

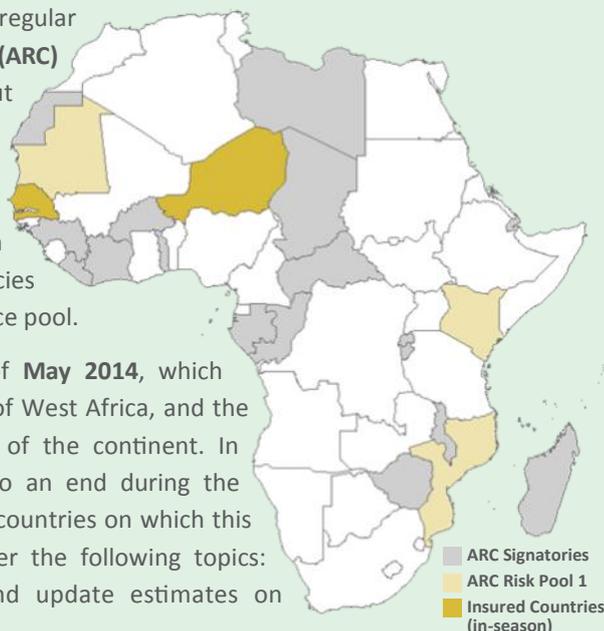
Highlights:

- **Rainfall:**
 - Long rains ongoing in most of East Africa
 - Start of seasonal rains in West Africa
- **Drought:**
 - Continued below average rangeland conditions in Kenya
 - Potential sowing conditions have been triggered in the southern parts of Niger
 - Sowing activities have not yet started in most of Senegal
- **Potentially Affected People:**
 - Mozambique experienced its third best agricultural season in the last 30 years
- **Insurance:**
 - Kenya, Mauritania, Mozambique, Niger and Senegal form the first continental risk pool
 - Two ongoing seasons (Niger and Senegal) are currently insured

OVERVIEW

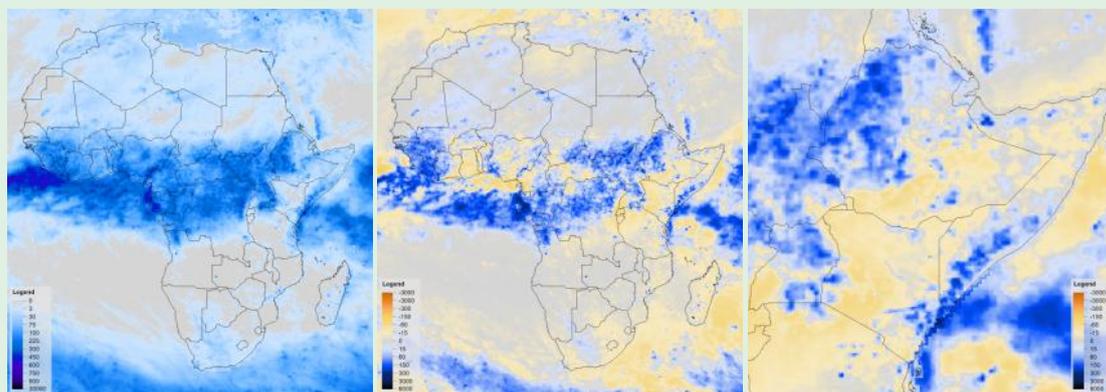
The *Africa RiskView (ARV) Bulletin* is a regular publication of the *African Risk Capacity (ARC) Agency*. It provides information about current **weather developments** as detected by ARV, and their potential **impact on vulnerable populations**. It also provides updates on **estimated response costs**,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

This month's issue will cover the month of **May 2014**, which marks the start of the rainy season in most of West Africa, and the continuation of rains in the Eastern parts of the continent. In Southern Africa, the rainy season comes to an end during the month. 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, the rainy season started in **West Africa** and the **Sahel**. Significant rains were also received in **Central Africa** and most of **East Africa**, with the exception of northern Kenya (see Map 2). Most of **Southern Africa** remained dry, in line with seasonal patterns which see the rainy season in the region come to an end during the month of May.



MAP 2: CUMULATIVE RAINFALL (MAY 2014)

MAP 3: RAINFALL COMPARED TO NORMAL (MAY 2014)

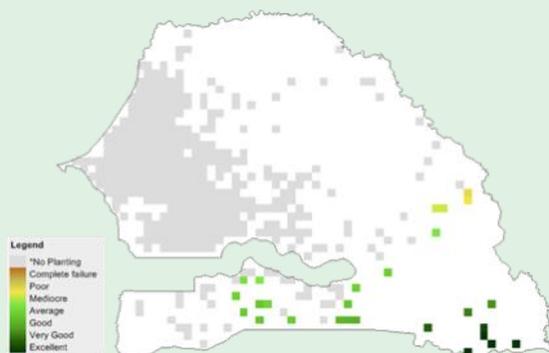
MAP 4: RAINFALL COMPARED TO NORMAL, EAST AFRICA (MAY 2014)

Compared to the long-term average, the rainfall received was **well above average in Western and Central Africa**, particularly in Guinea, Sierra Leone, Liberia, southern Mali, south-eastern Senegal, as well as in the Democratic Republic of the Congo (see Map 3). **Rains in the Sahel were normal**, while some countries in the **Gulf of Guinea** (particularly Ghana and Togo) experienced **below average rains**. In **East Africa**, rainfall was above average in South Sudan, Sudan, Ethiopia and most agricultural areas of Somalia. However, in Kenya, northern Tanzania, southern Ethiopia and north-western Somalia conditions were drier than usual.

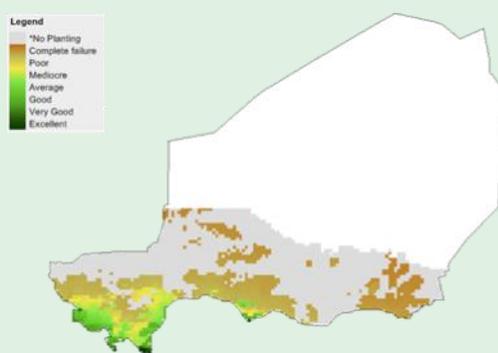
DROUGHT

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 countries that are currently in season, or where the season has recently finished. Of these, only the agricultural seasons in Senegal and Niger are currently insured.

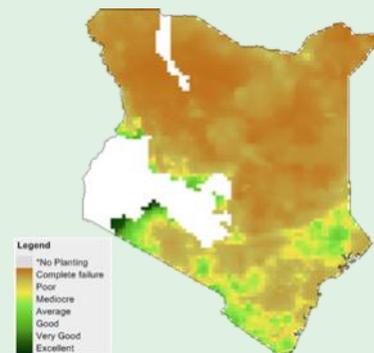
Ongoing seasons:



MAP 5: ACTUAL WRSI, SENEGAL (2014 GROWING SEASON)



MAP 6: ACTUAL WRSI, NIGER (2014 GROWING SEASON)



MAP 7: WRSI COMPARED TO NORMAL, KENYA (2014 LONG RAINS IN ASAL)

Senegal (2014 growing season): The agricultural season in Senegal started in the second dekad of May (11-20 May 2014), and will last through December 2014. As the rains have only started in the south-eastern parts of the country, **sowing has not yet started** in most agricultural areas (see Map 5). However, as the sowing window (i.e. the period in which farmers can sow while allowing enough time for the crops to develop) extends until late July, the current conditions can be expected to improve over the coming weeks.

Niger (2014 growing season): In Niger, normal to above normal rains were received in May 2014, which has allowed for **early sowing in some areas**, particularly in the **southern parts of the country** (see Map 6). Most areas in the **central parts** of the country have, however, **not yet received sufficient rainfall to allow for a start of sowing activities**. The progression of the rains during the remainder of the agricultural season, which spans until the end of October 2014, will determine the performance of this year's crop harvest.

Kenya (2014 long rains in ASAL): In Kenya, the WRSI was customised to show vegetation developments in the pastoral arid and semi-arid lands (ASAL). The second rangeland season (long rains) started in February 2014, and will continue through June 2014. Given the **uneven distribution of seasonal rains** since the start of the season, the current situation shows a well above average WRSI in the southern parts of the country, while ARV shows that the **northern, western and north-eastern parts of the country** have **below average rangeland conditions** (see Map 7). This closely follows rainfall patterns over the last months, which were below normal in most of the country.

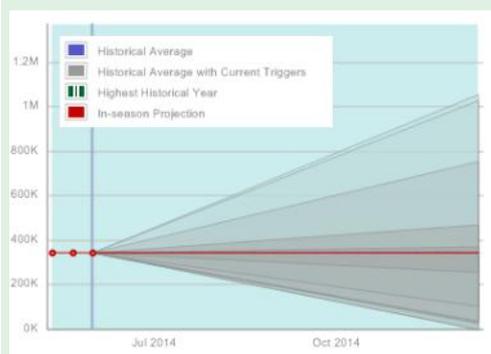
Finished seasons:

Mozambique (2013/14 growing season): As discussed in the previous issue of the ARV Bulletin, the agricultural season in Mozambique ended this month. The country experienced a **very good agricultural season** according to ARV, which can be linked in part to the good rainfall performance in the usually arid and drought-prone south. Nonetheless, some areas in central Mozambique experienced below average rains and, as a consequence, a slightly below normal WRSI.

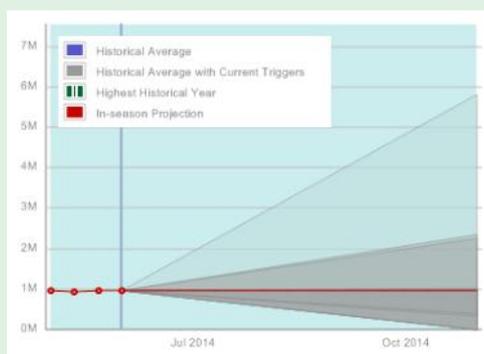
AFFECTED POPULATIONS

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 level 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, humanitarian 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 in-season, or where the season has recently finished.

Ongoing seasons:



GRAPH 1: IN-SEASON ESTIMATED POPULATION AFFECTED, SENEGAL (2014 GROWING SEASON)



GRAPH 2: IN-SEASON ESTIMATED POPULATION AFFECTED, NIGER (2014 GROWING SEASON)



GRAPH 3: IN-SEASON ESTIMATED POPULATION AFFECTED, KENYA (2014 LONG RAINS IN ASAL)

- Senegal and Niger (2014 growing seasons):** In both Senegal and Niger, planting has only started in some areas. The current affected population estimate has not yet changed from the beginning of season rainfall expectation estimate, as Graph 1 and 2 illustrate. Given that both countries have just entered their seasons, **no estimation can be made yet for the number of people affected during the ongoing seasons** in the two countries. The graphs above show potential projections of how the seasons could evolve, based on the historical rainfall data from the period 2001 to 2013, which are represented by the grey lines in the graphs. In the case of Senegal, the worst year on record is the 2002 agricultural season, which saw nearly 1.1 million people affected, whereas the good rainfall performance in 2010 meant that 0 people were affected (see Graph 1). In the case of Niger, the worst season since 2001 was the 2004 season, with nearly 5.7 million people affected, against 0 people in 2003 (see Graph 2).
- Kenya (2014 long rains in ASAL):** The number of potentially drought affected people in Kenya's arid and semi-arid lands is currently estimated at **1.6 million people**, given poor rains in most of the country in April and May 2014. The progression of the affected population estimates over the course of the season reflects this, with the estimated number of people decreasing after a good start of the rainy season in March, but increasing after the dry spell in April (see Graph 3). The projections for the remainder of the season range **between 1.3 million people** in case of good rains in the coming weeks (comparable to the 2008 season), **to 1.8 million people** if the rains perform as badly as they did in 2013. Even in case of poor rains between now and the end of the season in June, it is highly unlikely that the number of affected populations will reach the levels of two worst seasons on record, 2009 (6.3 million people affected) and 2011 (3.7 million people), as illustrated by Graph 4. However, given the poor performance of the 2013 short rains in most of the country (see the previous issue of the ARV Bulletin for more information), the situation on the ground might raise concern in some areas.



GRAPH 4: ANNUAL ESTIMATED POPULATION AFFECTED, KENYA (2001-2014)

Finished seasons:

- Mozambique (2013/14 growing season):** ARV estimates that just under **60,000 people** are affected after the end of the 2013/14 agricultural season. This reflects the good performance of the seasonal rains, and marks Mozambique's best season since 2001. This can be attributed partly to the good rains received in the usually dry and drought prone south.

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.

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 trigger specified in the insurance contracts. This bulletin will monitor the **progression of estimated response costs** for countries which are **in-season** and have **insured** their respective seasons. Currently, **five countries form the first ARC risk pool** (Kenya, Mauritania, Mozambique, Niger and Senegal). In two of these (Senegal and Niger), the rainy season started during the reporting month:

- **Senegal (2014 growing season):** As discussed in the previous section, the agricultural season in Senegal has just started yet, and **no projection can thus be made yet** on affected populations and, consequently, on estimated response costs and pay-outs. Historically, **Senegal has experienced three particularly bad seasons since 2001**, in **2001, 2002 and 2011**, each of which would have triggered a pay-out given the risk transfer parameters selected by the country.
- **Niger (2014 growing season):** As in the case of Senegal, **no projection can be made yet**, given that Niger has just recently entered its agricultural season. Historically, the country has experienced **one severe and several milder drought events since 2001**, of which the poor performance of the **2004** seasonal rains would have led to a pay-out if the current selection of risk transfer parameters is applied.

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