Kajiado County Governor Joseph Ole Lenku (centre) is conducted on a tour of Enkiitok-Nadupa Women Marketing Co-operative Society's exhibition booth during last year's Kenya Meat Expo at KICC, Nairobi.. PHOTO BY ZABLON OYUGI

Kenyan pastoral women use indigenous knowledge to reinvent meat storage

By Zablon Oyugi

Across Kenya's pastoral communities, livestock has long anchored food security, cultural identity and household economies. Meat—whether beef, goat or mutton—remains essential to family nutrition and income. But this lifeline is under growing strain as climate change disrupts grazing patterns, reduces pasture availability and destabilises the rhythms that pastoral life depends on.

This reality was captured in a 2023 Participatory Climate Change Risk Assessment (PCRA) by Narok County, home to the Maasai community, where pastoralism is still widely practised.

The report shows that 70 percent of residents rely on crop and livestock farming, with women providing 60 percent of the labour in the sector. Their dependence makes them particularly vulnerable to shifting weather patterns that threaten not just their livelihoods but their daily survival.

Against this backdrop, a group of pastoral women has revived a traditional innovation that is now proving to be one of their strongest tools of resilience.

The Enkiitok-Nadupa Women Marketing Co-operative Society, a 100-member group formed mostly by Maasai women, has adopted age-old methods of meat preservation to bridge the nutritional and economic gaps caused by climate change.

For these women, preserving meat is not just a cultural practice—it is a deliberate strategy to secure livelihoods, protect household nutrition and reduce losses in the meat value chain.

Mary Meoli, the co-operative's assistant chairperson and co-ordinator, says most of their members keep cattle and sheep, which typically flourish when grass is abundant. But the cycle reverses sharply in the dry season.

"We normally have fat cows and sheep around April–May when there is abundant grass," Mary says. "But when drought comes around December–February, they become thin as others die. We lose income and our source of food."

Without refrigeration—still a luxury for many households in off-grid pastoral villages—fresh meat spoils

quickly. Slaughtering lean animals is uneconomical, and selling them during drought yields very little.

This led the women to turn to a traditional method of preserving meat known locally as rupurda and nyirinyiri, enabling them to store meat safely for up to six months.

How it works

The preservation process begins by drying the meat, whole or in pieces, to remove moisture—the main cause of spoilage—before slowly cooking it in its own fat.

"The oil is removed and returned to the meat along with the fat, which slowly melts and drains out as the mixture boils and the meat continues to dry. Once the fat has fully drained, the meat is taken out and set aside to dry a little further," Mary explained.

Using a wet spoon or returning a used spoon into the storage container, as it can introduce moisture that causes spoilage.

"If you want to preserve your meat for a long time, you must dry it," Mary says firmly. "After drying it, you decide to cook it or just store it in the fat. It can last over six months."

Some families make nyirinyiri, a version without fat, but Mary notes that this one spoils more quickly. Fat offers a protective seal, keeping the meat fresh for longer.

The preserved meat is stored in a simple plastic bucket—a practical and inexpensive choice. Metal containers, though traditional, easily rust and are harder to clean.

Climate-resilient approach

This revival of traditional preservation is having a significant impact on the local meat value chain. By storing meat during periods of abundance, the women reduce post-harvest losses and ensure a consistent supply of protein during the harshest months of the year.

It also improves the timing of slaughter. Animals are only slaughtered when they are fat enough, ensuring better-quality meat and yielding more fat needed for preservation.

When drought sets in and livestock become thin, families can rely on their stored supplies rather than emaciated animals that offer little nutritional value.

For communities without electricity, this method is proving transformative.

"Most of our mothers do not have fridges," Mary says. "During April, May and July —those cold months—many sheep and goats are slaughtered. So we preserve the meat then, store it, and use it later during the dry season."

Beyond meat

The Enkiitok-Nadupa co-operative is not solely focused on meat. The women run table banking, a community financing system where members pool savings and access short-term loans. Table banking provides quick cash for emergencies, education needs or small investments—critical in a climate-stressed economy.

They also engage in beadwork, producing traditional Maasai jewellery that attracts buyers locally and occasionally from outside the county. Their products are displayed in a small, rented shop.

"We pray that we get a bigger place where we can put products from cows and goats on one side, and beadwork on the other," Mary says. "Right now we meet monthly, and every woman contributes something small to our account. If we build up enough, we can apply for support to expand."

The women also trade in milk, with each member owning an average of 5–6 cows and around 20 sheep. While they have access to hides, they cannot process them themselves due to lack of tools, forcing them to sell them cheaply to middlemen and tanneries.

"We have hides but cannot use them locally," Mary says. "We have to sell them at very low prices."

In recent years, the group has also introduced what they call gold banking, another form of savings diversification aimed at cushioning members from the escalating economic and climate risks.

Barriers Along the Value Chain

Despite the ingenuity and resilience of the women, significant obstacles remain. The cooperative lacks financial capital, a designated food-processing space, modern preservation equipment, local meat-processing infrastructure and government support.

Although Mary has interacted with county officials—including the governor—the group says it has not received any direct form of support.

"Not at all," she says. "No support from the county government or even the ward."

Climate change remains the most severe threat. With every dry season, livestock lose weight, milk production drops and incomes shrink.

"During drought, animals become very thin," Mary explains. "We can't slaughter because they are not fat. Drought is a very big challenge."

Looking forward

Yet the story of Enkiitok-Nadupa is one of resilience, innovation and cultural pride. At a time when climate change is disrupting food systems globally, these women are demonstrating how traditional knowledge can reinforce the modern meat value chain.

Their preservation technique is cost-effective, environmentally friendly, and rooted in indigenous expertise. With the right support—financial, technical and infrastructural—the co-operative could expand this practice, potentially creating a cottage industry around preserved meat.

Such a shift could strengthen food security, create local employment and reduce losses across the meat value chain.