The *Africa RiskView Bulletin* is a monthly publication by the African Risk Capacity (ARC). ARC is a Specialised Agency of the African Union designed to improve the capacity of AU Member States to manage natural disaster risk, adapt to climate change and protect food insecure populations. ARC relies on *Africa RiskView*, a drought modelling tool that uses satellite-based rainfall information to estimate the costs of responding to a drought. These modelled response costs are the underlying basis of the insurance policies issued by the ARC Insurance Company Limited, the financial affiliate of the ARC Agency, which pools risk across the continent.

**Rainfall**

During the month of December 2015, rainfall was received mostly in the southern parts of the continent. Rainfall was also received in parts of East Africa, where the short rains season is coming to an end. In Kenya, the 2015/16 short rains season is likely to end with an above average average WRSI in most areas and localised dry conditions in the west and central of the country. In West Africa, the 2015 agricultural season ended with an above average WRSI in all five countries participating in the ARC Risk Pool. Only northern Senegal and central and eastern Niger recorded abnormally dry conditions.

**Drought**

Due to the poor start of the 2015/16 rainy season in southern Africa, the current end-of-season WRSI projections are below average in central Malawi and southern Zimbabwe. In Kenya, the 2015/16 short rains season is likely to end with an above average rangeland WRSI in most areas and localised dry conditions in the west and central of the country. In West Africa, the 2015 agricultural season ended with an above average WRSI in all five countries participating in the ARC Risk Pool. Only northern Senegal and central and eastern Niger recorded abnormally dry conditions.

**Affected Populations**

In Kenya, despite localised dry conditions which could affect nearly 300,000 people, *Africa RiskView* estimates that, overall, the number of drought-affected people at the end of the 2015/16 short rains season will remain well below the long-term average. In West Africa, *Africa RiskView* estimates that around 785,000 people were directly affected by drought in parts of northern Senegal and central and eastern Niger at the end of the 2015 agricultural season. This is well below last year’s number.

**ARC Risk Pool**

Currently, 8 countries are participating in the 2015/16 ARC Risk Pool (The Gambia, Kenya, Malawi, Mali, Mauritania, Niger, Senegal and Zimbabwe). In West Africa, no pay-outs have been triggered at the end of the 2015 agricultural season, given the overall good performance of the season throughout the region.

In southern Africa, the rains in December were below average in most of the region, with the exception of Namibia, south-western Angola, northern Mozambique, Tanzania and Madagascar. Only during the second dekad of December (11-20 December 2015), some countries recorded abnormally high rains. Overall, the below normal monthly rainfall recorded in southern Africa comes after a poor start of the 2015/16 rainy season in the region. Cumulative rainfall between October and December 2015 was below normal in the southern parts of the region (southwards from central Zambia), while the northern sector (Tanzania, northern Angola and northern Mozambique) as well as Madagascar experienced normal to above normal rains. The areas most affected by below normal rainfall include most of Lesotho, south-eastern South Africa, southern and central Mozambique, central Zambia, most of Zimbabwe and south-eastern Angola.

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1) Zimbabwe’s participation is yet to be confirmed.
Drought

Malawi: The agricultural season in Malawi lasts from November to the end of May. In line with the poor start of the 2015/16 rainy season in the region, the country has experienced significant rainfall deficits during the first five dekads (50 days) of the season, particularly the central and southern agricultural areas. Nonetheless, sowing conditions were reached in all parts of Malawi, according to Africa RiskView. The current end-of-season WRSI projection, which uses normal rainfall to end the season, indicates that below normal conditions are likely to affect central Malawi, while normal to above normal conditions are likely in the southern and northern parts of the country. However, it is important to note that these preliminary projections could change significantly depending on the rains received in the country over the coming months, particularly since the sowing window extends up to mid-January in the northern parts of Malawi. More accurate projections will be possible as the season progresses.

Zimbabwe: Similarly to Malawi, Zimbabwe has suffered from a poor start of the 2015/16 rainy season. Most areas recorded significant rainfall deficits during the first 8 dekads (80 days) of the season, which lasts from October to May. As a result, the current end-of-season WRSI projection is below average, particularly in the southern parts of the country, while it is normal to slightly above normal in the north. As in the case of Malawi, it is important to note that the current end-of-season projections use average rainfall to model the progression of the season between now and May. Depending on the actual rains received over the coming months, the projections can thus change significantly, particularly since the sowing window extends up to the end of January throughout the country.

Kenya: As mentioned in the first section of this bulletin, the short rains season is coming to an end in Kenya. The country customised Africa RiskView to model the progression of the two pastoral seasons in its arid and semi-arid lands (ASAL). The ongoing season, which will come to an end at the end of January, has benefited from above normal rains, and in most pastoral areas, the current end-of-season rangeland WRSI projection is above average. Only pockets of western and central Kenya (Samburu West, Laikipia East and West, Kieni), as well as in the north-east (Mandera East and Eldas) will experience below normal rangeland conditions, according to Africa RiskView’s latest projections.

West Africa: The agricultural seasons in the five West African countries that participate in the 2015/16 ARC Risk Pool ended in the fourth quarter of 2015. Overall, the seasons performed above average in most of the region, with the exception of central and eastern Niger, northern Senegal and eastern Gambia, where below average WRSI values were recorded at the end of the respective agricultural seasons. The modelled results in Africa RiskView are mostly in line with national crop production and yield estimates. The Africa RiskView End-of-Season Reports, which are published for each country participating in the ARC Risk Pool, provide more detailed analyses on the progression of the agricultural seasons in West Africa.

Affected Populations

Southern Africa: As the seasons in Malawi and Zimbabwe have started only recently, it is currently too early to make accurate projections on the potential impact of drought on vulnerable
populations in 2015/16. Given the poor start of the season, as well as last year’s below average season in Malawi, the situation in the two countries will be monitored closely in the coming months.

Kenya: Given the overall good performance of the 2015/16 short rains season in Kenya, it is unlikely that localised dry conditions will have a major impact on vulnerable populations at the end of the ongoing pastoral season in the ASAL. Nonetheless, it is important to note that in some districts, the current end-of-season WRSI projection is below the benchmark selected by the country as a drought detection point. Africa RiskView estimates that nearly 300,000 people might be affected by these localised dry conditions, if the rains between now and the end of the season are in line with the long-term average. The majority of these drought affected populations are located in the country’s central and north-western pastoral areas, including Turkana South and East, Loima, Tiaty and Baringo. Compared to previous years modelled by Africa RiskView, the overall number of people will remain well below the long-term average despite these localised dry conditions.

West Africa: Given the overall good performance of the 2015 agricultural season in West Africa, Africa RiskView estimates that overall, only around 785,000 people were affected by drought in the five countries that participate in the ARC Risk Pool in 2015/16. This compares to over 4 million people in Mauritania, Niger and Senegal alone in 2014 when Africa RiskView detected major drought events in all three countries and triggered pay-outs by the ARC Insurance Company Limited during the first ARC Risk Pool. Nonetheless, the localised dry conditions in northern Senegal and
central and eastern Niger might require local responses to avoid a negative impact on vulnerable people’s livelihoods.

**UPDATE ON THE ARC RISK POOL**

Currently, eight countries form the 2015/16 ARC Risk Pool. These include four new countries that joined in 2015 (The Gambia, Malawi, Mali and Zimbabwe), in addition to the four member of the first ARC Risk Pool (Kenya, Mauritania, Niger and Senegal).

In the ongoing ARC Risk Pool, no pay-outs by the ARC Insurance Company Limited have been triggered yet given the overall good performance of the 2015 agricultural season in West Africa discussed above. It is also highly unlikely that the conditions for a pay-out will be triggered in Kenya at the end of the ongoing 2015/16 short rains season. Regarding the agricultural season in southern Africa, it is currently too early to say whether pay-outs are likely to be triggered.

In addition to the countries already participating in the ARC Risk Pool, the ARC Secretariat is working with other countries highly exposed to drought events in view of their potential participation in the 2016/17 ARC Risk Pool. The participation of new countries usually follows an engagement process of 9 to 12 months which involves the customisation of Africa RiskView by in-country technical experts with support from the ARC Secretariat, the definition of an Operations Plans that outlines the assistance to be provided to vulnerable populations in the case of a pay-out by the ARC Insurance Company Limited, as well as the creation of structures and processes that allow for the quick disbursement of the pay-outs, and the activation of the pre-defined Operation Plans.

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2) Note that Zimbabwe’s participation in the 2015/16 ARC Risk Pool is yet to be confirmed.
The African Risk Capacity (ARC) is a specialised agency of the African Union designed to improve the capacity of AU Member States to manage natural disaster risk, adapt to climate change and protect food insecure populations.

The Africa RiskView software is the technical engine of ARC. It uses satellite-based rainfall information to estimate the costs of responding to a drought, which triggers a corresponding insurance pay-out.

The ARC Insurance Company Limited is the financial affiliate of the ARC Agency, which pools risk across the continent through issuing insurance policies to participating countries.

NOTE ON AFRICA RISKVIEW’S METHODOLOGY:

Rainfall: Africa RiskView uses various satellite rainfall datasets to track the progression of rainy seasons in Africa. Countries intending to participate in the ARC Risk Pool are required to customise the rainfall component by selecting the dataset which corresponds to the best to the actual rainfall measured on the ground.

Drought: Africa RiskView uses the Water Requirements Satisfaction Index (WRSI) as an indicator for drought. The WRSI is an index developed by the Food and Agriculture Organisation of the United Nations (FAO), which, based on satellite rainfall estimates, calculates whether a particular crop is getting the amount of water it needs at different stages of its development. To maximise the accuracy of Africa RiskView, countries intending to take out insurance customise the software’s parameters to reflect the realities on the ground.

Affected Populations: Based on the WRSI calculations, Africa RiskView estimates the number of people potentially affected by drought for each country participating in the insurance pool. As part of the in-country customisation process, vulnerability profiles are developed at the sub-national level for each country, which define the potential impact of a drought on the population living in a specific area.

Response Costs: In a fourth and final step, Africa RiskView converts the numbers of affected people into response costs. For countries participating in the insurance pool these national response costs are the underlying basis of the insurance policies. Pay-outs will be triggered from the ARC Insurance Company Limited to countries where the estimated response cost at the end of the season exceeds a pre-defined threshold specified in the insurance contracts.

Disclaimer: The data and information contained in this bulletin have been developed for the purposes of, and using the methodology of, Africa RiskView and the African Risk Capacity Group. The data in this bulletin is provided to the public for information purposes only, and neither the ARC Agency, its affiliates nor each of their respective officers, directors, employees and agents make any representation or warranty regarding the fitness of the data and information for any particular purpose. In no event shall the ARC Agency, its affiliates nor each of their respective officers, directors, employees and agents be held liable with respect to any subject matter presented here. Pay-outs under insurance policies issued by ARC Insurance Company Limited are calculated using a stand-alone version of Africa RiskView, the results of which can differ from those presented here.