



STEWARDS RISING



IMPROVING COMMUNITY
RESILIENCE THROUGH
NATURE-BASED SOLUTIONS

STEWARDS RISING

This book is dedicated to the communities of the Lower Tana sub-catchment in Garissa County Kenya, in particular Khorweyne, Balambala, Saka, Tula, and Boka areas; and, the Upper Aswa-Agago sub-catchment in Lira, Otuke and Alebtong Districts in Uganda, in particular, the Artwotngo Parish. Thank you for sharing your inspirational testimonies with the world. Your spirit of survival is creating a brighter future for the next generation of stewards.



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WHAT IS OUR LIFE WITHOUT WATER?

“My roots are deeply buried in this community. Born a pastoralist, I was brought up with camel’s, milk and meat. I received my education because of water, which I now help to conserve. It is in my heart. I prefer to be here in Garissa because this is where I belong.”



AHMED MOHAMMED, PHD
PROGRAMME OFFICER
BUILDING DROUGHT RESILIENCE THROUGH
WATER AND LAND MANAGEMENT PROJECT
LOWER TANA BASIN KENYA
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REGIONAL PROGRAMME

To encourage parents to send their children to school rather than spending their days herding livestock, Kenyan authorities in the 1960s introduced a daring rule in my community: The water pan could ONLY be used if one’s child was in school. Naturally, we made sure to attend school -- if not for the mere fact that it eased our mothers’ chores -- water is solely a woman’s responsibility.

While others started dropping out and returned to a life of pastoralism, my mother encouraged me to continue. I too could have dropped out. As if by premonition, today, as the extreme dry Lower Tana River sub-catchment area hits a critical point, I return to the area armed with a doctoral degree in Natural Resources Management, passion,

and most importantly, an understanding of the culture that is very rich in conservation knowledge.

My affinity for the environment started as small boy. I remember eating wild fruits. My mother treated me with herbal medicine. At the height of drought, we knew to drink water from tree trunks. The old folks told the story of wells offering enough water for people and cattle. However, many of our problems started at Kenya’s independence when people started associating “Uhuru” with being free from rules pertaining to natural resources. To top it off, national borders emerged, which limited access to water and land. You can just imagine how that affects a nomadic pastoral community.

The problems that emerged were dire; not only did we lose our rich tradition of conservation that was replaced by modern law, but both human and livestock populations increased, which added pressure to the environment. The whole situation was made worse by increasing number of droughts. The water scarcity caused many types of conflict among the community.

Our project recognizes these problems and understands that traditional knowledge is important. We work closely with the community to revive traditional conservation law, combining it with modern law. The communities are living their dreams of becoming stewards of nature again.

"Now, communities can use water for both people and livestock in an organized way, satisfying our basic needs again."



POWERING THE FUTURE.

“People were hopeless and traumatized when they came back from the camps. With a whole generation brought up as refugees, they lost the rich culture of community and diverse food supply. People thought of themselves first, not trusting anyone, let alone an organization like IUCN. I could relate. I myself was abducted twice.”

My grandparents used to tell us stories about their days. They described life as easy and happy. They did not have banks or money, but they had their wealth of cattle and goats that provided milk and meat. They cultivated the little bit of land to supplement their food supply.

Things began to change in the 1970s when a neighbouring tribe, claiming that all cattle in the world belonged to them, raided our farms, stealing our cattle and raping women. Right after losing our wealth, a struggle for political power spiralled out of control around 1987 when the “Lord’s Resistance Army” began to terrorize people. We were living in Gulu then. I was about five or six years old, but remember my parents’ tensions. We became refugees when family members were forced to kill their own kin. Women and children were abducted, never to return. For about 20 years, most of us stayed in displacement camps under the pro-

tection of very unpopular international NGOs. By 2008, when Joseph Kony and his terror gang were pushed out of the country, people started slowly to return home.

In very timid fashion, our people arrived in stages; at first, to see if indeed the area was safe. Upon their return, they found their homes burned down, the grass and trees growing wild. The land was their only resource to survive. Not surprisingly, they reverted to what they learned in the camps to earn cash: cutting trees to make charcoal, which they could sell. They cleared the forests for farmland and expanded their fields into wetlands to grow rice.

Environmental conflicts emerged that spiralled into people’s homes when drained wetlands caused flooding of farm fields during heavy rains. Our women carried most of this burden of frustration; there was a constant struggle for money

in the households and domestic violence increased.

IUCN came in to help communities cope with the extremes of flooding followed by droughts. Our project worked with main wetland ‘Hotspot-Parishes’ to help to start living in harmony with nature again. Having trained as an environmentalist, it was important for me to come back and work with the community. I relate to the women. We talk as sisters. We share the same experiences of running away at night, getting beaten by the rain, wondering where it is safe and where our next meal would come from. When they say, ‘I am a returnee,’ I know exactly what they are talking about. I believe our shared experiences formed the basis for trust, and helped make the project successful.



GERTRUDE OGWOK
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BUILDING DROUGHT RESILIENCE THROUGH
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UPPER ASWA-AGAGO BASIN, UGANDA
IUCN EASTERN AND SOUTHERN AFRICA
REGIONAL PROGRAMME

“Since the wetlands have been re-
stored, people have noticed that the
wetland hold water for the entire dry
season. Last year, the wetland held no
water during the dry season.”





A severe drought in 2010/ 2011 that affected the entire East Africa region directed the Austrian Development Cooperation to invest in the Eastern and Southern African Regional Programme of the International Union for Conservation of Nature's project, which aims to improve community resilience to drought and flood through nature-based solutions.

The BUILDING DROUGHT RESILIENCE THROUGH WATER AND LAND MANAGEMENT project is implemented in partnership with the Governments of Kenya and Uganda, and others.

LOCAL COMMUNITIES DRIVING CHANGE.

Security, tradition and self-direction: The values driving communities to change practices and behaviors.

SECURITY

"We are pastoralists. During the drought, the only place that offered food were the farms. We knew then it was important to have an alternative."

"We have food to eat now and storing some for the dry season. My kids get good nutrition."

"My wife and children do not get as sick anymore."

"This sheep of mine made me see my future . . . it produced more litter. I can sell the sheep and make money. In the future, I can see I am progressing. "

SELF-DIRECTION

"My husband does not cane me anymore as I am improving our income. . . we have more unity now."

"I am happy because I now have a say."

"I want to rely on myself."

WHAT IS DROUGHT?

"In 2010, I saw in this part of the world goats eating other goats because of lack of pasture and fodder. I saw warthogs, out of desperation, putting their horns into sheep that have drank water to drink that water. I saw birds eating the carcasses of other animals for food."

"We had no rain for two consecutive years. The local tributary of the Tana river dried up and became a "Lagha" [dry river]. Trees died because of drought and fell down. Camels had to be lifted up by men."

"All our crops and farmlands got destroyed."

"80% of our livestock died. Government had to step in with relief programs and provide regular lorries with water for us to drink."



The water table of this well -- the only one in about 200 km² of drylands -- is receding.



WHAT IS RESILIENCE?

To be resilient is to prepare for the uncertainties of tomorrow. People experience surprises from political, economic, financial and/ or environmental shocks. Yet, for every stumble, communities have learnt how to pick up the pieces and move forward. This spirit of survival, adaptation and being flexible is what helps one overcome challenges. That is what being resilience is all about.

The path to being resilient lies in working through the stress and pain of lack of resources, natural disasters, and more. We acquire resilience when we gain the necessary skills and knowledge

to handle stressful situations or to give us peace of minds.

When you save money for a rainy day, you are being resilient because you are prepared. When you plant a variety of crops that can help you in times of drought or floods, you are taking precautions and thus being resilient. You might not be able to stop flooding, but you can build protection using natural solutions to withstand the effects of flooding. When we share natural resources, we need everyone's input to plan and manage it effectively; and be better prepared for potential shocks.

EVERYTHING HAS A LAW.



By-laws are community-established rules and regulations that guide the management, access and use of shared natural resources, including water. All by-laws are written by the community and bring together traditional knowledge with those of today's formal institutions.

“We had to go through the by-laws when we started demarcating the wetlands.”

The important thing about the By-laws is they have given power back to traditional structures, such as the Council of Elders. Now, the rights of local people have been strengthened to take care of their own resources.

“Everything has a law. If you refuse, the law is there to guide what the consequences would be.”

“We called for leaders from all the 21 villages in our Parish. The community only accepted a law that would make their lives better.”

I HAVE BEEN ELEVATED.

“In the past, women were ignored; I as Betty could not stand next to a man to go for any government work. The men undermined us. When IUCN came, I saw the potential to make a difference and encouraged women to participate in the COMMUNITY ENVIRONMENT CONSERVATION FUND. The men came around when they saw how our lives improved. As a public figure, I have been elevated in the community, and I helped to lift the other women too.”

-- ACHEN BETTY, WOMEN REPRESENTATIVE
ARTWOTNGO PARISH, OKWANG SUB-COUNTY, UGANDA



I wanted to show that women also have the capacity to stand and make a difference. That is why I ran to become the Women Representative for Artwotngo Parish.

I saw from other districts that their lives were getting better and I wanted the same for my community. Our problems here were not the same as other districts. In our Parish, we don't have a lot of educated people. One of the reasons was that girls never went to school. As a woman, our role was to have children. So I encouraged the women to join me in the campaign for our Parish to become part of the project.

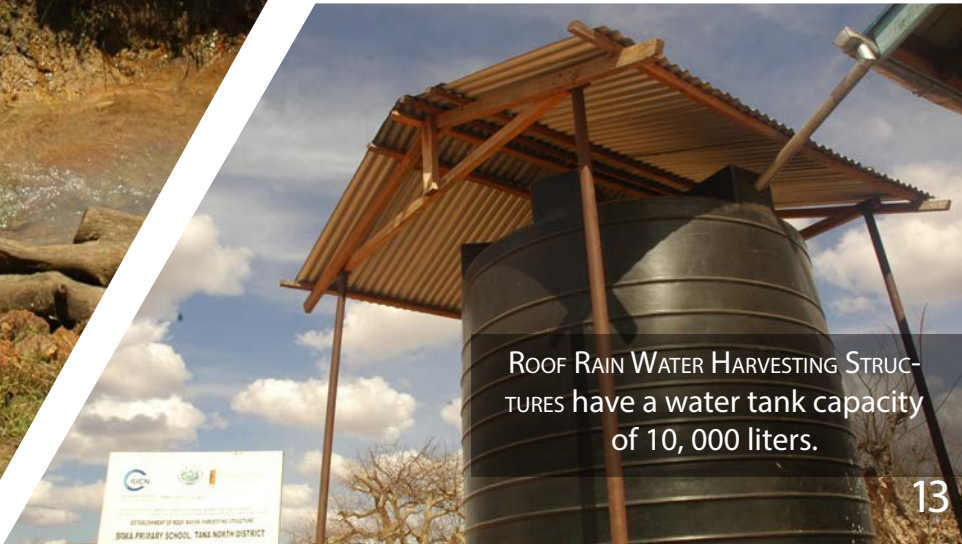
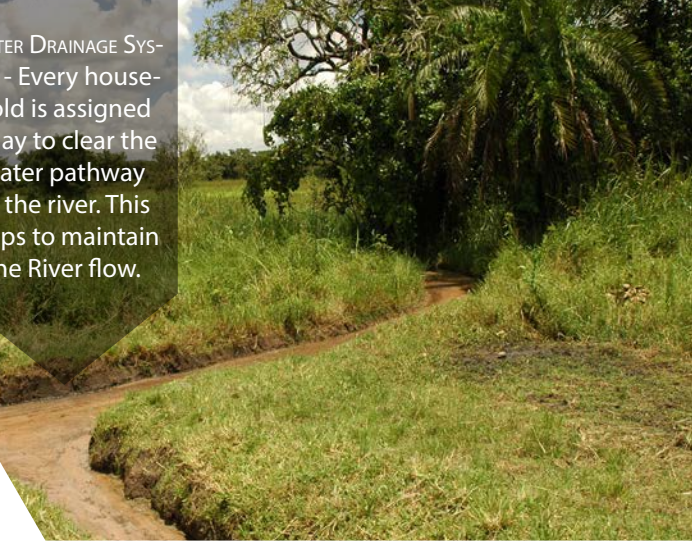
Our first activity was to create the By-laws. We started with Parish meetings and then met with all 21-village leaders in the Parish. We now meet every month to discuss community issues. I chair these meetings.

I have now learnt to hold meetings. I know how to get my community to come together and take a decision. I understand the importance of having many different types of food that we can use during the dry and wet seasons. I know now how to manage the wetland so it can serve us better. I have learnt to save money and budget for tomorrow. I now teach others what I know.



A REHABILITATED WATER POINT.

WATER DRAINAGE SYSTEM - Every household is assigned a day to clear the water pathway to the river. This helps to maintain the River flow.



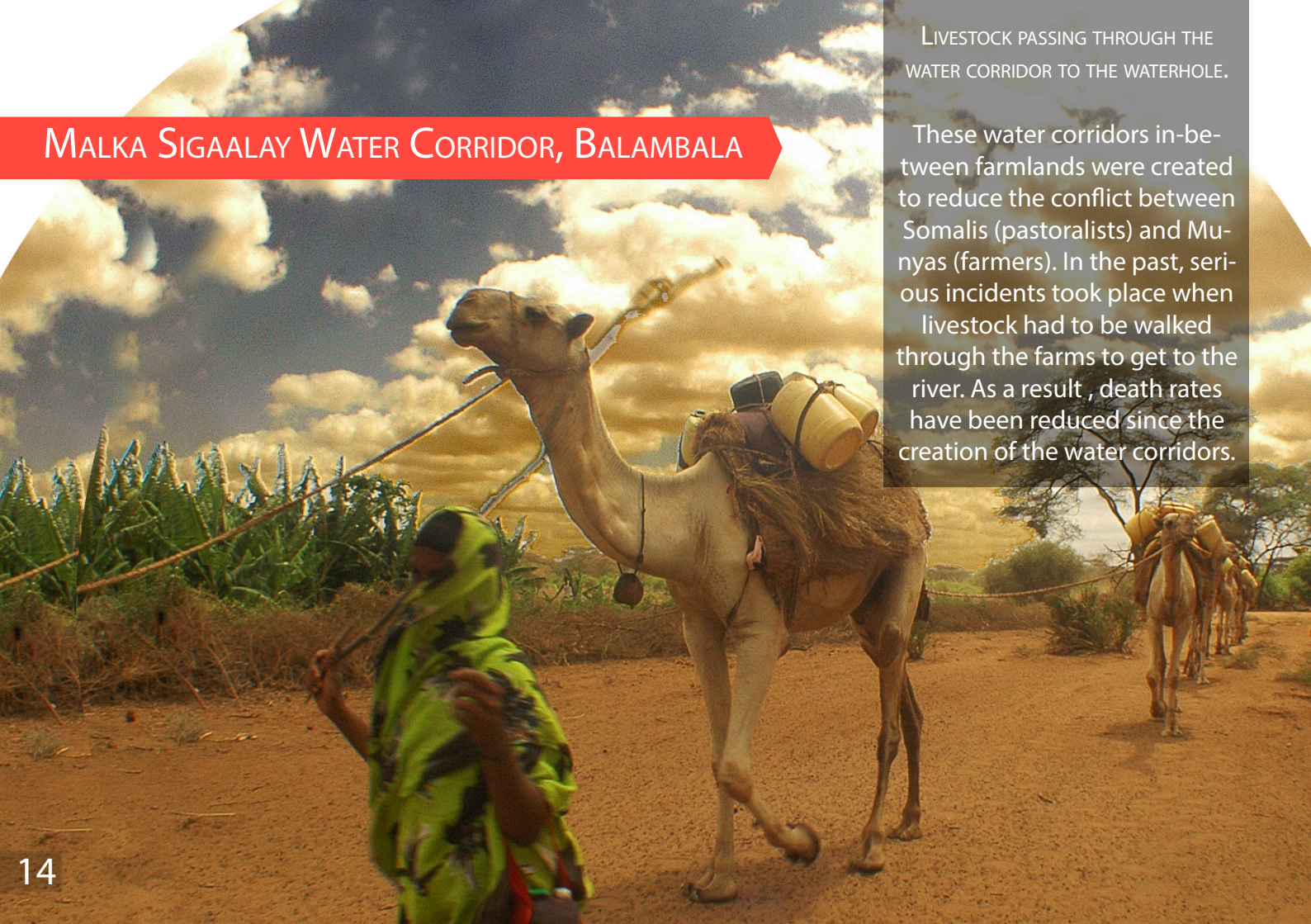
ROOF RAIN WATER HARVESTING STRUCTURES have a water tank capacity of 10,000 liters.

ESTABLISHMENT OF ROOF RAIN WATER HARVESTING STRUCTURE
BOKA PRIMARY SCHOOL, TANA NORTH DISTRICT

MALKA SIGAALAY WATER CORRIDOR, BALAMBALA

LIVESTOCK PASSING THROUGH THE WATER CORRIDOR TO THE WATERHOLE.

These water corridors in-between farmlands were created to reduce the conflict between Somalis (pastoralists) and Mynyas (farmers). In the past, serious incidents took place when livestock had to be walked through the farms to get to the river. As a result, death rates have been reduced since the creation of the water corridors.



This boy is drinking clean water from a water pan solely dedicated to human consumption. He has the women to thank who clashed with the men to ban livestock drinking from this well.



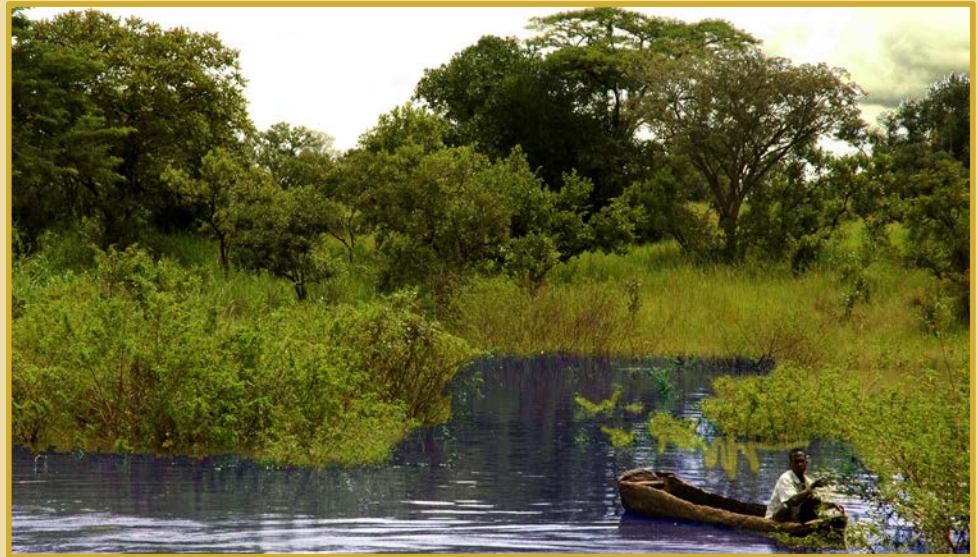
Shariffa Abdi Osman
Secretary, Water Users Association
Tula Sub-catchment

IT IS NOW WRITTEN IN THE BY-LAWS THAT ONLY PEOPLE
CAN DRINK FROM THE WATER WELL.

“It was during the time of the drought when the water in the pan was low. The men used to push with force their cattle to the water, while we women wanted to keep it as drinking water for our families. Otherwise we would have had to walk very far to get water for our homes. So, we women formed a human shield ring around the well and told the men we would tell the authorities they raped us if they forced the livestock to drink from the well. The men were very angry, but we stood our ground.”

A RESTORED WETLAND. Wetlands act as a sponge, holding ground-water and trapping surface water such as rain. It took about a year for this wetland to bounce back. The natural grass and tree species are growing back. Fish and butterfly species are returning. Now, unlike before, the wetland holds water for the entire dry season.





The boundary of the wetland is marked with the trees, which are natural breaks for flooding because it slows the speed of floodwaters. The households next to wetlands in every village marked out a 30-meter buffer zone using tree species as markers. People are restricted from farming in the buffer zone. This law is written in the BY-LAWS and enforced by the communities.



Wetlands are natural water filters. You can now clearly see the grass again with your naked eye.



“Before, the water was very muddy. We were always sick and at the clinic; but today, our water is clean, even clear. We are now saving the money we used to spend at the clinic.”

-- Mr. Ocha Jackson



MR. JACKSON, CHAIRMAN LOCAL COUNCIL II
ARWOTNGO PARISH, OKWANG SUB-COUNTY

Restored wetlands improve water quality, making it safe to drink directly from the it.

Wetlands store water and clean it by absorbing sedi-

ments, sand and mud in the wetland, which would otherwise clog the waterways.

Clog waterways makes it difficult for fish to swim around.

The red soil should colour the water. However, look at how clear the water looks.



A woman wearing a black hijab and a black top is smiling warmly at the camera. She is standing in a lush garden filled with tropical plants. In the background, there are several banana trees with large green leaves and a papaya tree with a cluster of green papayas hanging from its branches. The sky is bright and clear.

SAINAB BARE ALI, BALAMBALA WOMEN'S GARDEN

AGENTS OF CHANGE. "Yes, our farm has provided us with nutritious food for our children; but more important it has given us a voice on councils like the Water Users Associations. . . We can now also choose who we want to marry."

"Our girls are going to school. They will have more choices in life because of this. Maybe my daughter will become a pilot."

"Early pregnancies and early marriage have been reduced."



"We worked together to build this water pump to irrigate our garden."



"With all the children in school, and well managed water, we have more time on our hands, which we use to volunteer on council meetings."

More time also means coming up with creative ways to make life easier, such as this water bucket



Shea butter nuts.
"Women's Gold"
of Africa

THE COMMUNITY ENVIRONMENT CONSERVATION FUND BRIDGES SHORT-TERM LIVELIHOOD NEEDS WITH LONG-TERM ENVIRONMENTAL SUPPORT. THIS IS ONE OF THE KEY FACTORS HELPING TO GET THE WETLANDS BACK TO THEIR NATURAL STATE.

"We would cut the Shea nut trees to make charcoal that we sold at the market to buy food. We earned 20,000 Uganda Shillings if we sold charcoal and Shea nuts. We used to think that was a lot of money. When IUCN came, they told us the importance of the Shea nut tree, and of not cutting trees in general. Today, we use the COMMUNITY ENVIRONMENT CONSERVATION FUND for our immediate needs. We now also sell Shea nuts to a businessman in the city."

ORGANIC SHEA BUTTER CREAM - made from the shea nuts that women sold to the company.





“We used to sell charcoal to have money to buy food. Then, we abandoned charcoal burning, borrowed money from the COMMUNITY ENVIRONMENT CONSERVATION FUND, which we use for small-scale business enterprises to get money. We use the money to buy food and meet other basic immediate needs as we engage in long-term activities such as environmental management. After three months, with a five percent interest rate, we pay back the loan. We felt confident to borrow more funds and traded for a goat. Now, we have three goats and another one is on the way. Soon, we will have a cow.”

NATURE BASED SOLUTIONS TO CLIMATE CHANGE



MINE PABARI
REGIONAL PROGRAMME COORDINATOR
IUCN EAST AND SOUTHERN AFRICA
REGIONAL OFFICE
NAIROBI, KENYA

Today's world is increasingly complex and unpredictable. With rapidly changing demographics, economies and climates in a globalized world – we can no longer afford to engage as “business as usual”. Effective responses are required at multiple scales and by multiple actors. To adapt to changing circumstances communities are required to, for example, have higher levels of flexibility and be willing/able to change occupations/locations; be better able to plan, learn and reorganize; and have access to resources they require to do so. Institutional

frameworks need to be supportive of community efforts to adapt – from local authorities to national financial planning processes.

The communities in Kenya and Uganda that we are working with are predominantly affected by these global problems. For this reason, we felt that there would be both much to be gained, as well as learned from our drought resilience theory in the area. This approach to drought resilience involves diversifying livelihoods of communities, including creating access to markets, improving the infrastructure of water points to

allow easy access to clean water, self-organization and learning.

At the International Union for Conservation of Nature (IUCN), we believe that nature can play a strong role in tackling these problems. This project has confirmed our hypothesis. Take for instance the case in Uganda where we helped a community to restore their wetlands, which now provide the community with clean water. This is a clear example of how natural solutions, which are always available, help to tackle environmental challenges efficiently.

IMPORTANCE OF LOCAL LEADERSHIP & OWNERSHIP



ERWIN KUENZI
AUSTRIAN DEVELOPMENT COOPERATION
DEPUTY HEAD OF OFFICE
KAMPALA, UGANDA

From a strategic perspective, the Austrian Development Cooperation was interested in the project because it is in line with our priority focus: water and sanitation, which we have been engaged in since 1996.

Local leadership and ownership is vital for the continuation of activities long after the project 'officially' ends. We all know how challenging it can be to run a successful programme. In the case of Uganda, it is especially difficult as these are young villages – people just came back from the internal displacement camps in 2008. I was there-

fore quite pleased to observe the strong leadership from the councilors and other leaders from the village, parish and district levels. They showed an attitude of this is "our project" and not just a project of outside people coming in from time to time and tell us what to do.

From what I observed, the villagers were constantly exchanging ideas making things work. I met a female councilor who was extremely inspiring with the insights she gained that a healthy ecosystem provides many benefits. One good thing of this project is that it shows that ecosystem-based adaptation --

and in particular the IUCN drought resilience framework -- actually works. You learn that from talking and listening to people.

Another achievement is the flexibility of the people on the ground to deal with the challenges of climate change and development. It shows their adaptability and readiness to change. I hope and expect that the communities now will take over from project partners and government agencies; and that other communities can learn how to follow their examples.

WAY FORWARD.

“IUCN’S APPROACH WORKS. HOWEVER, THIS MODEL NEEDS TO BE ROLED OUT ON A WIDER SCALE, AND EXPAND THE NUMBER OF PARISHES INVOLVED.”

“WE NEED TO THINK ABOUT ENTREPRENEURSHIP SKILLS TRAINING.”

FIND A WAY TO ENCOURAGE COMMUNITY CONTRIBUTION TO SECURE THE COMMUNITY ENVIRONMENT CONSERVATION FUNDS.

“WE NEED TO WORK ON BOTH SIDES OF THE RIVER.”

“BETTER MARKET FOR SHEA BUTTER AND VALUE ADDITION.”



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