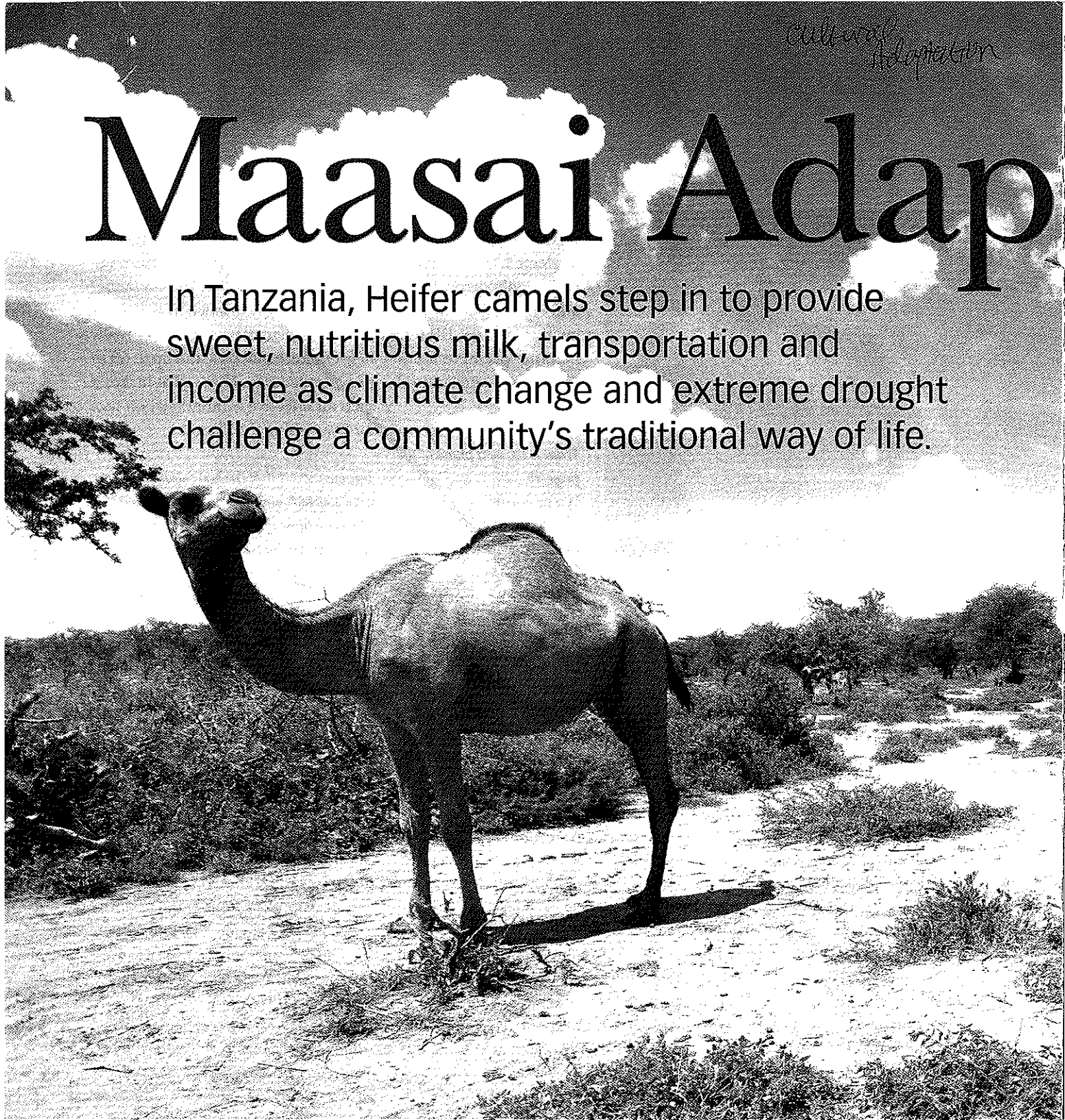
Maasai Adap

In Tanzania, Heifer camels step in to provide sweet, nutritious milk, transportation and income as climate change and extreme drought challenge a community's traditional way of life.



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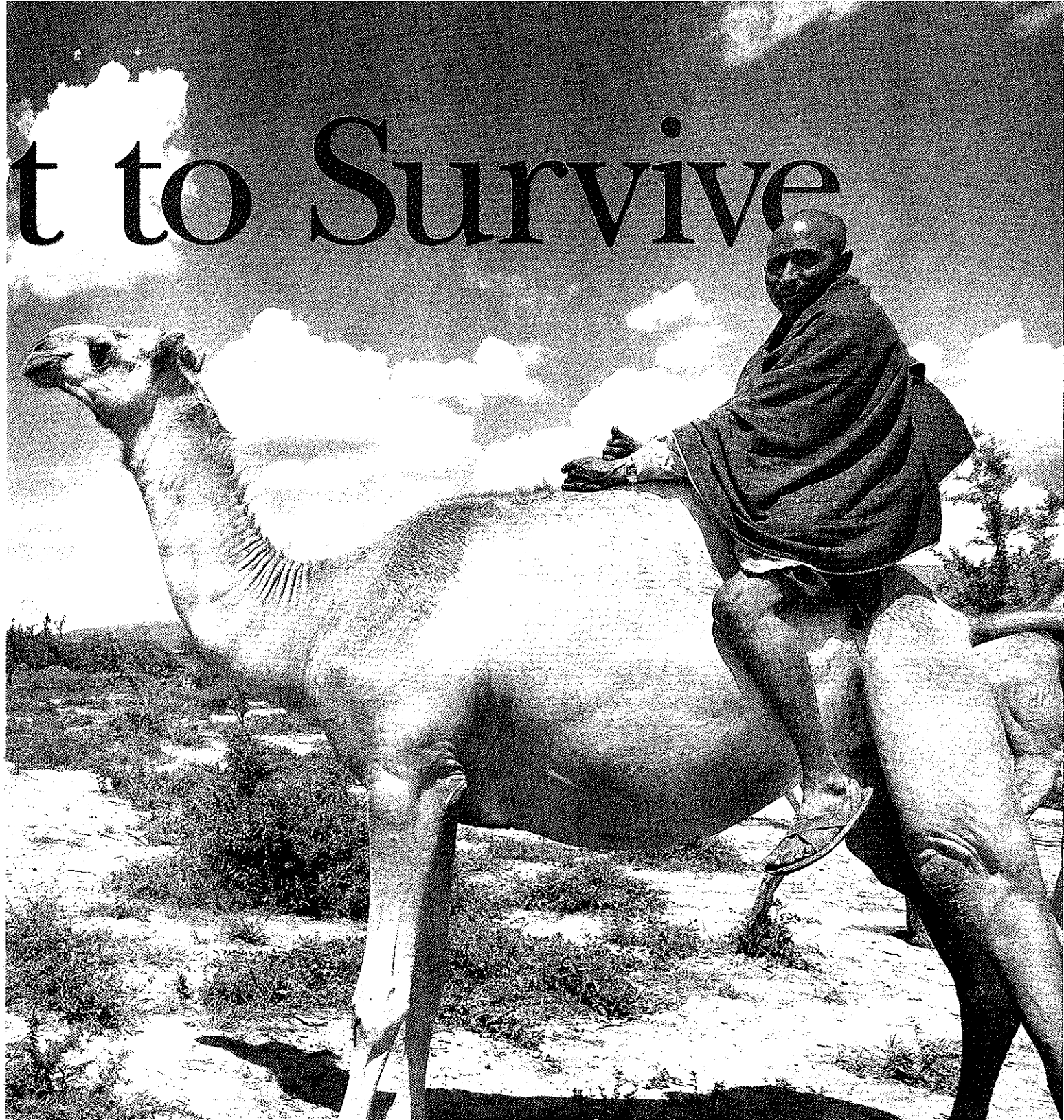
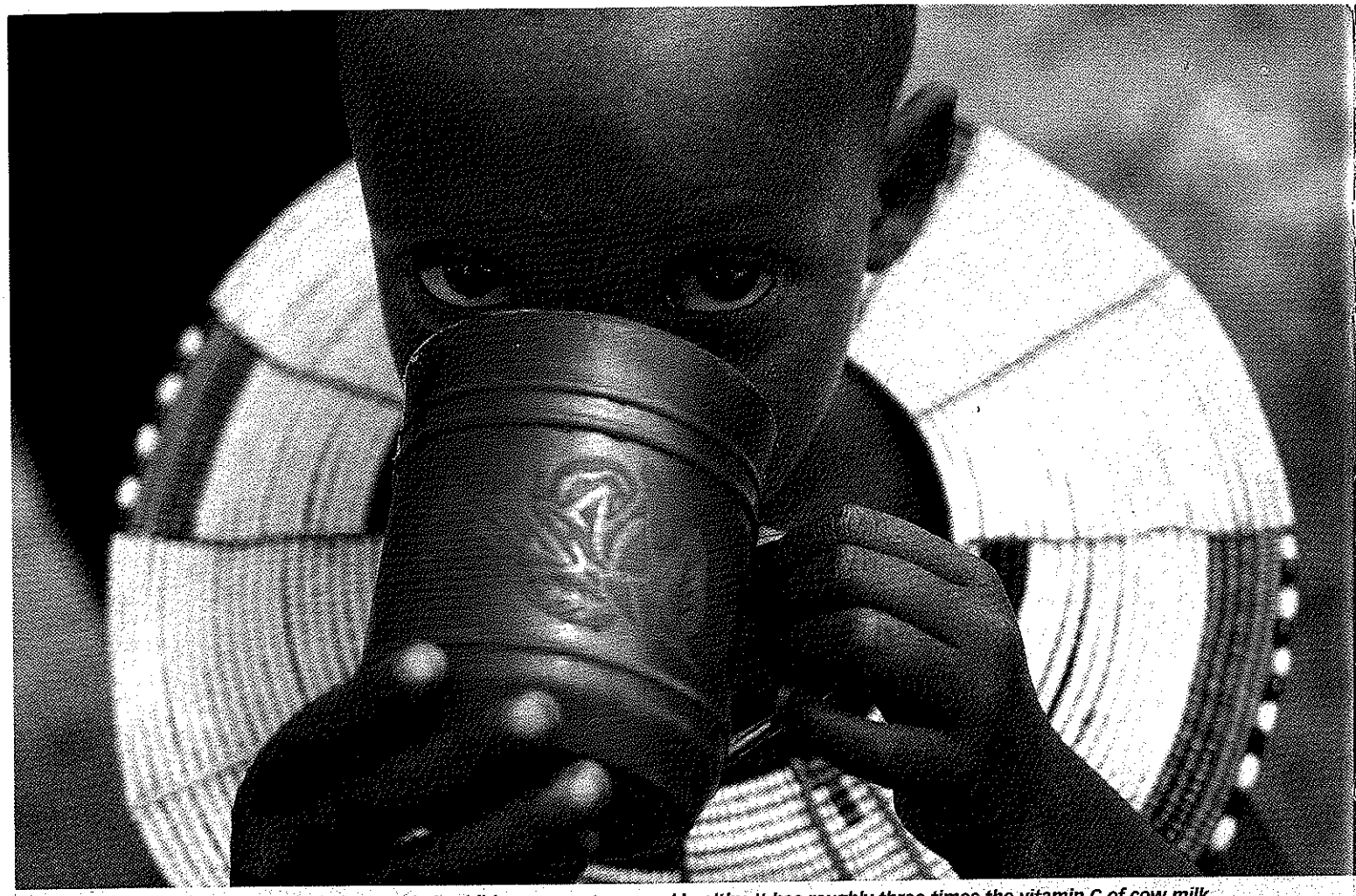




Camel milk is full of nutrients to help children grow strong and healthy. It has roughly three times the vitamin C of cow milk.

KETUMBEINE VILLAGE, TANZANIA—Thirty camels emerged towering and muscular from the African bush with hardly a sound. Fleet-footed Maasai men gracefully darted through the scrubby brush and sand-hued flanks, herding the animals with shouts toward a pen near their settlement in northern Tanzania. Four calves, protected from predators with a thick briar fence, bawled loudly for their mothers and breakfast.

Less than 20 years ago, the Maasai were herding and milking cattle, not camels. But a catastrophic drought brought on by climate change wiped out their grass-dependent livestock herds, leaving once-thriving families desperate.

"It was bad when the cows died," said Maria Paulo, Heifer project participant and secretary of the Nanyor Women's Camel group. Adorned in layers of white-beaded necklaces and dangling earrings, Maria Paulo spoke in the Maasai language, which was translated to English. "We were in a very bad situation," she said, with little to eat. There was no milk for their children. They had nothing to sell to buy food or other necessities. The government provided some staples such as rice and corn meal, but it was not enough.

For the first time in memory, they faced an uncertain future. The Maasai, nomadic cattle herders for thousands of years, need look no further than the barren, thick sand

at their sandaled feet in northern Tanzania for a reminder of today's persistent drought. Each year, from July to November, it comes.

These families, with Heifer Tanzania's guidance, learned they must adapt to survive.

From Cows to Camels

In the mid-1990s, the dry season across Tanzania turned disastrous. Weeks passed with no rain. Then months. Almost every cow, in herds of hundreds, died. Year after year the rains failed to come; the final blows for this settlement came between 2007 and 2009. Grasses and water sources necessary to support their primary income from cattle dried up. They began selling their gaunt cattle for as little as $5; those not sold perished.

"The Maasai depend on cows for food, income—everything," said Peter Mwakabwale, Heifer Tanzania country director. "When their cows died they went back to square one, to poverty."

Heifer Tanzania, formed in 1973, wanted to help. Heifer was part of the first effort to bring camels to Tanzania from neighboring Kenya in the 1990s to offer an alternative to the local cattle. Dromedary camels, distinguishable by their single hump, can go for days or weeks with little or no food. They need to drink water only once every two weeks or so and can guzzle up to 30 gallons at a time.

Historically, Maasai wealth and their way of life came directly from cattle, and God. The Maasai believe their god, Engai, who dwells above Mount Kilimanjaro, divine-

Maasai women build their homes (shown at left) from animal dung, mud and acacia twigs and top them with thatch. The camels (below) have adapted well to this drought-parched area of northern Tanzania. They graze on surrounding trees and need much less water than cattle to survive.

The Maasai enjoy the sweet taste of camel milk, especially with tea. They also sell the milk for income to buy other necessities.

ly bequeathed all cattle to the Maasai. Their diet, particularly that of the male warriors, was restricted to milk, blood and meat.

So Heifer had some convincing to do to when it suggested camels as a way to weather the drought. The Maasai preferred cattle milk and were taken aback by the large size and strange ways of the camels. Adult camels stand up to 12 feet tall and can weigh from 550 to 1,500 pounds. They live up to 50 years and can sometimes behave unpredictably.

"Why should the Maasai accept camels? It's not their culture," Mwakabwale said. "So we tried to explain to them the benefit they can get from camels. Meat, milk,

washed green amid this rainy season, provide all the feed the camels need. The stately new members of the community, heads held high, melded beautifully into the vibrant setting rich in colors and culture. As young Maasai warriors leaped athletically to amazing heights and women bobbed and chanted in broad, beaded collars in a traditional dance, the camels offered their own contribution: a reason to celebrate.

The Heifer camels continue to produce milk throughout the dry season, up to two or even three gallons a day for each camel, said Paulo Ole Sadida, Maria Paulo's husband and group adviser for the women's camel project. That's several times more than the local cattle produced

"When the **camels** came we were told that if you train a camel to help **carry water and firewood**, the camel can do that."

Burdens Well-Borne

Soon after the camels ambled into their pen, the women got right to work drawing the sweet, nutritious milk for their families' breakfast. Two or three women worked on either side of each camel, a calf nudging in to get his share as the buckets quickly filled. The sun rapidly heated the open pen, and short exchanges of murmured conversation between the women punctuated the sounds of calves suckling and milk splashing against the sides of the plastic containers.

"It's delicious," said Maria Paulo. "The best benefit of the camels is the milk. We drink it and take the rest to town to sell. The milk provides income and food for our families."

Milking the camels is just a small part of their workday. Maasai women shoulder primary responsibility for most of the other day-to-day labor in their villages, a timeworn tradition that continues to thrive. They build the manyattas, round huts crafted from animal dung, mud and acacia twigs and topped with thatch and encircled with rings of briars to ward off predators. During the rainy season, regular repairs are required to patch the walls of their homes and roof material washed away in the storms.

The women also gather firewood and haul water for drinking and washing. They raise the children, cook the meals, boil the tea, and water and care for the animals.

After the cattle died, the women tried selling their beautiful beadwork in town, but the income from that was not dependable. So they asked for help. They re-

calves, water for our goats."

The camels have lightened the women's workload considerably, with the unexpected benefit of improved gender equity in this male-dominated culture. Previously, hauling water and firewood was women's work alone, but now the men assist with these chores, leading the camel and helping to load it. While the women milked the camels, several men huddled around a limping animal in the pen, working to pull out a thorn.

Nembris Paulo, Paulo Ole Sadida's first wife, said the women were still getting used to the camels and appreciated the men's help. "They are new animals to us," she said. "They are huge and a little scary when they move quickly."

More training is still needed, Nembris and Maria Paulo both said. Only one camel is trained to kneel and carry loads; it would be helpful if they all could.

"It would also be useful to have help learning to market the camel milk," Nembris Paulo said. "Many people, like us at first, don't know about camel milk and say they don't like it," even if they haven't tried it.

For the men, not much else has changed in their primary role of taking the animals to graze and protecting them from predators. In fact, the camels are simpler to care for than the cattle, said Paulo Ole Sadida.

"It's easier to handle the camels because when you train them to stay in a certain area, they stay," he said. "With the cows, sometimes you need to walk a very long distance to find grass they can eat. But you can graze the camels here today and you move a shorter distance."

Improved Nutrition

After the morning milking, another member of the camel group, Nai Paulo, her silver jewelry arrayed across her forehead, nose and angular cheekbones, hurried back to the *boma*, or grouping of huts, to make tea and porridge for the children over a small fire surrounded by rocks. A dozen or so children gathered under a nearby tree, their large brown eyes on the blackened pot as the milk mixed with water began to boil.

Nai Paulo, Paulo Ole Sadida's sister-in-law, added tea leaves to the mix and tossed in a spoonful of raw sugar. After the tea properly steeped, she skimmed each leaf one by one out of the pot. She sampled the tea with a spoon for taste, and then added a bit more sugar. When she got the taste just right, she poured the liquid through a sieve into eight white porcelain cups with blue rims and tiny blue, red and yellow flowers painted on the side and one lone red plastic mug.

Because there weren't enough cups for everyone, the children stepped up one by one for their helpings, tipping the vessels nearly vertical to get every last drop. The cups were then washed and refilled again until everyone had his fill.

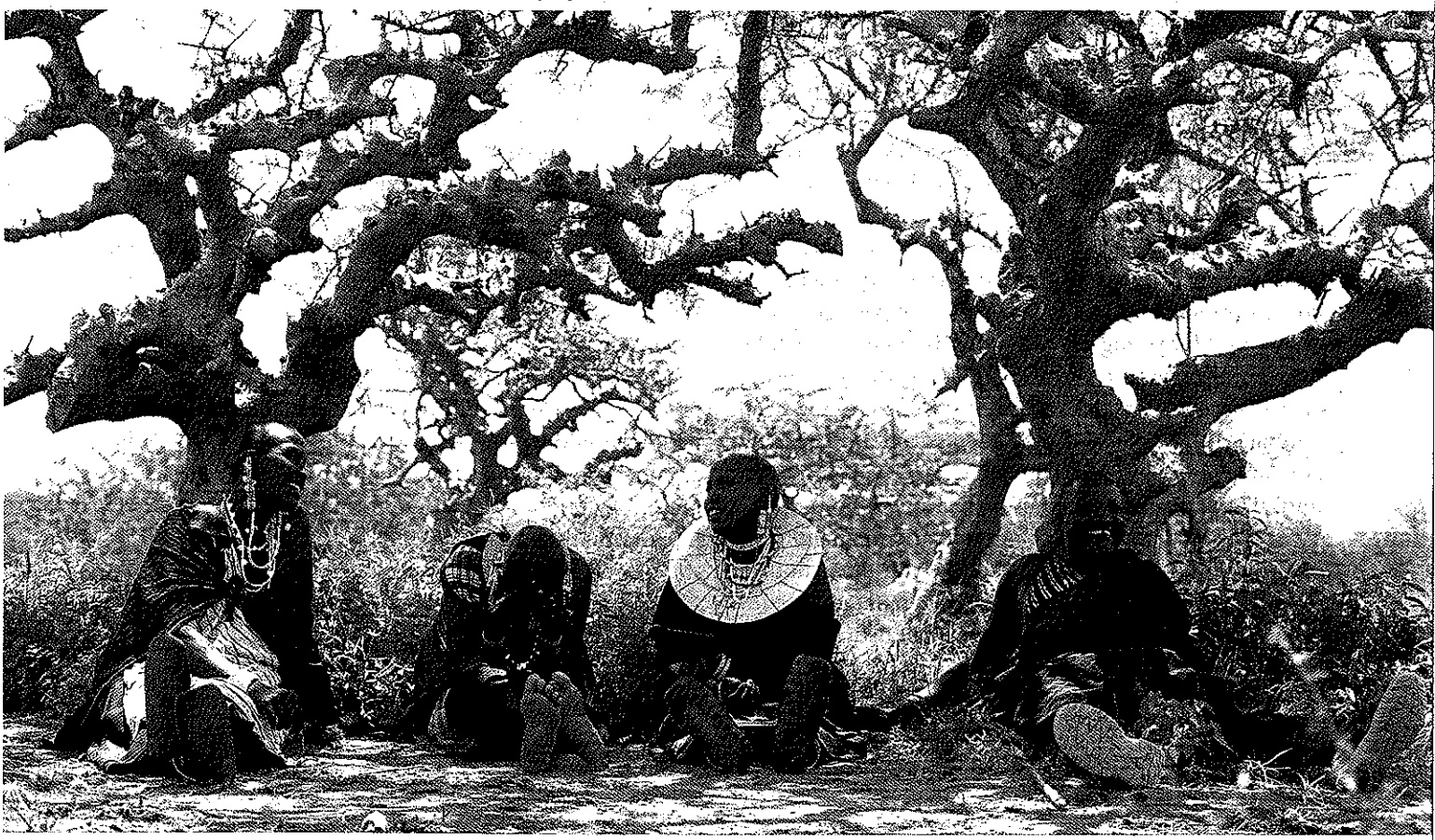
Nai Paulo next prepared the porridge, made from corn flour, water and milk, and served it in the same cups.

Meanwhile, much like the giraffes that roam freely in their front yard, the camels nibbled choice leaves that provide them with nutrients that are also transferred to their milk. For instance, camel milk has roughly three times more vitamin C than cow milk. Just yards from the families' huts, a few camels chewed delicately on broad acacia trees, batting their long eyelashes to keep out the dust. One pair went for the same leaves, bumping lips in a clumsy kiss.

Nearby, dozens of bleating goats, the bells around their necks clanging, ran past the children at their breakfast as men herded them into the shade of a nearby tree. The herdsmen pulled up low, hand-carved stools made of acacia wood and reclined to watch the women work.

"Our nutrition is much better now," Paulo Ole Sadida said, smiling as he watched the children drink, thick porridge dripping down their faces.

Nai Paulo (at left) strains tea leaves from camel milk as she prepares breakfast for the village children, who drain every last drop from their cups. Members of the Heifer camel project (below) relax in the shade.



Paulo Ole Sadida, group adviser for the women's camel project, says, "We've come to see that camels can do the best of all the animals where we live, in the conditions we have now."

Room for Both Culture, Change

Life in this settlement is still quite traditional. Families live in round huts of the same type displayed for tourists in the Maasai Cultural Museum in the bustling city of Arusha. Their food comes from milk and livestock, though they also buy grains, honey, sugar and tea with income from the animals. They do not farm here. With no refrigeration or electricity, they still store milk in a hollow calabash treated with smoke from the oloirien (wild olive) tree, as their ancestors have for centuries, perhaps even millennia. The technique preserves milk or porridge for up to a week.

Yet change and adaptation are also increasingly part of their lives. It's now against the law in Tanzania to kill lions—formerly the male warrior's rite of passage to marriage—and for young women to be circumcised. Wildlife park boundaries and private land limit the wanderings of the Maasai, meaning some settlements are now semi-permanent. For the Nanyor Women's Camel group members and their families, they have agreed to not move until their Passing on the Gift requirement is complete, we've come to see that camels can do the best of all the animals where we live, in the conditions we have now," Paulo Ole Sadida said.

Country Director Mwakabwale said Heifer now has many requests for camels from other Maasai communities that it doesn't yet have the money to support. Just one camel costs up to $750 before transportation and training costs, he said.

"We can see the changes of the culture," Mwakabwale said. "It is a very rigid society. Elders punish any variation. To see them changing, to drink camel milk and accept that change, that is something."

The culture will still be here, Paulo Ole Sadida said. "It's possible to keep our culture and also have progress. We're trying to get rid of some things that mean nothing to make room for new ideas."

One word in the Maasai language best describes the Heifer Tanzania camel project for his family and settlement, he said. It's *dupoto*, or "success." No longer is he as concerned that the Maasai, and his family, will be left behind by the world. Income from the camels is already

"**To see them changing**, to drink camel milk and accept that change, **that is something**."

better market the milk for income, we hope for a better education for our children," Nembris Paulo said.

When they finish their secondary education, the children will come back to the village to teach the adults how to live a better life, Paulo Ole Sadida said. "We feel we are secured in that way" for the years to come.

At day's end, the camels were rounded up once again for milking and safe harbor in the briar pen. Women from the camel group, some carrying dozing babies, walked in groups quietly toward their homes. The men followed, singly. Paulo Ole Sadida looked back briefly to the camels settling in for the night, his fears for the future—for now—also at rest. ■

Editor's note: Translator Simon Sandilen, Heifer Tanzania's senior logistics officer, is Maasai and grew up in a community not far from Ketumbeine near the Kenya border. He ran away from home at age 10 to attend school, which was not then accepted for Maasai children. He has worked with Heifer for 24 years.

Camel-Friendly Farmer

PHOTOS BY **DAVE ANDERSON**

SAME, TANZANIA—Timothy Sheghere Mgonja and his camels have an understanding. They take care of each other.

A Heifer Tanzania camel farmer since 2003, Mgonja notes that although the animals' individual personalities are quite evident, some of their quirks are universal. For example, he explained how little camels enjoy working in front of a crowd. "When you try to load up a camel, or work with a camel with other camels and a crowd around, the camels protest," he said.

"They make noise and get skittery. They imagine the others looking at them and they feel put upon because they're being asked to work and the others aren't. They feel oppressed."

So when it's time to load a camel to carry water, Mgonja pulls the worker aside so the others can't watch. "Then there's no problem; they don't protest," he said.

He also came up with an ingenious method for loading and unloading the tall, muscular animals. Trainers teach farmers to tap the camels gently on the knees with a stick so they know to sit for a load. Yet Mgonja spent three to four days with several camels, teaching them to kneel and to stand back up with the clapping of his hands. He applauds; they bow to accept.

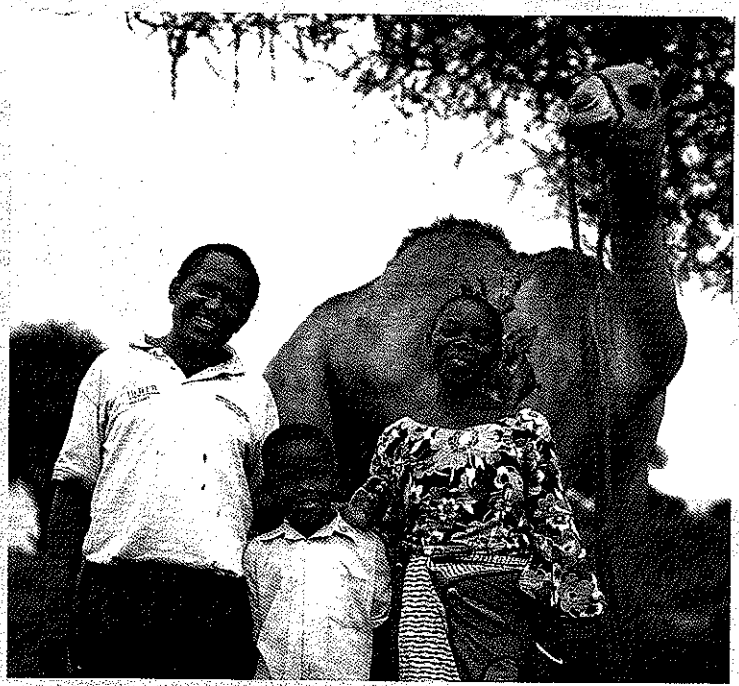
"I am a creative man and I'm wondering why do people use a stick to instruct the camel to kneel? What does it mean to the camel? It's a sign he should sit. Why don't we try something different?" he asked.

"I developed my own method of clapping. I tried it and it worked out, so now I use it on the camels trained that way. It's nicer for the camels, I think. To me a stick is a sign of forcing or scaring, but clapping is a friendly way to work with them."

He asked Heifer to provide camels for his community farm group after watching delighted children ride camels at a tourist park in Arusha. He asked the park workers how much money camels make them on each ride. He was pleasantly surprised. When he learned of the other extraordinary benefits of camels including milk production and their ability to haul water and firewood and even to pull a plow, he was completely sold.

"I left with a dream about camels," Mgonja said. "I was eager to get them." The group near the town of Same now shares profits from 14 camels and will soon pass on the gift of five females and one bull to a neighboring community.

"We came up with this idea of getting camels because we were in trouble. The children could not go to school. Also, our shelters were so poor; we wanted to improve our shelters. The indigenous cattle and goats we kept before were not provid-



Timothy Sheghere Mgonja and his wife Hanaeli Mshana say the camels helped them send their daughter Sifa, age 7, to English primary school.

Makes Polite Innovation

Timothy Sheghere Mgonja is surrounded by his family in the new home he built with income from the Heifer camel project. It took him three years to build the house, forming and baking each clay brick by hand.

ing our necessary needs."

The lives of those in the camel group changed quickly after they received the camels. "When we started selling the milk, we started sending children to school right away," Mgonja said. "My last-born daughter Sifa is attending an English primary school— it's expensive— not many people can do that. She started in kindergarten, and is now in second grade." Her favorite subject is math.

Mgonja moved his family from their old two-bedroom home to a new one with four bedrooms, a sitting room, kitchen and dining room. He hopes his farm group can buy more land to expand its camel business. He would also like to add a bathroom to his new home "to honor the girls."

"From all activities I've been doing since I became an adult, I came to realize this is the best job to do, that is to take care of camels," he said. "I feel like I am very much gifted to learn ways of taking care of camels in a friendly way."

— Donna Stokes