

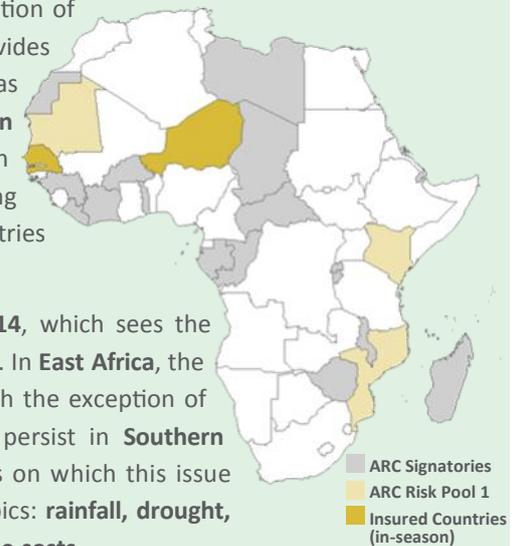
### Highlights:

- **Rainfall:**
  - Seasonal rains ongoing in **West Africa**
  - Rainy season in **East Africa** coming to an end
- **Drought:**
  - Potential sowing conditions triggered in south-western **Niger**, while planting has not yet started in the central and eastern parts of the country
  - Sowing activities have not yet started in most of **Senegal**
- **Potentially Affected People:**
  - **Kenya's** long rainy season came to an end, with an estimated **1.5 million people** potentially affected by drought — this remains far below the two worst seasons on record (2009 and 2011)
- **Insurance:**
  - Kenya, Mauritania, Mozambique, Niger and Senegal form the **first continental risk pool**
  - **Two ongoing seasons** (Niger and Senegal) are **currently insured** against severe drought

### OVERVIEW

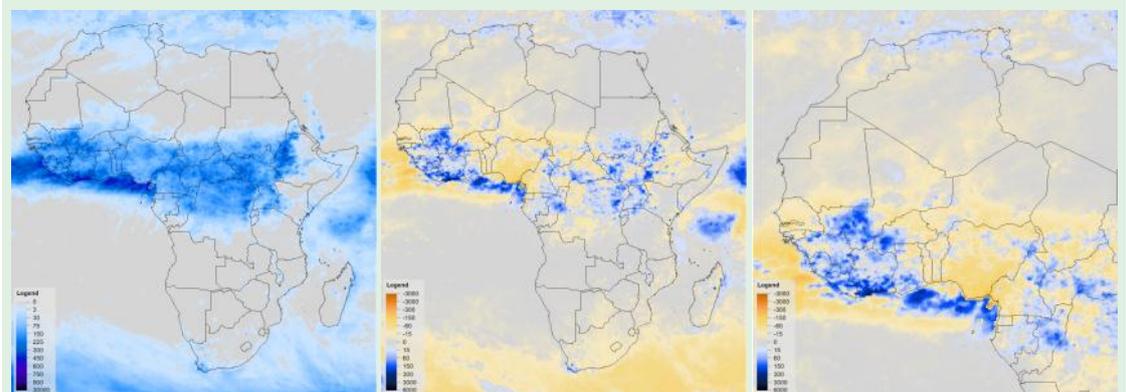
The *Africa RiskView (ARV) Bulletin* is a regular publication of the *African Risk Capacity (ARC) Agency*. It provides information about current **weather developments** as detected by ARV, and their potential **impact on vulnerable populations**. It also provides updates on **estimated response costs**,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

This month's issue will cover the month of **June 2014**, which sees the continuation of the rainy season in most of **West Africa**. In **East Africa**, the rains came to an end during the reporting month, with the exception of western Ethiopia and Uganda, while dry conditions persist in **Southern Africa**. 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 intensified in **West Africa** and the **Sahel**, slowly moving northwards. Significant rains were also received in **Central Africa** and in South Sudan, while the seasonal rains are coming to an end in most of **East Africa**, with the exception of western Ethiopia (see Map 2). **Southern Africa** remained dry, in line with seasonal patterns.



MAP 2: CUMULATIVE RAINFALL (JUNE 2014)

MAP 3: RAINFALL COMPARED TO NORMAL (JUNE 2014)

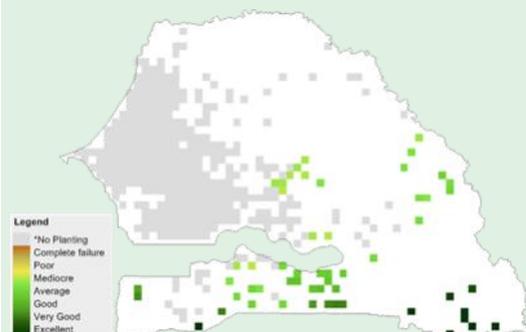
MAP 4: RAINFALL COMPARED TO NORMAL, WEST AFRICA (JUNE 2014)

Compared to the long-term average, rains were mostly normal in **East Africa** (see Map 3). Western Ethiopia received above normal rains, while the central parts of the country remained drier than usual. In **West Africa**, below normal rains were received in the northern and eastern parts of the region, particularly in Nigeria, Benin, Togo, Niger and Senegal, while countries along the coast as well as southern Mali and western Burkina Faso experienced above normal rainfall (see Map 4).

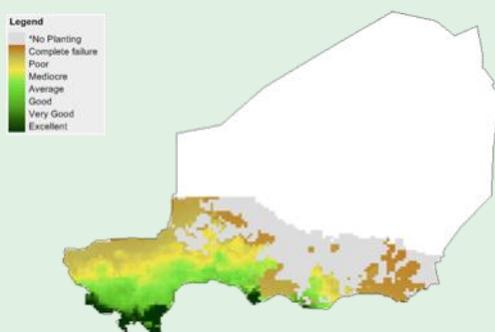
### DROUGHT

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, or where the season ended recently.

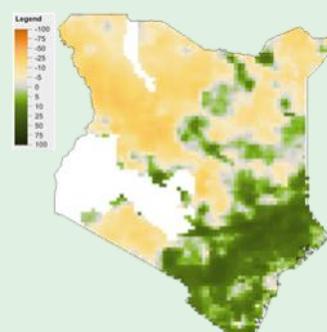
### Ongoing seasons:



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 received so far were concentrated mostly 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, there is still time for planting in the coming month should the rains increase in the coming weeks.

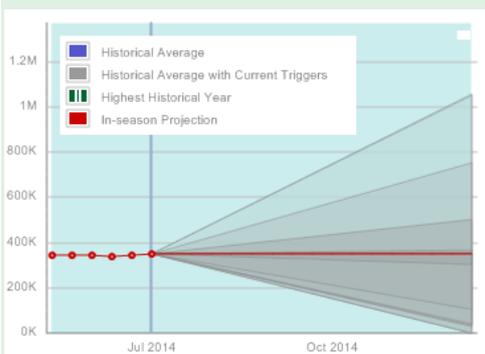
**Niger (2014 growing season):** While in south-western Niger the sowing threshold has been reached since the start of the season in May, **planting has not yet started in most central and eastern parts of the country**, according to ARV (see Map 6). As in the case of Senegal, it is **too early to predict the performance** of this year's harvest, which will be determined by the progression of the rains until the end of the agricultural season.

### Finished seasons (not insured):

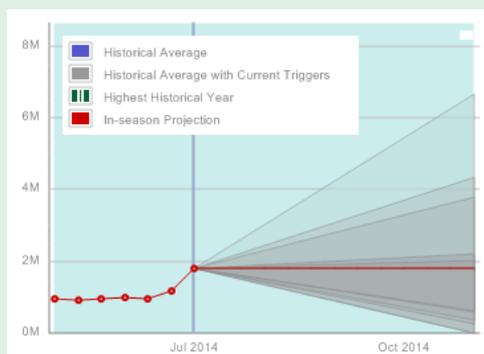
**Kenya (2014 long rains in ASAL):** In Kenya, the WRSI was customised to show vegetation developments in the pastoral arid and semi-arid lands (ASAL). The **long rains season came to an end in June 2014**. Overall, the performance of the season was mixed, and closely related to the performance of the seasonal rains. In areas where the cumulative rainfall was above average, such as the **south-eastern** parts of the country, the **rangeland WRSI is above normal** (see Map 7). As a consequence, good pasture conditions are expected in these areas. However, **north-western Kenya** and parts of the **north-east** experienced below normal rains (particularly in April and May 2014), which have resulted in a **below normal rangeland WRSI**. FEWS NET's latest [Food Security Outlook Update](#) confirms that due to poor rains, pasture was not able to regenerate in some areas and is expected to deteriorate faster than usual in the dry season.

## AFFECTED POPULATIONS

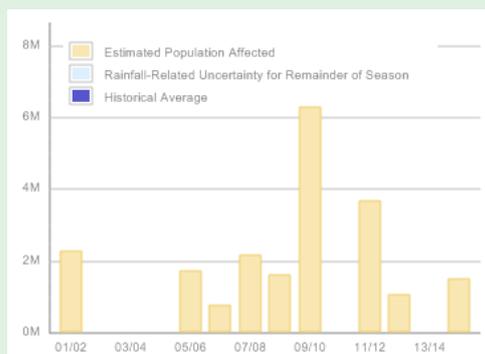
Based on the WRSI calculations discussed in the previous section of this bulletin, ARV estimates the **number of people potentially affected by drought** for each country participating in the insurance pool. As part of the in-country customisation process, **vulnerability profiles** are developed at sub-national 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 insured countries in-season, or where the season has recently finished.



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



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



GRAPH 3: ANNUAL ESTIMATED POPULATION AFFECTED, KENYA (LONG RAINS IN ASAL, 2001-14)

### 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.

**ARC Secretariat**  
Merafe House  
11 Naivasha Road  
Sunninghill 2157  
Johannesburg, South Africa

[www.africanriskcapacity.org](http://www.africanriskcapacity.org)  
[support@africanriskview.org](mailto:support@africanriskview.org)

### Ongoing seasons:

- **Senegal (2014 growing season):** As mentioned above, planting has only started in some parts of Senegal. The current affected population estimate has not yet changed from the beginning of season rainfall expectation estimate, as Graph 1 illustrates. Given that the country has just recently entered its season, and there is still time for planting, **no estimation can be made yet for the number of people affected during the ongoing season.** The graph above shows 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).
- **Niger (2014 growing season):** Similarly to Senegal, Niger just recently entered its season, and planting has only started in some areas. Due to a below normal WRSI in some planted areas as well as delayed planting in other parts of the country, the current affected population estimate is slightly higher than at the beginning of the season. It is however too early to predict how the season might progress. The graph above shows projections based on historical rainfall data for the remainder of the season. If the rains perform as poorly as in 2004, nearly 6.7 million people might be affected by drought, while should the rains perform as well as they did in 2003, 0 people might be affected at the end of the season.

### Finished seasons (not insured):

- **Kenya (2014 long rains in ASAL):** Kenya's long rains season in the arid and semi-arid lands came to an end in June. As discussed in the previous issue of the ARV bulletin, pastoral areas suffered from poor rains in April and May. ARV estimates that the **number of people affected at the end of the season is 1.5 million.** Historically, the season is average and, as illustrated by Graph 4, performed better than the two worst seasons on record, 2009 (6.3 million people affected) and 2011 (3.7 million people). However, the compounding effect of the poor preceding short rains in 2013/14 might raise concerns in some areas, such as the country's north-western regions.

## 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 drought 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 and Niger (2014 growing season):** As discussed in the previous section, the agricultural seasons in Senegal and Niger have just started, and **no projection can thus be made yet** on affected populations and, consequently, on estimated response costs and potential 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. In the case of Niger, 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.