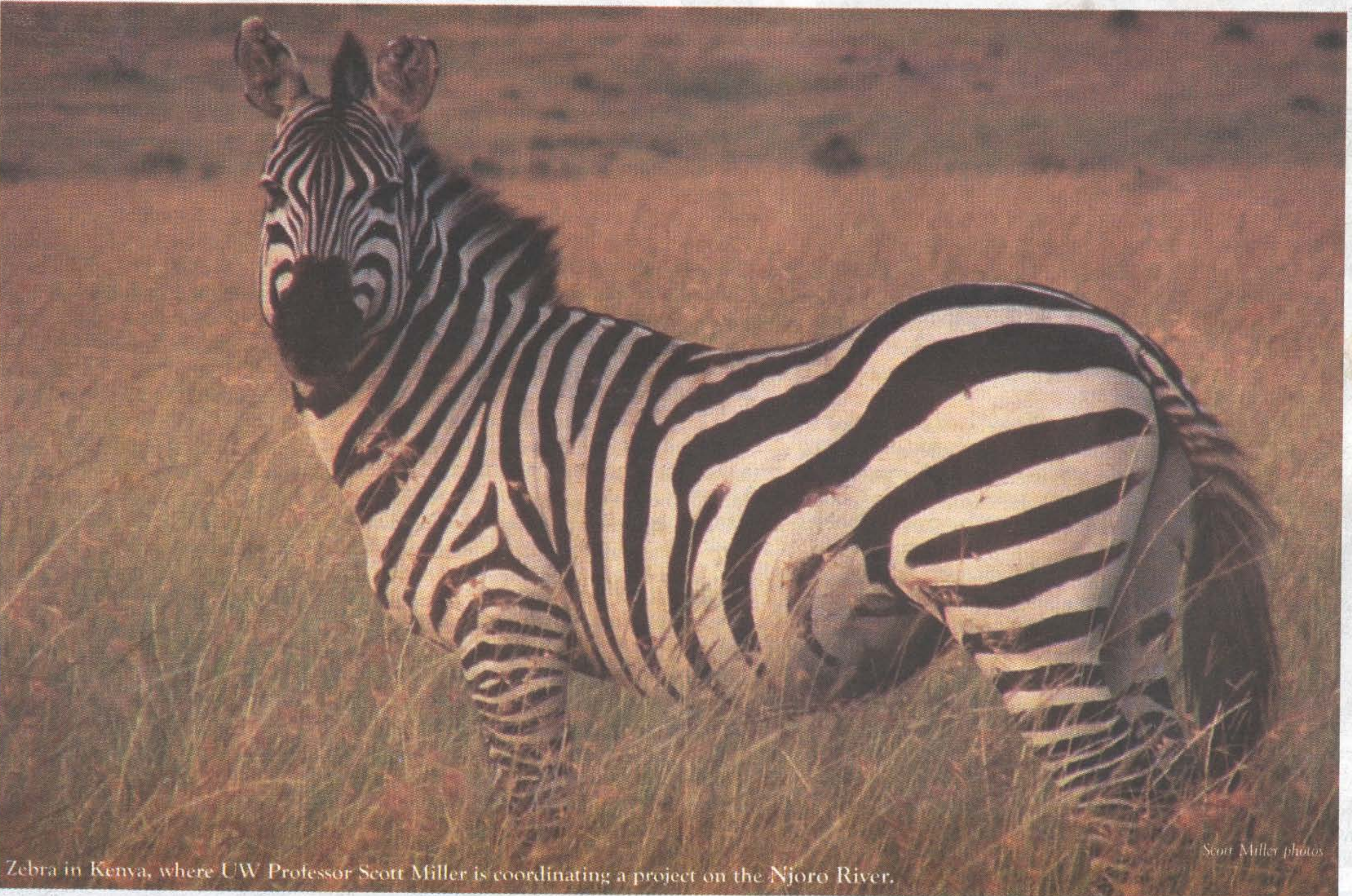


# ALUMNI NEWS

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*Scott Miller photos*

Zebra in Kenya, where UW Professor Scott Miller is coordinating a project on the Njoro River.

# ALUM NEWS

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*Scott Miller photos*

*Acacia tree on the savanna*

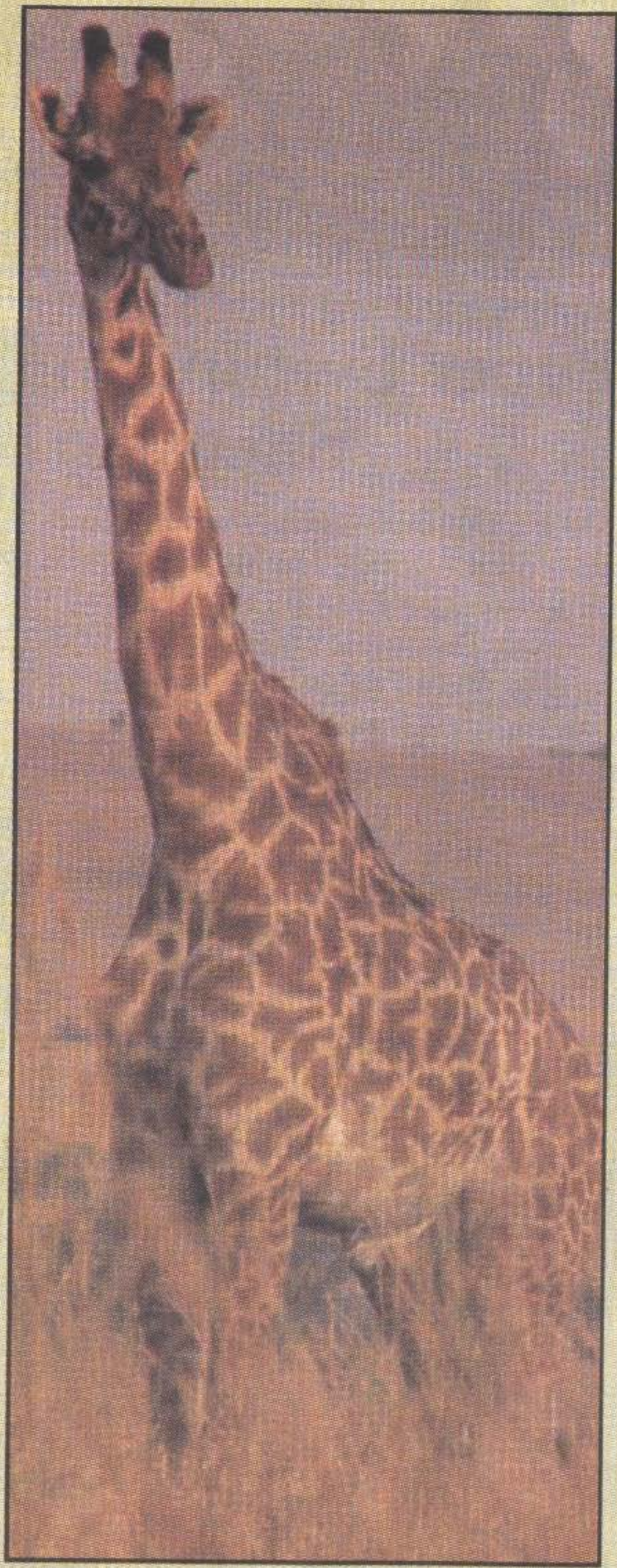
# Into Africa

By Suzanne B. Bopp  
Alumnews Editor

In the upper reaches of Kenya's Rift Valley, something bad is happening.

That's where the headwaters of the Njoro River can be found - deep in the forest at the top of the valley. From there the river flows down into Lake Nakuru, the centerpiece of Lake Nakuru National Park, a popular destination for tourists. But in the last 10 years, the area has seen accelerated population pressure; much of the upland forests have been removed to make way for people trying to scratch out a living on tiny farms. The effect on water quality and quantity downstream has been profound; that creates serious implications for ecology, economics and health.

Needless to say, that is bad news for everyone. "This is an agricultural and pastoral society," says Scott Miller, assistant professor in the



Giraffe looking for water

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department of renewable resources at UW. "If you have water degradation, you can't sustain the livelihood of the people. It's a pretty typical story."

Miller hopes to help change that story for the Njoro River. To that end, he is heading up a project that will connect several states and countries over the next few years.

The project had its beginnings with a professor at Egerton University in Kenya, William Shivoga, who had an idea for researching the deteriorating Njoro River watershed. While looking for funding, Shivoga came across the director of USAID. That organization had a strong interest in his idea, but was unable to fund an African project directly. Instead, they looked for an American citizen to lead the effort so that they could offer their financial support. When all of this came across the desk of Tom Thoreau, head of the department of agriculture at UW, he suggested Scott Miller.

Miller, as the project's principal investigator, is responsible for its coordination. Another UW professor, Sian



*Elephants on the move with a baby*

Mooney, from the department of agriculture and applied economics, also works on the project. Faculty and students from the University of California and Utah State University are involved. Working with Shivoga are other Kenyans in the areas of watershed hydrology, ecology, socioeconomics, and stakeholder participation, bringing the total to about 25 or 30 people.

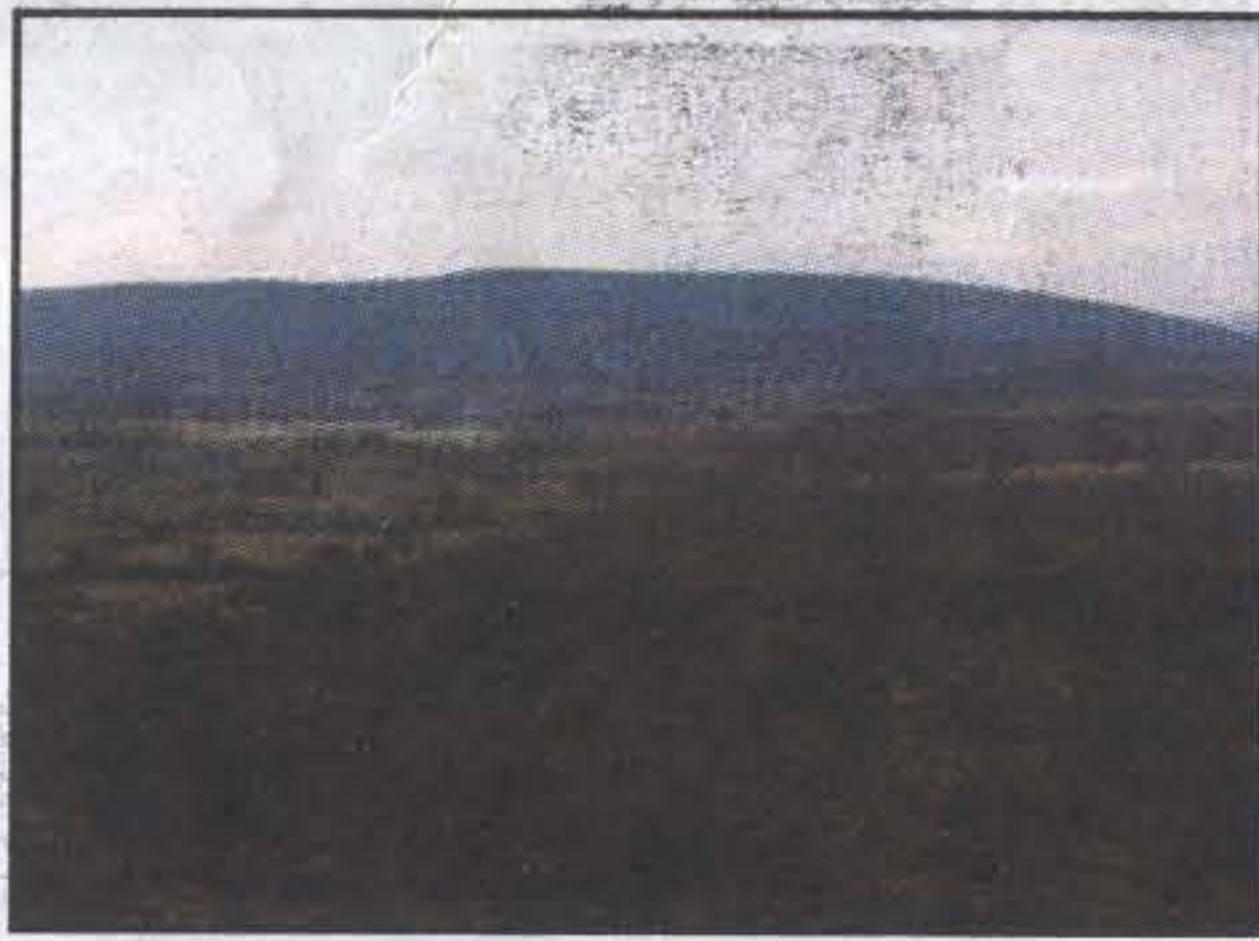
this project will be the ones you want to go see in Africa."

Though the project is focused on Kenya and East Africa, the principles are universally applicable, to some degree. A Ph.D. student at Utah State working on this project is at work comparing the plans for the Little Bear River in Utah with the Kenyan plans.

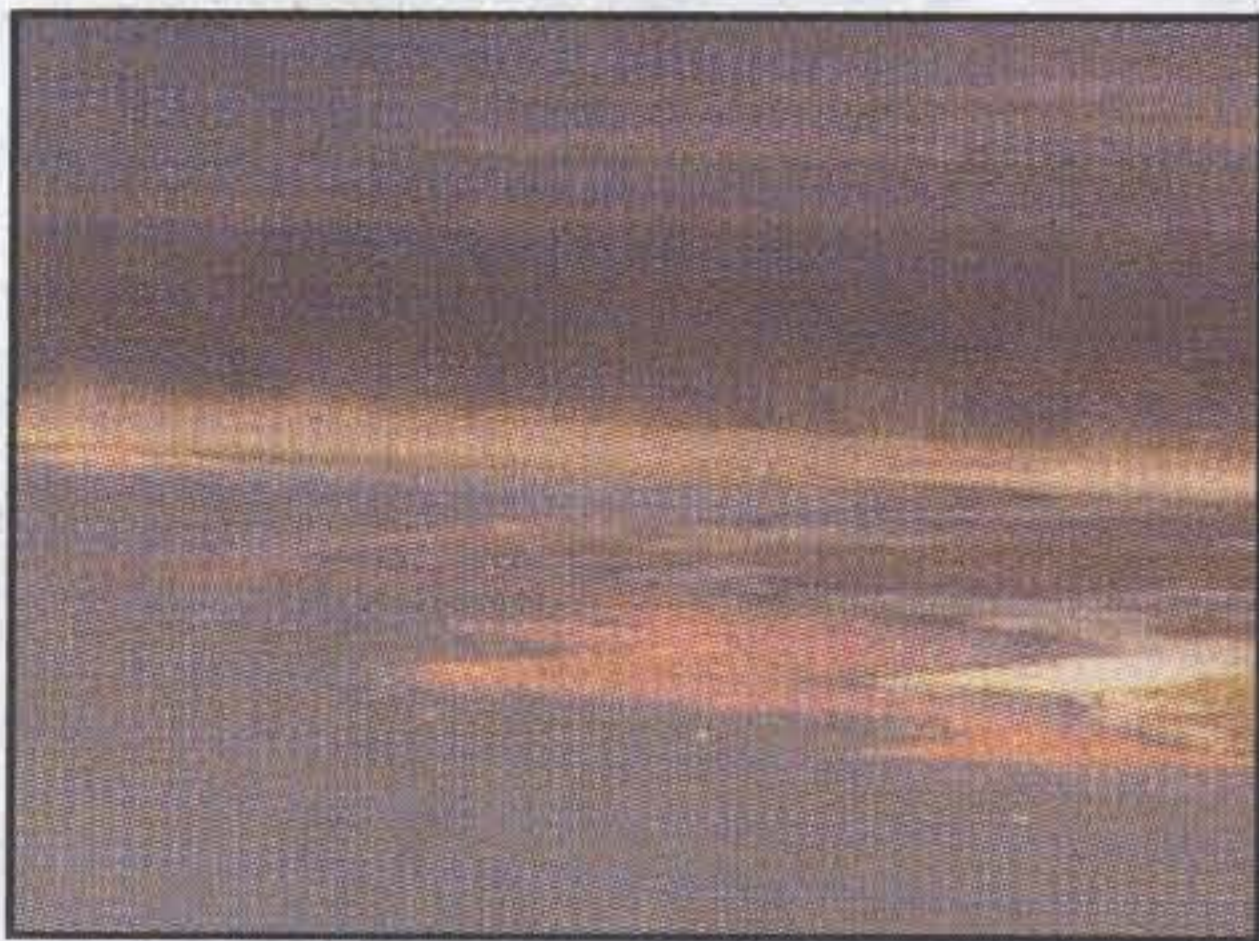
patient with developing relationships."

While respecting those differences, in some cases he hopes to introduce some changes in thinking. For example, traditionally, separate communities don't talk to each other, but if the project is to work, there will have to be communication among stakehold-

**"ONE WAY TO DEAL  
WITH FOOD  
INSECURITY IS TO  
GROW SOMETHING**



Park boundary from Baboon Cliffs



Thousands of pink flamingos taken from Baboon Cliffs



Children playing in the Njoro River

The first step was for Miller to work with Shivoga and other Kenyans to develop a five-year plan. Last year they got the grant. Now the real work has begun.

Miller, who has a bachelor's degree from Brown University and a master's degree and Ph.D. from the University of Arizona, hopes to ultimately turn the Njoro watershed into a model for biophysical and sustainable development. "If we do this right, several things will happen," he explains. "We'll have a test case which people can refer to in Kenya and East Africa. And we'll create a center of excellence in watershed studies. The people on

But there are differences, too, between American and Kenyan research. "The way you do stakeholder research will be different, but the idea is the same," Miller says. "We let the research agenda be driven to some degree by the stakeholders, which we as scientists are often loathe to do."

The way they go about asking questions of the stakeholders is another difference. "They live in tribes; they are community driven," he says. "You have to cultivate interactions with a couple of key participants. You have to be

**TO GUARANTEE YOU HAVE FOOD." SO THEY GROW MAIZE, WHICH IS A STAPLE OF THEIR DIET.**

*Scott Miller*

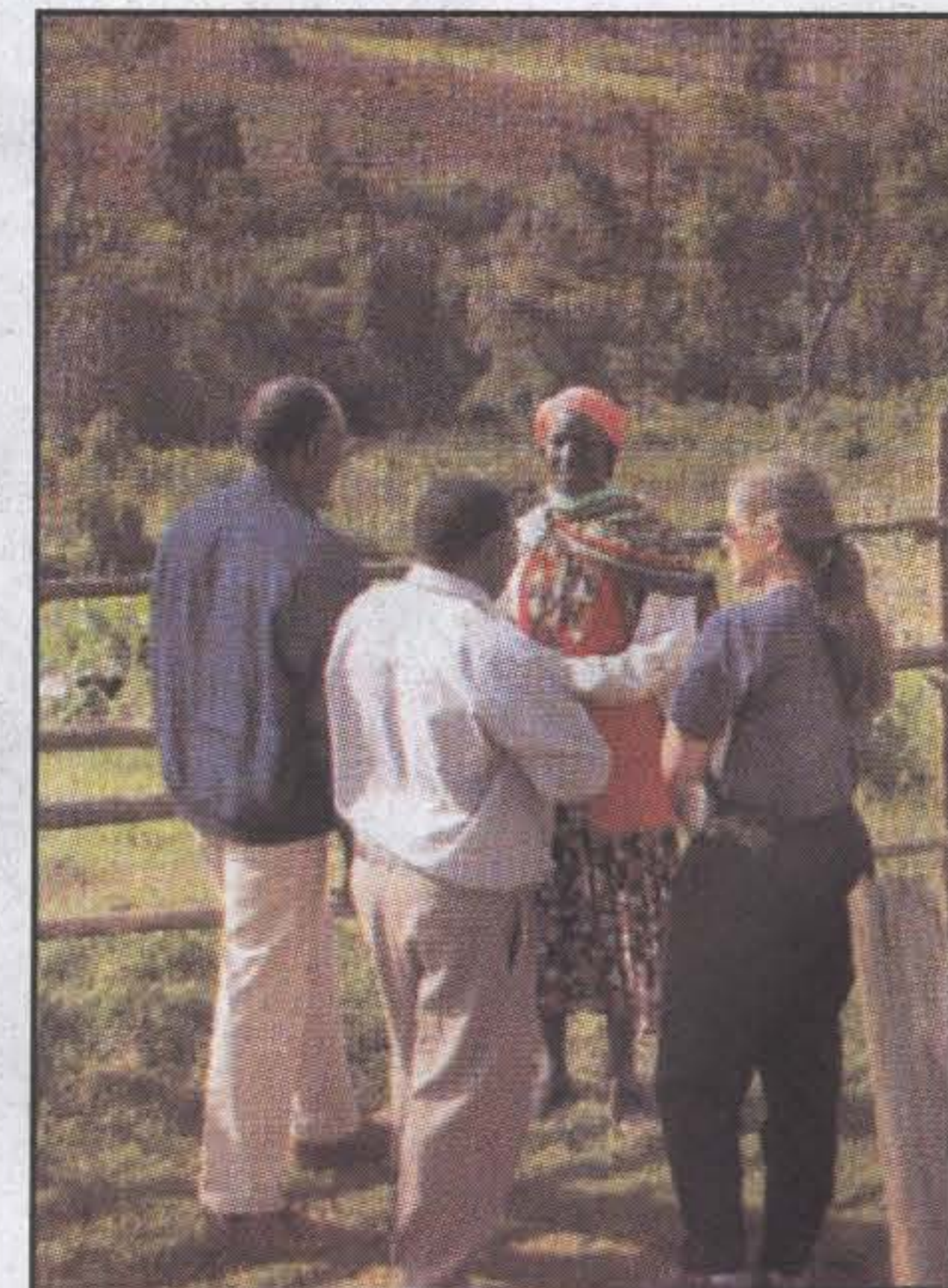
ers throughout the valley. Still, Miller is realistic about what he can and cannot do with this project. "In economics, you can't deal with things just on a watershed basis.

There are too many other factors, such as prices, road infrastructure," he says. "But you can't deal with everything. Ours is a very bottom-up approach. We want to understand policy as a component of the system and provide tools and resources to those people."

Because of the community-mind-  
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Group photo; Scott Miller is pictured third from the left.



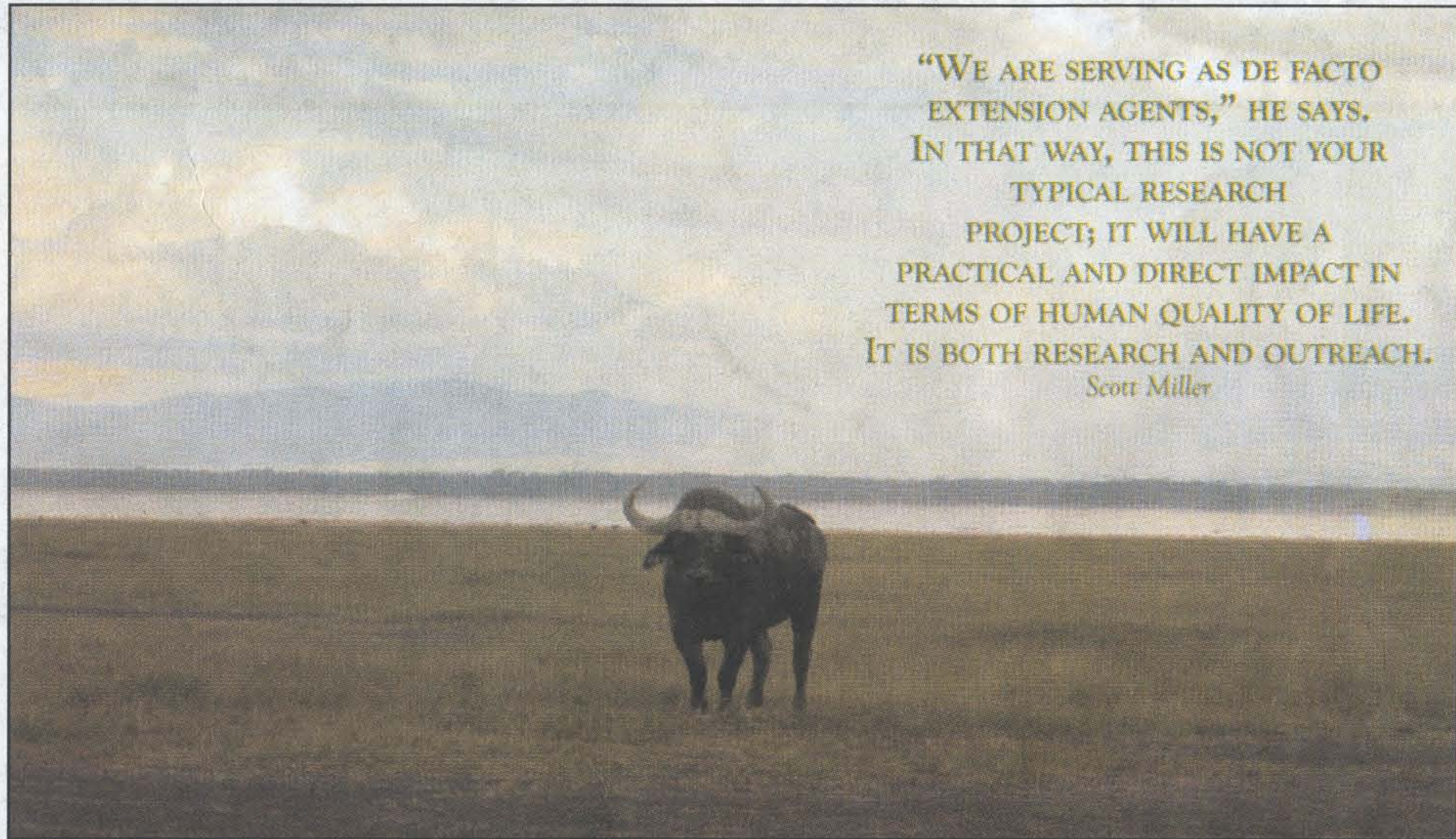
Stakeholders near Nesult

## Into Africa

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edness of the Kenyans, the pilot projects Miller introduces must be demonstrated to what are considered the trustworthy people in the community. They, in turn, may be able to guide their communities. "Stakeholders must be involved from the get-go, to see it from the beginning and get some ownership," he explains. "It's hard and unfair to expect people living without a great deal of buffer to embrace change. The consequences of bad change are disastrous."

The fear of bad change makes it difficult for people to consider altering their agricultural practices. Right now maize is the overwhelming crop of choice. "Food security is one of the primary things they worry about," Miller explains. "One way to deal with that is to grow something to guarantee you have food." So they grow maize, which is a staple of their diet. "The problem is if the rains don't come, the crops fail. If the rains do come, everybody's



*Cape buffalo*

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IN THAT WAY, THIS IS NOT YOUR  
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IT IS BOTH RESEARCH AND OUTREACH.**

*Scott Miller*

crops do well and the price drops. They have only a limited market where they can sell. We need to introduce diversity.”

To that end, Miller and his team will this year demonstrate both an agroforestry pilot project and pond aquaculture to introduce alternative sources of income. Miller also hopes to help initiate some basic conservation practices for agriculture this year. Because many of the current residents having moved to the area from places in different agricultural zones, they are applying practices inappropriate for this area. “We are serving as de facto extension agents,” he says. In that way, this is not your typical research project; it will have a practical and direct impact in terms of human quality of life. It is both research and outreach.

This has been a time of consider-

able change in Kenya, which makes it a great time to be working there. “The country held democratic elections last January; the current government is making an effort to redirect the momentum and provide a fairer distribution of resources,” Miller says. “The folks I work with say right now Kenya is the most hopeful nation on earth. There’s an enormous amount of energy and enthusiasm to make Kenya better. It’s palpable.”

This is made obvious to him by Kenyans’ eagerness to participate in his project. “People on the ground know that the land is getting worse and the water is getting worse,” Miller says. “If you walk into a room and say, ‘We want to help you with this,’ they are right there with you.”

Miller will return to Kenya this summer for three weeks to work with

his team, and looks forward to the chance to see the changes he can help to bring about and the results that can be created in people’s lives. That’s the reason he got interested in the field of sustainable watersheds in the first place. On a trip to Nepal at age 13, he saw the problems with erosion and deforestation, and how people suffered for a lack of good, clean water.

Thoughts of those problems are with him still and have driven his career.

“There are many fascinating and complex situations in this country, but they don’t have the immediacy of the problems in poor countries,” Miller says. “Abroad the problem is more direct. There, degraded watersheds mean degraded livelihoods.”



*Mama baboon with her baby*



*On the Southern divide*



*Vertical cropping near first settlement*



*left - Zebras on the savanna*