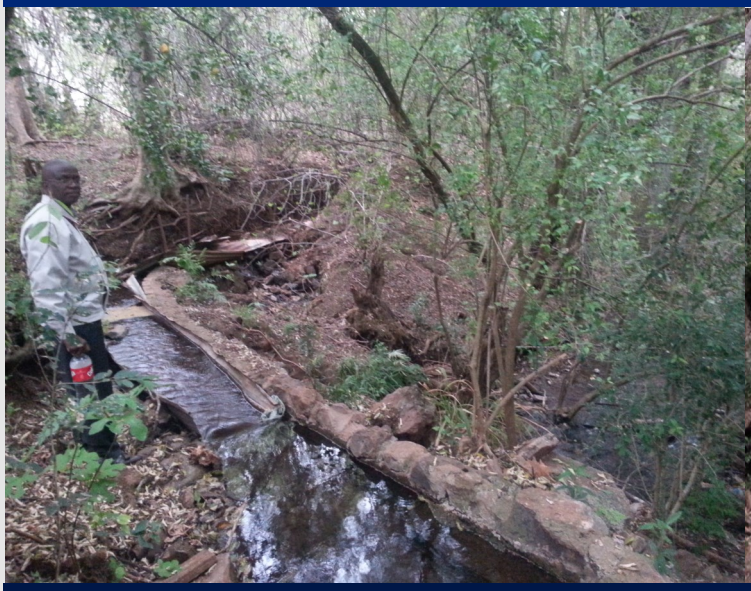
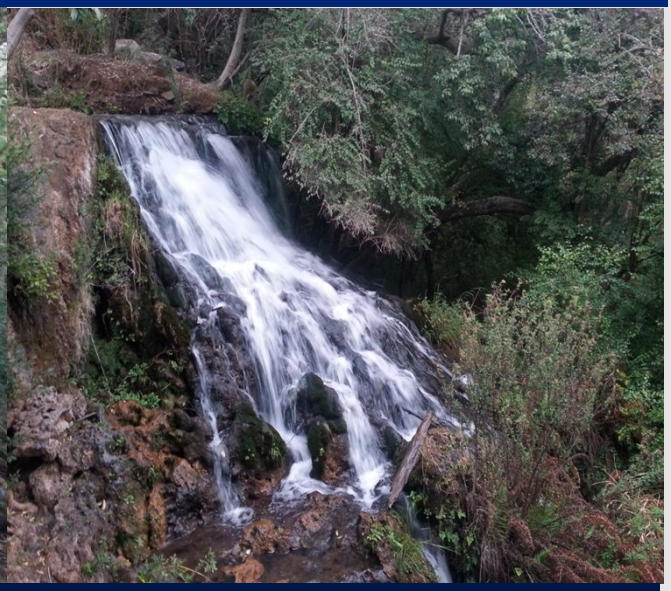
USAID | SOUTHERN AFRICA
FROM THE AMERICAN PEOPLE

Environment Program Highlights

October 2015 Volume 6

Support for Proclamation of Marico Area as a UNESCO Biosphere Reserve





Left: The eye of the Marico River **Right: The Tufa Waterfall in the Marico Area of South Africa**

In this Issue:

The Marico catchment area surrounds the town of Groot Marico in South Africa and constitutes a magnificent bushveld area of koppies, cliffs, ancient indigenous trees and bush. It is home to naturally occurring game, birds and aquatic creatures.

The Marico River is the lifeblood of the Marico Catchment and is one of South Africa's remaining few largely unmodified free flowing rivers, and an important source of water for the Limpopo River. The Limpopo River provides water for various commercial and domestic uses and plays an important role in the economy of the Southern Africa region.

Through the Resilience in the Limpopo River Basin program (RESILIM), USAID is proud to associate and collaborate with the Marico River Conservation Association (MRCA) and its vision for a legally established, UNESCO recognized Marico River Biosphere with a goal to protect and conserve this unique ecological capital. USAID shares MRCA's vision for at least 60,000 hectares of land to be proclaimed as a UNESCO Biosphere Reserve.

In August 2015, the MRCA handed over an application to the North West Parks Board on behalf of 35 landowners for a proposed 18 100 hectares protected area in the Marico Catchment. The MRCA is working in partnership with RESILIM in building the resilience of both ecosystems and communities, and in the protection of water resources at catchment level.

USAID looks forward to a successful outcome of the application for both the Biodiversity Stewardship program as well as for the declaration of at least 60,000 hectares of land as a UNESCO Biosphere Reserve.

Earlier in the year, RESILIM partnered with the MRCA to mitigate the threat that wildfires pose to biodiversity and livelihoods through the training of 68 members of the local community in South African Qualification Authority (SAQA) accredited courses, *Suppressing Wildfires* and *Basic Safety in Combating Wild Fires.* Prior to the training, farmers used to gather untrained volunteers to fight the fires.

Africa is often called "the continent of fire," and fire is a critical part of Southern African ecosystems. Inappropriate fire management techniques however threaten biodiversity and the flora and fauna that depend on fire to survive. At the same time, fire endangers human infrastructure and lives.

USAID | SOUTHERN AFRICA

FROM THE AMERICAN PEOPLE

Environment Program Highlights

Integrating Democratic Governance and Natural Resource Management

Africa is rich in natural resources, including: precious minerals, agricultural land, water, fisheries and forests. Yet, Africa continues to suffer from incidences of extreme poverty, deepening inequality and underdevelopment.

Recognizing that a thriving extractives industries sector can contribute to economic development, alleviation of poverty and an improved standard and quality of life throughout the region, USAID also recognizes the need for a strong human rights approach to natural resource governance that is transparent and holds governments accountable.

USAID Southern Africa's Democracy, Human Right and Governance (DRG) team is providing support to the Legal Resources Center (LRC) in South Africa to increase awareness and engagement of communities' customary rights to natural resources on a regional level including legal practitioners, government officials and social movements through the African Commission on Human and People's Rights (ACHPR). This includes the development of African jurisprudence on customary law as a source of law and increasing the understanding of local communities' rights to natural resources. Complementing this work, from March 9-13, 2015, the Southern Africa Development Community (SADC) Lawyer's Association (SADC LA) hosted training in Johannesburg, South Africa for twenty five lawyers from across the SADC region on natural resource governance. As a result, lawyers who participated in the workshop continue to report multiple contributions to natural resource governance in their home countries.

Managing Groundwater Across Borders

Water is essential for biodiversity conservation, resilience of ecosystems, economic development, population health, welfare and security in Southern Africa. Managing water resources to balance these demands is challenging enough, but when you add growing populations, increasing impacts of climate change and the international politics when the water system crosses international borders you often end up with inaction.

USAID Southern Africa has focused on these transboundary water resources for several years in the Okavango, Limpopo and Orange/Senqu river basins. Collectively these basins include Angola, Botswana, Lesotho, Mozambique, Namibia, South Africa and Zimbabwe, all members of the Southern Africa Development Community (SADC). As a result of years of investment by USAID, the Southern Africa Environment Team was approached to lead the development of one of the first transboundary aquifer management projects in Southern Africa.

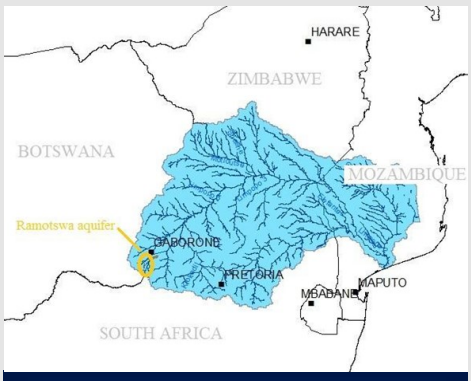
According to the International Water Management Institute (IWMI), there are 592 transboundary aquifers identified worldwide, 70 of which are in Africa, but only 5 aquifers have legal management arrangements between the countries that share the resource, and none of these are in the SADC region.

The lack of a shared management agreement, however, hasn't slowed the withdrawal and use of groundwater for agriculture, industry and personal use.

The Ramotswa aquifer is one of the most important shared aquifers in the Limpopo River Basin - it bisects the border of South Africa and Botswana, including Gaborone, the capital of Botswana and home to over one million people.

To address the challenges inherent in managing an aquifer, about which very little is known, USAID/Southern Africa and the Global Development Lab, along with the USAID funded Resilience in the Limpopo River (RESILIM) project, IWMI, the University of the Witwatersrand, U.S. Geological Survey, and partners from the governments of South Africa and Botswana have come together to develop a program to map the Ramotswa aquifer, develop a shared management plan, build the capacity of resource managers on both sides of the border, and develop low-water agriculture solutions.

The three-year Ramotswa project will advance the science of groundwater management in Southern Africa through a Partnership for Enhanced Engagement in Research (PEER) project with the USGS and Wits University, and the placement of a Research and Innovation Fellow from one of the Lab's partnering U.S. universities. This PEER award will be funded by the South Africa Department of Science and Technology and the Lab, making it the first ever PEER award to be co-funded by a host government.



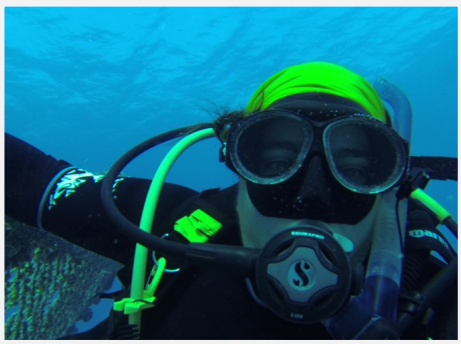
Interesting Links

Publications from Seychelles Coral Reef Project:

http://www.tandfonline.com/doi/abs/10.2989/1814232X.2015.1078259

https://peerj.com/articles/1287/

In the Spotlight: Nature Seychelles' Sarah Frias-Torres



Originally from Spain and the USA, Dr. Sarah Frias-Torres was hired as Chief Scientist and Project Coordinator for the USAID funded "Reef Rescuers-Restoring Reefs in the Face of Climate Change" project implemented by Natures Seychelles. In collaboration with an international team of marine biologists and scientific divers, Sarah is working to bring back to life the degraded coral reefs of the Seychelles. With over 25,000 corals and 34 different species transplanted in an area covering over half a hectare in the Praslin Islands of the Seychelles, seeing the transplanted corals grow healthy and attracting more and more fish each day is most refreshing and rewarding aspect of the job for Sarah.

Sarah is a problem-oriented scientist. For every problem she finds she says "I search for a solution using the scientific process. In this way I'm not the stereotype marine biologist investigating obscure phenomena. I want to understand how the ocean works, how marine life works, and with that knowledge, fix the problems we have today in the conservation and sustainable management of the oceans". This however is not always easy. The combination of fieldwork at sea near the equator coupled with the limited resources of a Small Island Developing State (SIDS) makes her work "the poster child for Murphy's Law". In other words, anything that can go wrong will go wrong. With some humor she says "Sometimes the seas are too rough to dive in, the rain too strong so we risk losing the divers at sea upon recovery. Or the boat engine doesn't start. The buoys marking our dive and mooring sites disappear (it seems the fishermen like them too much)". Yet, these are the very challenges that magnify every achievement she says.

Sarah strongly believes in restoration. She believes in helping nature restore and heal itself. Her work with the project has demonstrated that large scale coral reef restoration is feasible, cost effective and yields results. Sarah is proud to see the results of the work already and hopes her experience will help people around the world to set their own coral reef restoration projects without having to reinvent the wheel. When not analyzing data in a lab or deep in the sea with the corals, Sarah is out observing animal behavior. This is her hobby. She believes that mankind has much to learn from animal behavior. In her spare time, Sarah also likes to draw, paint and write fables about marine life. In her Ocean Bestiary stories, she usually talks from the point of view of the animal. This is clearly an interesting way to translate scientific jargon into layman's language and reach more diverse audiences. She cannot think of a better farewell gift to the Seychelles than to leave behind a restored coral reef. See her remarkable Ocean Bestiary stories at https://oceanbestiary.wordpress.com/

Successful Partnerships in Science Diplomacy

USAID Southern Africa and the South Africa Department of Science and Technology (DST) are creating new partnerships to foster scientific collaboration between the two countries.

In 2010 USAID Washington launched the Partnership for Enhanced Engagement in Research (PEER) program to fund research in nearly every country USAID works. Each year since, USAID released a call for proposals and then worked with the U.S. National Academies of Science and USAID missions to select proposals for funding.

To receive a PEER grant, researchers in the developing world had to develop a proposal that addressed an area of significant development need and partner with a U.S. researcher with an active grant from the National Science Foundation (NSF). USAID then provided the international researcher with funds to support their research. In 2014 USAID Southern Africa and the South Africa DST changed this approach for South African researchers. Beginning in 2014, during the fourth annual PEER call for proposals, DST helped to set the priorities for research in South Africa, and worked with the Mission to review and prioritize research proposals. DST also became an equal partner in funding selected projects. This agreement made South Africa the first country to partner with USAID to fund PEER research projects.

Through the DST-USAID partnership, two proposals were selected: 1) Professor Michael Aliber from the University of Fort Hare will be partnering with Professor Stephen Ventura from the University of Wisconsin, Madison to identify opportunities to increase food security in the Eastern Cape, and 2) Professor Tamiru Abiye, from the University of the Witwatersrand is partnering with Richard Healy from the U.S. Geological Survey to map the Ramotswa aquifer, which extends from just north of Gaborone, Botswana into the North West Province of South Africa.

Due to the success of the 2014 partnership, USAID Southern Africa and DST have agreed to expand this partnership in 2015. This year the focus for research will be on Water Supply, Sanitation and Hygiene, and Low Emissions Development. To highlight the importance of the partnership between USAID and the Government of South Africa, DST has asked to sign a Memorandum of Understanding with USAID on Science and Technology.

The U.S. Agency for International Development provides economic, development and humanitarian assistance worldwide. USAID supports people's efforts to develop themselves and their countries. In Southern Africa, the United States seeks to increase trade and strengthen economic ties within the region, address the HIV/AIDS crisis, mitigate recurrent food insecurity, and strengthen democracy to reduce the risk of conflict in the region. USAID/Southern Africa, located in Pretoria, South Africa, complements and enhances USAID's bilateral programs in the region, supporting unique and innovative regional activities and providing a range of services to assist USAID missions in the region.

USAID/SA, P.O. Box 43, Pretoria, 0027. Tel: 27 (012) 452 2000, Fax: 27 (012) 460 3177

For more information about USAID/Southern Africa Environmental projects, please go to: http://www.usaid.gov/southern-africa-regional