

# Food And Water Security in Africa

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As a continent, Africa is fast approaching a critical point. What remains to be seen however, is whether it will be a tipping point, or a crisis. Democratization, economic stability, human rights, and other key topics are springing up fast. But, much like a house, there needs to be a strong foundation if anything is to be built in the future. Food and water are some such foundation issues, and securing them is an objective that needs to be confronted immediately. The continent is predicted to have a 23% decrease in annual rainfall by 2100, and conditions only continue to worsen.<sup>1</sup> While considering the necessity of food and water, it is important to recognize that not only are they necessary for every human to grow, but are also tightly connected to every other issue facing Africa right now.

Food security in Africa is clearly a pressing force to anyone studying the continent. One recent study from the Food and Agriculture Organization of the United Nations showed that there were 239 million people suffering from hunger in Sub-Saharan Africa alone.<sup>2</sup> Unfortunately, there is not one reason alone that creates this inequality. Many factors contribute to the food insecurity problem in Africa. Of many reasons, “The key cause of food insecurity is inadequate food production.”<sup>3</sup> Modern Africa relies on importing food to meet the demands of their people. This means that the foods produced on location are mostly cash crops.

Many African and Third World governments encourage production of the so-called cash crops, the income from which is used to import food. As a result, countries which depend on cash crops are at high risk of food crisis because they do not produce enough food to feed the population.<sup>4</sup> This means that droughts or other natural disasters which affect cash crops in Africa could potentially cause a disaster, where there is not enough money to import food. Adding to this deficiency of food production, is the lack of arable land. To begin with, “Fifty five percent of the land in Africa is unsuitable

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<sup>1</sup> <https://www.issafrica.org/iss-today/water-security-and-climate-change-in-africa>

<sup>2</sup> <http://agricultureandfoodsecurity.biomedcentral.com/articles/10.1186/2048-7010-1-2>

<sup>3</sup> <http://agricultureandfoodsecurity.biomedcentral.com/articles/10.1186/2048-7010-1-2>

<sup>4</sup> <http://www.harvesthelp.org.uk/causes-of-food-insecurity-in-african-and-other-third-world-countries.html>

for any kind of agriculture except nomadic grazing.”<sup>5</sup> On top of this, climate change is desertifying more and more of Africa. Decreased rainfall and increased temperatures combined, contribute to a prediction that “...the reductions in yields could be as much as 50% by 2020.”<sup>6</sup> Considering that Africa’s population is still rapidly growing, this poses an enormous hazard to the security of food on the continent. With current methods, it will be impossible to feed the predicted two billion people on the landmass within 40 years.<sup>7</sup>

Not only will food security be an issue, but water purity and sustainability will be key for the future of Africa. The same climate change forces that are affecting food production are affecting water equally as much. The 23% decrease in rainfall previously mentioned will be devastating for underground water reserves. Given that much of Africa is landlocked “...countries such as Libya and Algeria respectively, are 95% and 60% reliant on subterranean water sources.”<sup>8</sup> With this shrinking water supply, many Africans are faced with the choice: food or water? Unfortunately, even the limited water supply is sometimes not drinkable. Water born diseases and resulting diarrhea kill up to 2000 people a day in Africa.<sup>9</sup> But water is not only used to drink. It is also essential for growing food. An enormous amount of water is used to irrigate crops, and pesticide runoff prevents much of it from returning to the drinking water supply. A shortage of water one year could easily set off a catastrophic crop failure, resulting in famine.

While the problems facing Africa in regards to food and water may seem insurmountable, steps are already being taken to preserve, protect, and better the limited resources. Food security has been a growing priority to the continent. Many plans have been proposed to fix the broken system. Most of these plans are based around severing the dependance on foreign food imports. Scholars are in general

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<sup>5</sup> <http://www.resilience.org/stories/2013-09-26/africa-s-challenge-in-the-21st-century-food-security>

<sup>6</sup> <http://www.resilience.org/stories/2013-09-26/africa-s-challenge-in-the-21st-century-food-security>

<sup>7</sup> <http://www.resilience.org/stories/2013-09-26/africa-s-challenge-in-the-21st-century-food-security>

<sup>8</sup> <https://www.issafrica.org/iss-today/water-security-and-climate-change-in-africa>

<sup>9</sup> <https://www.issafrica.org/iss-today/water-security-and-climate-change-in-africa>

agreement that a long term solution for Africa centralizes around becoming independent for food production. In order to encourage this shift, more money needs to be provided as federal aid for agriculture. However, this aid should come in the form of grants, not crop subsidies. Money given as grants to build infrastructure or improve business practices would be more effective towards fostering independence than subsidizing useless crops. Specific practices need to be encouraged as well. An investment in sustainable energy would help reduce the climate change issue, or at least be a step in the right direction. “Awareness has to be created about the effects of climate change on food security and appropriate adaptive capacity should be created. Changes in diet and a lower dependence on meat based food... have to be promoted.”<sup>10</sup> Hopefully these steps will put Africa on the path to improving its food security.

Food security cannot stand alone. Solutions need to be developed for maintaining or increasing the amount of water available to citizens of the African continent. Like all other foundation issues, it is tightly intertwined with most everything around it. Many of the practices that increase food stability can be modified to help increase water security as well. Grants could be given to promote “drip-irrigation” practices.<sup>11</sup> Drip irrigation is a method of delivering water to individual plants, instead of blanketing the whole field in overhead irrigation. This alone could reduce a great amount of waste. This conservation of already occurring resources is considered the correct initial strategy by many experts. Alternatives of importing water in tanker ships, or building desalination plants are simply too expensive in the short term. Countries like South Africa are making commitments, to turn this preservation a reality. “[South Africa’s] Constitution and its National Water Act explicitly declares the human right to water, guaranteeing a minimum allocation of 6000 litres of free, clean water a month for every South African.”<sup>12</sup> In order to keep this promise, South Africa must first invest huge amounts of money in bureaucratic organization, to

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<sup>10</sup> <http://www.resilience.org/stories/2013-09-26/africa-s-challenge-in-the-21st-century-food-security>

<sup>11</sup> <http://www.resilience.org/stories/2013-09-26/africa-s-challenge-in-the-21st-century-food-security>

<sup>12</sup> <https://sustainablesecurity.org/2014/05/02/water-security-in-south-africa/>

see that its resources are managed well. An organization known as the African Minister's Council On Water (AMCOW), details their three step plan for governance overhaul:

1. Promote the creation of water divisions with a sector oversight mandate within the RECs (Regional Economic Community)
2. Promote sharing of knowledge on good practice / key success factors among regions and basin
3. Support operationalisation of the African Groundwater Commission<sup>13</sup>

This consolidation of government and allocation of funds and support would streamline governance and promote cooperation on resource preservation within Africa. However, climate change proves a hazard for the water reserves which need to be preserved. The increasing temperature and decreasing rainfall are depleting supplies. Fortunately, organizations such as the Climate & Development Knowledge Network (CDKN), are supporting African initiatives. Among their goals, the CDKN hopes to raise money for proposed solutions by raising "...awareness at the highest levels, and amongst all key stakeholders, of how water security and climate resilience contribute to sustainable economic growth."<sup>14</sup> Many companies with limited funds may not invest in the long term sustainability of Africa's water because of the delayed payoff. Encouraging investment by appealing to profit margins is one of the smartest ways to go about raising awareness and money at the same time. This strategy seems to be paying off, as companies begin to go along with the times. SABMiller, a beer brewing conglomerate which bases its production in Africa, claims that "[SABMiller] set ambitious targets to reduce between 2008 and 2015 the water we use to brew a litre of beer by 25%. It's a goal we have already met; in fact the water saved in the last year alone is the equivalent of the annual water use of well over 100,000 people on the continent."<sup>15</sup> They also state:

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<sup>13</sup> [http://www.amcow-online.org/index.php?option=com\\_content&view=article&id=144&Itemid=77&lang=en](http://www.amcow-online.org/index.php?option=com_content&view=article&id=144&Itemid=77&lang=en)

<sup>14</sup> [http://cdkn.org/wp-content/uploads/2012/03/WaterSecurity\\_Brief2\\_pr3.pdf](http://cdkn.org/wp-content/uploads/2012/03/WaterSecurity_Brief2_pr3.pdf)

<sup>15</sup> <https://www.weforum.org/agenda/2015/06/why-partnerships-are-key-to-water-security-in-africa/>

We are working with farmers to help them grow crops in a way that safeguards water resources.

In South Africa, for example, we initiated a project to manage the water risk facing the local hops industry in the Southern Cape; a major part of the project is to clear large areas of water intensive non-indigenous invasive plants, restoring biodiversity and releasing water back into local catchment.<sup>16</sup>

It certainly appears that despite the severity of the water situation in Africa, progress is being made.

The issue of food and water security in Africa is rapidly becoming the most important issue at hand. For the continent to continue on its path of progression, these problems need to be dealt with immediately, and thoroughly. A myriad of challenges stand in the way however. The reality of climate change and budget constraints, to name just two. Thankfully, citizens of the world, and not just Africa, are starting to realize just how much impact a crisis in Africa would have. Steps are being taken, projects are being proposed. It is important to stay positive about all of the initiatives, because true reform will come only when people are invested in seeing change.

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<sup>16</sup> <https://www.weforum.org/agenda/2015/06/why-partnerships-are-key-to-water-security-in-africa/>

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