African Risk Capacity
Sovereign Disaster Risk Solutions
A Specialized Agency of the African Union

Africa RiskView
Monthly Bulletin

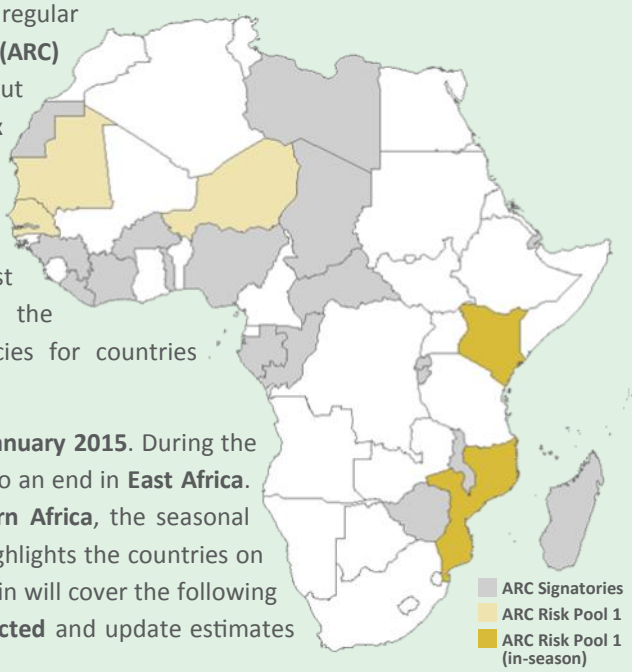
February 2015 | Period Covered: January 2015

Highlights:

- ***Rainfall:***
  - Rainy season ends in **East Africa**
  - Heavy rains in some parts of **South-East Africa**
  - Dry conditions persist in other areas in **Southern Africa**
- ***Drought:***
  - Despite localised drought conditions, no wide-scale drought detected in **Kenya**
  - WRSI currently above average in most agricultural areas of **Mozambique**
- ***Potentially Affected People:***
  - ARV estimates that a total of 1.67 million pastoralists in Kenya are affected by drought at the end of the 2014/15 short rains season, which remains **below the long-term average**
- ***Insurance:***
  - **Five countries** (Senegal, Niger, Mauritania, Kenya and Mozambique) **form the first ARC risk pool**
  - The triggers for a pay-out by the ARC Insurance Company Ltd were not reached in **Kenya** at the end of the 2014/15 short rains season
  - **Niger**, **Senegal** and **Mauritania** will be eligible for pay-outs by the ARC Insurance Company Limited
  - The **drought responses** in the three countries will start in **February 2015**, ahead of the 2015 humanitarian appeal for the Sahel

Introduction

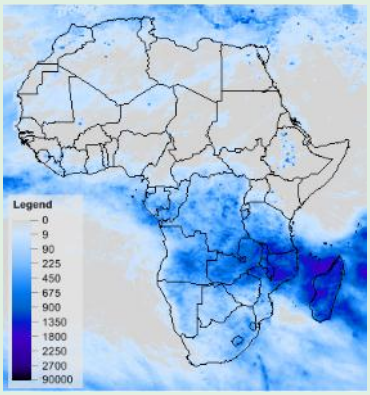
The ***Africa RiskView*** **(ARV) Bulletin** is a regular publication of the ***African Risk Capacity*** **(ARC) Agency**. It provides information about current **rainfall and drought index developments** as detected by ARV, and their potential **impact on vulnerable populations**. It also provides updates on **estimated response costs** to assist potentially affected people, which are the underlying basis of the insurance policies for countries participating in the ARC insurance pool.



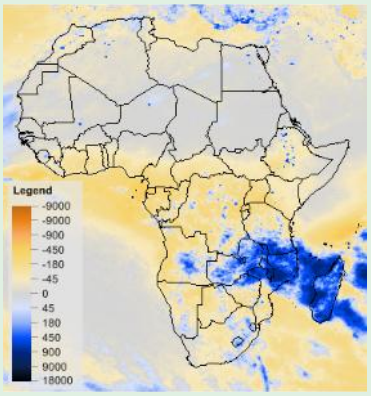
This month's issue covers the month of **January 2015**. During the reporting month, the rainy season came to an end in **East Africa**. In most of **Central Africa** and in **Southern Africa**, the seasonal rains continued. The **map on the right** highlights the countries on which this issue will focus. The ARV Bulletin will cover the following topics: **rainfall, drought, populations affected** and update estimates on **response costs**.

Rainfall

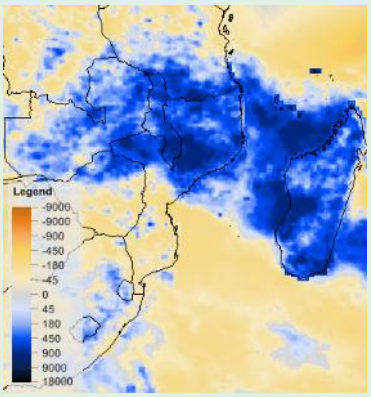
During the reporting month, rains were concentrated mainly in the **central and southern** parts of the continent. Particularly **south-east Africa** experienced cumulative rainfall of over 1,500 mm in parts of Malawi, northern Mozambique and Madagascar (see Map 2). In the rest of the continent, dry conditions persisted including in **East Africa**, where the rainy season came to an end in January. Only some localised areas in central Ethiopia experienced rainfall during the month.



Map 2: Cumulative Rainfall, RFE2 (Jan 2015)



Map 3: Rainfall compared to normal, RFE2 (Jan 2015)



Map 4: Rainfall compared to normal, South-East Africa, RFE2 (Jan 2015)

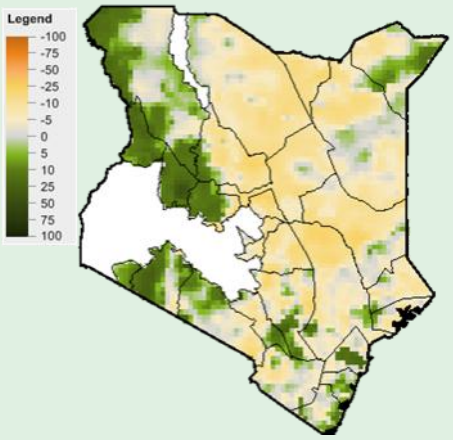
Compared to the **long-term average** (2001-2014), drier than normal conditions were recorded throughout the continent, with the exception of south-east Africa. Some parts of **East Africa**, particularly localised areas in Kenya and Uganda, experienced abnormally dry conditions indicating an early end of the season (see Map 3). Similarly, rainfall deficits of up to 200 mm were recorded in parts of Southern Africa, including in Namibia, Botswana, South Africa, southern Zimbabwe and southern Mozambique. However, most of **south-east Africa** received well above average rains, particularly Malawi, southern Tanzania, northern Mozambique, Madagascar, eastern Zambia and northern Zimbabwe. In these areas, rainfall surpluses of up to over 1,000 mm were recorded (see Map 4). These heavy rains came after a drier than normal first half of the season from October to

December 2014, and have led to severe floods in some countries, particularly in southern Malawi and central and northern Mozambique. According to FEWS NET, extensive flooding across these two countries is affecting over 900,000 people, and is likely to have a negative impact on crop production due to the inundation of agricultural land.

DROUGHT

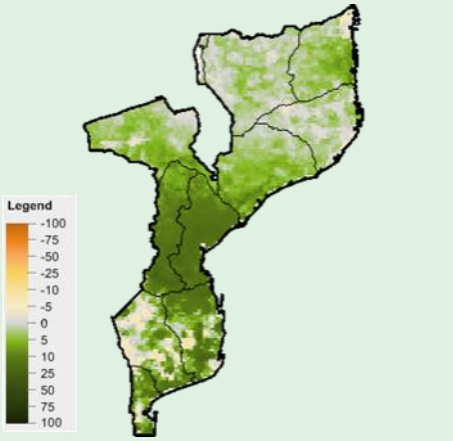
ARV uses the ***Water Requirements Satisfaction Index*** **(WRSI)** as an **indicator for drought**. The WRSI is an index developed by the *Food and Agriculture Organisation of the United Nations* (FAO), which, based on satellite rainfall estimates, calculates whether a particular crop is getting the amount of water it needs at different stages of its development. To maximise the accuracy of ARV, **countries intending to take out insurance customise the software's parameters** to reflect the realities on the ground. This issue of the ARV Bulletin will discuss insured countries that are currently in season.

Kenya (2014/15 second rangeland season): Kenya chose to focus on its arid and semi-arid lands (ASAL) in the context of its participation in the ARC insurance pool. ARV was customised to show rangeland development in the country's bi-modal pastoral areas. The 2014/15 short rains season started in August 2014 and lasted until the end of January 2015. The rangeland WRSI, which shows the progression of pasture in the ASAL, is closely linked to the rainfall performance in the country. In western Kenya, where the season started early and good rains were received between September 2014 and January 2015, ARV's final rangeland WRSI indicates that pasture conditions are well above average. This is also the case in most of the usually drought-prone Mandera county, as well as parts of southern Kenya. However, the central parts of the country have experienced a delayed start of the season, which was followed by erratic and below normal rains. This has resulted in a below normal rangeland WRSI, particularly in Moyale, Marsabit and Isiolo counties, where the WRSI was 40-55% below the long-term average according to ARV. Despite these localised drought conditions, which will be verified on the ground in the coming weeks, the extent of the drought after the end of the 2014/15 short rains season is not national as in previous years.



MAP 5: WRSI COMPARED TO NORMAL (RFE2), KENYA (2014/15 SECOND RANGELAND SEASON)

Mozambique (2014/15 agricultural season): In Mozambique, the agricultural season started in late October 2014 and will last through mid-May 2015. Sowing usually occurs between October and the end of January. While in some areas (particularly southern Mozambique) the season started slightly later than usual, planting conditions have been reached in all agricultural areas of the country according to ARV at the end of the sowing window. The current end-of-season WRSI projection, which uses normal rainfall from now until the end of the season in May, indicates that above normal conditions are likely throughout the country. Only pockets of south-western and localised areas in the north-east are expected to experience a slightly below normal WRSI. Particularly in the usually more drought-prone southern regions, the current WRSI projections are well above normal. Continued rains over the coming months, particularly in February 2015, will be important in determining the overall success of the ongoing agricultural campaign. However, the effect of too heavy rains, which have already led to flooding in some areas, might also have a negative impact on agricultural production. The progression of the season will be discussed in depth in the coming issues of the ARV bulletin.



MAP 6: WRSI COMPARED TO NORMAL (ARC2), MOZAMBIQUE (2014/15 AGRICULTURAL SEASON)

AFFECTED POPULATIONS

Based on the WRSI calculations discussed in the previous section of this bulletin, ARV 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 sub-national levels for each country, which define the potential impact of a drought on the population living in a specific area. It is important to note that not all those affected by a drought might be in need of humanitarian assistance. Moreover, needs are often driven by a variety of factors including but not limited to the weather. This bulletin reviews the affected population estimates and projections for countries insured and in-season.

Kenya (2014/15 second rangeland season): The short rains season in Kenya's ASAL came to an end during the reporting month. While overall, the season was better than average at the national level, some areas experienced a below normal rangeland WRSI performance and drought. As a consequence, ARV estimates that a total of 1.67 million pastoralists are affected by drought at the end of the 2014/15 short rains season. The central parts of the country are the most affected both in terms of the rangeland WRSI (as discussed above) and in terms of drought affected people. Indeed, ARV estimates that over 1 million pastoralists are affected in Garissa, Meru North, Marsabit, Mbeere, Samburu and Tana River counties alone. However, at the national level, the total number of drought affected people remains below the long-term average of just over 2 million people per year. This can be attributed to the good performance of the short rains in western Kenya as well as in the north-east and parts of the south.

Mozambique (2014/15 agricultural season): As discussed in the previous section of this bulletin, ARV estimates that an above normal WRSI is likely in most agricultural areas of Mozambique, using normal rainfall from now until the end of the season in May. The rains received since October 2014 allowed for sowing activities to start in all areas, and the water requirements of the reference crop have so far been mostly satisfied. As a result, the number of drought affected people is currently estimated at around 640,000 people, mainly in the usually dry areas in the south of the country, which remains below the long-term average of 750,000 people. This estimate does not include potentially flood affected people. However, this number might change depending on the performance of the rains in the coming months. More accurate forecasts will be possible as the season progresses. Historically, Mozambique has experienced several mild drought events since 2001, with one more severe drought in 2004/05, which, should it happen today, would directly affect nearly 1.2 million people according to ARV.

RESPONSE COST ESTIMATION

In a fourth and final step, ARV 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. This bulletin will monitor the progression of estimated response costs for countries that are in-season and have insured their respective seasons. Currently, **five countries form the first ARC risk pool** (Kenya, which is insuring two seasons, Mauritania, Mozambique, Niger and Senegal). While the season is ongoing in Mozambique, the insured short rains season has just finished in Kenya during the reporting month with no pay-out. In the West African countries that participated in the ARC insurance pool, the seasons finished in late 2014, and the poor rainfall performance in the region resulted in all three countries receiving pay-outs from the ARC Insurance Company Limited.

Kenya (2014/15 second rangeland season): After then end of the season in Kenya, the national response cost remains below the country attachment level according to ARV. Thus, Kenya will not be eligible for a pay-out by the ARC Insurance Company Ltd, which historically would have triggered after the 2005/06 and 2010/11 short rainy season droughts given the country's current selection of risk transfer parameters. However, it is important to note that the current customisation of ARV only triggers a pay-out in case of a major drought at the national scale. As discussed in the previous sections of this bulletin, some areas in central Kenya suffered from poor rangeland conditions in the 2014/15 short rains season. While these did not result in a major drought event at the national scale, they will still require localised interventions.

Mozambique (2014/15 agricultural season): In the case of Mozambique, it is currently too early to predict how the agricultural season will perform. Due to above average rainfall in January, currently, the WRSI is above average in most areas, thus resulting in a relatively low number of estimated drought affected people and, as a consequence, moderate response cost projections. However, accurate predictions will only be possible as the season progresses. Historically, the poor performance of the 2004/05 season, when nearly 1.2 million people were affected by drought in the country, would have triggered a pay-out by the ARC Insurance Company Ltd.

As mentioned above, the three **West African** countries in the first ARC risk pool (Mauritania, Niger and Senegal), are **eligible for pay-outs by the ARC Insurance Company Ltd** due to the poor rainfall performance during their agricultural seasons. In light of the pay-outs, the three countries were required to submit their Final Implementation Plans (FIPs) to the Peer Review Mechanism of the ARC Agency Governing Board. The FIPs outline the activities the countries will implement to respond to the droughts. **All three FIPs were approved in mid-January 2015**, and provisions were made for the transfer of the funds by the end of the month. **The drought responses in the three countries will start in February 2015, ahead of the 2015 humanitarian appeal for the Sahel**.

About ARC:

- 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*** **(ARV)** software is the technical engine of ARC. It uses satellite-based rainfall information to estimate the cost of responding to a drought, which triggers a corresponding insurance pay-out.
- The ***ARC Insurance Company Limited*** is the commercial affiliate of the ARC Agency, which pools risk across the continent through issuing insurance policies to participating countries.

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In **Senegal**, an inter-ministerial task force convened in September 2014 to discuss on the appropriate response options identified subsidised sales of livestock fodder and food distributions as main priorities. Similarly, **Mauritania** will use the pay-out by the ARC Insurance Company Ltd for food distributions to drought-affected families in regions with poor agricultural production. Finally, in **Niger**, cash transfers and school feeding programmes will be financed through the pay-out by the ARC Insurance Company Ltd, as well as subsidised livestock fodder to protect the livelihoods of pastoralists. These interventions are expected to mitigate the effects of the poor rains on vulnerable communities as they commence several months earlier than in previous operations.