, such as cattle), demand effects (substitution between goods, depending on income and price elasticities), at the national and international levels, net importers being potentially affected by prices changes in neighboring exporting countries. In SADC countries, (typically white) maize is considered as an essential staple by households, and it is thus likely that they would want to maintain their demand of maize despite price increases through reducing the consumption of less essential other goods and services.

The World Bank LINKAGE Computable General Equilibrium Model

LINKAGE is a dynamic, multi-region, multi-sector and multi-factor computable general equilibrium (CGE) model fully documented in van der Mensbrugghe (2011, 2013). The version of LINKAGE used here relies on GTAP9, a global database for 2011. The data include social accounting matrices linked by bilateral trade flows for 140 regions (countries or country aggregates) and 57 sectors. These were aggregated for the purposes of the simulations into 14 regions (13 SADC countries or countries groupings including SADC countries (Lesotho and Swaziland grouped together; Angola, DRC, Seychelles, Mauritius as part of larger country groupings) and the rest of the world, and 10 sectors (7 agricultural sectors, food processing, mining, other manufacturing, services).

The core specification of the model replicates a standard global dynamic CGE model. Production is specified as a series of nested constant elasticity of substitution functions for the various inputs. In the labor market, the unemployment rate is fixed and labor may migrate between rural and urban areas. Demand by each domestic agent (economic sectors, the government and the country's representative household) is specified at the so-called Armington level, that is, demand for a bundle of domestically produced and imported goods, which are imperfectly substitutable. Armington demand is aggregated across all agents and allocated at the national level between domestic production and imports by region of origin. Households' demand for goods and services is subject to an optimization process, after subsistence consumption is satisfied. The latter is determined through a calibration process accounting for differentiated income elasticities across products.

The baseline follows key macroeconomic projections such as GDP, current account and investment from the IMF's World Economic Outlook up to 2018. Population growth is based on the medium fertility variant of the United Nation's 2012 population projections. The counterfactual scenario replicates maize output change projections for the harvest season 2015/2016 from USDA by altering sectoral total factor productivity.

van der Mensbrugghe, D. 2011. "LINKAGE Technical Reference Document: Version 7.1". World Bank, Washington, DC.

van der Mensbrugghe, D. 2013. "Modeling the Global Economy— Forward Looking Scenarios for Agriculture." In Handbook of Computable General Equilibrium Modeling, edited by P. B. Dixon and D. W. Jorgenson, 933–94. Amsterdam: North Holland.

54 - Projected variations in production are used in the absence of available analysis on the direct impact of El Niño on production. In other words, it is grossly assumed that all changes in maize production can be attributed to El Niño. It is also important to note that the USDA maize data could not be disaggregated between white maize and yellow maize – even though local usage for domestic consumption and animal fodder respectively is often distinct and non-substitutable.

Impact on economic activity. The impact on countries' GDP depends firstly on the initial size of maize production in GDP and projected relative decline in maize production. Second order effects include, through forward and backward linkages the impact of lower maize availability on other sectors, such as livestock and food processing. Given maize's small share in South Africa's overall GDP, a 39% decline in maize production would only result in a 0.1% decline in overall GDP. In contrast, a 29% decline in maize production in Malawi would result in a 2.2% decline in overall GDP, given the much larger share of maize in total GDP. Compared with the baseline scenario, SADC real GDP would decline by US$0.81 billion (constant 2011 prices), or 0.1%. In other words, reduced maize production in 2016 that could be attributed to El Nino related droughts could cost 0.1 percentage points of SADC aggregate GDP growth in 2016.

The Macroeconomic Impact of El Nino in 2016

	Variation in Real GDP	Variation in real private consumption	Maize price increase	Compensating variation
	(% deviation w.r.t Baseline 2016)			(% of GDP 2016)
Angola	0.0%	0.0%	1.4%	0.0%
Botswana	-0.2%	-0.3%	19.0%	0.1%
D.R. Congo	0.0%	0.0%	1.4%	0.0%
Lesotho	-0.6%	-0.8%	45.8%	0.5%
Madagascar	0.1%	0.1%	-46.7%	-0.1%
Malawi	-2.2%	-2.6%	31.6%	1.9%
Mauritius	0.0%	0.0%	-7.0%	0.0%
Mozambique	0.5%	0.3%	-3.3%	-0.3%
Namibia	-0.1%	-0.1%	15.9%	0.1%
Seychelles	0.1%	0.2%	-9.8%	-0.1%
SouthAfrica	-0.1%	-0.1%	8.3%	0.0%
Swaziland	-0.6%	-0.8%	45.8%	0.5%
Tanzania	-1.4%	-2.2%	33.4%	1.4%
Zambia	0.2%	0.2%	-2.1%	-0.1%
Zimbabwe	-0.6%	-0.8%	19.8%	0.7%
SADC	-0.1%	-0.1%	4.9%	0.1%

Source: World Bank staff calculations using LINKAGE model.

Impact on households' consumption. Reduced GDP and related incomes would affect households' consumption in similar proportions. At the SADC level, aggregate real private consumption could decline by 0.1% as a result of El Nino droughts in 2016. Impacts would be particularly pronounced in Malawi and Tanzania, and to a lesser extent in Lesotho, Swaziland and Zimbabwe. Nonetheless, in light of the fact that that households' demand for maize is relatively inelastic to income, maize consumption would remain protected at the expense of other goods and services consumed through substitution effects. Compared with a 7.9% decline in SADC output of cereal grains, household real consumption of cereal grains would only decline by 1.0%. The gap between supply and demand on domestic maize markets would be met by increased imports (+40% compared with the baseline scenario) and a significant re-orientation of exports (dropping by 50% compared with the baseline scenario) towards domestic markets. While variations in maize quantities are more difficult to estimate (as maize is in the LINKAGE model part of the broader "cereal grains excluding paddy rice and wheat" category), assuming that all projected changes in such category are only attributable to maize would induce a decline in the real private consumption of maize of 2.5% compared with the baseline scenario.

Consistent with the assumption that households' demand for maize is relatively inelastic to income, the LINKAGE model predicts large increases in the short term[55] in the consumption price of maize. In countries experiencing a decline in production, cereal grains price increases would range from 46% in Lesotho and Swaziland to 16% in Namibia compared with the baseline scenario in 2016.[56] Domestic price increases in these countries would mostly stem from increased domestic costs of production, as the price of imports, from South Africa and Zambia in particular, would only modestly increase (broadly in line with the price increases observed on their domestic markets). At the SADC level, the weighted average increase in the domestic consumption price of cereal grains would reach 5%, see Table 2.

At 2016 prices, compensating households for lost consumption due to droughts (through direct transfers for instance) would cost 0.1% of SADC current 2016 GDP. Such compensation would be significant from a macroeconomic standpoint in Lesotho and Swaziland (0.5% of GDP), Zimbabwe (0.7%), Tanzania (1.4%) and Malawi (1.9%).

Impact on Poverty. Based on households' pre-crisis consumption of maize (as reflected in household surveys), one can estimate the impact of reduced maize production on countries poverty rates (the proportion of population consuming less than US$1.9 a day measured at purchasing power parity). Poverty changes are driven by initial consumption distribution across households, households share of maize consumption in total consumption (consistent with income elasticities lower than unity, poor households devote larger shares of total consumption to maize) and estimated variation in aggregate real private consumption.[57] Accordingly, the proportion of poor would increase by 2.0 percentage points in Tanzania (compared with the baseline), 1.2 in Tanzania, 0.9 in Swaziland, and 0.7 in Botswana. All in all, 1.4 million people from SADC could fall below the poverty line, or 0.4% of total population (393 million in 2016), see Table 3.

Depth of poverty would also significantly increase. Real private consumption of the bottom 40% SADC households would decrease on average by 1.7%, against 0.1% for the total population given the much higher share of maize consumption among poor. Decreases would be particularly pronounced in Malawi, Tanzania, Lesotho, Swaziland and Zimbabwe. Reflecting the fact that (i) maize consumption is particularly high among rural households, and that (ii) farmers would see their real income drop with lost production, decline in real private consumption would be higher in rural areas. The difference would be particularly marked in Malawi and Tanzania.

The Social impact of El Niño in 2016

	Change in Poverty Rate	Variation in real private consumption (%) deviation w.r.t Baseline 2016)		
	($1.9 a day)	Bottom 40%	Urban	Rural
Angola	0.0%	0.0%	0.0%	0.0%
Botswana	0.7%	-2.5%	-0.2%	-0.5%
D.R. Congo	0.0%	0.0%	0.0%	0.0%
Lesotho	0.1%	-6.2%	-0.3%	-0.9%
Madagascar	0.0%	0.6%	0.1%	0.2%
Malawi	0.4%	-11.8%	-0.5%	-3.7%
Mauritius	0.0%	0.1%	n-a.	n-a.
Mozambique	-0.1%	1.5%	0.2%	0.5%
Namibia	0.4%	-1.0%	0.0%	-0.3%
Seychelles	0.0%	0.8%	0.2%	0.2%
South Africa	0.2%	-0.5%	0.0%	-0.2%
Swaziland	0.9%	-4.7%	-0.2%	-1.2%
Tanzania	2.0%	-7.5%	-1.0%	-3.2%
Zambia	-0.1%	1.6%	0.1%	0.5%
Zimbabwe	1.2%	-3.5%	n-a.	n-a.
SADC	0.4%	-1.7%	n-a.	n-a.

Source: World Bank staff calculations using LINKAGE model and national households surveys

55 In the LINKAGE model, factor mobility across economic sectors is restricted in the short term, in particular for land and capital (labour being more mobile). Thus, increased remuneration in a given sector (in our case maize, as prices increase) will only lead to significantly higher investments and use of land for maize production from 2017.

56 These estimates should be understood as requested variations in prices to clear markets at the national level. However, markets can also clear in reality via shortages if markets are segmented and/or if some groups get favored access to markets.

57 The LINKAGE model only comprises one representative household per country. Thus it cannot distinguish households per income/consumption levels and with respect to the fact that they could be net producer or, on the contrary, net consumer of maize. With increases in maize prices (relative to other goods), net producers would tend to gain welfare while net consumers would tend to lose. In the absence of such information (available and comparable across all SADC countries), it was decided to allocate country's aggregate change in real consumption across households deciles in proportion of their maize consumption, which we derive from the income elasticity of maize consumption used in the LINKAGE model (averaging 0.6 in SADC countries).

2. Available Risk Management Solutions to Mitigate Range of Drought Impacts

Governments may wish to consider a range of risk management instruments, at the national or regional level, to mitigate the impacts of drought and other natural disasters. While the scope of risk management tools to address the immediate crisis is by definition limited, the present drought provides an important window of opportunity to focus attentions on the feasibility and establishment of new instruments to enhance resilience to shocks in the medium to long-term. An optimal disaster risk management strategy will seek to balance the effective and efficient use of available resources to maximize the resilience of households, businesses and governments to a range of shocks.

The choice and mix of instruments will ultimately depend on the country context, the government's overarching objectives, the probability of key risks, and the intensity of their impact. This section will explore in turn the range of risk management solutions available to governments, and their sequencing, to support 3 distinct objectives:

- To ensure the availability of fiscal buffers at all times
- To support domestic food supply chains
- To support poor and vulnerable households

Some of these instruments may yet be deployed to help respond to the current crisis. In other cases, the drought may be used as a window of opportunity to focus attentions on the feasibility and establishment of new instruments to enhance resilience to shocks in the medium to long-term. The menu of options and its sequencing is summarized later in this section.

Instruments to Ensure the Availability of Fiscal Buffers at all times

Addressing food crises requires fiscal and foreign currency resources, to finance food aid, reduced food taxes, and social programs. A number of instruments may be considered to ensure available resources in bad times.

Macroeconomic stance. The most common instrument is the detention of sufficient fiscal and foreign exchange reserves, which fundamentally requires saving in good times to counter-cyclically smooth public spending in bad times. Related to such sound fiscal management is the capacity to borrow externally without compromising debt sustainability.

From the estimation of amounts needed to compensate for El Niño related welfare losses and overall macro-economic situation one can infer the readiness of countries to address El Nino consequences. Obviously, a number of countries have proactively responded to the crisis and initiated programs to address it accordingly (price subsidies, cash transfers, investments in water management, etc.). However, in the absence of sufficient fiscal and external space, these projects may not be financeable, or be financed at the expense of cutting other important projects (typically capital investments).

Table 4 below reports a number of proxy indicators of countries readiness: public debt and fiscal deficit (as a way to measure fiscal space), GDP growth (as a proxy for overall conditions in which the shock occur), IMF program (as a way to signal intention to address macroeconomic imbalances). Among the five countries expected to incur costs related to El Nino superior to 0.5% of GDP, five are in a difficult macroeconomic situation:

- In Malawi, the economic cost of El Niño would broadly correspond to eight months of GDP growth. Such cost may be difficult to finance in the context of ongoing fiscal adjustment;
- In Tanzania, despite robust economic growth, Government's ability to provide adequate financing for scaling up social programs is challenged by underperforming domestic revenue mobilization.

• In Lesotho, high and increasingly unsustainable debt levels combined with low commitment to fiscal discipline may limit access to external financing, from the donor community in particular;

• In Zimbabwe, the ongoing non-cooperation status currently prevents IFIs to extend lending, and severely limits fiscal and external borrowing space.

SADC countries macroeconomic readiness to address El Nino								
	Government debt (% GDP)		Overall fiscal deficit (% GDP)		Real GDP Growth (%)		IMF financial Program	El Nino cost (% of GDP)
Country	2015	2016	2015	2016	2015	2016	2016	2016
Angola	49.7	62.8	-5.6	-5.7	2.8	0.9	0	0.0%
Botswana	18.3	14.5	-2.9	-3.9	-0.3	3.7	0	0.1%
DRC	27.8	25.7	0.0	-0.9	7.7	6.3	0	0.0%
Lesotho	60.0	61.4	0.1	-9.4	2.7	2.6	0	0.5%
Madagascar	36.6	38.0	-3.8	-3.8	3.0	3.7	1	-0.1%
Malawi	61.9	61.4	-5.4	-5.5	3.0	2.7	1	1.9%
Mauritius	61.8	61.7	-4.4	-3.7	3.5	3.8	0	0.0%
Mozambique	75.8	66.4	-6.1	-4.0	6.3	5.8	1	-0.3%
Namibia	36.0	37.9	-6.6	-5.1	4.5	4.2	0	0.1%
Seychelles	59.3	54.8	0.5	1.6	4.3	3.7	1	-0.1%
South Africa	50.5	50.9	-3.9	-3.3	1.3	0.8	0	0.0%
Swaziland	13.2	15.9	-6.8	-13.5	1.7	1.3	0	0.5%
Tanzania	40.5	40.9	-2.9	-2.4	7.0	7.2	1	1.4%
Zambia	52.9	55.4	-8.0	-8.0	3.6	3.4	0	-0.1%
Zimbabwe	41.3	59.5	-0.9	-1.1	1.1	1.4	0	0.7%

Source: World Bank staff calculations

Sovereign disaster risk financing and insurance – tools for financial protection. Saving, and building fiscal reserves in good times remains politically challenging. As a result, fiscal and debt management in several Southern African countries (Lesotho, Malawi, Swaziland, Zambia, and Zimbabwe) is not strong enough to readily respond to the current El Nino crisis. Risk management instruments can help ease such political pressures and encourage greater fiscal discipline by clearly ear-marking funds for specific purposes, and provide a complementary means of enhancing national fiscal buffers in times of crisis and uncertainty. Such instruments include contingency funds/ reserves, contingent loans, and market-based risk transfer tools (traditional insurance or reinsurance) can improve the financial resilience of national governments and subnational entities against drought by ensuring that finance is pre-planned, pre-negotiated and available to implement response plans. The objective is to improve a government's ability to clarify and meet obligations arising from shocks while minimizing threats to development progress and fiscal stability. Financial protection strategies complement investments in risk reduction, prevention, and building resilience.

Global experience in this area has been growing over the past 15 years, and development partners are providing support to over 60 countries who are working to implement these solutions for a wide range of natural disasters, including drought.

• **Contingency / reserve funds** are generally used to finance relief, rehabilitation, reconstruction and prevention activities for national emergencies. Disaster reserve funds exist in Colombia, Costa Rica, India, Indonesia, the Marshall Islands, Mexico, the Philippines, and Vietnam, and Lao PDR has recently established a state reserve fund and integrated it into an overall disaster risk financing strategy. In Africa, Mozambique and Kenya are working on establishing contingency funds; in Kenya, the current effort is focused on a contingency fund specifically for drought.

• **Contingent loans** have been used by Multilateral Development Banks such as IBRD, and the Inter-American Development Bank (IDB), to give countries access to liquidity immediately following exogenous shocks such as natural disasters. JICA also has a contingent investment loan. The major benefits of such an instrument are that it i) provides a source of immediate liquidity, which can be used for budget support and/or to finance early responses, ii) provides a platform for policy dialogue which has proven to be a key driver of national efforts to strengthen institutional frameworks and capacity in disaster risk management and financing, and iii) has a "soft" trigger, as opposed to "parametric" triggers - funds become available for disbursement after the declaration of a state of emergency due to a natural disaster and can be accessed within days; and iv) acts as a safeguard for longer term development programs by reducing the impact of post-disaster budget re-allocation or restructuring of the loan portfolio. Since 2008, 9 countries have had programs to access contingent credit from the World Bank Group worth USD 2.3 billion. In Africa, a contingent loan has been implemented in Seychelles, and Kenya has also expressed interest in accessing this instrument.

• **Market-based risk transfer solutions, such as insurance/reinsurance,** are financial contracts based on an underlying weather index that transfer the risk to the financial markets. In return for payment of a premium, countries are insured against the risk of adverse weather events as defined by the performance of the underlying index. Payments are triggered by adverse weather events according to pre-specified conditions of this index (e.g. levels of rainfall, seasonal temperatures, etc.). Mexico has used catastrophe bonds to transfer the risk of hurricanes and earthquakes to the market and drought insurance has been used in Ethiopia (2006) and in Malawi (2008-11).

• **Regional risk pools** are providing countries access to market-based insurance through a pool, thereby helping to lower the cost of insurance for individual countries. These help mitigate the impact of asymmetric shocks[58] on a group of countries and reduce the provisions necessary for each country to protect itself against these shocks, could be explored at the SADC level. A first step could involve pooling resources in a solidarity fund and allowing withdrawals by member states that have suffered a natural disaster related shock. In this case a challenge would be to address the issue of moral hazard by requiring verification that

58 These are simultaneous positive and negative shocks affecting multiple member states.

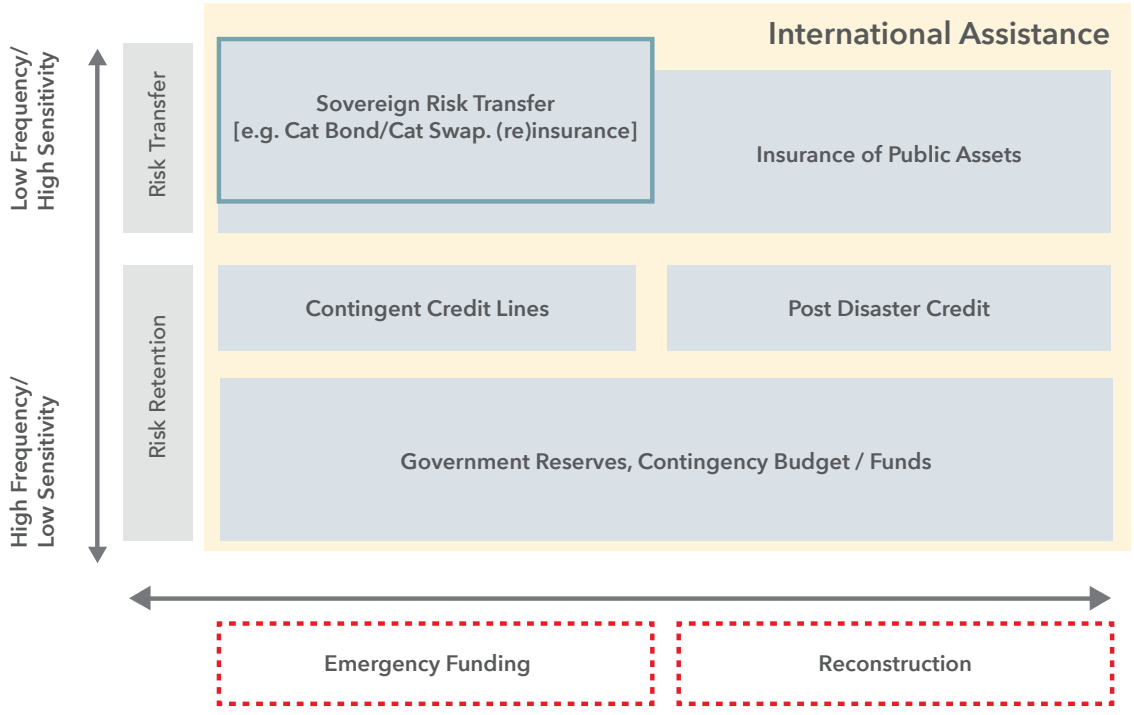
the budgetary shocks in question are exogenous and not the result of any deliberate domestic policy action. Incentives would also be required to ensure that the solidarity fund does not undermine fiscal discipline among member states. Examples include the Caribbean Catastrophe Risk Insurance Facility (CCRIF), the Pacific Catastrophe Risk Insurance Pilot, and African Risk Capacity (ARC), in which Malawi is currently participating. Regional risk pools are able to leverage insurance coverage from the market: for US$45 million in annual aggregate coverage in the Pacific, and for over US$600 million in the Caribbean.

Reflecting experience gained by supporting countries in the design and implementation of sovereign catastrophe risk financing strategies, the World Bank Group has developed a disaster risk financing framework (Chart 2 below) which recommends the use of multiple tools to design a national disaster risk financing strategy based on an approach that combines a mix of risk retention (through reserves/contingency budget and contingent credit) and risk transfer (such as insurance):

- Low Risk Layer: Budget allocations for recurrent disasters (e.g., frequent droughts, localized floods, landslides, minor earthquakes).
- Medium Risk Layer: Contingent credit mechanisms to finance less frequent, more severe disasters, and allowing a government to draw down funds quickly after an event.
- High Risk Layer: Market-based risk transfer instruments (e.g., disaster insurance) to finance major disasters like earthquakes, tropical cyclones and serious droughts.

The objective of these approaches is to provide the financial foundation for nationally-owned, nationally-driven early response. Since drought is a slow onset event, even extreme events do not necessarily need to turn into large-scale disasters. Advances in early warning systems mean that better and faster responses are possible, and improved financial planning at a sovereign level is needed to reduce drought-related loss of life and livelihoods.

DISASTER RISK FINANCING FRAMEWORK



Source: Authors, building on Ghesquiere and Mahul [2010]

Instruments to Support Domestic Food Supply Chains

Governments concerned about the risk of drought-related impact on national food security generally focus on i) the inflationary impact of rising food prices and pass-through of these costs to consumers, particularly vulnerable populations, ii) the risk of financial losses and/or negative impacts on the market associated with policy interventions managed by national food agencies, national food reserve programs, and protectionist trade policies and iii) the need to finance, but also to potentially supply, subsidies or social safety nets for vulnerable populations and, in extreme cases, humanitarian responses. In all cases, the costs of budget uncertainty and the need to finance what happens after a shock can be significant.

Trade policy. In the face of a sudden decline in domestic food production, ready access to regional imports becomes critical to ensure sufficient food supply in domestic markets. Facilitating food aid and trade in general, and lowering custom duties on food products can help ensure imports remain competitively priced. However, countries facing production shocks may be tempted to impose restrictions on food exports to reach the same objective. The food crisis of 2008[59] nevertheless suggested that imposing trade restrictions only worsens the situation at the regional and global levels, as pushing international prices up, prompting retaliation by partners, and eventually exacerbating aggregate welfare losses and inequalities between countries. At the national level it also implies reducing farmers' remuneration and overall degree of certainty on price levels and thus incentives to produce in the medium term.[60] Reducing such incentives could be particularly harmful to poverty reduction prospects given SADC great potential for lifting poverty through linking smallholders to agro businesses. In the current Southern African context, characterized with depreciating currencies, slowing growth and fiscal revenues, countries may not have the fiscal and foreign currency space to reduce taxes on imported food. But they should certainly be encouraged not to raise them, nor should they impose additional restrictions on exports. In recent months, South Africa raised import duties on wheat[61] and Zambia imposed a temporary ban on exports of Maize, which, if expanded and continued could significantly aggravate regional welfare losses.

Supply-chain solutions to support national food security and price stabilization.[62] Traditional policy responses to drought, including import/export duties and trade restrictions, and food subsidies are thus relatively blunt instruments. These risk distorting medium and long term incentives for enhanced productivity and trade, and often bear a hefty fiscal price tag. Rather, national food security and price stabilization mechanisms may be achieved more cost-effectively, and with fewer market-distortions by adapting market-based solutions commonly used by supply chain actors. This includes market based approaches to managing the interconnected food security risks of accessibility (driven by price) and availability (driven by supply). Such solutions can be structured as a) storage instruments, such as reserves and warehouse receipts, which provide protection against supply disruptions but also contribute to domestic and international price stabilization, b) physical hedging instruments, such as forward contracts, contingent contracts (min/max contracts and physical options), and repurchase agreements (REPO), which can also create the basis for "virtual" reserves, and c) financial hedging instruments, such as futures, options, collar contracts, and commodity-linked loans. Below is a brief description of these tools.

• **Storage solutions.** Since many strategic food commodities are store-able, stockpiling is a common approach to managing price and supply risk. Although there are certain advantages to stockpiling, national food reserve systems have historically been expensive and inefficient, plagued by governance problems and high rates of storage loss. The base cost of storage, including loss to pests or spoilage, is estimated at around 2% for wheat in developed countries but significantly higher for commodities in developing countries (Sadler, 2011). Uncertainty about public responses to food insecurity, such as the release of strategic stocks, creates not only disincentives, but high levels of risk, for private sector actors considering whether or not to invest in the storage and financing of food stocks in anticipation of future needs. Experienced commercial

59 World Bank (2008), "Rising food prices: Policy options and World Bank response", April, Washington D.C.
60 World Bank (2012) "Africa Can Help Feed Africa", October, Washington D.C.
61 This decision results from a formula based approach aimed at protecting domestic producers against the impact of subsidies granted to competitors on policy uncertainty.
62 This section of the note draws heavily on "Market-Based Approaches to Managing Commodity Price Risk: Contribution from the World Bank Group to the G20 Commodity Markets Sub Working Group" (Sadler/Dana) and "Market-based approaches for governments of food-importing countries to manage food security risks" Elsevier, Global Food Security, June 2013. (Dana)

operators in many countries are able to achieve efficiencies which can reduce both cost and risk by using sophisticated techniques for monitoring quality and ensuring adequate rotation.

• **Physical Hedging Instruments** integrate risk management into existing contractual arrangements between buyers and sellers by focusing on the terms under which exchange of the physical good will occur. Physical hedging can help achieve more certainty about costs, but can also be a powerful tool for managing uncertainty about supply. These instruments include:

o *Forward contracts*, which are agreements to purchase or sell a specific product on a specific date in the future for a specific, predetermined price.

o Contingent Contracts (Minimum/maximum forward contracts or physical call options), which fix certain terms in the contract but leaves other aspects open to be determined at a later date. As an example, a physical call option functions as a contingent import agreement. It includes a pre-agreed ceiling price, which provides protection against future price increases, and gives the buyer (which could be a sovereign government) the flexibility to decide at a later date about taking delivery of the purchased commodity. The price protection and flexibility provided by these contracts comes at a cost – suppliers will charge a "premium" to enter into the agreement. Contingent import agreement have significant value in the case of drought, given the slow onset nature of this hazard and since early, but flexible, planning of imports can help reduce price and the risk of logistical logjams.

o Repurchase Agreements (REPO) can help manage uncertainty about national food production, stocks, and demand. In a REPO agreement, a trading company agrees to purchase a commodity (for example on behalf of a government or a national food agency), to hold those stocks in the country, and to provide the government with an option to re-purchase the stocks at a pre-agreed price on a specific date in the future. If stocks are not needed in country, the trading company would have the right to sell locally on a commercial basis and/or export to neighboring countries.

• Financial hedging instruments are contracts generally negotiated separately from the physical supply of the actual commodity, and primarily used to help manage price risk. Applications for strengthening national food security are somewhat limited, except in cases where governments are directly importing, and/or have contingent liabilities that are directly impacted by price shocks (for example via fiscal responsibility for food reserve agencies). In such cases, governments could potentially use financial hedging instruments to strengthen resilience against drought-related food price increases. Again, this is possible because drought is a slow onset event, which means that early warning systems can signal the risk of impending problems, thereby giving governments time to plan early action and early response.

o Futures contracts are similar to forward contracts in that they are agreements to buy or sell a specific quantity of a commodity at a specific price on a specific future date. Unlike forward contracts, however, futures contracts do not necessarily require physical delivery to fulfill the contract. Futures contracts can be considered "paper" contracts because they can be settled without physical delivery; they provide the advantage of being able to "lock in" a purchase or sale price in advance of the product delivery. A major disadvantage, however, is that hedging with futures creates unknown, unpredictable contingent liabilities for the hedger. The inherent credit risk in trade of these contracts means that users of futures contracts must be prepared not only to make these payments when the contracts settle, but also to post collateral to the market counterparty throughout the life of the contract, a process known as margining. These financial requirements make futures contracts a somewhat unattractive tool for governments.

o Options contracts provide the opportunity, but not the obligation, to buy or sell a specific quantity of a commodity at a specific price on a future date. Option contracts are a more feasible financial solution for governments, since they could be used to purchase protection against the risk of price increases. As with insurance contracts, this coverage is provided in return for payment of a premium.

Malawi's experience with Call Options in 2005

Call options can be a useful way to cap prices and/or ensure supply of food imports. During the food crisis in 2005, the Government of Malawi purchased call options for maize as a result of concern not only about price increases but also about logistics constraints and delivery. The call option contract was customized as an OTC (over-the-counter) physical option which provided more flexibility than a standard financial instrument. Price protection was provided on a delivered basis, thus combining the price for white maize on the exchange in South Africa (SAFEX price) plus transport costs to Malawi and the contract also specified terms (including flexible delivery locations) for physical settlement so that it could be used as a contingent import strategy if needed. Uncertainty about the extent of the food shortage, levels of commercial imports, transportation constraints, performance of local traders, the humanitarian response, and efficiency of procurement processes made the contingent import aspect of the contract attractive to the government. In late 2005, as prices increased and food shortages grew, the government exercised the call option, electing for physical settlement, and allocating the majority of imported maize for humanitarian operations. In 2008, the Government of Haiti considered, but did not implement, a similar solution in response to concerns about rising costs of rice subsidies and uncertainty about import supply chains.

Instruments to support poor and vulnerable households

Shocks such as droughts can have negative and long-term impacts on poor and vulnerable households (including female and child-headed households), as these may be pushed deeper into poverty through sale of assets, household fragmentation/migration, increased rates of school drop-outs and poor health outcomes (malnutrition, stunting). Urban, land-less households and other net consumer households are particularly vulnerable to food price increases. Governments have typically sought to secure food consumption for poor and vulnerable households by stabilizing/ reducing the price of staple commodities through (largely untargeted) food subsidies. However, there is growing empirical evidence that both the consumption and productivity of poor and vulnerable groups is better and more cost effectively protected through a range of scalable safety net programs and micro-level based insurance schemes.

Limitations of traditional non-targeted food subsidies. Reduced crop production, coupled with frequently uncertain and inconsistent trade policies may result in sharp increases in food prices which hurt the poor and may cause widespread unrest, particularly in urban areas. In response, many governments seek to implement universal food subsidy schemes, particularly staples such as maize. However, international experience (including a 2008 evaluation of food price shocks in Haiti[63] –) indicates that subsidies often fail to reach the poorest and most vulnerable. Generalize food and maize subsidy schemes encourage interim hording and resale (particularly in the absence of fixed volume limits for individual purchases). Such unwelcome practices are hard to prevent without extensive and costly on-the-ground oversight throughout the whole sale and retail value chain (including in remote areas). In addition, such blanket pricing interventions may have un-intended structural effects. Schemes implemented through a small number of millers/packers risk crowding out the potential for emerging small and medium-scale food processing and distribution sector. The design of food subsidy schemes would thus benefit from targeting a restricted number of beneficiaries (focusing on poor and vulnerable households) over a limited and well-defined period in time (Price spikes are often limited in time given the supply response from the global markets). More targeted interventions, which leverage and expand existing safety-net systems (whether in cash or in-kind) also have the advantage of maximizing the positive impact of scarce public resources.

Household level safety-nets. A social safety nets program that is adaptable to evolving emergency needs means it is able to "scale -up" when a disaster hits (and in cases like droughts, before it does), in order to reach

63 World Bank (2011). LCCSD Occasional Paper Series on Food Prices. "Unintended Consequences of Food Subsidies: The Case of Haiti Rice Subsidy"

more beneficiaries in the same or different geographical areas than during "steady state" operation, and/or to provide additional grant money during the crisis.[1] Emerging best practice suggests that four building blocks can help provide the foundation for a "scalable" social protection system: flexible delivery systems; interoperable information systems; predictable financing for contingent liabilities; and ex ante coordination mechanisms and capacity investments.[2]

Flexible delivery systems means that countries should have at least one program with appropriate delivery systems capable of scaling up and adjusting after a disaster. Such delivery systems include ex ante registries of potential beneficiaries vulnerable to shocks (not just of actual recipients); and targeting mechanisms to correctly identify and enroll people in need of a response, and to deliver the right kind of support to people in the right places. Examples include the Char Livelihoods Program (CLP) in Bangladesh, Bolsa Familia in Brazil, the PSNP in Ethiopia, the Temporary Employment Public Works Program (PET) in Mexico, the Floods Emergency Cash Transfer Program in Pakistan, and the Pantawid Pamilyang Pilipino Program (4P) in the Philippines. Effective delivery systems also play a fundamental role in ensuring an efficient use of resources during the steady state – through accurate targeting and cost effective administration of transfers, thus allowing greater availability of resources for those in need during a crisis. In Lesotho, social-safety nets account for 4.5% of GDP, while estimates of potential net savings from increased administrative efficiency amount to 0.5% of GDP (or over $200 million per year in potential savings).

Spending on social safety nets (as percentage of GDP)[64]

	survey year	Cond. cash transfers	Uncond. cash transfers	Uncond. food and in-kind	School feeding	Public works	Fee waivers	Other	Total
Botswana	2010		0.31	0.53		0.29		0.3	1.43
Lesotho	2010	0.1	3.69	0.3	1.48	0.7	0.3		6.58
Madagascar	2010								1.1
Mauritius	2009		2.95	0.24	0.02		0.13		3.34
Mozambique	2010		0.31	0.48	0.1	0.03	0.37		1.29
Namibia	2013-14	0.51	2.42		0.09				3.02
Seychelles	2012		1.92					0.4	2.32
South Africa	2013		3.1	0.01	0.14	0.24		0.01	3.51
Swaziland	2010		1.43	0.21	0.1	0.08	0.25		2.07
Tanzania	2009	0.02		0.22	0.03	0.02			0.29
Zambia	2011		0.07	0.06	0.04	0.01	0.34		0.53
Zimbabwe	2013		0.09	0.07			0.22	0.01	0.40

Notes: Cond.: conditional; Uncond: unconditional. Data is not available for other SADC countries.

[1] World Bank 2016. Closing the Gap: Building Resilience to Natural Disasters and Man-Made Shocks through Social Safety Nets Washington, DC: World Bank.
[2] World Bank 2015. R2D2: Responding to Disasters Together. Washington, DC: World Bank.
64 World Bank 2015. The State of Social Safety-Nets.

Interoperability of information systems calls for sufficiently rapid and credible "alert systems" in place to facilitate effective preparedness and timely response. The type of data that is used to trigger a scale up will impact the financial instruments that can be used to manage the costs. Early warning information systems[3] can provide vital information about the nature of shocks and appropriateness responses. However, these information streams often work in silos, without coordination. In the Horn of Africa, for example, studies show that it typically takes nine months for food assistance to arrive after Early Warning Systems trigger an alert. When Ethiopia's scalable component of the Productive Safety Net Program was triggered in 2011, it took two months for assistance to reach households, and the Program rapidly expanded its coverage from 6.5 million to 9.6 million.

Predictable funding for contingent liabilities is fundamental to mobilize funds to finance rapid scaling up of social protection programs. To be responsive to shocks, social protection systems need to draw upon special financial instruments such as reserve funds, insurance products, contingency finance, and humanitarian aid when domestic capacity is exhausted. The availability of financial instruments will depend on the risk information used. For example, if insurance is used to pay for a scale up, the data will have to be of very high quality (to ensure insurers are comfortable to make payouts based on it). These need to be well defined and accessible rapidly.

Finally, a high degree of institutional coordination and capacity must be in place before, during and after the disaster. In this regard, relevant national agencies, public and private service providers, and development partners should stipulate formal partnership agreements and clear divisions of responsibility in case of emergency ex ante. Innovations from Lebanon and Jordan show considerable progress in introducing ways to establish common programming platforms among different agencies, including joint payment mechanisms and single cards.

Micro-level insurance programs and approaches for poor and vulnerable groups. Significant and/or frequent crop losses may plunge small-holders into debt and force them to sell productive assets, undermining attempts to move from subsistence to more commercial farming. A new range of products are emerging to provide cost-effective insurance for these small-holders.

Micro-level index insurance solutions transfer risk from individuals or groups to market-based risk carriers, such as insurance or reinsurance companies. For drought, contracts are based on observations of rainfall, or a proxy for rainfall (such as satellite views of vegetative cover) and an index is developed to create a model that correlates as closely as possible to the impact of excessive or insufficient rainfall on agricultural production. A historical data series of weather observations is necessary to create the index, and to quantify the likelihood of adverse events in the future. As with other insurance products, coverage is provided by the market in exchange for payment of a premium.

Area yield index insurance works somewhat differently, by insuring farmers for losses against an average area yield in a defined geographical area. Both types of agricultural index insurance can mitigate the impact of agricultural shocks such as droughts on poor producers. They can support a range of policy objectives, in particular: (i) providing a social safety net to vulnerable producers, and; (ii) promoting increased productivity among semi-commercial producers.

In some countries, index-based insurance purchased by national and subnational governments is used to then provide payouts to producers who are poor or in danger of becoming poor when a natural disaster occurs. Mexico's Component for the Attention of Natural Disasters (CADENA) program and the Kenya Livestock Insurance Program are both examples of **publicly supported index-based programs** that target individuals as beneficiaries.

Index-based insurance can also help to promote increased productivity among semi-commercial farmers since by reducing risk, it helps to improve access to credit and investment in improved farming technologies. The insurance can be a catalyst for farmers' adoption of new technologies to improve yields and increase incomes, with credit as a facilitator of this process. Index products provided by ACRE Africa

[3] These include hazard mapping, market monitoring, meteorological monitoring, conflict mapping, climate variance mapping, geo-spatial data, and the like.

in Kenya and Compagnie d'assurance agricole au Senegal (CNAAS) in Senegal are examples of this credit-focused approach. Additionally, by improving the business case for agriculture value chain actors such as contract farming schemes that integrate smallholders into their operations, index insurance can increase producers' access to markets. Green Delta Insurance Company has followed this market access approach with its product for PRAN Foods in Bangladesh.

Index-based insurance programs require careful design and attention to both technical and operational issues. These include management of basis risk (the imperfect correlation between claim payments based on a proxy and actual losses), the identification of appropriate distribution channels, financial education for program beneficiaries, access to both historical and real-time weather and/or yield data, and legal and regulatory implications.

Interestingly, the boundary between micro-level insurance and safety net programs is becoming increasingly blurred. Even if there is strictly speaking there is no risk transfer to markets under safety net programs, a number of insurance based approaches are being incorporated to allow for more scalable and flexible safety nets. These include the establishment of clear and transparent criteria and rules for scaling up and defining the scope and beneficiaries for given pay outs under specific circumstances.

There are a range of risk management instruments available resources to maximize the resilience of households, businesses and governments to droughts and other climate shocks. The current crisis provides an important window of opportunity to focus attention on the feasibility, sequencing and establishment of new instruments to enhance resilience to shocks in the medium to long-term, as outlined in this risk management framework.

Southern Africa Proposed Risk Management Framework for Intervention

Interventions	Implementation time required (in years)		
	<1	1-3	>3
Building fiscal buffers			
Assess and quantify fiscal impact of shocks and analyze costs over time		X	
Evaluate budget mechanisms and arrange procedures for rapid budget re-allocation	X		
Establish counter-cyclical macro-fiscal policies to support savings/reserves	X		
Establish counter-cyclical macro-fiscal instruments, such as contingency funds		X	
Establish risk units in Ministries of Finance, with supportive institutional structures		X	
Arrange contingent loans and contingent grants		X	
Structure, design, and finance risk transfer solutions (through stand-alone contracts or risk pools)		X	
Strengthen and consolidate contingency plans	X		
Establish budget execution mechanisms	X		
Building resilient production systems and markets			
Boost resilient crop production (seeds, inputs, farmer awareness of likely wetter conditions)	X		
Revise/remove policies that contribute to single-crop dependency, such as non-market based price stabilization, input support programs			
Replace ad hoc import/export restrictions with market-based price & supply hedging arrangements			
Invest in on-farm diversification and climate smart agriculture	X	X	X
Modernize management and operation of strategic grain reserves	X		
Invest in upgrading storage systems		X	X
Provide support to local and regional trade finance arrangements	X	X	
Invest in public-private sector approach to develop micro-level insurance programs		X	X
Building on existing safety net systems			
Integrate humanitarian relief operations with national safety nets (focus on under-served groups) - to provide food but also inputs and seeds for next growing season	X	X	
Develop integrated registries of vulnerable households	X	X	
Replace in-kind responses with cash transfers wherever possible	X		
Scale up opportunities for cash/food for work		X	
Establish procedures and policies support scaling up national systems in the event of shocks. This includes : - defining triggers for scale up (using early warning info) - analyzing costs of different scenarios (how much, how often, who) - developing financing strategies		X	

3. Complementary financing instruments by International Finance Institutions:

Emerging examples from the World Bank's support to 2015/16 El Nino drought

The World Bank is made up of 189 member countries. It consists of the International Bank for Reconstruction and Development (IBRD) which lends to governments of middle-income and credit worthy low-income countries and the International Development Association (IDA) which provides highly concessional and interest-free loans and grants to governments in lower-income countries[65]. [66]This financing supports a wide array of investments in such areas as education, health, public administration, infrastructure, financial and private sector development, agriculture, and environmental and natural resource management. The World Bank also offers policy advice, research and analysis, and technical assistance, which often underpins World Bank financing and helps inform developing countries' own investments. In the context of a crisis such as El Nino, the World Bank can offer support in several ways – provided there is an official request by the Government (typically the Ministry of Finance) or Regional Entity (where applicable).

Overview of client requests received to date. Following the declaration of national emergencies, several countries have approached the World Bank for support. Requests (both formal and under discussion) have been wide ranging and include:

- Post-disaster needs assessments (Malawi) and TA for other vulnerability assessments (Zambia, Zimbabwe, SADC)
- Restructuring of existing portfolio (Angola, Malawi, Swaziland, Lesotho)
- Emergency recovery loans (Malawi, Lesotho)
- Preliminary advice on potential risk mitigation options to learn more about the scope of CAT DDOs (Swaziland) and the scoping of national agriculture insurance program (South Africa)
- Financing of food subsidies (Lesotho)

Overview of WB support to El Nino response in key SADC affected countries. The Bank's response to date has been mindful to balance emerging needs with the need for coherent long-term policy actions, and thus reflects a combination of internal due diligence, no regrets actions as well as careful consideration of some of the above requests.

- **Initial portfolio screening.** This helps identify how existing country portfolio could support National Response Plans. In the case of Mozambique, Madagascar and Malawi, the activation of existing Contingent Emergency Response Components (CERCs) in select project may be considered. This activation would allow for the reallocation of available project funds to support the rapid disbursements against a positive lists of goods, services, works (eg fuel, medical supplies, need assessments, emergency repairs); In the case of Angola, Lesotho, Swaziland and Zambia, existing eligible projects are being identified for (retroactive) inclusion of CERCs.

- **Leveraging and restructuring of existing investment lending portfolio.** In Angola, existing projects including the Smallholder Agriculture Development and Commercialization project and the Municipal Health Services Strengthening project could be candidates for restructuring to extend support to the most affected provinces. In Lesotho, the small-holder project is fast-tracking the construction of 10 small dams, 22 new springs and 60 roof tanks to be completed by August 2016. In Malawi, the Agriculture Sector Wide Support will provide US$2.5 million to upscale production of sweet potato and cassava as part of mitigation activities to the dry spells across the country. Moreover, additional financing to the Nutrition, HIV and AIDS project is being processed which includes US$10 million to provide additional support for the

65 In SADC, IBRD eligible countries include Angola, Botswana, Mauritius, Namibia, Seychelles, South Africa and Swaziland. IDA eligible countries include DRC, Lesotho, Madagascar, Malawi, Mozambique, Tanzania and Zambia. (Zimbabwe's eligibility is pending arrears clearance).
66 The World Bank Group consists of the World Bank as well as the International Finance Corporation (IFC) which focuses on the private sector; the Multilateral Investment Guarantee Agency (MIGA) which offers political risk insurance and the International Center for the Settlement of Investment Disputes (ICSID) which provides international facilities for conciliation and arbitration of investment disputes.

integrated management of acute malnutrition in 14 drought affected Districts that are currently supported by the Project. Finally, US$75.0 additional financing for Malawi Strengthening Safety Nets Systems Project (MASAF IV) provides financing for productive public works program throughout the country, including in the drought affected Districts. The project also finances social cash transfers for the poorest population in two Districts. In Swaziland, the Local Government project is seeking to reallocate ~$1 million to the most drought-affected rural Tinkhundlas for priority works including water supplies.

• **Emergency response operations under discussion in Malawi and Lesotho** (either as new stand-alone projects or through additional financing) including requests for additional concessional IDA financing under its Crisis Response Window (CRW). One of the proposals is to provide another additional financing for MASAF IV to scale up the social cash transfer program to another 4-5 districts which are currently not covered by the program, to secure immediate financial support to the poorest households. A Post-Disaster Needs Assessment is being launched by the Government of Malawi with support from a range of donors, including the World Bank and UN agencies. The PDNA will be a rapid assessment of the impact of the recent drought by utilizing existing data from similar ongoing assessments. It will define a strategy for recovery, including its financial implications, while making recommendations to improve future drought resilience. The main objectives are i) estimate the physical, economic and human impacts of the 2016 drought on the socio-economic development of the country at the national and district level, ii) assist the GoM and DoDMA to update the NDRF for the 2016 drought response by: (a) defining and aligning national and sector-level recovery visions, guiding principles, and priorities to long-term development objectives; and, (b) establishing a sequenced and prioritized cross-sectoral framework of recovery interventions, iii) strengthen the GoM's recovery and reconstruction systems, iv) ensure that strategies for recovery integrate concepts of disaster risk reduction, resilience, "build back better," as well as gender and environmental considerations, v) identify policy, investment options, and programs that can break the cycle of drought and promote short-, medium- and long-term drought resilience.

• **Analytical and advisory services and technical assistance at national and regional level.**

o Africa drought resilience strategy and recovery framework (final draft)

o Over $1 million recently approved via the Food Price Crisis TF to support regional and country level diagnostics on grain markets and seeds, early warning systems TA and facilitation of knowledge sharing as well as support towards national level drought impacts assessments and response plans (Malawi, Mozambique, Madagascar, Zambia and Zimbabwe).

o Application to Rapid Social Response fund to enhance social projection in the context of disaster response and resilience in Lesotho and Swaziland.

o In South Africa, an initial diagnostic study for the establishment of a national agricultural insurance program was recently completed following a request at the onset of the drought by National Treasury and the Department of Agriculture, Forrest and Fisheries (DAFF)

• **Coordination of the Food Price Watch** to better mitigate the impacts of price shocks on the poor:

http://www.worldbank.org/en/topic/poverty/food-price-crisis-observatory#2

Overview of longer-term disaster risk management instruments. The World Bank also provides a range of disaster risk financing instruments (see Chart 2), although uptake today in SADC countries has remained modest. Some examples include:

• **Disaster forecasting and risk modelling.**

o In Malawi, the Shire River Basin Management program finances disaster forecasting and risk modeling to improve flood and drought risk management.

o Development of multi-hazards Country Risk Profiles in Malawi, Mozambique, Madagascar, Seychelles, Comoros, and Mauritius, to calculate modelled losses associated with cyclones, drought and floods.

• **Disaster risk financing – contingent liabilities**

o Provide technical assistance to Governments for the design of national strategies for financial protection (on-going TA in Mozambique and Madagascar)

o In the Seychelles, the DRM Development Policy Loan (DPL) with a Catastrophe Deferred Drawdown Option (CAT DDO) complements the country's risk financing strategy with a contingent line of credit that can be triggered by a disaster event. This provides immediate liquidity following natural disasters (for IBRD countries)

• **Hedging products**

o Hedging products including currency swaps, interest rate swaps, commodity price swaps and options are available for IBRD (and some IDA) countries where the WB acts as a counterparty by intermediating with financial markets. These may be of particular interest in the context of managing grain import/exports and strategic grain reserves.

o South Africa actively uses hedging products (currency swaps) ; this flexibility allows South Africa to change USD-based liabilities to ZAR-based liabilities, thereby reducing currency risks associated with borrowing from IBRD.

• **Disaster Risk Financing solutions (as discussed in Section 3 above)**

Emerging examples from the African Development Bank support to 2015/16 El Nino drought

The African Development Bank (AfDB) Group comprise the African Development Bank (ADB), African Development Fund (ADF), and the Nigeria Trust Fund (NTF). Its shareholders are the 54 African countries (regional member countries) and 27 non-African countries (non-regional member countries). The overall objective of the AfDB Group is to support the economic development and social progress of African countries individually and collectively, by promoting investment of public and private capital in projects and programs designed to reduce poverty and improve living conditions. Combating poverty is at the heart of the Bank's efforts to assist the continent to attain sustainable economic growth. The AfDB uses a number of instruments[1] in supporting its regional member countries.

As part of the Bank's current High 5 Agenda and the objectives of "Feed Africa" which is its second pillar, the Bank is elaborating a new African Agriculture Transformation Strategy for its support to the four specific goals of the Comprehensive African Agricultural Development Program (CAADP) viz: (i) contribute to eliminating extreme poverty in Africa by 2025; (ii) end hunger and malnutrition in Africa by 2025; (iii) make Africa a net food exporter; and, (vi) move Africa to the top of export-orientated global value chains where it has comparative advantage. The AfDB has historically invested an average of US$ 612m per year in

agricultural and agribusiness over the period 2011-2015. As one of its High 5 strategic priorities, the Bank envisages agricultural investment rising to US$ 2.4bn per year going forward.

In the context of a crisis such as the El Nino, the African Development Bank has four main categories of interventions in the affected region which seek to address the immediate and long term resilience building in affected areas:

a) Emergency support: The Bank's emergency relief window has US$ 7 million unallocated for the current financial year. While this may not be sufficient to support all the countries to respond to the impact of drought, the Bank could allocate this amount to emergency response in the most severely impacted country (ies). The Bank will also look into the possibility of reallocating some additional funds to the Emergency Relief Fund from the contingency fund.

b) Budget Support: The Bank will explore the possibility of reallocating resources through cleaning up of existing country portfolios. Resources allocated to two categories of projects, i.e., those that qualify for cancellation and those in the pipeline for preparation and approval under ADF 13 may be freed up to the respective countries for targeted budget support in areas aligned to emergency drought response. This will give them flexibility to address the impacts of the current drought. Pursuing this option will require prior consultations with the affected countries.

c) Long term intervention: The Bank has an ongoing long term development program on drought and resilience building in the Horn of Africa called Drought Resilience and Sustainable Livelihoods Program (DRLSP). The Bank will explore the possibility of initiating similar long-term resilience building program for other vulnerability hot-spots in other parts of Africa, the Southern Africa as well as the Sahel. Specifically, the Bank will work with the affected countries in the Southern Africa to allocate its next financing cycle (ADF14) to long term resilience building programs to address the impacts of climate related floods and droughts in the region. Experience has shown that countries are generally reluctant to allocate part of the Performance Based Allocation for resilience building in addition to any funds that can be leveraged from the regional window.

d) Long term disaster risk insurance: Many institutions are currently providing weather index insurance at national and local levels in the continent. The Bank will provide nearly Euro 20 million grant resources to support the four African Regional Climate Centers (RCCs) in West Africa, Eastern Africa, Central Africa and Southern Africa and the continental African Center for Meteorological Applications for Development (ACMAD). The support will contribute to strengthening of disaster early warning and management systems in the regions. Availability of high resolution climate and weather information is essential to building weather index-based insurance against climate related risks. The Bank will also support the development of weather-index insurance products in the vulnerable countries. It will work directly with the vulnerable countries and agencies with expertise in this area.

The African Risk Capacity (ARC)

In 2012, the African Risk Capacity (ARC) was established by treaty as a Specialised Agency of the African Union (AU) to help Member States improve their capacities to better plan, prepare and respond to extreme weather events and natural disasters, therefore protecting the food security of their vulnerable populations.

By linking early warning systems with contingency planning and supported by modern financial mechanisms, ARC enables governments to provide targeted responses to disasters in a more timely, cost-effective, objective

and transparent manner, thereby reducing response costs and loss of livelihoods.

To date, the ARC Establishment Agreement has been signed by 32 countries across the continent including the Government of Malawi, and is a critical part of Africa's new climate and disaster management infrastructure.

In 2014, the member governments established ARC Insurance Company Limited (ARC Ltd), the Agency's financial affiliate, which is licensed as a mutual insurer, to manage the risk taken on through underwriting a pool of weather and other disaster risks. Together ARC Agency, an international organisation, and ARC Ltd, the dedicated sovereign risk insurance facility, comprise the ARC Group, which is listed on the OECD-DAC Annex 2 as a multilateral organisation for ODA scoring purposes.

In its first year of operation, four African governments, Kenya, Mauritania, Niger and Senegal, purchased US$129 million in drought insurance cover from ARC Ltd at a total of US$17 million in premium costs paid by those governments. Following a poor agricultural season in the Sahel, by February 2015, three Member States received payouts from ARC Ltd totalling over US$26 million which allowed these governments to deliver timely assistance to 1.3 million people and over half a million livestock.

This intervention averted a situation that could have forced millions of families to sell off hard-won household assets, take children out of school, migrate, or simply accept that their herds have perished, pushing them further into chronic food insecurity and demonstrated the ARC proof of concept which is to support early intervention in countries.

In May 2015, ARC added three countries to the pool, The Gambia, Mali, and Malawi. Each of these countries, in addition to the original four members, secured drought coverage for the 2015/16 policy year totalling US$178 million with corresponding premium of US$24.7 million.

With support in the form of returnable risk capital of US $200 million by the United Kingdom's Department for International Development (DFID) and Germany's KfW development bank on behalf of BMZ, the German Ministry for Economic Cooperation and Development, demonstrated proof of concept, and requests from African governments to cover additional perils coverage through ARC Ltd, ARC is now expanding its products from drought alone to also cover flood and tropical cyclone risks across the continent. In parallel, several donors including the UK Department for International Development, KFW, the Swiss Agency for Development and Cooperation, the Swedish International Development Coordination Agency, the International Fund for Agricultural Development, the United States Agency for International Development, the Rockefeller Foundation, and the United Nations World Food Programme have financially supported the work of the Agency and continue to do so.

ARC Agenda for Action: Support for Member States

In order to effectively and efficiently manage disaster risk, it is critical for African governments to have a holistic risk management plan at the national level. Strengthening fiscal policy and the ability of governments to better respond to needs in the event of a disaster requires the capacity to design and implement a robust ex ante risk management plan and in turn access to appropriate disaster risk financing instruments.

To date many governments, dealing with a spectrum of risks and fiscal challenges, have not had the appropriate resources to prioritize risk management for disasters. Given both the overall need to protect investments by the governments and the uncertainty associated with climate change, it has become imperative that capacity to manage risk is developed and the appropriate policies are structured in order to protect both government budgets and livelihoods of its people from the impacts of disasters which, while the timing might be unpredictable, are certain to occur.

Insurance instruments such as ARC have therefore played an important role in catalyzing these discussions and action towards embedding better risk management into government systems with associated risk

financing systems. Important to note is that risk management, not through insurance alone, but also through its linkages to early warning systems and contingency planning, is critical to protecting investments in building the resilience of communities around the world. This has been an important feature in the ARC engagement process with countries and in also establishing the understanding that insurance mechanisms alone cannot and are not sufficient to cover the entire losses incurred after a disaster.

Within this context, where African governments are seeking to build up their risk management systems, the ARC has set a goal of increasing insurance protection for an additional 180 million Africans, in keeping with the goals as outlined at the recent G7 summit chaired by Germany which explicitly endorsed ARC and set a goal of insuring 400 million people in developing nations across the globe, by 2020. The implementation of climate insurance pooling schemes was also identified as a high priority within the Loss & Damage Work Programme of the UN-FCCC deliberations and formed a key outcome of the Paris Agreement with ARC identified as one such pool through which insurance coverage could be achieved at scale on the continent.

To reach this goal of increasing insurance coverage on the continent and also ensuring that this is done within a broader framework of developing country risk management system ARC will be:

- Scaling up of the activities of the Agency Secretariat to meet the demands of growing the pool to the identified target of 30 countries by 2020;
- Providing Premium financing to allow high-risk countries with low resilience to also participate in the pool;
- Providing Replica coverage to UN and other humanitarian actors in order to offer partners an opportunity to leverage ARC's country built risk management architecture to scale up coverage and boost timely response capacity through accessing replica insurance coverage from the ARC Insurance Company Limited (ARC Ltd); and
- Adaptation Financing through the ARC Extreme Climate Facility (XCF).

4. Conclusion

Droughts and other climatic shocks will continue to impact the sub-region, with likely increased frequency. The Southern Africa Region is particularly vulnerable, given that its staple crop, maize, is highly susceptible to inter-annual rainfall variations, resulting in highly variable yields and price volatility. The analysis of the macro-economic impacts on reduced maize output as a result of the El Nino 2015/2016 drought found that while the consequences on overall economic activity were modest, the impact on household consumption was significant. The analysis suggests that 1.4 million people across SADC may fall into poverty, with the bottom 40% of worse hit, with households experiencing drops in real private consumption of 1.7%. Compensating for these impacts would amount to 1.9% of GDP in Malawi, 1.4% of GDP in, Tanzania, 0.7 % of GDP in Zimbabwe, and 0.5% of GDP in Lesotho and Swaziland. Yet, 4 out of 5 of these countries are in an already difficult macro-economic situation.

With climate shocks such as El Nino the 'new normal', more needs to be done to enhance countries' ability to manage and withstand shocks. As this paper has shown, governments have a number of tools at their disposal to enhance their capacity to better withstand repeat shocks, by building fiscal buffers, robust food supply chains and dynamic safety-net systems. Although, the uptake of these new instruments has been limited to date in the sub-region, the latest crisis provides a unique window of opportunity for greater joint action amongst governments, humanitarian relief agencies and development partners, by enhancing the collective understanding of the range of response options along the humanitarian, resilience, macro-economic and risk management spectrum. To this end, the following table highlights a range of practical options to build resilience and manage systemic risks through a sequenced, prioritized and cross-sectoral framework over the short, medium and longer-term.

ANNEX 1: COUNTRY NEEDS OVERVIEWS AND RESPONSE PLANS

ANGOLA

SECTORS	People in Need 2016-2017 peak	People Targeted by Action Plan	Funding requirement	Funding received	Gap
FOOD SECURITY AND AGRICULTURE	755,930	1,000,000	$22,500,000	$1,283,500	$21,216,500
NUTRITION	95,877	81,495	$20,983,813	$5,070,003	$15,913,810
HEALTH	755,930	604,800	$15,646,814	$286,149	$15,360,665
WASH	420,000	420,000	$6,479,215	$1,322,863	$5,156,352
PROTECTION	755,930	604,800	$2,651,106	$150,000	$2,501,106
COORDINATION	0	0	$924,252	$100,000	$824,252
TOTAL	**755,930**	**1,000,000**	**$69,185,200**	**$8,212,515**	**$60,972,685**

Humanitarian Needs

Since 2008, recurrent cycles of droughts and floods have affected the southern provinces of Angola. Successive years of drought have undermined household coping mechanisms, and most rural communities have lost their stocks of seeds and food, increased their vulnerability to climate shocks. The 2015-2016 El Niño drought caused the May/June harvest to fail, with crop losses expected to be as high as 40 per cent in parts of the south. An estimated 1.25 million people are currently food insecure, with the southern provinces of Benguela, Cuando Cubango, Cunene, Huila, Kwanza Sul, and Namibe the most affected. An estimated 500,000 livestock have died due to drought and waterborne diseases. An outbreak of foot-and-mouth disease (FMD) from June 2015 has restricted cattle sales for more than 1 year in the entire province of Cunene.

Malnutrition has been exacerbated by the poor harvest, and almost 96,000 children under age 5 are estimated to need treatment for SAM. Over 58 percent of hospital admissions of children under age 5 are undernourished. Mortality rates of SAM children with complications are between 10-17 percent in certain health facilities in Cunene province, which has a SAM rate of 7 per cent in children under age 5. Nearly 185,000 infants and 740,000 children under age 5 are exposed to vaccine preventable diseases and common childhood illnesses such as malaria – which has increased up to three fold in comparison to previous years – diarrhoea, cholera, and pneumonia. A rapidly expanding yellow fever outbreak has accounted for 3,294 suspected cases, including 347 deaths (case fatality rate 10.5 per cent) as of 19 June 2016. These were reported from 18/18 provinces of the country. Confirmed cases from16 provinces stood at 861 cases. A mass-vaccination campaign has been conducted to control the spread of the disease within the country and beyond (Yellow Fever cases have been reported in neighbouring DR Congo and Republic of Congo).

A high number of existing boreholes in the most affected provinces are non-functional. Access to potable water is limited in the southern provinces, and in some areas untreated stagnant water shared with animals is being used, increasing the risk of diarrhoea and other waterborne diseases. Sanitary conditions in many areas are poor, with a national prevalence of open defecation of 40 per cent.

Vulnerability

30.13
Poverty rate

77.4
Multi-dimensional poverty rate

Exposure and impact

-11.0%
Change in maize output

N/A
Change in food prices vs 5 year average

6.0%
food insecure as percentage of rural population

0.0%
Increase in poverty

0.0%
Reduction in GDP

Capacity to cope

6,949
GDP per capita

-7.10
Fiscal balance, excluding grants

N/A
% spent on social safety nets

Key response activities

Food security and Agriculture

- In-kind food or cash assistance for 1.0 million people
- Restocking of drought resistant seed, tools and training on nutrition and family garden for 290.000 households.
- Vaccinate 500,000 livestock for FDM, Contagious Bovine Pleuropneumonia (CBPP), and treated for dermatitis.
- Support 150,000 people with good livestock health practices and mineral salt licks;
- Rehabilitate at least 100 water points for 2.5 million livestock and agriculture;

Nutrition

- Treatment of 81,495 children 6-59 months with SAM to therapeutic treatment programmes;
- Provide infant young child feed (IYCF) counselling to 449,079 caregivers of children 0-23 months;
- Rehabilitate 266 Community Management of Acute Malnutrition (CMAM) centres ;
- Conduct nutrition promotion campaign in most affected provinces of the country.

WASH

- Rehabilitation of 400 hand pumps to provide safe water access to 420,000 people, including at schools;
- Promote community led total sanitation (CLTS) to improve sanitary and hygiene practices, including the provision of appropriately designed toilets;
- Provide water treatment tablets, collapsible containers, and hygiene kits in affected provinces;
- Train 600 teachers in rural schools on disaster risk reduction.

Health

- Conduct children's vaccination campaign (including Yellow Fever) children 6- months and above in three provinces;
- Strengthen disease surveillance system;
- Equip health centres and hospitals with basic essential obstetric care kits for more than 604,800 pregnant women;
- Train 400 community health workers on CMAM;
- Strengthen public awareness of TB, HIV, AIDS and GBV prevention, care and treatment and waterborne illnesses;

Protection

• Train social mobilizers in Huila and Cunene on sexual and reproductive health and SGBV, and sexually transmitted diseases including HIV and AIDS to conduct campaigns targeting 5,600 adolescents and youth;

• Distribute dignity kits in Cunene Province.

Key drivers of vulnerability

Through contingency planning (preparedness and response) exercises organized by the inter-sectorial National Civil Protection Commission (CNPC) with technical support provided by UN at national and provincial levels, the following key drivers of vulnerability have been identified in Angola.

• Social drivers: social inequality; poor nutrition diversification; high illiteracy rates in rural areas, poor quality of basic services, urban agglomeration and housing construction in high risk areas.

• Environmental drivers: the soil not suitable for human settlement; existence of underground salty water and limited sweet water resources; desertification and deforestation; monoculture; and blocked ditches. Agro-pastoralist production systems with heavy environmental effects on the natural resources.

• Economic drivers: low-income population; low purchasing power; and illegal occupation of land in risk zone.

• Institutional drivers: weak implementation of land occupation policies; weak implementation of directives and policies of prevention, contingency and preparedness to face disasters; and weak research, data collection and analysis and predictions of disasters and risks.

With support from the UN, Angola has in 2014 assisted drought-affected southern provinces in preparing action plans for enhanced coordination and information management and the most affected provinces were assisted in developing Pilot Provincial Strategies for Building Resilience of vulnerable communities and local institutions. These pilot strategies (2015-2017), owned by the provincial governments, aim to support inter-sectorial coordination mechanisms for planning, implementation, monitoring and evaluation as well as joint mapping of vulnerable groups, and analysis of risks (hazards, vulnerabilities, and capacities); improving the capacities of provincial government staff to guide the planning and implementation of integrated resilience building activities at municipal and community levels; and support enhanced information management. At this subnational level, initiatives are undergoing to support markets expansion and livelihoods diversification and for incorporating preparedness and early warnings within all productive sectors, agriculture and livestock first of all.

Furthermore, in responding to the severe impact of 2015/2016 El Niño-induced drought, the CNPC plans to conduct a drought Post Disaster Needs Assessment (PDNA) with a focus on resilience building in southern region with support of the UN, the EU and the World Bank during the 3rd quarter of 2016 for the development of a medium to long term Resilience Building Framework and Programme.

The Programme will focus on: water supply; strategic food reserves to prepare for a possible increase in humanitarian caseload during October 2016-February 2017; inputs supply and diversification of food production including the reposition of poultry inputs; strengthening veterinarian services; and capacity building focusing on early warning system and the Food Security Phase Classification (IPC) information system in the most affected 5 provinces.

Ongoing response:

Agriculture, production and productivity

• Provision of Livelihood / Income Generation Support in the drought-affected Cunene, Huila and Namibe.

• Promoting climate-resilient development and enhancing adaptive capacity to withstand disaster risks in Cuvelai River Basin, Cunene in 2016-19.

• Disaster risk reduction/management to support agro-pastoralist communities affected by recurrent droughts and other natural disasters in southern Angola and northern Namibia through APFS approach. Directly benefitting 7,200 people, and indirectly 8,000 people of Namibe, Cunene, and Huila in 2014-2017.

• Land rehabilitation and rangelands management in smallholders agro-pastoral production system, using sustainable land management in key productive and vulnerable areas through Agro-Pastoralist Field School (APFS) approach, benefitting 20,000 people in Huila, Namibe and Benguela in 2014-2018.

• Disaster risk reduction/management to support agro-pastoralist communities affected by recurrent droughts and other natural

• Integration of climate resilience into agricultural and agro-pastoral systems through soil fertility management in key productive and vulnerable areas using Farmers Field School (FFS) approach in Huila and other 3 provinces. 21,000 beneficiaries in Huila province in 2016-2019.

• Strengthening the animal health extension service, veterinary pharmacy in key municipalities for transhumance, training community animal health workers (CAHW) as a link between the extension service and the herders in transhumance and representing an income generation activity (IG). CAHW women also supported, as during the transhumance months, women and children stay at the camp site with dairy cattle, calves and poultry. Program in 6 provinces, namely Huila, Namibe, Cunene, Cuando Cubango, Benguela and Huambo benefiting 150,000 people from pastoralist communities in 2018-2022.

Early Warning for Early Action

• Strengthening the National Disaster Risk Management (DRM) institutional framework and capacities in 2016-19, including strategic and coordination framework development, information management and early warning system, sectorial risk management, and preparedness for disaster response and recovery (US$ 9 million).

Resilience Priorities

• Based on the results of a drought PDNA conducted in partnership between the UN, the EU and the World Bank, operationalize a Strategic Framework and a dedicated Fund to support community-based resilience-building initiatives, while continuing to strengthen the national DRM institutional framework and capacities.

• Strengthen resilience of agro-pastoralists through strategic support to the diversification of food production, the provision of water and input supplies, and improved veterinarian services, as well as the operationalization of the early warning system and the Food Security Phase Classification (IPC) information system, involving agriculture, health, water and civil protection.

• Ensure provision of at least 15 liters of safe water per person per day through the repairs of a number of

non-operational boreholes. This will be linked to the promotion of hygiene practice to prevent diarrheal diseases and the promotion of the Community-Led Total Sanitation program (CLTS) aiming at reducing the open air defecation.

• Integrate education in emergency preparedness, response and recovery in the national and provincial education plans. The target is to develop and operationalize strategies for mobile school and alternative community education, providing temporary learning spaces with basic education equipment. Training of school directors and teachers on recovery from emergency situations is crucial.

• Integrate gender crosscutting interventions as a key strategy for family cohesion and well/being. Promoting their rights as cares, partners and duty bearers is very important to prevent GBV and HIV and AIDS infections.

• Invest in identifying adequate hydrogeological areas in arid and semi-arid southern Angola, for the design and construction (with appropriate technology) of sub-surface/underground dams for resilience building and adaptation to climate change in provinces with protracted droughts.

Programming Gaps

• Insufficient inter-sectorial collaboration and risk assessment of vulnerable groups.

• Food security and livelihood support, basic service, and small infrastructure development should be up-scaled with significantly increased investment.

• A needed shift from emergency aid dependency to local / self-empowerment must be facilitated at community level.

• Multi sector and multi partners' coordination and programming requires one position on data, information and targets for the country.

LESOTHO

SECTORS	People in Need 2016-2017 peak	People Targeted by Action Plan	Funding requirement	Funding received	Gap
FOOD SECURITY AND AGRICULTURE	709,394	491,198	$42,789,256	$11,601,651	$31,187,605
HEALTH AND NUTRITION	45,400	45,400	$6,682,613	$572,530	$6,110,083
WASH	302,507	267,254[67]	$4,938,030	$532,896	$4,405,134
EDUCATION	310,000	310,000	$215,000	$27,000	$188,000
PROTECTION	206,666	206,666	$145,000	$11,000	$134,000
TOTAL	**709,394**	**1,320,518**	**$54,769,899**	**$12,745,077**	**$42,024,822**

Humanitarian Needs

The El Niño-induced drought crippled crop planting between October and December 2015, leading the government declare a state of drought emergency on 22 December 2015. The drought caused an 89 per cent reduction in crop production in 2016 compared to 2009 (the last year with average conditions) and 62 per cent compared to 2015, according to the 2016 LVAC results and Bureau of Statistics crop forecasts. There are acute water shortages, poor rangelands, and fodder for livestock is in short supply. According to Some 709,394[68] people are food insecure and 491,198[69] require emergency assistance[70]. Food insecurity is a chronic problem, and 42.7 per cent of children are stunted. The national HIV prevalence among adults aged 15 to 49 years was 22.7 per cent in 2015. A recent nutrition and HIV assessment in five districts found 8.2 per cent MAM among pregnant and lactating mothers, and 2.2 per cent MAM and 0.6 per cent SAM among children under age five. Admissions of malnourished children between January and March 2016 increased by 8.3 per cent compared to same period in 2015, with the districts of Maseru and Mohale's Hoek accounting for the highest admissions.

While the majority of rural areas have access to piped water, 16.6 per cent of households report using unprotected water sources, with few treating the water before use. The districts of Maseru, Mokhotlong and Thaba-Tseka report the highest rate of unprotected water sources, at 22 to 32 per cent. Sanitation is poor in rural areas, with 30 per cent reporting open defecation, and up to 69 per cent in mountain areas. Preliminary data for two districts indicate that water shortages are forcing the cancellation of essential services at community health facilities. In some areas, patients are required to provide their own water and/or launder soiled linens, sanitation and hygiene practice. The use of unprotected water sources has led to an increase in cases of bloody diarrhoea, with the Ministry of Health (MoH) reporting a peak of 462 cases in February, significantly above the outbreak alert threshold of 71. While data collection is on-going, preliminary results indicate that 37 per cent of schools in five districts do not have sufficient access to water, affecting the school feeding programmes and school attendance.

Poor and very poor households are experiencing a 44 per cent decline in their food and cash income, which is already 31 per cent below the survival threshold. This is exacerbated by the decrease in the number of people receiving remittances from South Africa mainly due to recent retrenchments, thereby affecting their

67 The 1,620,000 is the estimated 90% of people who take more than an hour to get water. Again the Cartographic mapping of Water Requirement Satisfaction Index shows that almost 10% of the population in Lesotho indicated that they are satisfied with water requirements. Source of Information LVAC May 2016
68 LVAC is the number of population likely to be at risk in the absence of safety nets
69 Rural population in IPC phase 3 and 4 during the peak time (Jul-Oct 2016)
70 This gives consistency across the SADC region by using the VAC affected number and the IPC phase 3 and above number during the peak period (note that most of the other countries in the region have their peak periods from Nov-Feb). Furthermore it closely mirrors the number of those facing survival deficits according to the LVAC.

Vulnerability

59.6
Poverty rate

35.3
Multi-dimensional poverty rate

Exposure and impact

-14.0%
Change in maize output

58.1%
Change in food prices vs 5 year average

32.0%
% of food insecure as percentage of rural population

-6.2%
Change in poverty

-0.6%
Change in GDP

Capacity to cope

2,638
GDP per capita

-12.2
Fiscal balance, excluding grants

6.5
% of GDP spent on social safety nets

ability to buy enough food. The drought has exacerbated protection concerns, including increases in gender-based violence. According to the 2016 Rapid Assessment Report on the effects of Draught on child protection conducted by UNICEF and World Vision International sexual assault and rape has been reported to have increased, and coupled with that an increase in the incidence of child marriage. Child protection concerns include psychosocial distress, separation, and sexual abuse.

Key response activities

Food security and Agriculture

- Direct cash assistance including top-up assistance for people under social safety nets, cash grants for others, targeting 156,185 people
- Direct food distribution to 44,500 food insecure people;
- Seeds, tools, and training to support small home garden production for 160,000 people;
- Agricultural livelihood support for vulnerable farmers through agricultural inputs and training, benefitting 50,000 people.

Health and Nutrition

- Strengthen treatment of malnutrition in women, PLHIV and girls and boys, including in-patient treatment of 2,400 children with SAM;
- Support MoH to improve nutrition surveillance;
- Prevention of acute malnutrition among 29,000 vulnerable children;
- Support response to disease outbreaks associated with the emergency;
- Support provision of delivery materials suitable for use under scarce water resources for 14,135 women.

WASH

- Distribution of water purification tablets and hygiene promotion services for 65,000/391,772[71] people;
- Rehabilitate community water supply systems for 30,000 people, (400,000 people will be reached from 5 councils)
- WASH in schools and Health facilities; training of communities on operations and maintenance, targeting 4000 people.

Protection

- Provide psychosocial activities for 69,000/164,000 children affected by

71 This number is an estimate from mostly affected districts, and it is only 38% of rural household without sanitation (DHS 2014 and Census 2006)

drought emergency;

• Strengthen referral mechanisms – targeting 200,000 women and girls most at risk of GBV

• Support authorities to improve data collection in sexual abuse and exploitation cases – 60 health centres supported to collect sexual abuse and exploitation cases across 4 districts.

Key drivers of vulnerability

Climate change induced extreme weather phenomena such as drought, flooding, destructive winds and storms etc. Most of this phenomena lead to food insecurity, loss of lives and property and assets hence loss of livelihoods.

In April 2016, the UN has started supporting the Government of Lesotho to develop a resilience framework and it is expected that a first draft of the resilience framework will be ready by early July 2016.

Despite the lack of a resilience framework the country has seen successful piloting of resilience-building activities that have a major potential to be scaled up, as well as a number of safety nets initiatives. The country has however not received any donor funding for their resilience programmes.

As in the case of Malawi, capacity building intervention include support to legal, policy and institutional systems and regulatory frameworks that promote resilience as well as Early Warning and Information Management Systems and preparedness, prevention and mitigation of impacts of threats and crises on farmers, fishers and pastoralists. One long-term initiative is collaborating with government and local communities to strengthen their ability to respond to the potential impacts of climate change through better policies and practices in the Lesotho Highlands. NGO-led efforts are supporting Economic Development Programming (Saving Groups, Market Development), food security and natural resource management at community level.

Resilience Priorities:

• Improvement of the water infrastructure in chronic water shortage areas,

• Scaling up efforts to support behavioural change and agricultural livelihoods with more technologically advanced solutions for climate smart agriculture.

Gaps in programming

• Lack of awareness at both grassroots and lack in political commitment of the importance of putting in place early recovery and resilience strategies while also addressing the current crisis.

• Lack of technical support to both Government and development partners on how to design and implement resilience strategies or on how to integrate resilience in their programming.

• Resources gap to address the current crisis, which is like to exacerbate if La Nina will intensify in the next rainfall and cropping season. Limited resources and on-going efforts are prioritised for the current crisis not resilience building.

MADAGASCAR

SECTORS	People in Need 2016-2017 peak	People Targeted by Action Plan	Funding requirement	Funding received	Gap
FOOD SECURITY AND AGRICULTURE	665,000	665,000	$42,172,000	$16,097,766	$26,074,234
NUTRITION	49,000	49,000	$9,090,000	$2,693,051	$6,396,949
WASH	665,000	665,000	$9,202,785	$2,505,622	$6,697,163
HEALTH	665,000	665,000	$4,544,000	$1,011,449	$3,532,551
EDUCATION	150,000	150,000	$4,500,000	$1,500,000	$3,000,000
COORDINATION			$401,969	$40,000	$361,969
TOTAL	**665,000**	**665,000**	**$69,910,754**	**$23,847,888**	**$46,062,866**
EARLY RECOVERY PRELIMINARY NEEDS			**$80,577,791**	**$100,000***	**$80,577,791**

(*): FUNDING FOR THE PLANNING PROCESS, NOT FOR THE RESPONSE

Humanitarian needs

The regions of Androy, Anosy and Atsimo Andrefana in the south-west of the country (the "Grand Sud") have been most affected by the drought, which has led to a further deterioration of water availability which in turn has negatively affected crops and livestock, livelihoods, nutritional and health well-being and driven up food and water prices. Current estimates indicate that 1.14 million people, or 80 per cent of the population of the seven most affected districts (Amboasary, Ambovombe, Ampanihy, Bekily, Beloha, Betioky and Tsihombe), 14% higher than the situation in 2015 in the same period, will continue to face food insecurity through the 2017 harvest. Of the food insecure, 665,000 have been severely affected and require immediate humanitarian assistance Household food stocks have been completely exhausted from successive years of shocks, and the population has adopted extreme coping strategies, including the sale of assets, increasing child labour and early marriage rather than attending school.

With 47 per cent of children under-5 stunted nation-wide, the highest rate in Southern Africa the nutritional status of children under age 5 was poor before the El Niño-induced drought led to a dramatic increase in the acute malnutrition situation. An average GAM rate of 7 per cent across the affected districts was recorded in February 2016, with some districts in the south above the critical threshold of 10 per cent, including Tsihombe district at 14 per cent. The frequency of mass MUAC screening is now conducted monthly in response to the deterioration in children's nutrition. The February 2016 mass screening targeting children under age 5 revealed that over 4,000 children were suffering from severe acute malnutrition (SAM) and close to 18,000 suffer from moderate acute malnutrition (MAM) while the April 2016 screening identified 3,000 cases of SAM and close to 14,000 cases of MAM highlighted pockets of acute malnutrition from 15 per cent to 22 per cent in drought-affected communes.

Vulnerability

81.7
Poverty rate

66.9
Multi-dimensional poverty rate

Exposure and impact

23.0%
Change in maize output

1.4%
Change in food prices vs 5 year average

4.0%
food insecure as percentage of rural population

0.6%
Change in poverty

0.1%
Reduction in GDP

Capacity to cope

1,439
GDP per capita

-5.3
Fiscal balance, excluding grants

1.1
% spent on social safety nets

Access to water in the Grand Sud is limited at all times, with only 26 per cent of the population getting their water from protected sources. The limited available open surface water in the region is often brackish/contaminated due to a combination of high open defecation rates and multi-purpose use. The extended drought has further exacerbated this situation and water speculation has resulted in a 10-fold increase of water prices and the public utility's capacity to conduct water trucking is limited. The lack of access to clean water means that girls must spend hours every day accessing water instead of going to school; boys spend hours every day leading cattle to water instead of going to school; and frequent diarrhoea among children further contributes to malnutrition.

Furthermore, with 40 per cent of the population living more than 10 km from a health centre, there was a significant reduction in attendance at outpatient consultations at the beginning of the year 2016, compared to previous years. Vulnerable groups are increasingly unable to reach health facilities due to the cost of transport and lack of caloric energy. Other vulnerable groups include pregnant women, adolescents girls, people living in remote localities and those with chronic diseases. With the deterioration of access to essential health services, under age 5 and maternal mortality rates remains high. The humanitarian situation due to the ongoing drought aggravates the already challenging education context in these regions. Enrolment rates, ranging from 40 per cent to 53 per cent, are much lower than the average for Madagascar (69 per cent).

Key response activities

Food security and livelihoods

- Distribute in-kind food assistance to vulnerable people affected by the drought to 665,000 people;
- Conduct cash-based transfer activities for 16,000 households.
- Distribute seeds, agricultural inputs, tools to 82,600 households (approximately 430,000 people);
- Support farmers through the provision of livestock and other agricultural inputs reaching 45,000 households.

Nutrition

- Conduct routine monthly screening for acute malnutrition in all the affected districts;
- Provide treatment for 22,500 MAM children under 5 (70 per cent coverage) in 530 community nutrition sites;
- Provide family rations for 15 days per month to 50,000 households with a child affected by MAM;

• Provide counselling to 165,000 caretakers on supplementary feeding and Infant and Young child feeding practices;

• Treat 20,000 children under age 5 with SAM by cluster members and address access to care for defaulters;

• Provide unconditional cash transfers to 8,000 families with a child under 5;

• Support 165 treatment centres in eight districts and conduct capacity building of health staff and community workers in the detection and treatment of SAM.

WASH

• Rehabilitate water points, including at schools and health centres, reaching at least 210,000 people;

• Construct boreholes and water supply systems with solar pumps reaching at least 28,000 people;

• A first pilot aimed at expanding with recovery part : introduce micro-irrigation and equip water points to conduct micro-irrigation activities in areas targeted for water system construction or rehabilitation that will benefit an estimated 20 families (approximately 100 people, farmers families);

• Conduct water-trucking operations to villages, health centres and schools without water systems reaching 280,000 people;

• Distribute ceramic water filters to families with children suffering from SAM (10,423 families) and training to community health workers on use of water filters.

Health (and Gender based violence)

• Support the provision of essential health services, through the strengthening of human resources in 141 health centres, the provision of referral care of obstetric emergencies, sexual violence and SAM treatment in two hospitals and 140 health centres, and mobile health and outreach services to remote populations of 1,680 villages located over 5 km from a health centre providing health coverage for 399,000 people;

• Improve capacity of health staff in health facilities and Community health agents to diagnose and manage cases of pneumonia, diarrhoea and malaria.

• Provide treatment for 75,000 cases of diarrhoea and 62,000 cases of pneumonia in children under five years of age with ORS, Zn and IV fluids and antibiotics (oral and IV as needed).

• Provide 18 basic emergency obstetric care facilities (one facility per 100,000 people)

• Provide access to health care including reproductive health through the provision of essential drugs;

• Establish early warning system and epidemic response.

Education (and child protection)

• Implement and ensure continuity of school feeding programme targeting school-going children in most food insecure districts of Southern Madagascar targeting 300,000 children in 1,200 public schools;

• Support the Ministry of National Education in implementing catch-up classes to address the gap of learning time due to limited attendance of children and/or teachers by the start of the 2016/2017 school year;

• Strengthen the national monitoring capacities in the three affected regions;

• Preposition Child friendly kits, social workers kits and dignity kits to serve up to 100,000 most vulnerable

children;

Coordination

• Reinforce the response coordination in the field by putting in place a permanent presence of the National Office for Disaster Management office in the field, with regular supporting missions from the national level.

• Plan and coordinate regular joint and multi-sectors assessments, reinforce the information management and the monitoring system in the field

• Relaunch the Early Warning System for drought

Key drivers of vulnerability

• Recurrent exposure to hazards and stresses: cyclones - floods (north, central and eastern regions); drought (south and southwest); locust invasion (south), epidemic and chemical hazards.

• Fragile livelihoods: climate extremes exacerbate an extremely fragile social and economic situation. Madagascar has a 91% poverty rate and extreme poverty rate of 77%. People living in rural areas are often very removed from access to basic services and disconnected from socio-economic opportunities. The impacts of droughts and floods are exacerbated by unsustainable development (deforestation, increasing population, conflicts and economic changes) that lead to increasing competition over scarce resources such as pasture and water.

• Chronic water insufficiency: dwindling water resources and an agricultural and livestock sector dependent on rain; overall difficulties in accessing water of acceptable quality in many areas of the country.

• Weak governance: Madagascar is slowly getting out of a prolonged political crisis and of a steep socio-economic decline which brought about a deterioration of basic social services provision and worsened the vulnerability of households to shocks.

Madagascar has recently developed the National Disaster Risk Reduction and Disaster Risk management law (2015-2031) and Strategy, and has identified DRR as the chief entry point to building resilience, through initiatives devoted to developing preventive and adaptive capacity, continued efforts to promote local and national ownership and leadership. The El Niño drought response in the South of Madagascar is the opportunity to develop a multi-sectorial recovery framework to complement and reinforce the on-going community resilience initiatives. In country the National Bureau for Disaster Risk Management (BNGRC); the Strategic Unit for Crisis Management and Prevention (CPGU); and relevant Ministries and local governments are leading the Government's efforts to build resilience. UN Agencies, through a Delivering as One approach, and international NGOs are supporting through technical assistance and joint programming and identifying best practices and lessons learned.

In parallel to the humanitarian response, UN Agencies, NGOs, and partners are drafting a comprehensive early recovery plan cutting across all humanitarian sectors and focusing on:

Agriculture, production and productivity:

• Temporary employment, environmental assets rehabilitation;

• Protection and enhancement of agriculture-based livelihoods and irrigation infrastructure.

Basic and Social Services:

• Restore local administration capacities to deliver basic services; in particular the capacities of national and sub-national health authorities to lead and coordinate health interventions; and of education authorities and school communities on disaster risk reduction and management;

• Micro-irrigation systems, water storage and water facilities rehabilitation (includes introduction of solar pumps);

• Reinforcement of the Health Information System;

• support the integrated quality basic health provision and its financial sustainability.

• Reinforce the coverage of the community nutrition programme, addressing the needs of out-of-school children;

• Mainstreaming DRR throughout the education system;

• Strengthening communities engagement in planning and management of basic and social services.

Social protection:

• Supplement cash transfers in the most drought-affected districts of southern Madagascar to improve access to basic social services.

Coordination, preparedness and early warning

• Reinforce the response coordination in the field by putting in place a permanent presence of the National Office for Disaster Management office in the field, with regular supporting missions from the national level.

• Plan and coordinate regular joint and multi-sectors assessments, reinforce the information management and the monitoring system in the field

• Relaunch the Early Warning System for drought

Resilience Priorities:

• Development of a multi-sectoral and multi-level Recovery and Resilience framework for analysis and action

• Harmonization of the resilience approach among actors: clarifying, in the context of Madagascar, resilience to what, to whom, why…

• Improve country capacities to prepare, coordinate and manage effective responses to El Niño/La Niña potential impacts on the livelihoods of vulnerable populations.

• Strengthen knowledge management and information sharing: to better inform decision making and action at all levels. Improve coordinated monitoring, evaluation and learning systems.

Programming gaps

Resilience programming in Madagascar should take into consideration the fragile environment affected by protracted crisis, conflict prone environment, and characterized by economic, social, and demographic

stressors. Context specific programming, particularly in the south, is not yet showing an impact despite many contextual analysis and a broad range of programming initiatives. Both humanitarian and development actors have within their programmes and projects a focus on resilience but it has emerged that there is no common understanding of the concept of resilience: this, and an internal lack of leadership, delays moving forward in a concerted manner with other partners. The lack of a comprehensive risk analysis at national and sub-national level also hinders the formulation of a resilience strategy based on coordination and complementarity of action.

Increased efforts are needed to design and coordinate flexible multi-stakeholders programming and to achieve a higher degree of buy-in from local and national authority (increased national ownership), as well as the inclusions in the resilience discourse of the academia and private sector. Predictable long term financing is also a key issue that hinders transformational and sustainable change.

MALAWI

SECTORS	People in Need 2016-2017 peak	People Targeted by Action Plan	Funding requirement	Funding received	Gap
FOOD SECURITY	6,500,000	6,500,000	$307,505,000	$64,200,000	$243,305,000
AGRICULTURE	5,100,000	1,850,000	$30,800,000	$1,660,000	$29,140,000
NUTRITION	499,817	230,588	$29,148,630	$25,461,712	$3,686,918
WASH	1,550,000	775,000	$22,087,500		$22,087,500
HEALTH	6,500,000	2,520,000	$1,046,500		$1,046,500
PROTECTION	6,500,000	3,000,000	$306,926		$306,926
EDUCATION	520,000	208,000	$4,237,255		$4,237,255
TOTAL	**6,500,000**	**6,491,847**	**$395,131,811**	**$91,321,712**	**$303,810,099**

Humanitarian needs

Malawi was severely impacted by the El Niño weather event, experiencing drought in the south and flooding in the north of the country, compounding the impact of several years of multiple weather-related disasters. On 12 April, Malawi issued a national disaster declaration due to the drought's expected impact on the 2016 harvest. Estimated rain-fed maize production is 32 per cent below the five-year average. In the south, nearly 51 per cent of rain-fed agriculture has been affected, with 22 per cent of the centre and 27 per cent of the north impacted. The effect is a drastic reduction in food production, especially for small-scale and vulnerable farmers. Household food stocks in districts that were severely affected by drought are very low or non-existent, forcing households to rely on market purchases even during the harvest period. Current maize prices are 54 per cent above 2015 prices and 126 per cent above the five-year average, and expect to increase to 160 to 200 per cent above 2015 prices during the months before the 2017 harvest. The recent VAC results indicate that more than 7.6 million people are likely to be food insecure through the 2017 harvest with 6.5 million people in need of food or cash assistance during this period. Meanwhile, flooding in the north has displaced more than 35,000 people currently being hosted in temporary camps.

Food insecurity is a chronic problem, with stunting affecting 42 per cent of children under age 5. Between January and March 2016, the SAM admissions rate was 30 per cent higher than during the same period in 2015, and current estimates indicate that more than 81,000 children aged 6-59 months will need of treatment for SAM in 2016. GAM is assessed at 4.2 per cent, with rates doubling in districts of the south. Admissions to health clinics caused by MAM have risen fourfold since January. At the same time, the incidence of waterborne diseases such as cholera and vector borne diseases like malaria has increased, and a cholera outbreak began in December 2015. Many people on ART and/or TB treatment have had their treatment interrupted. Recent assessments have indicated and increase in the number of incidences of SGBV. Cases of sex being exchange for food have been variously reported, and some women and girls were allegedly exchanged sex for transportation to safer areas during floods.

Vulnerability

70.9
Poverty rate

66.7
Multi-dimensional poverty rate

Exposure and impact

-29.0%
Change in maize output

63.5%
Change in food prices vs 5 year average

45.0%
food insecure as percentage of rural population

-11.8%
Change in poverty

-2.2%
Change in GDP

Capacity to cope

822
GDP per capita

-10.00
Fiscal balance, excluding grants (% of GDP)

N/A
% spent on social safety nets (% of GDP)

Key response activities

Food security

- Distribute in-kind food assistance to 4.7 million vulnerable people
- Distribute cash and vouchers to assist 1.8 million vulnerable people
- Implement food for assets activities in support of 4599 (Phalombe 1324, Balaka 2256, and Chikwawa 1019) people

Agriculture

- Distribute agricultural inputs and fertilizer to 400,000farmers, benefitting 1.85 million people
- Conduct seed replication activities, for 10,000 households people
- Provide support to restocking small ruminants (up to 5,000 households)
- Support water harvesting and flood/drought mitigation activities in support of up to 15,000 households

Nutrition

- Provide in-patient treatment to 1,717 children under age 5 with SAM between March and May
- Provide out-patient therapeutic treatment to 12,138 children under age 5 with SAM between March and May
- Provide supplementary feeding between March and May for 27,674 children and pregnant and lactating women and people living with HIV who have MAM.

WASH

- Implement Community-led Total Sanitation (CLTS) activities in 217 communities, benefitting 54,250 people
- Provide safe water to 775,000 affected people in camps and host communities through drilling and rehabilitating boreholes
- Construct temporary sanitation facilities and provide water treatment chemicals in cholera treatment centres and camps, benefitting 775,000 people
- Provide WASH supplies to 270,000 affected people in camps and host communities
- Conduct hygiene promotion activities in severely drought affected areas, impacting 1,550,000 people

Health

- Provide access to basic health services to 276,250 children under 5 years affected by the El Niño;
- Provide immunization against measles to 453,000 children aged 9 -59 months affected by El Niño
- Build and maintain capacity to respond rapidly to disaster-related disease outbreaks as well as trauma victims and gender based violence in disaster prone areas
- Build and maintain district capacity to conduct rapid and post health assessment
- Sustain continuum of care to people on ART, TB, and hypertension, Diabetes treatment and provide services for prevention of HIV transmission and family planning during disasters benefitting 650,000 people
- Strengthen health monitoring at all levels

Protection

- Establish or strengthen 70 child protective spaces (children's corners) to support 1.620.000 children
- Develop and strengthen existing GBV reporting and referral systems
- Strengthen community policing activities in 126 communities, benefitting 3 million people

Education

- Provide school feeding and take home rations in schools
- Provide refresher training for emergency teachers
- Improve and support ECD centres with ECD kits and teaching and learning materials for schools.

Resilience

In Malawi, the resilience strategy includes the introduction of practical, community-based, early recovery projects, providing the basis for temporary employment, training and income generation towards self-sufficiency. Various development partners and civil society organizations have already been addressing community resilience, aiming at a reduction in the existing and future risks caused by natural hazards and climate change and strengthened capacity of vulnerable communities to cope with current risks or adapt to new ones. The country has seen the successful introduction of a comprehensive risk management approach to help communities be more resilient to climate variability and shocks through better risk management (insurance for assets schemes) linked to asset accumulations and the establishment of small-scale savings, contributing to the creation of rural financial markets.

Complementary capacity building interventions are on-going to support legal, policy and institutional systems and regulatory frameworks that promote resilience as well as Early Warning and Information Management Systems. International partners are also supporting the streamlining of DRM into sub-national capacity building initiatives and national level planning and systems and preparedness, prevention and mitigation of impacts of threats and crises on farmers, fishers and pastoralists. Support to social protection schemes is also on-going as entry point for resilience building.

The implementation of the Malawi Resilience Strategy is coordinated under the Department of Disaster Management Affairs, with support from the HCT. Malawi is participating in the African Risk Capacity (ARC) Risk Pool in 2015/16. One international donor has demonstrated interest in scaling up successful community resilience building pilots.

MOZAMBIQUE

SECTORS	People in Need 2016-2017 peak	People Targeted by Action Plan	Funding requirement	Funding received	Gap
FOOD SECURITY	1,980,000	1,460,000	$156,700,000	$14,061,934	$142,638,066
AGRICULTURE	500,000	500,000	$23,100,000	$7,940,992	$15,159,008
HEALTH	1,460,000		$750,000	$50,000	$700,000
NUTRITION	280,000	122,000	$9,000,000	$2,363,862	$6,636,138
WASH	500,000	300,000	$12,000,000	$4,090,179	$7,909,821
EARLY RECOVERY	1,460,000	300,000	$2,500,000	$130,602	$2,369,398
PROTECTION	500,000	200,000	$250,000	$29,393	$220,607
TOTAL	**1,980,000**	**1,460,000**	**$204,300,000**	**$28,666,962**	**$175,633,038**

Humanitarian needs

The 2016 harvest in central and southern regions of Mozambique have been most impacted by the drought. Preliminary estimates indicate national cereal production at 2.3 million tons, some 19 per cent below planned national production. Nearly 4,400 cattle (0.23% of national total) have died due to drought. On 12 April, the Government declared a 90-day red alert, the highest level of national emergency preparedness, to permit the release of government emergency resources as per its contingency plan. Mozambique's VAC results from March 2016 indicated that 1.46 million people in the South and Central region are food insecure. Mozambique's VAC will be conducting an updated food security assessment in July 2016 and most likely the number of people in food insecure might increase during the October to April lean season. An estimated 280,000 children and pregnant and lactating women are expected to suffer from acute malnutrition over the next 12 months, including 55,000 children with SAM and 136,539 with MAM. A MUAC only based assessment in March 2016 suggested GAM rates for children under age 5 of 15.3 per cent and 15.5 per cent in Sofala and Tete Provinces, respectively, above the critical threshold of 10 per cent. An estimated 500,000 people do not have access to safe drinking water, representing a third of the current affected population. The use of unsafe drinking water has increased the incidence of communicable disease, with almost 300,000 reported cases and 98 deaths from diarrhoea in 2016 between January and April. The incidence of cholera is also increasing, with 1,486 cases reported between 1st January and 20 May 2016, and the declaration of an outbreak on 24 May 2016. Children, especially girls, are increasingly dropping out of school to collect water or work to support their families. The Ministry of Education and Human Development reports 228,000 students need assistance in six most-affected provinces of Inhambane, Gaza, Maputo, Sofala, Tete, and Zambezia.

Vulnerability

68.74
Poverty rate

69.6
Multi-dimensional poverty rate

Exposure and impact

11.0%
Change in maize output

130.1%
Change in food prices vs 5 year average

11.0%
food insecure as percentage of rural population

1.5%
Change in poverty

0.5
Change in GDP

Capacity to cope

1,129
GDP per capita

-8.60
Fiscal balance, excluding grants

1.29
% spent on social safety nets

Key response activities

Food security and agriculture

- Conduct Food and cash assistance for Assets activities and food vouchers for vulnerable groups for up to 1.5 million people;
- Provide emergency school feeding for 117,000 children
- Distribute seeds and agricultural inputs to affected people in , Gaza, Maputo, Inhambane, Sofala, Zambézia, Manica and Tete provinces for 100,000 households;
- Improve access to water for human, cattle and home gardens through the construction of temporary wells in river beds and drilling boreholes for 25,000 households;

Nutrition

- Scale up community outreach to identify and treat severe and moderate acute malnutrition
- Scale up community outreach to identify and treat moderate acute malnutrition targeting 44,000 children under age 5 and pregnant and lactating women
- Treat 50 per cent of all SAM cases in children through mobile brigades, targeting 27,558 children under age 5;
- Strengthen technical support to existing nutrition services at health facilities to respond to increasing caseload.

Health

- Conduct training of trainers in SAM case management and other communicable diseases, for 200 health workers;
- Provide essential drugs and medical equipment, reproductive health kits, for 45 health facilities;
- Distribute emergencies supplies to be pre-positioned in the affected districts.
- Strengthen of the nutrition and disease surveillance system

WASH

- Provide water trucking of safe water to the most communities in need, targeting 40,000 people;
- Rehabilitate and upgrade of existing water points and construct deep boreholes, including at schools and health centres, targeting 230,000 people;
- Distribution WASH emergency supplies, targeting 60,000 people;

• Conduct hygiene promotion activities and increase public awareness about the rational use of water, targeting 300,000 people.

Key drivers of vulnerability

• Climate change: the overall impact of climatic change on the Mozambican GDP could be substantial. The impact of climate change over the next forty years would lead to a 2-4% decrease in yields of the major crops, with yield decreases especially in the Central region. The expectation of variability and the unpredictability of rainfall and runoff also constrain opportunities for growth by encouraging risk averse behaviour and by discouraging investments in land improvements, advanced technologies, and agricultural inputs[72]. This slows the diversification of economic activities and therefore reduces overall resilience to climate change.

• Poverty: more than 50 per cent of Mozambique's population remains below the absolute poverty level. Rural populations are disproportionately poor, with more than 80 per cent of poor households located in rural areas and living from subsistence agriculture. Communities have limited alternative sources of livelihoods to cushion/complement failure of agriculture production – and the support from safety nets is insufficient. The high poverty rate also has an impact on the lliteracy rate: women's literacy is still lower still falls below men's, particularly in rural areas but also in an urban context. The illiteracy rate among women stands at 64.1% (men: 34%) with an even more pronounced difference in rural areas.

• Gender inequalities Gender asymmetries are still predominant in Mozambique and women in special are impacted by it with and aggravation of socio-economical vulnerabilities that increase their exposure to risk: incapacity to be integrated and recognized as a significant component in the labor market reduces their capacity to access income and resources. Existing gender inequalities, in turn, are increased or heightened by climate -related hazards. In Mozambique, unequal labour force participation and unequal access to and control over resources are just two elements shaping gendered vulnerability to the impacts of disasters and climate change and can limit women and households' capacity to adapt and be resilient[73].

While strides have been made by the Government of Mozambique in reducing risks to disaster and climate change, there are key capacity constrains generated by limited funding and skill drain especially among key focal points working with the National Institute for Disaster Management (INGC). Dispersion of responsibilities and lack of coordinated efforts to mainstreaming and implementing disaster risk reduction throughout a broad spectrum of laws and regulations is also slowing down progress, with the Master Plan for the Prevention and Mitigation of Natural Disasters having been only recently reviewed and endorsed by the council of ministers on DRM. It is expected that the Disaster Management Law, which is pending parliamentary endorsement, will pave the way for the revision of the legal documents to support DRR.

Early Warning Systems in Mozambique, adopting innovative technologies for the dissemination of EW messages, are proving to be a success in mitigating the impacts of recurring disasters, as proved during the 2013 floods. However, due to inadequacy of funding, only very few vulnerable communities living along the river basins have access to such mechanisms: the weather forecast system in the country is not considered equally reliable. Also to enhance Information management and improve the quality of information on the hazards and level of vulnerability, substantial work has been done to consolidate historical data on disaster induced damage and losses over the past 32 years, however the information is not yet tailored to the needs of the relevant ministries. In addition, more information is needed on the current and future climate/disaster risks in order to inform development investments. To date, only a national seismic risks assessment has been done. Social exclusion and gender concerns are often not being sufficiently addressed in DRR/CCA policies, strategies and implementation activities.

72 GFDRR (2009). Economic vulnerability and disaster risk assessment in Malawi and Mozambique: Measuring Economic Risks of Floods and Droughts. Global Facility for Disaster Risk Reduction and Recovery, World Bank, RMSI, IFPRI

73 The majority of the employed women were involved in unskilled activities – 63% in farming and 24% in trade; women account for 87.3% of the labour force in agriculture, but only 11% of the total number of public extension workers, women represent 25% of the land owners holding official user rights (DUAT) and only 13% of the beneficiaries of extension services (MINAG)

Resilience Priorities

• Strengthening government capacity and frameworks for resilience: support decentralized DRR actions and strengthen the capacity at sub-national level through the involvement of local authorities, extension services and community based organizations; including to promote and support community-based DRR/CCA approaches and local planning (design, plan, implement and monitor); encourage adoption of a no regrets approach to Early Action;

• Strengthening information management to enhance risk-decision making, coordination mechanisms and Early Warning Systems (EWSs); as well as promote community-based risk assessments and analysis that will allow for planning and effective DRR/CCA actions to address priority needs;

• Strengthening Social Inclusion, Gender Equality for resilience the current situation shows that DRR/CCA stakeholders are relatively aware that disasters affect men, women and different age groups, people with disabilities, people living with HIV/Aids differently. However, social exclusion and gender concerns are often not being sufficiently addressed in DRR/CCA policies, strategies and implementation activities;

• Engaging the private sector to build resilience communities to disasters: a private sector, which committed to disaster risk reduction can steer public demand towards materials, systems and technological solutions to build and run resilient communities; foster opportunities to exchange experiences through a platform for knowledge sharing and adoption of contextualised resilience measures.

• Promote and support sustainable land use planning to reduce risks and improve natural resources management.

Programming gaps

• Insufficient appropriate legislation, and implementation to support resilience agenda;

• Limited coordination in terms of planning and implementation of activities and complementary efforts avoiding the, 'Do no harm' syndrome; limited information management and data sharing mechanisms for risk-informed decisions for resilience;

• Diversion of resources for planned activities to address immediate needs;

• Limited government staff capacity in the area of DRR/CCA and changing the mind-set from business as usual to the concept of resilience and building back better after each disaster;

• Limited engagement with private Sector to compliment ongoing efforts on DRM

• Limited financial resources to implement planned activities.

• Lack of an analytical frameworks that allow for more comprehensive response to vulnerability, adaptation and resilience.

• Gender-responsive programming that ensures that women are not being left further behind and that also provide new opportunities to go from substantive to prosperity. This could include insurance and social protection schemes that can help to reduce the gender gap in productivity.

SWAZILAND

SECTORS	People in Need 2016-2017 peak	People Targeted by Action Plan	Funding requirement of plan	Funding received against HCT plan	Gap
FOOD SECURITY	353,000	353,000	$75,000,000	$19,100,000	$55,900,000
AGRICULTURE					
WASH	200,000	175,000	$3,400,000	$1,440,000	$1,960,000
HEALTH AND NUTRITION	353,000	317,196	$2,430,000	$840,000	$1,590,000
EDUCATION	258,623	197,157	$2,960,000	$1,220,000	$1,740,000
PROTECTION	162,680	75,648	$640,000	$470,000	$170,000
COORDINATION			$330,000	$100,000	$230,000
TOTAL	**353,000**	**353,000**	**$84,760,000**	**$23,170,000**	**$61,590,000**

Humanitarian needs

Swaziland has been severely impacted by the El Niño-induced drought, producing only 33,000 tons of maize, an estimated 64 per cent reduction compared to the 2015 harvest. In February 2016, Swaziland declared a State of Emergency and developed a National Emergency Response Mitigation and Adaptation Plan, with recently revised funding requirements of $85 million. The hardest-hit regions are Lubombo and Shiselweni, however there are pockets of Hhohho and Manzini Regions that are severely affected. Recent VAC results indicate that 350,069 people, or about 28 per cent of the population, will require assistance through the 2017 harvest. Further compounding the impact of the failed harvest, 67,000 cattle are estimated to have died due to drought. Approximately 200,000 people are unable to access potable water, and the number of non-functional water points has increased by 30 per cent over last year. The drought has impacted 78 per cent of the country's primary and secondary schools, and more than 332,000 students through the lack or erratic availability of water. Some schools are reported to suspend due to water shortages especially in the urban areas, and children, especially in rural areas are missing classes.

The poor pre-existing nutrition situation, as indicated by the underweight prevalence of 5.8 per cent and stunting at 25.5 per cent, is being exacerbated by the deteriorating food security and WASH conditions. Children under age 5 constitute 13.6 per cent of the affected population, and acute malnutrition is likely to rise during the dry season. GAM is 3.1 per cent and SAM is 2.5 per cent, with rates as high as 7.1 per cent in some areas. Preliminary results of the 2016 rapid assessment (which covered 31 per cent of clinics) indicate an increase in the number of diarrhoea cases, which is expected to further increase during the dry season. Some health facilities have experienced temporary closure due to lack of water, affecting service delivery to communities. Swaziland has the highest prevalence of HIV/AIDS in the world, with 28.8[74] per cent of the adult population infected. In addition, the TB incidence rate is also the highest in the world, with 80 per cent of TB patients co-infected with HIV. The Swaziland Comprehensive Drought Health and Nutrition Assessment

74 UNAIDS 2015 projection.

Vulnerability

42.03
Poverty rate

20.4
Multi-dimensional poverty rate

Exposure and impact

-31.0%
Change in maize output

46.4%
Change in food prices vs 5 year average

41.0%
food insecure as percentage of rural population

-4.7%
Change in poverty

-0.6%
Change in GDP

Capacity to cope

8,292
GDP per capita

-6.4
Fiscal balance, excluding grants

2.07
% spent on social safety nets

reported poor adherence to medication among patients with chronic illnesses notably TB, HIV and Hypertension raising concerns of ART treatment failure among People Living with HIV with consequences of poor health outcomes as well as increasing the risk of HIV transmission.

Key response activities

Food security and agriculture

- Distribute in-kind and cash food assistance to vulnerable people;
- Provide emergency school feeding to children;
- Distribute seeds and agricultural inputs;
- Provide supplementary hay and water to dip tanks for pastoralist.

Health and nutrition

- Support in-patient treatment for 1,058 children with SAM, and out-patient management of 5,288 cases of MAM among children and pregnant and lactating women;
- Support active disease surveillance and response through training and strengthening integrated delivery networks
- Strengthen health systems, including through ensuring the provision of potable water and waste management
- Procure and distribute emergency mobile centres, cholera kits, health facility water tanks, temporal toilets, micronutrients supplements and supplies.
- Support rural health promotion and health education
- Build emergency response capacity, including supporting first line responders and strengthening of referral systems
- Develop and implement communication strategy focusing on key messages for correct health care seeking behaviour including importance of adherence to medication as well as medication and food intake.

WASH

- Provide water access within 500 metres for affected communities through strategic reservoirs
- Increase access to water through household water treatment, storage and water quality monitoring for communities with unprotected or unsafe water sources.
- Restore access to sufficient water of appropriate quality and quantity to fulfil basic needs through rehabilitation of existing water systems.
- Increase awareness on rainwater harvesting, water use efficiency and hygiene.

Education

• Ensure water supply at schools by connecting to official supply lines in 29 urban schools in Mbabane and Ngwenya;

• Ensure regular water trucking to schools in Somntongo, Matsanjeni South, Shiselweni, and Lubombo.

• Distribute 120 water tanks to 60 schools in Hhohho and Manzini regions;

• Rehabilitate and establish rainwater harvesting systems in schools in the Lubombo and Shiselweni regions;

• Construct sanitary facilities in 19 schools in Shiselweni;

Protection

• Conduct sensitization campaign through community dialogues on GBV and HIV prevention

• Conduct orientation sessions for humanitarian workers on GBV and child abuse to facilitate identification and referral;

• Distribute dignity kits for vulnerable adolescent girls;

• Provide onsite integrated services (counselling, SRH, HTC, condoms) to affected groups;

Key drivers of vulnerabilities:

• (Socio) Economic: high poverty rate (30% population in extreme poverty). 73% poverty incidence in rural areas with 78% rural population dependent on rain-fed subsistence agriculture. High Gini Coefficient 0.51 and notable inequalities. High national unemployment (56% among youth). Commodity market fluctuations and dependence on public investment and South Africa economy. Weak business climate with low Foreign Direct Investment. 26% HIV prevalence (among age 15-34).

• Environmental: Natural resources degradation due to deforestation and weak resource management, and biodiversity loss (Invasive Alien Species covering over 70% of the land).

• Energy insecurity: As a result of the effect of El Nino induced drought (20%) of domestic hydroelectricity generation was discontinued.

• Institutional: Weak capacities to support the resilience agenda for the government and non-governmental organisations.

Swaziland is implementing resilience-building measures through the CAADP (Comprehensive Africa Agriculture Development Program) in partnership with the NEPAD (New Partnership for Africa Development) and through the SADP (Swaziland Agricultural Development Program), funded by the EU, which focuses on vegetable growing and conservation management. The National Emergency Response, Mitigation and Adaptation Plan (NERMAP 2016-2022) is also supporting early recovery planning and building resilience through mapping adaptation activities. A Sendai national action plan is in the development stage to incorporate disaster risk mitigation within the national priorities. Key priorities for the medium term are the promotion of diversification of agricultural production and community assets; capacity building for government and partners working on DRR, CCA, mapping of hazards and risks, monitoring, preparedness and response (in particular the "institutionalisation" of resilience within the National Disaster Management Agency and the agricultural sector); and support to scaling up of the existing social protection mechanisms,

including elderly grants; orphaned and vulnerable children (OVC) grants and farming input grants.

Resilience priorities (0-36 months)

• Promoting diversification of agricultural production through provision of smart agricultural inputs, improved irrigation schemes and community assets. Strengthening capacity of farmers and institutions through extension support by the Ministry of Agriculture.

• Capacity building for government and partners working on DRR, CCA, mapping of hazards and risks, monitoring, preparedness and response;

• Social protection: elderly grants; orphaned and vulnerable children (OVC) grants and farming input grants including distribution of subsidised livestock relief hay bales; establishment of national strategic reserves to last at least 1 year to store grains and pulses.

• Institutionalise resilience in the Agriculture sector and National Disaster Management Agency (NDMA).

• Promote inter cluster coordination to maximize synergies in resilience programming.

• Strengthen sustainable domestic and livelihood water supply to communities worst affected by drought (rehabilitation of water systems, water harvesting, and investments in new infrastructure).

• Strengthen health systems (management of acute malnutrition, disease surveillance and response, health promotion) in affected areas and roll out to the rest of the country.

• Provide comprehensive protection services including community sensitisation and awareness on GBV (IEC material dissemination), improved data management and reporting at health, referral and police offices.

Programming gaps

• Weak linkage between DRR, CCA and development in resilience-building in national development policy and programming. Limited monitoring of recovery capacities.

• Lack of consensus on key drivers of vulnerability and strategic undertaking listing actions at sectoral level to address resilience, low.

• Lack of infrastructure for EW and rapid response at inter/national level

• Insufficient strategic reserves for grains and pulses and stockpiling for other emergencies.

• Low predictability of budget allocation for building resilience and DRR, and inadequate financial resources to invest in resilience building by all sectors, including the private sector.

• Weak institutional capacities to build and strengthen DRM Coordination at national, regional and constituent levels.

• Weak sectoral coordination capacities for disaster prevention, preparedness, response and recovery.

• No robust integrated national EWS that will promote effective communication and information dissemination between producers and users of climate and weather information in order to enhance EW and preparedness.

ZIMBABWE

SECTORS	People in Need 2016-2017 peak	People Targeted by Action Plan	Funding requirement	Funding received	Gap
FOOD SECURITY AND AGRICULTURE	4,071,233	1,860,000	$296,166,768	$46,644,583	$249,522,530
WASH	2,780,000	1,415,000	$25,598,185		$25,598,185
HEALTH AND NUTRITION	1,800,000	403,348	$11,167,796	$573,445	$10,594,351
EDUCATION	1,300,000	400,000	$18,901,500		$18,901,500
PROTECTION	332,000	332,000	$7,661,280		$7,661,280
COORDINATION			$366,000		$366,000
TOTAL	**4,071,233**	**1,860,000**	**$359,861,529**	**$47,175,550**	**$312,864,979**

The Zimbabwe Humanitarian Response Plan (April 2016-March 2017) will be revised in July/August 2016, following the official release of the latest vulnerability assessment results. The SADC data of 4,071,2333 food insecure is based on the latest vulnerability assessment, while the target and funding requirements indicated in the Action Plan is based on the results of the February 2016 rapid assessment.

Humanitarian needs

Following two successive years of drought and poor harvests, coping mechanisms of the rural population have been exhausted. The VAC results forecast food insecurity to peak to approximately 4.1 million people, 40 per cent of the rural population, during the lean season before the 2017 harvest. Malnutrition is at the highest level of the past 15 years, with GAM at 5.7 per cent and SAM at 2.1 per cent, above the 2 per cent threshold for emergency response. In the 15 most food insecure districts (Binga, Buhera, Gokwe North, Hwange, Kariba, Lupane, Mbire, Mudzi, Mwenezi, Nkayi, Tsholotsho, Umguza, Umzingwane, and Zvishavane) approximately 17,900 children are projected to suffer from SAM and 30,700 from MAM.

Access to potable water is increasingly limited. An average of 35 per cent of rural households did not have access to adequate water during the 2015-2016 rainy season, which will be further exacerbated during the dry season. Up to 1.9 million people are expected to lack adequate access to water until the onset of the 2016-2017 rainy season. An estimated 27 per cent of protected water sources in rural areas have been identified as of a seasonal nature and are expected to run dry during the year, further limiting access to potable water. The limited water supply has had a negative impact on health status, leading to increases in the number of maternal deaths, a rise in cases of acute diarrhoea, and increased the risk of outbreaks of diseases like typhoid, cholera, dysentery, and malaria. As of 15 May 2016, typhoid had caused five deaths, with 1,351 suspected cases reported. People living with HIV/AIDS represent 16.7 per cent of adults. School attendance is negatively impacted by drought, and children have been reported to have dropped out of school to support their families with casual labour and the collection of water. Protection risks have also been exacerbated by the drought, including increase in sexual exploitation and abuse of women and children, psychosocial distress among children, separation of children

Vulnerability

72.30
Poverty rate

29.7
Multi-dimensional poverty rate

Exposure and impact

-49.0%
Change in maize output

29.7%
Change in food prices vs 5 year average

40.0%
food insecure as percentage of rural population

-3.5%
Change in poverty

-0.6%
Change in GDP

Capacity to cope

1,792
GDP per capita

-1.60
Fiscal balance, excluding grants

0.4
% spent on social safety nets

from their primary care giver and child labour.

The Zimbabwe HCT released a response plan in May 2016, seeking $360 million to assist 1.86 million people. Because the number of people in need has increased since the plan was elaborated, the people targeted and funding requirements are being revised and are expected to substantially increase. For example, plans are underway to scale up WFP's response based on the latest number of people in need, to assist 2.3 million people during the peak of the lean season from January to March 2017.

Key response activities

Food security and agriculture

• Coordination of sector responses continues through Agriculture and Food Security Sector Working Groups,

• Harmonization of cash and food assistance (transfer value and food basket level/composition in particular) between all agencies engaged with cash and food-based transfers through a structured technical coordination body that convenes on a regular basis. The same body shares information on market assessment, price monitoring, and will continue to analyze the situation and adjust programme interventions jointly.

• Targeted assistance to 1.28m people from July to September, 1.95m people from October to December and 2.3m people during the peak of the lean season from January to March 2017.

• Most beneficiaries will receive targeted unconditional food assistance and nutritional support to address immediate food energy and nutrient needs of households and communities with a particular focus on districts displaying GAM rates close or above emergency threshold, while using the delivery mechanism as a platform for providing capacity development and training to communities.

• Food Assistance for Assets activities covering over 95,000 beneficiaries until November 2016 with a dual objective: while assets are created that build resilience and address the underlying vulnerabilities of the most affected people, the cash and/or food transfers address an immediate food gap.

• Augmentation of school feeding programs to cover the needs of 77,000 school children from July 2016 to April 2017 in selected districts.

• Provide crop and livestock inputs to affected farmers for 90,000 households;

• Vaccinate 948,646 cattle against diseases exacerbated by drought;

WASH

• Construct, rehabilitate and upgrade water systems, including bore holes and piped water systems, supporting 853,000 people

• Support hygiene promotion campaigns on safe use of water and hygiene and sanitation practices, reaching 1,415,000 people

• Distribute NFI kits including water treatment tablets, storage containers, soap and key WASH related information, to 233,000 people

Health and Nutrition

• Support in-patient treatment of 14,711 children under age 5 with SAM, and out-patient management of MAM

• Provide food supplements to manage MAM among 90 per cent of under-5 children and pregnant/lactating women

• Provide vitamin A supplements to 240,051 children aged 6-59 months

• Train community-based workers and volunteers to identify and refer children with SAM and MAM in communities reaching 164,000 people

• Provide access to life-saving curative interventions including oral rehydration therapy and zinc to 50,000 children with diarrheal diseases

• Provide emergency medical supplies, equipment, and kits to the 15 most affected districts;

• Train 150 health staff in case management of acute malnutrition and communicable diseases, and surveillance

• Support Rapid Response Teams to respond to disease outbreaks;

Education

• Establish school gardens to provide supplementary nutrition for school feeding programmes reaching 400,000 people

• In collaboration with the Government, cover the needs to 77,000 school children through emergency school feeding in selected districts

Protection

• Provide psychosocial support services to 72,000 children in the drought affected districts

• Provision of GBV services to affected populations including health services, legal support safe shelters and psychosocial support and ensure development of referral mechanisms for 255,952 people

• Trainings of GBV service providers and community-based GBV case workers in GBV case management in emergencies

• Build capacity of national humanitarian workers at various levels on GBV response principles in humanitarian situations

• Provide psycho-social support including education on positive parenting to 2,000 people (adolescent pregnant girls and teenage mothers)

• Provide identification, assessment, registration and case management (including tracing and reunification) of separated and unaccompanied children.

• Provide temporary shelter to survivors of GBV

• Train 6000 community based child case workers and child protection committees in child protection case management and surveillance.

• Develop and strengthen existing GBV & CP reporting and referral systems

• Strengthen the resilience of children and adolescent (0-19 years) in 73000 food poor and labour constrained households affected by food insecurity through the Harmonized Social Cash Transfer Programme (HSCT); to avoid negative coping strategies that put children and adolescents at risk of abuse and exploitation

Key Structural vulnerabilities

• Deteriorating economic and social environment, coupled with inconsistency in some formal and informal government policies. Limited Government assistance during and after disasters or for planning and implementation of risk reduction measures.

• Low agriculture production and productivity (poor quality inputs and soil degradation). Low purchasing power to access inputs especially by small-holder farmers. Limited access to markets for inputs (e.g. seeds and fertilizers) and outputs (especially for higher value cash crops). Insufficient investment in processing, storage and value-addition, due mainly to lack of funding. Limited access to financial capital to strengthen existing livelihoods strategies or to diversify to new strategies (eg. land tenure and bankable leases). Gaps in quality and availability of agricultural extension support, meteorology and seasonal forecasting.

• Gender imbalances – women's capacity to withstand the negative effects of shocks is very weak and their vulnerability is aggravated by low purchasing power, poor access to markets and high food insecurity.

• Limitations in access to basic services – particularly to smallholder farmers - and poor infrastructure constrain options for strengthening and diversifying livelihoods to manage climate risks.

In addition, four hazards categories have been identified: climate extremes, agricultural hazards (cereal and livestock price changes, crop pests and diseases, animal diseases); HIV & AIDS and diarrheal diseases; landmines. In terms of intensity and frequency of hazards, most western and southern districts are worst affected.

Zimbabwe resilience programming is focused on adaptation to climate variability and change especially the promotion of climate smart agriculture technologies using extension and advisory services. There is an emphasis on asset creation programmes designed to rehabilitate and create community assets for resilience while covering an immediate food gap through cash based or in-kind transfers; and on reducing post-harvest losses and supporting the development of an effective local procurement platform to ensure produce from small holder farmers meets demand. Technical support is being provided to the Ministry of Agriculture to develop a Drought Mitigation Strategy.. Plans are under way to expand to Zimbabwe existing programmes to support managing risk through assets for insurance schemes that allow small-holder farmers to pay for crop insurance with their own labour. A seed security assessment is in preparation for the 2016/17 season. In addition, support to the Food Security Climate Resilience replenishable fund will be sustained throughout 2016 in partnership with several stakeholders and focus on how to link early warning and risk financing will be explored through rural resilience initiatives.

To facilitate coherent and coordinated resilience programming, the Zimbabwe Resilience Building Fund (ZRBF) was set up in 2015 to provide a flexible, coordinated, timely and predictable mechanism to support the achievement of increased national resilience to food and nutrition security shocks. The Fund has a crisis modifier/risk financing mechanism that avails timely, appropriate and cash-based funding for communities that experience shocks.

Resilience priorities

Priority 1: Create an enabling environment

a) Building evidence to improve the policy environment and stimulate service provision to enhance household and community resilience. This would include developing evidence around the impact and vulnerabilities – as well as the most vulnerable population and their deprivations - to shocks and climate change through multi-sectoral analysis on the impact on various sectors and people's coping mechanisms. Coalitions of change would be built to influence relevant Government of Zimbabwe policies (e.g. Food and Nutrition Policy, National Gender Policy, Environmental Act, Traditional Leaders Act, Disaster Risk Management policy, and the new Social Protection Framework) and development partners. This priority will also analyse cost effectiveness of various interventions to build resilience and respond to shocks in Zimbabwe.

b) Strengthening all relevant institutions to draft and implement national legislation, policies and strategies on disaster risk reduction for food and nutrition security through technical advice, knowledge transfer, training and the development of tools and services.

Priority 2: Interventions to support long-term household and community resilience in the face of climate shocks and trends. Protecting and rebuilding livelihoods to enhance vulnerable people's resilience to shocks through the prevention and mitigation of the effects of disasters and crises across all economic sectors. Interventions would be informed by evidence generated under Priority 1. Examples of possible interventions include (but not limited to): climate smart agriculture technologies (including sustainable water management and enhanced seed security in smallholder farming systems; community resourced disaster plans and its implementation (i.e. support the creation and rehabilitation of community assets for sustainable food and nutrition security), productive safety nets for targeted groups/communities/households, savings groups and access to financial services including micro insurance and weather based crop insurance – particularly for women, gender-sensitive climate-smart agriculture techniques including post-harvest technology, climate-smart irrigation systems, drought resistant variety development and marketing, along with livelihoods and crop diversification, water conservation through its various uses. Interventions would include (participatory) action research for climate change adaptation and review of sectoral guidelines for implementation of development programmes that are more climate change sensitive.

Priority 3: A crisis modifier that can respond to humanitarian shocks. The resilience building will have a risk financing mechanism to make timely, appropriate and predictable funding available for target communities that experience humanitarian shocks, including engagement with the African Risk Capacity financial risk pooling mechanism. This will ensure that communities are able to recover quickly and minimise the loss of development investments and gains. This will offer value for money and will bring about greater humanitarian aid coordination among various stakeholders. In addition, WFP will continue to implement the Food Security Climate Resilience (FoodSECuRE) replenishable fund in partnership with other stakeholders. Focus on how to link early warning and risk financing will be explored through the R4 Rural Resilience Initiative.

Priority 4: Strengthening and mainstreaming throughout all relevant sectors information management/ sharing and early warning systems, especially on food and nutrition security and trans boundary threats.

Finally, institutional strengthening of Government and capacity development of communities for preparedness and response would be a cross-cutting element across the three priority areas.

Programming gaps

- Funding constraints impact the sustainability of resilience building programmes
- Need for greater synergies between HRP and medium to long-term resilience activities.
- Need for effective utilization of existing empirical evidence and information to inform programming and facilitate decision-making. Need for harmonised methods for measuring outcomes and impact of resilience building programmes and need for measurement of outcomes and impact on higher-level support systems.
- Too little attention to urban communities vulnerability assessment and resilience building support.
- Need for greater alignment between resilience building institutions, planning and programme implementation and structure e.g. for climate adaptation and disaster risk reduction.

Regional Humanitarian Coordination Architecture

Country	Government coordination structures	Strategic humanitarian coordination body for International Community	Humanitarian sectors present	Sector lead/co leads	Inter-sector coordination mechanism?
Angola	CNPC (National commission of civil protection)	RCO - UNDP	Health Nutrition Agriculture WASH	RCO - Nutrition	National level response coordination team led by the RCO. Provincial level: Inter sector coordination meeting led by Civil Protection
Botswana	NDMO coordinates with and through the National Committee on Disaster Management, the National Disaster Management Technical Committee and the District Disaster Management Committee	UN Country Team	No emergency sectors	No emergency sectors	No emergency Sectors
Comoros	Via National Disaster Management Office (COSEP)	RCO - UNDP	None activated for drought	None activated for drought	Via National Disaster Management Office (COSEP)
Lesotho	Inter-ministerial Cabinet Task Force, Disaster Management Agency is the lead coordination agency	Humanitarian Country Team	1 Food Security and Agriculture; 2 Health and Nutrition; 3 Water, Sanitation and Hygiene; 4 Protection and 5 Education	Relevant Government Line Ministries Lead. UN Co-leads: 1 WFP/FAO; 2 WHO/UNICEF; 3 UNICEF; 4 UNFPA and 5 UNICEF	Inter-sectoral meeting (chaired by CEO DMA)
Madagascar	Under the Prime Minister responsibility, and institutionally under the Ministry in charge of Interior: National Office for Disaster Risk and Management (BNGRC) BNGRC coordinates the national humanitarian plateform named CRIC	Humanitarian Country Team	1 Water, Sanitation and Hygiene; 2 Food Security and Livelihoods; 3 Nutrition; 4 Health; 5 Education; 6 Early Recovery 7. Logistic and Telecommunication 8. Shelter and NNFIs, 9. Protection	Co-Lead. UN co-leads 1 UNICEF; 2 WFP/FAO; 3 UNICEF; 4 WHO; 5 UNICEF; 6 UNDP; 7. WFP; 8. IFRC/Local Red Cross; 9. CRS	Operational structure of HCT, with OCHA coordination.

	which includes all the humanitarian actors, donors, private sector and civil society in the country.				
Malawi	Humanitarian Response Committee (technical committee) led by DoDMA, National Disaster Preparedness and Response Committee (executive Committee) lead by the Chief Secretary. Adhoc CASH transfer coordination committees led by DoDMA – mostly operational	Humanitarian Country Team	1 Food Security 2 Agriculture 3 Education 4 Protection 5 Water and Sanitation 6 Nutrition 7 Health 8 Transport & Logistics 9 Coordination and Assessments	1 Lead DoDMA, Co-lead WFP 2 Lead Ministry of Agriculture, Co-lead FAO 3 Lead Ministry of Education, Science and Technology , Co-Lead UNICEF 4 Lead Ministry of Gender, Children and Social Welfare, Co-Lead UNICEF 5 Lead Ministry of Agriculture and Water Devt, co-lead UNICEF 6 Lead Ministry of Health, Dept. of Nutrition, Co-lead UNICEF 7. Lead Ministry of Health Co-lead WHO. 8 Lead Ministry of Transport and Public Works Co-lead WFP. 9 Lead DoDMA co-lead RCO	Coordination and Assessments Lead by DodMA Co-lead RCO Intercluster coordination meetings same as above
Mozambique	INGC (Agency), Technical Council for Disaster Management (CTGC) (EOC)	Humanitarian Coordination Team	1 Food Security, 2 Water, Sanitation and Hygiene, 3 Nutrition	1 WFP/FAO 2 UNICEF 3 UNICEF	INGC (Agency), Technical Council for Disaster Management (CTGC) and CENOE (EOC) Provincial (CTPGC)
Mauritius	Via Government-led platform (DRDM) And National Operations Centre	UN Country Team (UNCT)	N/A	N/A	Via Government-led platform (DRDM) And National Operations Centre
Namibia	Via Directorate of Disaster Risk Management DDRM (Office of the Prime Minister)	Emergency Working Group	N/A	N/A	Via Government-led platform

Seychelles	Via Division of Risk and Disaster Management (DRDM) (Ministry of Environment)	UN CT (RC based in Mauritius)	N/A	N/A	Via Government-led platform (DRDM) And National Operations Centre
South Africa	Via South African National Disaster Management Centre (predominantly decentralised to provincial level)	UNCT	Development oriented working-groups	Development oriented working groups.	Via Government-led platform (DRDM) And National Operations Centre
Swaziland	Government National Disaster Management Agency (NDMA) convenes an inter-sectoral coordination forum	UNCT, UN Technical Working Group for Drought	Food Security and Agriculture, Health and Nutrition, WASH, Education, and Social Protection	UN Co-Chairs Sectors with Government. 1 WFP/FAO 2 WHO, UNICEF, UNFPA	NDMA convenes an inter-sectoral coordination forum
Tanzania	Disaster Management Agency	Emergency Coordination Group	No sectors for drought- Only for refugee response	No sectors for drought- Only for refugee response	N/A
Zambia	Disaster Management and Mitigation Unit	No humanitarian mechanisms activated	No humanitarian mechanisms activated	No humanitarian mechanisms activated	No humanitarian mechanisms activated
Zimbabwe	Ministerial Committee and Special Cabinet Committee on Emergency Response Multi Stakeholder Consultative Meetings jointly led by the Office of the President and Cabinet and the UN RC	Humanitarian Country Team	1) Agriculture and Food Security, 2) Health and Nutrition, 3) WASH 4) Education, 5) Protection, 6) Early Recovery,	Relevant Government Line Ministries Lead. UN Co-leads: 10 WFP/FAO; 2) WHO/UNICEF; 3) UNICEF; 4) UNICEF; 5) UNFP/UNICEF; 6) UNDP	Humanitarian Inter-Sector Coordination Group Established in April 2016

Madagascar

The National Office for Disaster Risk and Management (BNGRC) and the Humanitarian Country Team (HCT) have activated the National Contingency Plan on food and nutrition insecurity for the South of Madagascar since February 2016. The scope and the magnitude of the current humanitarian situation correspond to the worst case scenario (severe) as described in the contingency plan. This situation requires the activation of several sectors and a strong coordination both at the national and local levels. The overall coordination of all interventions is ensured by BNGRC. However, the HCT conducts a strategic meeting with donors to mobilize resources and technical meetings are conducted on regular basis at the inter-cluster level under OCHA coordination. The main challenge is the coordination and information management issues at the local level, as neither BNGRC nor OCHA has a presence in the field. In perspective, UNDP and UNOCHA are planning to support the implementation of a BNGRC office in the field. However, the process of the decentralization of the cluster approach has started, mainly prioritizes the area of high risk of cyclone; but for the drought area zone, food security and livelihoods has been already decentralized.

Lesotho

An Inter-Ministerial Cabinet Task Force has been established to support the coordination efforts by the Disaster Management Authority.

To further strengthen the humanitarian coordination, the United Nations, together with NGOs has established a Humanitarian Country Team (HCT). This coordination mechanism seeks to optimise the collective efforts of the UN, NGOs and the Red Cross movement and to strengthen the overall drought (current and anticipated) response.

The UN has established a Humanitarian Country Team (HCT), combining UN, NGOs and the Lesotho Red Cross Society and is chaired by the UN Resident Coordinator and supported by the Office for the Coordination of Humanitarian Affairs (OCHA). The HCT will give strategic support to the Government of Lesotho in order to continue assisting its response and preparedness efforts. The United Nations system together with NGOs supported the Government of Lesotho in the development of a drought resilience and mitigation plan which accompanied the declaration of emergency on December 22, 2015.

Currently, the UN supports the set-up of an Emergency Operations Centre that coordinates the operational response and gathers information and drafts regular situation updates. The EOC will be hosted in the premises of DMA for the time being. UN OCHA will provide a training for the identified government and NGO partners to man the operations centre by the end of May.

Zimbabwe

To further strengthen humanitarian coordination for the drought response, the UN Resident Coordinator established a Humanitarian Country Team (HCT) in September 2015. This coordination structure provides strategic guidance to the humanitarian response for the current drought situation as well. This coordination mechanism seeks to optimise the collective efforts of UN, international organisations, non-governmental organisations, the Red Cross movement as well as the donor community to strengthen the overall drought response for the provision of assistance to and protection of the affected populations.

For the National Contingency Plan, the Department of Civil Protection is leading development, supported by various government departments and sectors (Health, Agriculture, Livestock, Meteorology and Water), UN Agencies as well as NGO partners.

Swaziland

Government convenes an inter-sectoral coordination forum to deliberate on critical issues and provide strategic direction for the response. There are various sector coordination meetings which are co-chaired by the UN. The forums provide technical support for the coordination mechanism. A UN Technical Working Group for Drought has been established and is actively coordinating UN agencies involved in the response, arranged by sectors (Food Security and Agriculture, Health and Nutrition, WASH, Education, and Protection).


care

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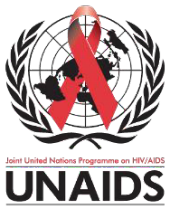
Joint United Nations Programme on HIV/AIDS
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