

AFRICOM's Role in Water Security

CADET CHRISTOPHER BEST

Water represents one of the great diplomatic and development opportunities of our time. It's not every day you find an issue where effective diplomacy and development will allow you to save millions of lives, feed the hungry, empower women, advance our national security interests, protect the environment, and demonstrate to billions of people that the United States cares, cares about you and your welfare.

—Hillary Rodham Clinton, U.S. Secretary of State, Remarks on World Water Day, March 22, 2010

Few substances on Earth are as important to human survival as water. Access to clean fresh water facilitates the growth of industry, agriculture, and human population centers. Providing developing countries the resources and knowledge to access quality water sources can serve as a powerful tool for enhancing regional stability and fostering the credibility of the United States around the world. How issues within and between nations regarding how future demands for water are addressed will require the coordinated effort of various United States Government (USG) agencies moving towards common goals. This paper will focus on AFRICOM's role in preserving U.S. interests in Africa by fostering water security. It will start with a discussion of major water challenges facing Africa in the near future, discuss the relationship between water security and U.S. national security interests, and conclude with AFRICOM's role in water security.

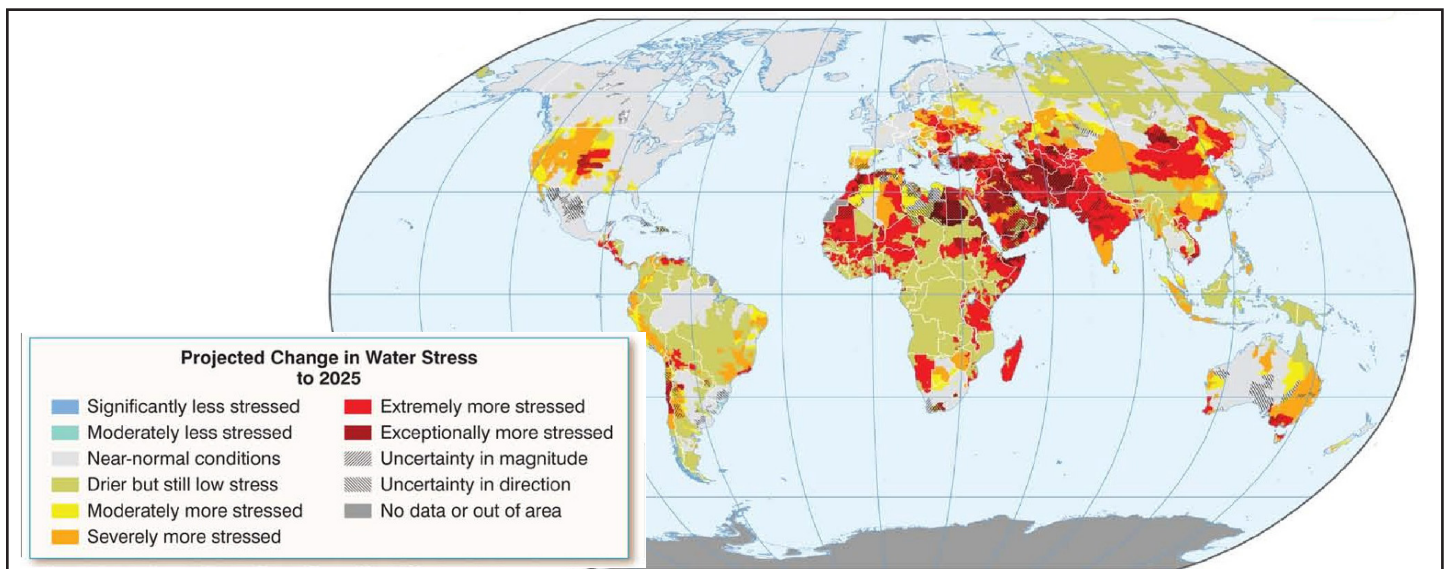


Figure 1: Projected Change in Water Stress by 2025 (Intelligence Community Assessment 2012).

Future Water Issues in Africa

In the upcoming decades, the global demand for water will increase substantially. The global population is expected to increase to 8 billion people by 2025.¹ The growing population will require significantly more water to grow its food, which currently accounts for 70% of global water demand.² Figure 1 illustrates that countries across Asia and Africa will experience greater stress in water demand by 2025. Much of the projected population growth is centered in developing African countries

1. "Global Water Security," *Intelligence Community Assessment*, February 2, 2012, 1.

2. *Ibid.*, IV.

Report Documentation Page				Form Approved OMB No. 0704-0188	
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE JUN 2012		2. REPORT TYPE		3. DATES COVERED 00-00-2012 to 00-00-2012	
4. TITLE AND SUBTITLE AFRICOM's Role in Water Security				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) U.S. Army War College,Center for Strategic Leadership and Development ,650 Wright Avenue ,Carlisle,PA,17013-5049				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT Same as Report (SAR)	18. NUMBER OF PAGES 4	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			

where an already strained water supply may not keep pace with demand. Ethiopia along the Nile River is the 5th fastest growing country in the world with a population growth rate of 3.18%.³ Along the Niger River, Nigeria has a growth rate of 2.55%.⁴ Both the Nile and Niger Rivers are two critical water systems supporting strategically important countries that will see a growing demand for water resources in the upcoming decades.

The Nile River is the world's longest river, flowing north through ten countries from its origins at Lake Victoria and Ethiopia toward the Mediterranean Sea. Almost 280 million people already rely on water from the Nile River.⁵ With population growing in the region, demand for water is going to increase. The Nile is the only source of water for some downstream countries. Egypt relies entirely on the Nile River as its sole water source.⁶ As a downstream riparian state, Egyptian water security is heavily dependent on the actions of upstream countries. Ethiopia is developing the multibillion dollar Grand Ethiopian Renaissance Dam along the Blue Nile to provide water and electricity to its population. If used for irrigation, Ethiopian dams have the potential to significantly reduce water flowing into Egypt and Sudan and further strain water resources along the Nile.⁷

The Nile Basin Initiative (NBI) was established in 1999 to better coordinate the use of the Nile River. Countries that are part of the NBI include Burundi, Democratic Republic of the Congo, Egypt, Ethiopia, Kenya, Rwanda, Sudan, Tanzania, and Uganda. These countries created the NBI "to develop the river in a cooperative manner, share substantial socioeconomic benefits, and promote regional peace and security."⁸ For over ten years, the NBI has funded a variety of projects to educate the riparian nations of the Nile about sustainable water planning and management.⁹ However, the NBI has struggled to develop a permanent and lasting agreement about the equitable use of water. Over the protests of Sudan and Egypt, five upper riparian states – Ethiopia, Uganda, Tanzania, Rwanda, and Kenya – signed the Comprehensive Framework Agreement (CFA) in May 2010 to reexamine the distribution of water along the Nile.¹⁰ Sudan and Egypt refused to ratify the CFA until it assured them access to the same quantity of water from the Nile.

In Western Africa, the Niger River flows for 4,200 km through ten countries making it the third longest river in Africa.¹¹ It is the major water source for the 100 million people that live within its watershed.¹² The Niger watershed includes Algeria, Benin, Burkina Faso, Cameroon, Chad, Ivory Coast, Guinea, Mali, Niger, and Nigeria. Since the 1970s the Niger River has seen a decline in water levels that coincides with diminished rainfall in the region.¹³ Large dams and small-scale abstractions, such as siltation, have also contributed to the decrease in river flow along the Niger.¹⁴

To address water security along the Niger River, 9 out of 10 countries in the watershed (Algeria being the exception) created the Niger Basin Authority (NBA) to improve information sharing and implement a plan for sustained use of the river. The members of the NBA share data about the quantity and quality of water flowing through the Niger River, and the authority has created a vital framework to prevent conflict over water along the river. The NBA has been successful in reducing tensions along the Niger by promoting information sharing between nations. As the future demand for water increases because of the growing population in the region, the NBA will continue to serve as a vital international organization to foster cooperation over decreasing water resources.

U.S. National Interests in Promoting African Water Security

Access to clean water sources is a national security issue for countries without a sustainable water source. Maintaining enough of this resource to sustain agriculture, industry, and the population is a key task for a country's government. In addition to quantity concerns, countries monitor the quality of water. Low quality and microbe laden water can do more harm than good. The Cholera outbreak in Haiti following the 2010 earthquake has afflicted 200,000 people because they lacked access

3. CIA World Fact Book (accessed June 15, 2012) <https://www.cia.gov/library/publications/the-world-factbook/rankorder/2002rank.html>, 2011.

4. Ibid.

5. Stephen McCaffery et al., "In-Depth Case Analysis for Nile River Basin," Global Environment Facility International Waters Governance Project, 2010, 1.

6. Ibid., 1.

7. Than Ker, "Ethiopia Moves Forward with Massive Nile Dam Project," *National Geographic*, July 13, 2011 (accessed June 5, 2012) <http://news.nationalgeographic.com>.

8. McCaffery et al., "In-Depth Case Analysis for Nile River Basin," 9.

9. Nile Basin Initiative website, last modified May 20, 2011 (accessed June 6, 2012) <http://www.nilebasin.org>.

10. McCaffery et al., "In-Depth Case Analysis for Nile River Basin," 11.

11. Marris Goulden and Roger Few, "Climate Change, Water and Conflict in the Niger River Basin," *USAID*, December 2011, 16.

12. Roselle Henn et al., "The impact of Water as a United States Government Security Consideration for the US Africa Command," U.S. Army Corps of Engineers, September 29, 2010, 31.

13. Goulden and Few, "Climate Change, Water and Conflict in the Niger River Basin," 18.

14. Ibid., 20.

to a clean water source.¹⁵ The United States Agency for International Development (USAID) focuses on water supply, sanitation, and hygiene (WASH) to determine problems with water quantity and quality. Managing water resources is difficult because it encompasses a variety of competing interests. Nations have to distribute water to “domestic users, agriculturalists, hydropower generators, recreators, and environmentalists – any two of which are regularly at odds.”¹⁶ When water sources cross international boundaries, states must address both domestic and regional concerns about the use of water and watershed management. Despite the difficulty in coordinating competing interests, several factors may contribute to the overall resilience of water resources. These factors include international agreements and institutions, positive political relations, and a history of cooperation on water policy. Environmental change, large population growth, and the lack of international institutions can help exacerbate the vulnerability of a water source.¹⁷



Because water is the central resource in agriculture, industry, and energy production, it is essential for maintaining a certain standard of living. Countries cannot attain and maintain economic success without sufficient access to clean water.¹⁸ As water resources deplete under the burden of greater demand in the upcoming years, maintaining a constant standard of living will become increasingly difficult. However, regardless of water supply, a country’s population will expect its government to provide the water necessary to maintain the current standard of living. The Relative Deprivation Theory describes how the difference between an expected and an actual standard of living can create political dissent. If a government cannot maintain the standard of living its population expects, the population may seek to remove the government’s leaders from power. The population’s anger is aimed at the current government, which is seen as ineffective for failing to provide social services to the population. Such change can occur through the ballot in countries that have a strong democratic tradition. However, in countries that lack a liberal democratic foundation, change often occurs through violent destabilization. If a government fails to provide the services that its citizens expect, it will lose legitimacy with the population and foster a political climate that creates instability.

Along both the Nile and Niger Rivers, a future lack of water resources could create regional instability that affects U.S. interests. Economically, Africa possesses a large quantity of strategic resources including Nigerian oil that is vital to the U.S. economy.¹⁹ Regional instability along the Nile could threaten global shipping that passes through the Suez Canal in Egypt. Following 9/11, the United States has taken a more proactive approach in counterterrorism by addressing the root causes that create a safe haven for terrorist activities. Failed states along the Horn of Africa have become lawless territory that foster pirates and terrorist groups. If current governments cannot provide water for their populations, they could possibly lose legitimacy and become a new safe haven for terrorists. The United States has a vested national security interest in taking a proactive approach on water security to maintain its economy and prevent the establishment of terrorist safe havens.

Current U.S. Water Policy and Recommended Courses of Action

Current U.S. water policy in Africa is largely handled by the Department of State (DOS) and USAID. Under the Paul Simon Water for the Poor Act of 2005, DOS and USAID are the lead USG agencies in global water policy.²⁰ In FY2010, DOS and USAID spent \$370 million on improving water access and quality in sub-Saharan Africa.²¹ However, taking into account sub-Saharan Africa’s population of more than 850 million, this represents an investment of only \$0.43 per person.²² More resources and focus from the USG on water security could assist African countries in improving water access and quality. Secretary Clinton’s United States Water Partnership has increased global awareness on water issues. The Department of Defense (DOD) can provide the resources and technical expertise to build the capacity of host nations’ militaries to address water issues using

15. Deborah Sontag, “In Haiti, Global Failures on a Cholera Epidemic,” *The New York Times*, March 31, 2012.

16. Aaron Wolf, “A Long Term view of Water and Security: International Waters, National Issues, and Regional Tensions,” *A report to the German Advisory Council on Global Change*, July 10, 2006, 3.

17. *Ibid.*, 6.

18. Roselle Henn, et al., “The impact of Water as a United States Government Security Consideration for the U.S. Africa Command,” U.S. Army Corps of Engineers, September 29, 2010, 16.

19. Kent Butts and Brent Bankus, “Sustainability: A Lens for National Security,” In *Sustainability and National Security*, (Carlisle PA, Center for Strategic Leadership, 2012), 36.

20. Report to Congress: Senator Paul Simon Water for the Poor Act, Bureau of Oceans, Environment, and Science, U.S. Department of State, June 2010, 1.

21. Report to Congress: Senator Paul Simon Water for the Poor Act, Bureau of Oceans, Environment, and Science, U.S. Department of State, 2011.

22. The World Bank, “Sub-Sahara Africa,” Last modified 2012 (accessed June 11, 2012) <http://data.worldbank.org/region/sub-saharan-africa>.

preexisting engagement programs. The U.S. military should not take a leading role in water security, rather it should use its resources to compliment the efforts made by DOS and USAID.

The DOD can provide assistance by engaging the combatant commands on this issue. AFRICOM was founded to promote strategic interests in Africa that include fostering the prevention, mitigation, and containment of conflict, fostering sustained stability, and mitigating the effects of significant humanitarian crises and natural disasters.²³ These interests are frequently tied to water issues in Africa. The DOD should prioritize water security and provide valuable resources and training to African militaries that enable them to support the water initiatives of their civilian authority. The AFRICOM water strategy should focus on the sustainable use of water and account for the economic, environmental, and social aspects of sustainability. AFRICOM has a unique relationship with host African nation's militaries. It must utilize these connections and enable African militaries to develop tailored plans for their countries' sustainable use of water. Engaging water-related issues through both the DOS and DOD will combine the resource of both departments resulting in greater aid to African nations.

In developing a water strategy, AFRICOM should be aware of the international tensions over water and utilize pre-existing international organizations and agreements in their efforts. AFRICOM can learn from the success and failures of the NBI and NBA to encourage cooperation between countries. Part of the tension caused by Ethiopia's dam project stems from a lack of information sharing about the downstream long-term effects of the dam. AFRICOM can engage African militaries and help them better communicate vital information between countries along the Nile. Because water sources in Africa run through many nations, cooperation and coordination is required to develop a lasting agreement on water use. The ability to coordinate efforts across international borders will become a crucial tool for AFRICOMs success in engaging African nations as they build up water resources.

Conclusion

Water security will only become a more important issue as the global population increases and available water becomes more limited. In order to achieve success, U.S. foreign water policy should integrate the capabilities and resources of various government agencies. AFRICOM has a crucial role in African water security given its resources and military connection to various water stressed African states. It can enable host nations' militaries to implement an effective strategy to manage water. In order to achieve water security, AFRICOM must work with other USG agencies, particularly State and USAID. The resources that AFRICOM provides will support current efforts by State and USAID. Only a combined effort that engages African nations will be successful in addressing the future water security concerns of Africa.

This and other CSL publications may be accessed for free through the USAWC/CSL web site at: <http://www.csl.army.mil>.

The views expressed in this report are those of the author and do not necessarily reflect official policy or position of the United States Army War College, the Department of the Army, the Department of Defense, or any other Department or Agency within the U.S. Government. This report is cleared for public release; distribution is unlimited.

23. William Ward, "In annual posture statement, Ward Updates Congress on U.S. Africa Command," U.S. AFRICOM Public Affairs, March 17, 2009.

AFRICOM's Role in Water Security

OFFICIAL BUSINESS

U.S. ARMY WAR COLLEGE
Center for Strategic Leadership
650 Wright Avenue
Carlisle, PA 17103-5049