THE ARK OF TASTE IN

Kenya

2nd edition

PRODUCTS, KNOWLEDGE AND
STORIES OF GASTRONOMIC HERITAGE

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FOOD, KNOWLEDGE, AND STORIES
OF GASTRONOMIC HERITAGE

Vicolo del Pavone

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FOREWORD

Roberto Natali
Ambassador of Italy in Nairobi

Following the success of the 2018 First Edition of The Atlas of the Ark of Taste in Kenya, this Second Edition stems from the collaborative efforts of Italian and Kenyan academic institutions and researchers. It embodies the spirit of international scientific cooperation aimed at enriching both nations. This work underscores the role of food as a bridge between cultures, fostering mutual respect and a deeper connection between peoples.

In November 2022, as part of the initiatives of the Week of the Italian Cuisine in the World, the Embassy of Italy and the Italian Institute of Culture in Nairobi organised a series of institutional meetings with Kenyan universities, which culminated in formal collaboration agreements. This interaction highlighted the synergy between Kenyan know-how and research and Italian methodology and experience in the maintenance of its food heritage.

The content of this book emphasises the importance of preserving biodiversity as a means to ensure food security – two topics that are increasingly relevant in this rapidly changing world. The book also showcases the fruitful and valuable partnership between Italian and Kenyan scholars, which demonstrate the impact of academic collaboration in addressing global challenges by fostering mutual understanding and synergies.

Young researchers and students, who contributed through fieldwork and by cataloguing new products, played a crucial role in developing this volume. Their involvement not only promotes cultural exchanges between young generations in both countries, but also lays the groundwork for future long-term engagements and projects.

I commend the authors and the participating institutions for their dedication and vision, and I encourage all those who are interested in exploring Kenya's rich food heritage to engage with this enlightening work, published in an open-access digital format in order to ensure a broad dissemination among specialists as well as the general public.

In order to support this important project, which reflects the Italian tradition, methodology, and scientific insight in the preservation of cultural heritage, the Embassy of Italy in Kenya is honoured to offer its patronage and endorsement.

PREFACE

Carlo Petrini
President of the University of Gastronomic Scieces

I am firmly convinced that our most urgent task is to protect biodiversity as the foundation of our food system. Many local crop varieties are disappearing and the widespread use of chemicals in agriculture threatens countless species with extinction. The global food system today is in a more precarious position than ever before due to the intertwined threats of food price inflation, food insecurity resulting from conflicts in many parts of the world, and climate change. These shocks and crises are major alarm bells that signal the fragility of our food systems, and there is no single action more powerful than making people aware of the importance of protecting food biodiversity. Without biodiversity, there is no foundation for human life on this planet. Biodiversity is the raw material that nourishes our civilizations and cultures and it is essential for human adaptation to Earth's varied environments.

Biodiversity is crucial for every country in the world and its value should never be underestimated. I believe it is especially important to keep this in mind when considering the African context. The people of Africa have long endured unjust seed policies, land grabbing, and the adverse effects of chemicals that are needed to sustain the daily expansion of monocultures. These practices are perpetuated with the promise of feeding the continent's rapidly growing population; what they're actually doing is making African food systems less resilient. Biodiversity in food and agriculture is declining, the climate crisis is intensifying, and diet-related diseases are reaching epidemic proportions. We urgently need to break away from imperialistic and extractive production systems to slow down climate change and environmental degradation, and the only way to accomplish this is by preserving biodiversity.

The Ark of Taste is the world's largest living catalogue of biodiverse, delicious, and distinctive gastronomic heritage at risk of extinction. The Atlas you hold in your hands expands on the first edition of *The Ark of Taste in Kenya*, published in 2018. This new edition is a comprehensive tool for understanding Kenya's traditional foodscapes and it reiterates the central roles that institutions, producers,

and consumers all play in preserving Kenya's food cultures and biodiversity. I would like to draw your attention to one aspect of this book in particular that I think is fundamental: its ability to actively engage, involve, and empower new generations of professionals in the Kenyan food system. The project that led to the creation of this expanded edition was developed and executed entirely by researchers from the University of Gastronomic Sciences in Italy and the Universities of Egerton, Embu, and Nairobi in Kenya. Fifty students from the three Kenyan universities were taught to identify, describe, and communicate about local food heritage following the Ark of Taste approach, and Kenyan researchers contributed new chapters focused on creating awareness among the general public about the importance of this heritage. This collective, cooperative work enabled us to expand the data set on Kenyan traditional food biodiversity to include products that Western knowledge alone wouldn't have been able to identify.

The products described in this book represent the tangible and intangible knowledge and skills of multitudes of people who, despite difficulties and with great passion, labor every day to grow and safeguard the biodiversity on which we all depend. The gastronomic heritage of every country rests primarily on the shoulders of these people, who care for the environment, keep marginal communities thriving, save soils from erosion, and protect biological, cultural, and food diversity. As consumers, we can choose to incorporate biodiversity into our diets, becoming valuable allies in its preservation. We have the simple but profound power act with care and respect toward the people who cultivate biodiversity, contributing to their wellbeing as well as to our own health and the health of our planet. By sustainably consuming diverse foods and embracing eating as a creative act that simultaneously meets our physiological needs and brings us great pleasure, we can ensure the survival of the extensive and valuable heritage that this book celebrates.

INTRODUCTION: REDISCOVERING KENYAN FOOD HERITAGE

Michele F. Fontefrancesco, Dauro M. Zocchi, & Charles Barstow

Launched by Slow Food International in 1996, the Ark of Taste is an international project involving numerous academic and non-academic institutions, communities, and individuals who work to preserve and, in many cases, rescue the memories, practices, and knowledge associated with local, traditional foods whose future is at risk due to the profound socioeconomic and ecological changes that have transformed the world in recent decades, and whose effects will be even more profoundly felt in the coming decades (Barstow et al., 2021). The Ark is an open platform that contains knowledge and stories about more than 6,000 food products from around the world. To engage more deeply with the public and with communities in the global Slow Food network, the University of Gastronomic Sciences (UNISG) developed the Ark of Taste Atlases, a series of books showcasing products from specific parts of the world. Since 2017, 11 of these atlases have been published to celebrate and the gastronomic heritage of eight countries on three continents, raising awareness about traditional products, neglected and underutilized species, and orphan crops (Fontefrancesco et al., 2022).

In recent decades, a worldwide political, cultural, and scientific conversation and debate has arisen around the role that traditional foods and local agricultural products can play in the future of the global food system as sources of resilience for communities and countries. Documenting and conserving food heritage in developing countries is of paramount importance, especially in Africa, given the challenges this continent is facing as it strives to meet global objectives related to hunger, health, biodiversity conservation, and sustainable, equitable food production and consumption. Since 2018, the Ark of Taste Atlases project has contributed to this effort with volumes on the Ark in Kenya and Tanzania, two countries where the Slow Food network and researchers from UNISG have been particularly active.

The bulk of the research on which the Kenya and Tanzania Ark of Taste Atlases are based was conducted between 2017 and 2020 by researchers from UNISG

within the scope of the Sustainable Agrifood Systems Strategies (SASS) project (Rampa et al., 2021). Since 2020, research into ongoing changes in Kenya's food sector and HoReCa (hospitality, restaurant, and catering) industry has continued thanks to support from and partnerships with the Italian Embassy, Slow Food Kenya, Egerton University, the University of Embu, and the University of Nairobi. This book is the result of a collaboration between students, researchers, activists, producers, professionals, and communities, all involved in a joint effort to document and promote Kenya's rich and diverse food heritage.

This new edition of *The Ark of Taste in Kenya* expands on the first edition (published in 2018) with new contributions from Kenyan and international scholars and Slow Food activists, as well as 25 new products. The book is divided into three sections: The first section includes seven chapters that introduce readers to the history and current state of Kenyan food heritage, and to the research projects that have been conducted to rediscover this heritage.

Michele F. Fontefrancesco examines the concept of gastronomic decolonization, focusing on the need to reclaim and revitalize suppressed culinary practices and food knowledge in postcolonial contexts. He explains the research agenda behind this volume and its situates it within the Kenyan context.

Dauro M. Zocchi describes the theory and methods behind food scouting and food heritage documentation, providing guidelines for those who are interested in better understanding the research behind this volume and continuing the research in their own communities.

Mark Otieno explores the potential of indigenous vegetables to enhance Kenyan food systems, focusing on their nutritional, environmental, and socioeconomic benefits. He explains why it is so crucial to continue the process of food heritage rediscovery and advocates for investments in infrastructure, research, and farmer training to improve the value chains and market potential of Kenya's traditional crops.

Stellamaris Muthoka and Joshua O. Ogendo highlight the nutraceutical value of indigenous plant foods in Kenya, emphasizing and advocating for the increased cultivation and consumption of native species and varieties to bolster food security, improve health outcomes, and preserve traditional knowledge and culinary practices to enhance food system resilience and protect biodiversity.

Gladys Khisa Sitati discusses the traditional preparation of indigenous vegetables and, specifically, the use of *munyu mushelekha* among the Luhya. She highlights the need to preserve traditional knowledge and maintain dietary diversity for food security, pointing out that traditional preparation methods could enhance community health and provide new economic opportunities.

Cecilia Moraa Onyango and Edward Gizemba Ontita discuss some of the preservation and preparation methods tied to traditional Kenyan foods, emphasizing their cultural and nutritional significance. They underscore the importance of documenting and reviving traditional food practices to combat food insecurity and ensure that cultural heritage can be a vibrant resource for the future.

Finally, Samson Ngugi describes the current state of the Ark of Taste in Kenya. The Ark, one of Slow Food's oldest and farthest reaching projects, has been indispensable for documenting traditional foods, encouraging their production and consumption, and increasing awareness and appreciation. Ngugi outlines the project's development and results and reports on the positive impact it is having for small-scale producers as they work to maintain Kenya's biological and cultural diversity.

The second part of the book presents Kenya's 100 (and counting) Ark of Taste products. They are grouped into chapters according to product type. The profile for each product contains descriptions of its physical and sensory characteristics, ecology and processing, culinary uses, and its place in the culture and history of Kenya's peoples, including ritual and medicinal uses. Each profile ends with an overview of the dynamics that put the product at risk. Although very concise, the product descriptions will help readers to understand the complex web of relations in which each product is situated, and to appreciate the ongoing social, cultural, economic, and ecological changes, within Kenya and beyond, that affect the products and their associated heritage, presenting both opportunities and challenges for their continued existence. The book's final section provides more detailed information about Slow Food and its activities in Kenya, and presents the Presidia that are active in the country.

AN EXPERIMENT IN GASTRONOMIC DECOLONIZATION: THE SECOND EDITION OF THE ARK OF TASTE IN KENYA

Michele F. Fontefrancesco
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GASTRONOMIC DECOLONIZATION

The concept of decolonization has recently gained new prominence in international discourse (e.g., Jansen & Walters, 2022; Singaravélou et al., 2023). Initially introduced to describe how a territory under colonial domination gains independence from the colonizing power, the term has now assumed a broader and more complex meaning that ties together aspects of political and cultural legitimation and awareness (Jansen & Osterhammel, 2019).

In the second half of the 20th century, Franz Fanon (1961) and Ngugi wa Thiong'o (1986) explained how the colonial experience extended beyond the political sphere, leading to the progressive delegitimization and subordination of the cultural systems of colonized populations in favor of the colonizer's models. Through the exercise of military and economic superiority and the centralization and appropriation of economic resources, the colonial government established its hegemony, creating a subaltern, delegitimized class among the colonized populations. This process affected language, religion, economy, politics, family relations, and the entire life of the dominated community, including food practices, producing a mindset that denied the value of the colonized community's experiences and knowledge, recognizing only the dominator's centrality and authority. After decades of domination, political independence alone did not reverse this process, requiring a long period of cultural and identity rediscovery and reconstruction.

Decolonization is not simply the removal or casting off of colonial power and the restoration of a precolonial reality (Betts, 2012). Instead, it should be understood as another phase of the traumatic colonial experience, one which involves reclaiming marginalized cultural forms, updating them in the present context, hybridizing them with the experiences and knowledge acquired by communities during and after colonization, and integrating them into supralocal, international, and global cultural contexts. The teachings of Léopold-Sédar Senghor, Aimé Césaire, David Diop, Cheik Anta Diop, and other authors who shaped discourse and debate during the end of the modern colonial empires demonstrate that decolonization involves constructing a new aesthetic and ethic that acknowl-

edges the realities of colonized peoples—their histories, forms, and cultures—and asserts their value (Processi, 2009). This process requires reconstructing a shared memory about traditional knowledge and practices eroded by colonial domination, and rediscovering elements of local cultural heritage and practice whose intergenerational transmission was interrupted for decades. Decolonization is, thus, a generative struggle against oblivion.

Cultural oblivion is a phenomenon widely debated in the Global North. Researchers, institutions, and the public in the North and West, while recognizing the value of traditional knowledge, also see that political centralization, industrialization, and global capitalism have eroded colonized communities' cultural heritage (e.g., Augé, 2004; Connerton, 2009; Goody, 2004). In postcolonial countries, the condition is often worse because this erosion has been magnified by the pressure of colonial power and the uncertainties that followed independence. This emerging scenario raises questions about how to support the rediscovery and reclamation of those traces and elements of cultural heritage that remain buried.

In this context, food is a particularly relevant and salient field of action and reflection. Anthropologically, food can be seen as the synthesis of nature and culture (Müller, 2005), the dynamic outcome of a community's adaptation to its environment (Fontefrancesco & Pieroni, 2020). This adaptation results in specific knowledge and practices for identifying, utilizing, and maintaining environmental resources that are useful for human consumption. In this sense, pre-industrial and precolonial food systems, which include all the processes and infrastructure involved in feeding a population, have been viewed as delicate dynamic equilibria capable of maintaining and enhancing local biodiversity (Favole, 2024). These fragile systems were deeply affected by colonization.

All over the world, colonization resulted in radical landscape transformations linked to the dispossession of local resources and the introduction of new species, processing methods, and products, culminating in the imposition of foreign food systems (Durmelat, 2015). This imposition manifested in development policies, public health programs, and educational curricula that profoundly restructured relationships with food and local populations. Under the pressure of colonial cultural hegemony, traditional knowledge and practices survived, but usually only at the margins of public life, in domestic practices, and in areas with weaker colonial control (Dietler, 2010). Traditional foodways remained in the memory of elders, who often died before being able to pass their knowledge on or found it difficult if not impossible to transmit practices to younger generations inculcated into new mindsets, socioeconomic contexts, and expectations of modernity. The marginalization and delegitimization of

traditional food knowledge and practice extended beyond the temporal limits of colonial occupation. These processes and trends have continued to the present day and are reinforced within a reality and food imaginary dominated by Western ideas and ideals of food, health, and the body, and by commercial practices and development initiatives promoted directly or indirectly by the Global North (Nair-Venugopal, 2012). In this context, how do we move forward with gastronomic decolonization?

Gastronomic decolonization is the process of recovering traditional knowledge, practices, and products and putting them to use in the present. It is not inherently tied to or aimed at the commercialization of heritage products (Zocchi et al., 2021), but rather to awareness of the existence and cultural, environmental, and socioeconomic value of a community's body of knowledge and products (food heritage) and biodiversity (food biodiversity). This process involves two main steps: the rediscovery and documentation of local food heritage and elements of food biodiversity, and then their legitimization and promotion at both local and supralocal levels. This requires engagement with communities as well as local and national stakeholders from outside the community. Above all, it requires educating a new generation of local professionals so that they can drive the process forward, using existing protocols and developing new ones in response to the specificities of each local context.

The second edition of *The Ark of Taste in Kenya* is part of this process.

KENYA AND COLONIZATION

Kenya's colonial history, which is largely representative of histories of other formerly colonized countries, is reflected in the transformations that the agricultural and food sectors endured from the beginning of the colonial period (1880s) to the present day.

Under the colonial rule of the Germans and then the British, Kenya's economy rapidly transformed. During the early 20th century, the British established large-scale farms that produced cash crops like tea, coffee, and sisal for export, and the colonial government appropriated fertile lands, displacing local communities. Extensive livestock farming and the introduction of new species and breeds altered traditional agricultural practices, marginalizing subsistence farming and many local products. In the process, Western food habits and products were imposed through schools, missions, and trade, reshaping Kenya's food landscape (Fibaek & Green, 2019). Following independence in 1963, Kenya inherited a dual agricultural system: commercial farming dominated by export-oriented crops alongside subsistence farming by smallholder

farmers. Government policies aimed at self-sufficiency and rural development led to initiatives such as land redistribution and support for maize and dairy production. However, the focus remained on cash crops for foreign exchange. The emphasis given to the market continued in the following decades (Heyer, 1981). The 1980s and 1990s saw the implementation of structural adjustment programs imposed by international financial institutions. These policies emphasized market liberalization, reducing state support for agriculture. Smallholder farmers struggled with reduced subsidies and market access, leading to food insecurity and famine, while global market demands influenced the cultivation of horticultural products like flowers and vegetables for export (Adeola et al., 2018). At the end of the 20th century, traditional food knowledge appeared destined to disappear under the pressure of continuing attempts to integrate the country fully within the global market. Gastronomic culture was still dominated by Western forms of cuisine introduced during the colonial period, as is evident in national cookbooks published in the 1980s and 1990s, based entirely on French and British recipes with almost no mention of local staples like *ugali* (Zocchi & Fontefrancesco, 2020).

However, at the turn of the millennium, Kenya's agricultural sector was faced with unprecedented challenges from climate change, population growth, and land degradation. In recent years, an emphasis on sustainability, resilience, and innovation has emerged, and efforts to promote agroecology, conservation agriculture, and climate-smart practices have gained traction, although the industrial agrifood production for export still dominates the agricultural sector in Kenya. Additionally, there is renewed interest in traditional crops and food systems to enhance food security and biodiversity (Fontefrancesco & Zocchi, 2020). Many initiatives aim to revive indigenous species and varieties, reflecting a broader commitment to sustainable development and food sovereignty. The HoReCa (hospitality, restaurant, and catering) industry, which largely neglected local food traditions and developed around international culinary models even into the 2000s, has become increasingly open to local, traditional products in the past decade in response to a growing demand for these foods (Zocchi & Fontefrancesco, 2020). Similarly, national initiatives promoted by the government have started surveying the food habits of Kenyans, revealing the widespread persistence of traditional products and practices and the values associated with them in the everyday life of Kenyans (e.g., Mwai et al., 2018).

Looking at Kenya's food sector today, there are clear signs of growing interest in rediscovering and promoting traditional food heritage at both the local and national level. Unlike the prevailing trend in the Global North, this interest is mainly driven by the search for healthy and safe foods in response to increasing concerns about the safety of industrially produced food. This explains

the great attention given to small-scale food production based on traditional methods (Fontefrancesco & Zocchi, 2020; Zocchi & Fontefrancesco, 2020). Simultaneously, the international market increasingly demands products that reflect the cultural and environmental specificities of different regions, creating new opportunities for indigenous products in the HoReCa sector and for export. Thus, the outlook is positive for advancing gastronomic decolonization, bringing to light and strengthening Kenya's food heritage, starting with the pioneering efforts undertaken in recent decades by local universities and organizations such as Slow Food Kenya.

AN EXPERIMENT IN GASTRONOMIC DECOLONIZATION

It is in this context that the current volume aims to contribute to Kenya's gastronomic decolonization. Slow Food launched the Ark of Taste project in the 1990s to create an opportunity to build awareness of food heritage among local communities from a grassroots perspective (Fontefrancesco & Corvo, 2019). The Ark of Taste Atlases are a reworking and expansion of the project that seek to disseminate the knowledge that Slow Food and its global network has collected to a broad, transgenerational and transnational audience. In 2017, Barstow and Zocchi edited the first edition of this volume (Barstow & Zocchi, 2018). It was one of the first internationally available volumes to outline Kenya's traditional food products and systems, highlighting the country's diverse cuisines, territories, and communities. It resulted from fieldwork conducted by the authors and local experts coordinated by Slow Food Kenya. The 75 products presented in the first edition, all of which have been reviewed for the second edition, were evidently just a fragment of a much larger heritage that remains undocumented. This new edition follows the path that the first edition laid, expanding its scope and, most importantly, going beyond the mere documentation of food heritage.

The experiences gained since 2016 from creating Ark of Taste Atlases in Africa (e.g., Barstow & Zocchi, 2018; Zocchi & Fontefrancesco, 2021), South America (e.g. Báez Vera et al., 2018; Zocchi, 2017), and Europe (e.g., Daneri et al., 2020; Zocchi et al., 2022) have allowed for the development and validation of specific research protocols aimed at documenting the various aspects characterizing gastronomic heritage, specifically traditional products (Fontefrancesco et al., 2022). Additionally, the educational experimentation conducted at the University of Gastronomic Sciences between 2018 and 2023 in Food Anthropology and Applied Anthropology modules has resulted in training protocols for pro-

fessionals interested in documenting and promoting traditional products as well as the involvement of the students of the institution in the research.

In 2022, based on these experiences and with support from the Italian Embassy in Nairobi, Drs. Fontefrancesco and Zocchi of the University of Gastronomic Sciences of Pollenzo initiated an education and research project that led to the completion of this volume. The project's purpose was to use the creation of this volume as a platform for involving and training a new generation of local experts in identifying, documenting, and communicating about food products from their communities. This approach contributes to making gastronomic decolonization a grassroots, participatory, and intergenerational process.

Three Kenyan universities (Egerton University, the University of Embu, and the University of Nairobi) were involved in the creation of this volume and in engaging local researchers and students. An online training program was organized for each of the participating universities, and a total of 15 students completed the training programs and were each tasked with documenting at least one product from the food heritage of their respective communities. Their work is included in this volume among the 25 new products that expand the first edition.

Moreover, this volume includes contributions from esteemed colleagues from the three universities and Slow Food Kenya to provide readers with fundamental insights into the region's gastronomy. These chapters represent a new level of integration of knowledge developed by international researchers and experts about the current state of Kenya's food heritage, its history, and its specificity.

Overall, this book shows that gastronomic decolonization can be both a local and a global endeavor, and that it should be undertaken as a communal effort to support local communities in giving renewed visibility and respect to the biological and cultural diversity on which we all depend for local wellbeing and global resilience.

EXPLORING THE KENYAN FOODSCAPE THROUGH FOODSCOUTING RESEARCH

Dauro M. Zocchi
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INTRODUCTION

In recent decades, the rapid transformation of global food systems has led to a significant decline in food biodiversity. The intrinsic connection between nature and culture means that the loss of biological diversity is often accompanied by the erosion of traditional practices and knowledge, which are integral to the intangible cultural heritage of local communities. Food and gastronomy are crucial components of this heritage.

As these alarming trends continue, scientists, international organizations, and activists emphasize the urgent need for specific actions to restore and protect food products and gastronomic cultures at risk of disappearing. Initiatives and projects aimed at documenting, preserving, and promoting the endangered elements of local food heritage have been implemented by various food movements, international bodies, and non-governmental organizations (NGOs) in the food and agricultural sectors. The rise of these initiatives underscores the vital role that preserving and valuing gastronomic heritage can play in bolstering the identity and cohesion of local communities, enhancing their cultural, social, economic, political, and environmental wellbeing. Additionally, efforts to protect and promote gastronomic heritage contribute to addressing local and global challenges related to food systems.

One of the international initiatives dedicated to safeguarding and celebrating local gastronomy is the Ark of Taste. The Ark highlights the existence of local, high-quality foods, produced at small scales, that are part of the cultures, traditions, and history of the entire planet, and works to raise awareness about these products and the risk that they may vanish within a few generations (Milano et al., 2018).

THE ARK OF TASTE ATLAS

In 2017, the Ark of Taste project was further enriched with the introduction of the Ark of Taste Atlases. This initiative aims to expand the knowledge base that contributes to the Ark and to provide valuable tools for promoting the

local food heritage of selected countries. The Atlases consist of a series of monographs edited and published in collaboration with researchers from the University of Gastronomic Sciences of Pollenzo, Italy, which was established by the Slow Food movement in 2004. These publications systematize and expand upon the material available in the Ark of Taste online catalogue, offering special editions that present traditional products and essential biocultural diversity to the general public, local organizations, institutions, professionals in the restaurant industry, and researchers interested in preserving and promoting local gastronomic heritage (Fontefrancesco et al., 2022; Zocchi, 2017). The creation of each volume is supported by studies funded by local Slow Food offices, national and international organizations, private investors, and crowdfunding efforts. These funds finance both desk and field research, as well as publication costs.

The creation of an Atlas involves collaboration among various parties. A primary research unit, based at the University of Gastronomic Sciences of Pollenzo, oversees the entire publication process, conducts research (including desk research and fieldwork in the target country), coordinates secondary research teams, processes data, validates entries, and edits the Atlas. Secondary research units, composed of local researchers trained and coordinated by the primary unit, gather information to supplement the entries.

FOOD SCOUTING RESEARCH IN KENYA

The Atlas of the Ark of Taste in Kenya was developed through collaboration between the primary research unit and various secondary research teams. This research aimed to expand the existing knowledge base of the Ark of Taste and identify potential new products through both desk research and field activities. The field research involved scouting for food products in marketplaces and restaurants selected to provide a comprehensive sample representing all venue types in the area. Researchers conducted visual analyses of these outlets and interviewed consumers, producers, and traders, expanding the knowledge base significantly.

Food scouting is the primary methodology used for fieldwork in the creation of each Atlas. It is defined as "the ethnography-based documentation of folk/traditional perceptions, uses, and management of threatened or neglected plant, animal, and microbial food ingredients within a given cultural setting/community, as well as the folk customs attached to them that have developed within a specific area as a result of long-term socio-ecological coevolution" (Pieroni et al., 2016: 55).

In the field of gastronomic sciences, food scouting involves ethnographic research to map, inventory, and document food and gastronomic elements embedded in local and traditional knowledge. This research addresses the nexus between people, food, and territory within a given foodscape, documenting tangible and intangible elements associated with local and traditional food ingredients and dishes. The research pays particular attention to the material, social, and cultural elements and interactions that shape a community's relationship with food and food-related environments.

Food scouting studies collect baseline data on local food-related resources, which serve as entry points to explore the integration of specific foodstuffs (and associated food practices) into current food systems and to trace their evolution over time and space. These studies prioritize the emic perspective of local actors, focusing on local perceptions of the food environment, the logic behind the management and use of food resources, local belief systems and their impact on food practices, and the sociocultural, economic, and culinary practices within various food system spaces. They also examine the main drivers shaping food production, trade, and consumption (Zocchi et al., 2023).

Ethnographic methods, including participant and personal observations, questionnaires, structured and unstructured interviews, and life history techniques, are key tools in food scouting studies. These methods are complemented by basic techniques from ethnobiology and ethnoecology, such as free listing. While the primary focus is on documenting food products (ingredients, preparations, and recipes) and associated heritage, the information gathered can additionally provide insights into social, economic, and political dynamics related to food production, distribution, representation, and consumption.

Food scouting focuses on three main categories of commodities: local food ingredients (wild and domesticated species and varieties), recipes, and artisanal foods. The research involves analyzing food diversity within a geographical area and tracing each product's sociocultural, economic, and culinary aspects. This analysis is conducted in both public spaces (e.g., restaurants, street food stalls, and markets) and private spaces (e.g., homes and private gardens), with research ranging from small to larger areas such as countries or even transnational regions (Zocchi et al., 2023).

The research approach combines etic and emic perspectives. The etic approach identifies the main features of a region in terms of the taxonomy of food commodities and the places of production, trade, and consumption, as well as understanding general practices associated with selected foods. The emic approach focuses on local perceptions of food-related resources, their uses, and management, exploring their relevance and development within a specific

cultural and food milieu. This approach takes into consideration local belief systems and the linguistic and economic practices tied to food practices.

Field research carried out in Kenya between 2017 and 2020, which included documentation of the 75 products included in the first edition of the Atlas, was conducted in collaboration with Slow Food Kenya, specifically the Slow Food Nakuru Convivium led by John Kariuki. The study identified public spaces, particularly food markets, as starting points for food scouting. These markets are crucial for mapping and documenting the diversity of food cultures and exploring the roles specific foods play in shaping spatial, social, economic, and cultural relationships.

In Nakuru County, markets were analyzed as public interfaces of commercial and sociocultural exchange (Fontefrancesco & Zocchi, 2019). They showcased a mix of globalized products and those representing the unique gastronomic heritage of local communities. When presented in public spaces, traditional products contribute to the identity of these communities, assuming different meanings and narratives than they would within domestic settings.

The study also included market analysis and food supply mapping, preceded by a literature review to identify prevalent food products. This groundwork supported the Ark of Taste project's food scouting activities, conducted through semi-structured and life story interviews with producers, traders, and market visitors. These interviews explored the connections between products and their communities, including origins, uses, and the practices surrounding their production, sale, and consumption. Participant observations in markets provided additional insights into purchasing and consumption habits, as well as the profiles of vendors and buyers.

The fieldwork highlighted three main factors shaping the foodscape of Nakuru County markets: the ethnic specificity of food demand, a neophobic tendency among Kenyan consumers, and the problem of perishability and limited preservation practices for certain products. These dynamics, including the lack of knowledge about some foods outside traditional contexts, limit the conservation of local food and biocultural heritage.

STRENGTHENING THE ROLE OF INDIGENOUS VEGETABLES IN KENYA'S FOOD SYSTEMS

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INTRODUCTION

In recent years, there has been growing acknowledgement of the significance of indigenous vegetables in Kenya for promoting food security, enhancing nutrition, and supporting sustainable agricultural practices. Indigenous vegetables encompass a diverse group of plant species that have been cultivated and consumed by local communities for generations. They possess unique nutritional profiles, adapt well to local environments, and demonstrate resilience to pests and diseases. Strengthening the role of indigenous vegetables in Kenya's food systems holds great significance and can offer numerous benefits. This chapter explores the significance of strengthening the role of indigenous vegetables in Kenya's food systems, focusing on their nutritional value, environmental sustainability, and socioeconomic implications.

NUTRITIONAL VALUE

Kenyan indigenous vegetables are known for their high nutritional value and potential health benefits. These vegetables are key for improving public health outcomes, as they provide a range of essential nutrients necessary for the proper functioning of the human body. For example, amaranth (*Amaranthus* spp.) is a traditional leafy vegetable rich in essential vitamins, minerals, and dietary fiber. Studies have highlighted its high levels of iron, calcium, and beta-carotene, which make it a valuable addition to any diet, particularly in developing countries like Kenya where iron deficiency anemia is a prevalent health issue. Calcium, found in significant amounts in amaranth leaves, contributes to the development and maintenance of strong bones and teeth. Additionally, beta-carotene, a precursor to vitamin A, is essential for maintaining healthy vision, promoting immune function, and supporting growth and development. Similarly, the seeds and leaves of cowpea (*Vigna unguiculata*), a widely cultivated legume in Kenya, are a good source of protein, vitamins, and minerals.

These indigenous vegetables play a crucial role in addressing malnutrition and improving public health outcomes in Kenya. Individuals can diversify their nu-

trient intake by incorporating these vegetables into their diet, which would improve overall health and wellbeing. The consumption of indigenous vegetables rich in vitamins, minerals, and dietary fiber can help prevent various micronutrient deficiencies and improve the overall nutritional status of the population.

ENVIRONMENTAL SUSTAINABILITY

Indigenous vegetables can play a central role in promoting environmental sustainability because they are well adapted to local agroecological conditions, requiring fewer external inputs and reducing the need for synthetic pesticides. Spider plant (*Cleome gynandra*), for example, is a popular indigenous vegetable in Kenya that has natural resistance to common pests. Indigenous vegetables often require less water than non-indigenous crops. This characteristic is particularly important in regions where water resources are limited or scarce, which is true of most of Kenya's arable land. Farmers can reduce water consumption in agriculture, enhance water use efficiency, and contribute to the sustainable management of water resources by promoting the cultivation of indigenous vegetables.

The adoption of indigenous vegetable cultivation also helps to reduce environmental pollution associated with conventional agriculture. Conventional farming practices, such as the use of synthetic pesticides and chemical fertilizers, can lead to water pollution and soil degradation, and has negative impacts on biodiversity. Indigenous vegetables, with their natural resistance to pests and diseases, require fewer chemical interventions, thus reducing the release of harmful substances into the environment. By cultivating indigenous vegetables and reducing chemical inputs, Kenyan farmers contribute to the conservation of biodiversity, the maintenance of soil health, and the overall ecological balance of agricultural systems.

CLIMATE RESILIENCE

Kenya's agricultural sector is particularly vulnerable to impacts of climate change such as erratic rainfall patterns and increased frequency of droughts. These challenges have significant implications for food production, livelihoods, and food security in the country. However, indigenous vegetables have shown remarkable resilience to these climate-related challenges, primarily due to their genetic diversity and adaptability to varying environmental conditions. The African nightshade (*Solanum scabrum*), for instance, is an indigenous leafy vegetable with a demonstrated ability to tolerate both drought and heat

stress, making it well suited for cultivation in climate-sensitive regions of Kenya. This adaptability is crucial for ensuring food production in areas prone to water scarcity and high heat.

The genetic diversity present in indigenous vegetables is another key attribute that contributes to their resilience in the face of climate change. Indigenous vegetables have evolved and diversified over generations, adapting to local environments and developing genetic traits that enable them to withstand various environmental stresses. This genetic diversity is a valuable resource for breeding and selecting climate-resilient crop varieties, thereby safeguarding food production and ensuring the availability of nutritious vegetables for the population.

Incorporating indigenous vegetables into farming systems promises multiple benefits in the context of climate change. First, these vegetables can contribute to the diversification of the agricultural landscape, reducing reliance on a few major crops and enhancing overall agricultural resilience. This diversification is particularly important in the face of climate uncertainty, as it increases the likelihood of having crops that can adapt and thrive under different conditions. Second, the cultivation of indigenous vegetables can provide farmers with alternative income sources and livelihood opportunities, reducing their dependence on climate-vulnerable crops. This diversification of income streams helps farmers cope with climate-related risks and maintain their livelihoods in the face of crop failures or yield losses.

SOCIOECONOMIC IMPLICATIONS

Strengthening the role of indigenous vegetables in Kenya's food systems can have significant socioeconomic implications. These vegetables are commonly cultivated by small-scale farmers, particularly women, and play a crucial role in enhancing household food security and income generation. The cultivation of indigenous vegetables has been shown to provide economic opportunities for smallholder farmers, reduce poverty, and improve rural livelihoods.

Studies have found that the cultivation of indigenous vegetables helps to increase household income and improves livelihoods for smallholder farmers in Kenya. Indigenous vegetables often have high market value due to their unique nutritional properties and cultural significance, making them a profitable crop for farmers. By diversifying their agricultural practices and including indigenous vegetables, small-scale farmers can tap into niche markets, set higher prices, and improve their economic wellbeing. Indigenous vegetables also reduce poverty because they cost relatively little to cultivate and require minimal inputs, making them a good option for farmers with limited resources.

Farmers can improve their livelihoods, invest in other agricultural activities, and lift themselves out of poverty by generating income from the sale of these vegetables. The economic opportunities associated with indigenous vegetable cultivation contribute to rural development and create pathways for economic empowerment, particularly for marginalized groups such as women.

In addition to economic benefits, indigenous vegetables hold cultural significance in Kenyan communities. They are deeply rooted in local traditions and important for preserving cultural heritage. The consumption and cultivation of indigenous vegetables are associated with cultural practices, rituals, and culinary traditions. This cultural importance fosters a sense of identity and belonging among communities, promoting social cohesion and strengthening community ties. The preservation of cultural heritage through the promotion of indigenous vegetables contributes to the overall wellbeing and cultural resilience of Kenyan society.

To fully harness the socioeconomic potential of indigenous vegetables, it is necessary to address challenges related to market access, value chain development, and knowledge transfer. Providing training and capacity-building support to smallholder farmers can enhance their production practices, improve post-harvest handling, and facilitate access to markets. Additionally, promoting the consumption of indigenous vegetables through awareness campaigns and education initiatives can increase their demand and value in local and international markets.

MARKET POTENTIAL AND VALUE CHAIN DEVELOPMENT

Kenya's growing population and evolving dietary preferences present an opportunity for the market development of indigenous vegetables. Increased consumer demand for diverse and nutritious foods provides a favorable environment for value chain development and market access. However, several challenges need to be addressed to unlock the market potential of indigenous vegetables, particularly in terms of post-harvest handling, processing, packaging, and distribution.

Investment in infrastructure is essential to overcome challenges in the value chains of indigenous vegetables. Adequate storage facilities, transportation networks, and processing units are crucial to maintain the quality and freshness of the produce. Improved infrastructure enables farmers to extend the shelf life of indigenous vegetables, reach distant markets, and cater to the demands of urban consumers. It also reduces post-harvest losses, which are a significant concern in the agricultural sector.

Research and development play a pivotal role in the market development of indigenous vegetables. Research efforts should focus on improving post-harvest technologies, such as innovative packaging and processing techniques that preserve the nutritional value of the vegetables. Additionally, research can contribute to the development of new varieties that possess desirable traits such as enhanced shelf life, disease resistance, and improved yield.

Training and capacity-building programs are also critical to equip farmers with the necessary skills and knowledge to enhance the value chain of indigenous vegetables. Training can cover various aspects, including good agricultural practices, post-harvest handling, quality control, and marketing strategies. Through training, farmers can improve the quality and consistency of their produce, enhance their negotiating power in the market, and access higher-value market segments. Moreover, training programs can promote entrepreneurship and encourage farmers to explore value-added opportunities, such as processing and packaging, thereby increasing their income potential.

By strengthening the value chain for indigenous vegetables, significant economic incentives can be created for farmers. Improved market access and value chain development enable farmers to obtain fair prices for their produce and keep a greater share of the value created along the chain. This enhances their income and livelihoods, providing them with the necessary resources to invest in their farms, access credit, and improve their overall wellbeing. Additionally, a robust value chain contributes to sustainable agricultural growth by promoting the adoption of best practices, improving productivity, and enhancing the competitiveness of the agricultural sector.

CONCLUSION

Indigenous vegetables in Kenya play a vital role in promoting food security, nutrition, environmental sustainability, and socioeconomic development. By recognizing the nutritional value of indigenous vegetables, supporting sustainable farming practices, and investing in value chain development, Kenya can harness the potential of these traditional crops. Policy support, research, and collaboration among stakeholders are essential to strengthen the role of indigenous vegetables in Kenya's food systems. By embracing the diversity and resilience of indigenous vegetables, Kenya can enhance food security, improve public health outcomes, and promote sustainable agriculture for future generations.

NUTRACEUTICAL VALUE OF INDIGENOUS VEGETABLE FOODS IN KENYA

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INTRODUCTION

Everyone desires to eat healthy, delicious food. Most of what humans eat comes from plants, and precisely which foods a person prefers and has access to is strongly influenced by their culture: Different people value different foods for different reasons. Globally, the use of indigenous plant foods is closely associated with cultural diversity (Haq, Hassan, Bussmann, et al., 2022). In traditional African settings, plant foods may be selected for their medicinal or social value; both of these contribute to good health and nutrition and to the diversity of African "meal cultures" (Brückner & Caglar, 2016).

Several terms have been used to refer to plant food resources, including "indigenous," "traditional," or "leafy" (Towns & Shackleton, 2018), as well as "wild." Here, we also use the broad term "African indigenous vegetables" (including fruits) or AIVs. Knowledge about AIVs was traditionally passed from mothers to daughters in folklore and other modes, but oral transmission has declined in recent generations, and with it, the knowledge, heritage, and skills associated with AIVs and their utilization (Cogill, 2015; Mamati & Omare, 2024). Today, indigenous vegetables and fruits are largely underutilized and their contribution to household food baskets and national food balance sheets is often ignored. The pursuit of a sustainable food supply and improved health in the context of rising food insecurity and nutrition-related diseases has led to increased advocacy for the production and development of underutilized or forgotten foods, especially indigenous vegetables and fruits.

FOOD AND NUTRITION SECURITY AND HEALTH BENEFITS

Thousands of species and varieties of indigenous and naturalized vegetables and fruits contribute to the dietary diversity, food security, and livelihoods of populations across sub-Saharan Africa (Towns & Shackleton, 2018). In Kenya, common indigenous vegetables include amaranth (*Amaranthus* spp.), jute

mallow (*Corchorus olitorius*), cowpea (*Vigna unguiculata*), spider plant (*Cleome gynandra*), black jack (*Bidens pilosa*), pig weed (*Amaranthus spinosa*), sun hemp (*Crotalaria juncea*), squashes (*Cucurbita moschata*), pumpkins (*Cucurbita pepo*), slenderleaf, (*Crotalaria brevidens*) and black nightshade (*Solanum nigrum*). Fruits include passion fruit (*Passiflora edulis*), mango (*Mangifera indica*), pineapple (*Ananas comosus*), guava (*Psidium guajava*), tamarind (*Tamarindus indica*), gooseberry (*Phyllanthus emblica*), pawpaw (*Carica papaya*), wild plum (*Prunus domestica*), baobab (*Adansonia digitate*), desert date (*Balanites aegyptiaca*), and raisin bush (*Grewia flava*). These vegetables and fruits grow in various geographical regions of Kenya and are consumed by diverse communities. However, associated methods of preparation, recipes, and food preferences differ across cultures (Haq, Hassan, Jan, et al., 2022).

Plants contain beneficial antioxidants, natural colorants (e.g., carotenoids), minerals, and vitamins that improve nutrient density and dietary diversity, contributing nutrients that alleviate hidden hunger. Common nutrients in AIVs include vitamins A, C, and E; magnesium; zinc; phosphorus; folic acid; and calcium (Mbhenyane, 2017; Moyo et al., 2021). Increased consumption of AIVs enhances household dietary diversity, especially for children under 5 years of age and women of child bearing age (Brückner & Aswani 2017; Bvenura & Sivakumar, 2017; Ekesa, 2009; Ochieng et al., 2016).

The promotion of indigenous vegetables and products derived from them has coincided with a surging consumer interest in the healthy foods that can contribute nutrients and fiber to Kenyan diets. Each vegetable or fruit is characterized by a unique combination of phytochemicals, and increased consumption of vegetables and fruits has been demonstrated to correlate strongly with improved gastrointestinal health and a reduced risk of heart attack, some types of cancer, and chronic ailments such as diabetes (Ramya & Patel, 2019). Diets rich in vegetables and fruits ensure an adequate supply of most vitamins and micronutrients, dietary fibers, and phytochemicals that promote health, and greater vegetable and fruit consumption can help to address the hidden hunger (micronutrient deficiencies) and chronic diseases (Ramya & Patel, 2019; Yang & Keding, 2009).

Most East African traditional foods are consumed in the form of mixed meals known for the unique nutraceutical values that derive from the combination of their various ingredients. An example is *mukimo wa njahe*, made from a starchy staple (e.g., maize) mashed with black beans and served with vegetable relish. This dish is excellent for lactating mothers because it is energy dense and and rich in protein thanks to the inclusion of cereals and beans. Leafy vegetables and/or fruits are often added to mukimo to confer medicinal properties—a

combination of stinging nettles and fruits low in sugar, for example, helps control blood sugar and pressure. Apart from enhancing dietary diversity, indigenous vegetables and fruits are often easier to grow, resistant to pests, acceptable to local tastes, and cheap sources of micronutrients (Wemali, 2014). As a food resource, indigenous fruits and vegetables improve livelihoods and biodiversity (Kehlenbeck et al., 2013).

Most AIVs are very colorful due to the presence of natural pigments in the leaves or fruits. These pigments provide nutritional and medicinal benefits, and the different natural colors of indigenous vegetables are an indication of the varied phytochemicals and nutraceuticals they contain (Kaparapu et al., 2020). Phytochemicals are bioactive compounds that plants produce to protect themselves from disease and predation. When humans consume fruits and vegetables, we benefit from their micronutrients as well as the many non-nutrient phytochemicals that are associated with health maintenance and prevention of chronic diseases (Mazzoni et al., 2012; Steinmetz & Potter, 1996). Phytochemicals have anti-inflammatory, antioxidant, enzyme inhibiting, and other bioactive features. Many East African indigenous vegetables and fruits also boost the immune system and serve as remedies for common ailments such as worms, allergies, and gastrointestinal disturbances.

Growing awareness of the health and nutrition (nutraceutical) benefits of African indigenous vegetables and fruits has increased demand for these products. Worldwide, many restaurants strive to serve only local, seasonal produce on their menus (Kennedy et al., 2021). Increased availability of the foods would also maintain and enhance the rich biocultural heritage of communities, strengthening both food security and food systems (Brückner & Aswani, 2017; Haq, Hassan, Bussmann, et al., 2022; Omotayo & Aremu, 2020).

CONCLUSION

The cultural, environmental, economic, and nutritional benefits associated with the consumption of African indigenous vegetables and fruits are crucial. These plant foods not only serve to improve our food security and food sovereignty; they also have medicinal, therapeutic, economic, and cultural value. Where cultivation can be increased, AIVs promise to improve household economies and livelihood opportunities. In addition, alternative vegetable resources and the rediscovery of underutilized plants should be prioritized in the hunt for important natural colorants for use in the food industry to reduced food-based health hazards (Ghosh et al., 2023).

There is a need for the Government of Kenya to develop policy on the production and utilization of various AIVs and their value chains. Increased availability of these foods would enhance the rich biocultural heritage of Kenyan communities, and proper recognition of local indigenous vegetables and fruits, as well as their conservation, domestication, and restoration, are important steps toward increasing their utilization and contribution to nutrition, wellbeing, food security (Tesfay et al., 2024), and potentially a culinary renaissance in Kenya.

INDIGENOUS VEGETABLE PREPARATION USING MUNYU MUSHELEKHA AMONG THE LUHYA COMMUNITY IN KENYA

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INTRODUCTION

Indigenous African leafy vegetables have diverse properties that make them useful and valuable to communities across the continent, often in ways that crops introduced from elsewhere cannot replicate or replace. Traditional vegetables are a delicacy in communities throughout Kenya, including among the Luhya people, who are the country's second largest ethnic group and are known to preserve and practice their traditional culture in many aspects of their lives. One of these traditional practices is the preparation of *munyu mushelekha*, a natural lye derived from the ash of crop residues. It is used to tenderize and enhance the flavor and color of cooked vegetables eaten as an accompaniment to *ugali*, a thick porridge made from ground maize. Despite the importance of munyu mushelekha in the traditional Luhya diet, it is becoming less and less popular. One of the main reasons for its decline is that members of the younger generation often view its use as a sign of backwardness. In fact, many people throughout Kenya and beyond consider the preparation and use of products like munyu mushelekha to be outdated. More broadly, indigenous vegetables that were an important source of minerals and other micronutrients in the past have been forgotten or are ignored due their perceived association with backwardness and poverty.

PREPARATION AND NUTRITIONAL VALUE OF MUNYU MUSHELEKHA

Munyu mushelekha is made from crop residues such as bean stalks, bean pods, maize cobs, and groundnut shells. After the crop is harvested and dried, these waste products are burned to prepare ash, which is then collected and stored. The ash is transferred into a container that is perforated at the bottom and then water is poured over it and allowed to filter through. The filtrate forms the munyu mushelekha, a natural lye known to have health benefits. Munyu mushelekha is added to vegetables as they are boiled, to tenderize them and enhance their flavor. It also helps green vegetables to retain their

color. In some instances, milk is added to the vegetables to further improve their taste and nutritional value. Munyu mushelekha is also added to smoked meat. Because it is rich in potassium and low in sodium, munyu mushelekha is a suitable substitute for common salt—research has shown that its sodium levels are even lower than those of salts marketed as "low-sodium." Luhya elders believe that munyu mushelekha has medicinal properties, including the ability to prevent joint diseases by acting like a grease.

CONTEXT AND IMPORTANCE OF AFRICAN INDIGENOUS VEGETABLES

African indigenous vegetables are rich in fiber, protein, vitamins, calcium, iron, and other minerals and essential nutrients, as well as non-nutritive phytochemicals like carotenoids that contribute to human health due to their antioxidant, antibiotic, anticancer, and other nutraceutical properties (Cogill 2015; Neugart et al., 2017; Njoroge et al., 2015; Oluoch et al., 2012; Padulosi et al., 2013; Yang & Keding, 2009). The Kenya News Agency (2023) reported on scientific research that showed that African leafy vegetables contain nutrients and vitamins that enhance immune function and lower the burden of suffering from non-communicable diseases such as cancer and heart ailments. However, despite being culturally accepted in the diets of many communities as complements to staple foods, the full potential that African indigenous vegetables hold for increasing household income, health, and food security remains underexploited, often because these plants are associated with poverty (Atuna et al., 2022). Another reason why indigenous vegetables have become neglected is that harvesting and preparing them can be very laborious, especially for those plants with small leaves. Plucking the small leaves from the stalks is tedious and time consuming, and one study reported that women in Western Kenya harvested indigenous vegetables in smaller quantities in order to avoid the long preparation required before cooking (Merchant et al., 2022).

Of the approximately 200 indigenous plant species used as leafy vegetables in Kenya, only four have been fully domesticated and another 15 are semi-domesticated, while the rest are wild (Maundu, 2018). Diversifying agricultural production systems by promoting underutilized species offers opportunities to strengthen the resilience and adaptative capacity of both natural and social-economic systems in Africa. This is because vegetables that are native to the continent have been managed and selected over many generations to tolerate various stressors in tropical environments, such as drought (Bokelmann et al., 2022). Indigenous vegetables that the Luhya people of Western Kenya prepare using munyu mushelekha include cowpea leaves (*Vigna unguiculata*), *murenda* or *murere* (*Corchorus olitorius*), *mitoo* (*Crotalaria* spp.) and

pumpkin leaves (*Cucurbita maxima*). However, in addition to the declining use of traditional products like munyu mushelekha, consumption of indigenous vegetables is also diminishing among members of the younger generations. This is unfortunate because, in the Luhya community as among other peoples, indigenous vegetables have been credited with the prevention of various diseases (though this has not yet been proven scientifically in every case). In Western Kenya, 19% of adults and 13–17% of households are impacted by malnutrition and a potential solution to this problem is increased consumption of nutrient-dense African indigenous vegetables (Merchant et al. 2022).

These disconcerting trends are not unique to the Luhya or to Kenya. In South Africa, there has been a shift in the willingness of youth to learn about and eat indigenous vegetables; this has been associated with the fact that research and extension personnel downgrade these crops by referring to them as "poverty food," and to the knowledge associated with them as "backward knowledge" (Vorster et al., 2007). Some researchers and extension agents label indigenous leafy vegetables as weeds and criticize farmers for not keeping these weed populations under control, thus implying that such food plants are not worthy of the space they occupy (Vorster et al., 2007). But indigenous leafy vegetables are a crucial food source in rural communities throughout the year. They are harvested and eaten fresh in the summer, and preserved using different drying methods to ensure the availability of vegetables during the winter. Food can be expensive in winter, so dried indigenous vegetables become a key source of nutrition in most rural households, contributing up to 80% of their total food supply during the winter (Vorster et al., 2007).

CONCLUSION

All over the world, indigenous vegetables are often neglected or underutilized. Despite having huge nutritional, economic, agronomic, and environmental potential, there remains a need to increase the production, consumption, and utilization of traditional vegetables, especially among today's youth (Nyaruwata 2019). The neglect of these crops and underestimation of their potential also invariably leads to loss of biodiversity (Böhme & Pinker, 2006; Muli et al., 2022; Nyaruwata, 2019). Fortunately, there is a growing realization that indigenous vegetables can make an essential contribution to food and nutrition security, especially in poorer households (Bokelmann et al., 2022). Furthermore, plant species that are well adapted to local conditions can be grown with fewer resources and inputs, thus benefiting the environment as well as people. Increasing the availability and consumption of indigenous vegetables is a practical way to address malnutrition in the developing world, as

long as local tastes and cultural expectations about preparation, presentation, flavor, and texture are taken into account (Chagomoka et al., 2014). In other words, it is not only indigenous vegetables themselves, but also the knowledge, skills, processing techniques, and customs associated with them that must be protected and promoted. This is why it is so important to ensure that the traditional practice of preparing and cooking with munyu mushelekha is passed on to the next generation.

PRESERVATION AND PREPARATION OF SOME TRADITIONAL KENYAN FOODS

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"We often rightly worry about the loss of one's language because of its potential to endanger the identity of a group of people. However, we should also apply our anxiety to the disappearance of traditional foods… They not only nourish us physically, but they sustain, protect, feed and personalize the people that cook them."

– Rachel Massaquoi,
Foods of Sierra Leone and Other West African Countries

INTRODUCTION

Two thirds of the Kenyan population lives in rural areas and depends directly on functioning ecosystems and biodiversity for their livelihoods and wellbeing. Before colonization, communities relied on traditional foods including cereals, roots and tubers, vegetables and fruits, and animal products obtained from the local environment. Traditional leafy vegetables (TLVs) such as African nightshades (*Solanum* spp.), amaranths (*Amaranthus* spp.), spider plant (*Cleome gynandra*), jute mallow (*Corchorus olitorius*), African spinach (*Basella alba*), and slenderleaf (*Crotalaria* spp.) were some of the most accessible and sustainable dietary sources of vitamins, minerals, and other bioactive compounds for the rural people of Kenya (Akomo et al., 2016). These plants are rich in vitamins A and C, protein, fiber, and minerals such as potassium, phosphorous, calcium, iron, and zinc (Akindahunsi & Salawu, 2005). TLVs were traditionally grown by women as a source of food and income, thus providing both sustenance for the household and financial independence (Onyango et al., 2016). Just like other traditional foods, TLVs normally face stiff competition from exotic vegetables like cabbage, spinach, and lettuce, which were heavily promoted during the colonial period to deliberately suppress the use of indigenous vegetables (Abukutsa-Onyango, 2010; Maundu et al., 1999). TLVs came to be considered poor people's food that should only be used as a last resort, and the methods

for preparing indigenous vegetables were condemned and said to damage or diminish their nutritional value.

As the poor sought to imitate the eating habits of the affluent and were exposed to more fashionable exotic foods, the consumption and cultivation of TLVs declined. Despite efforts to document knowledge and uses of traditional Kenyan vegetables (e.g., Ontita et al., 2016), some varieties and recipes have been lost forever. Lack of knowledge about preparation methods, cooking techniques, and the health value of indigenous vegetables has led to reduced dietary diversity and underutilization of traditional crops to ensure food security and address nutrition challenges (Kimiywe et al., 2007).

TRADITIONAL AND INDIGENOUS FOODS CONSUMED IN KENYAN COMMUNITIES

1. FINGER MILLET

Finger millet (*Eleusine coracana*) grain was kept in a traditional container called *omonyonyo*, which was smeared with cow dung to deter pests, and then sealed tightly. Stored in this way, finger millet could keep for several years without spoiling. The grain was ground into flour using special grinding stones (known as *ensio* and *orogena* in Kisii) or a water propelled grinding mill (*etinga y'amache*) and used to make porridge or *ugali* (a thick dough), staple foods in the Abagusii, Luo, Luhya, and Kalenjin communities. These were highly nutritious meals rich in iron.

▲ Hand operated grinding stone

▲ Waterpropelled grinding stone

PRODUCTS

i. Brown ugali (finger millet flour, sometimes with the addition of cassava flour)

Abagusii, Luo, and Luyha people prepared brown ugali from finger millet flour; in some communities, the finger millet was mixed with dried cassava roots before grinding. The ugali was eaten as a main dish for lunch or dinner, accompanied by boiled or roasted meat, fermented milk, and/or traditional vegetables.

Preparation:

Boil water and then add the flour and stir it with a flat wooden cooking stick to form a thick porridge. Keep adding small quantities of flour while stirring continuously and pressing the cooking stick on the sides of the pot to get rid of any lumps. Once the mixture attains a firm consistency, reduce the flame, continue mixing the porridge, and let it cook for about 10 more minutes. Now, using the wooden cooking stick, form the mixture into a round shape by bringing it in from sides of the cooking pot and then flip the pot over on top of a plate to serve the ugali. Traditionally, the cooked dough was served on a special woven bowl (called *ekee* in Kisii) and eaten with a stew of meat or vegetables, or fermented milk. In the Abagusii community, the ugali was preserved for up to 3 days by sprinkling it with finger millet flour and keeping it in the ekee.

ii. Finger millet porridge

Preparation:

Prepare a mixture of flour and cold water and allow it to ferment for 3 days before using it to prepare the porridge, known in Kisii as *obwanga*. Fermentation improves the taste and increases the bioavailability of the nutrients.

Add most of the fermented mixture to boiling water (keep some aside to use as a starter the next time you need to make porridge). Stir vigorously to prevent lumps from forming and keep mixing until the desired thickness is achieved. Let the porridge continue boiling for about 5 minutes and then serve. Traditionally, this porridge was served in a calabash called *egesanda* Kisii or *aguata* in Luo).

◂ Finger millet porridge served in a calabash

2. MEAT

Kenyan peoples traditionally obtained meet from domesticated bovines, goats, sheep, and wild animals such as gazelles, antelopes, and buffaloes. These meats were treated similarly in each community in terms of preservation and preparation for eating.

i. Emetanda: Among the Abagusii, meat used to be cut into strips, sun dried, and stored in pots above the cooking area, allowing it to keep for more than a year. During preparation for consumption, the meat was boiled for about 2 hours together with herbs, which enhanced its flavor. This practice is no longer common.

ii. Nyirnyir: Among Somalis, the meat used was cut into strips, sun dried, and then cut into smaller pieces and stored in a dry place. Prepared in this way, the meat will keep for more than a year. This practice is currently in use for camel meat. Nyirnyir is a delicacy in the Somali community. The meat is cooked to soften it before consumption.

▲ ▶ Nyirnyir

iii. Aliya is a sun dried and smoked meat popular among the Luo. It is salted before drying to prevent microbes from spoiling it. Drying and smoking the meat enhances its flavor. To prepare it for consumption, the aliya is boiled for about 4 hours (or until tender) and condiments are added to create a delicious stew.

iv. Rukuri is a traditional delicacy among the Gikuyu. It is made by preserving roasted meat in honey inside wooden containers. The honey was traditionally obtained from hives located both in community gardens and in the forest. When animals were slaughtered, their meat was roasted and dipped in honey and could be stored for some time before consumption or eaten right away. Rukuri was mostly prepared for personal and family usage. Fewer and fewer people produce this unique food today.

◂ Rukuri

3. FERMENTED MILK

Fermented milk is known by different names in different communities: Kalenjins call it *mursik* (Muigei et al., 2013), the Abagusii call it *amabere amaruranu* (Nyambane et al., 2014), the Maasai call it *kule naoto* (Mathara, 1999), and pastoralists in North Eastern Kenya call it *suusa* (Lore et al., 2005).

i. Mursik is made from cow's or goat's milk preserved in gourds lined with specially ground fine charcoal from select trees, especially *cromwo* (*Ozoroa insignis*), a native tree known for its antiseptic properties and faint scent of peanut butter. The milk is boiled, allowed to cool, and then poured into gourds to ferment. This practice is believed to be more than 300 years old and to have started as a way of preserving milk during a glut in production. Mursik has a grayish hue and a velvety texture.

◂ Gourds used by the Kalenjin

ii. Amabere amaruranu is a fermented product made from cow's milk by the Abagusii people in Kenya's former Nyanza Province. The milk is boiled, cooled, and poured into a special gourd where it is allowed to ferment. In most cases, the fermentation takes place naturally without any intervention, but sometimes fermented milk from a previous batch is added to the fresh milk as a starter. Amabere amaruranu can be stored for long periods and is usually served with savory dishes such as brown ugali. Sometimes, cow's blood was added to this milk to make omokoora. In the preparation of *omokoora*, blood is boiled until it

thickens, then cooled, and finally broken up into small pieces that are added to the gourd along with the milk. It ferments for 2–3 days and is then consumed in a similar manner to amabere amaruranu (Nduko et al., 2017). The addition of blood enhances its nutritional value.

◂ Gourds for amabere amaruranu

4. TRADITIONAL VEGETABLES

Spider plant (*Cleome gynandra*)—whose local names include *chinsaga*, *akeyo*, and *saget*—is popular in the many communities in Kenya. Among the Abagusii, elderly women used to enhance its nutritional value by cooking it with blood; this is no longer a common practice. Spider plant can also be cooked with pumpkin or other mild traditional vegetables such as African spinach, amaranth, and immature gourds. Togther, these ingredients provide a diversity of nutrients. Luhya and Luo people enriched the nutritional value of spider plant and other leafy greens by adding small quantities of lye (a potassium-rich alkaline liquid leached from ashes of burnt crop residue such as bean stalks) and fermenting the vegetables for up to 7 days, adding fresh milk each day. Spider plant prepared in this way is consumed with ugali.

When there was an excess supply, spider plant and similar vegetables were dried and then stored in pots to be used during periods of food scarcity.

5. EDIBLE INSECTS

Migratory locusts and flying termites have been used as food by many communities in Kenya, and the Abagusii, Luhya, and Luo still consume them. Locusts were traditionally harvested when they arrived in large swarms, and flying termites were harvested during the rainy season. They are either eaten raw after removing the guts, pulling off the head, wings, and legs, and then washing them in cold or warm salted water; or they are smoked or roasted over hot charcoal. The prepared raw insects can also be sun dried and stored for later use.

▲ Raw flying termites

▲ Dried flying termites

CONCLUSION

Many traditional foods are extremely healthy, and Kenya has a huge diversity of cultures and diets on which to draw to solve food insecurity and nutrition challenges that the country's communities face today. However, many of these foods and customs are being lost in the face of widespread adoption of new foods due to globalization. Shifting tastes and limited knowledge of traditional food preservation and preparation methods among the younger generations means that many of Kenya's most delicious traditional foods may soon be completely lost and forgotten. Innovation in the food sector may allow the younger generations to retain and improve on traditional gastronomic knowledge and skills, and develop creative technologies to ensure that this valuable heritage lives on.

OVERVIEW OF THE ARK OF TASTE IN KENYA

Michele F. Fontefrancesco, Dauro M. Zocchi, & Charles Barstow

Agrobiodiversity, short for agricultural biodiversity, refers to the variety and variability of plants, animals, and microorganisms used directly or indirectly for food and agriculture. It encompasses the diversity of genetic resources (varieties, breeds, and species), as well as the ecosystems in which they thrive. Agrobiodiversity is critical for food sovereignty and security, resilience against pests and diseases, adaptability to changing climatic conditions, and the overall sustainability of agricultural systems.

Declining biodiversity is one of the greatest threats to environmental and human wellbeing in Kenya and across the entire planet. Biodiversity loss involves not only wild species, but also the animal breeds and plant varieties that humans have domesticated or otherwise managed since the birth of agriculture 10,000 years ago, and on which we depend for food and other resources. Thanks to the careful selection that farmers have performed over the centuries, local and traditional varieties and breeds are well adapted to their local environments and often more resilient than modern and "improved" varieties and breeds, which depend more heavily on external inputs such as fertilizers, water, pesticides, feed, and veterinary care.

Over the last 50 years, industrial agriculture has invested in an ever smaller number of commercial plant varieties and animal breeds, selected and created for increased productivity rather than for genetic diversity and a strong connection to the collective knowledge and tastes of local communities. On October 3, 2022, Kenya fully lifted the long-standing ban on genetically modified organisms (GMOs), allowing the cultivation and promotion of GMO products in the country, which are likely to pose further threats to Kenya's agrobiodiversity.

According to FAO estimates, 75% of agricultural crop varieties have disappeared since the early 20th century, and 20% of animal breeds reared for food, meat, or milk now face extinction. The farmers, herders, and fishers who know and respect the delicate relationships of nature are the last real guardians of the planet's biodiversity. For millennia, they have been working in cooperation with ecosystems, not in competition with them.

To preserve our country's rich gastronomic heritage, Slow Food Kenya participates in many of the projects and initiatives overseen by the Slow Food Foundation for Biodiversity. The Ark of Taste is an online catalogue of endangered local food products that belong to the cultures, history, and traditions of the entire planet—an extraordinary heritage of fruits, vegetables, animal breeds, cheeses, breads, sweets, cured meats, and more. The Ark was created to point out the existence of these products, draw attention to the risk of their extinction within a few generations, and invite everyone to take action to help protect them. In some cases, this might be by buying and consuming them; in others, by telling their story and supporting producers. In the case of endangered wild species, protection might mean eating less or none of them in order to preserve them and favor their reproduction. The first Kenyan products to board the Ark of Taste in 2009 included Mau Forest Dried Nettles, the Lare Pumpkin, Pokot Ash Yogurt, and the Molo Mushunu Chicken. Documentation of these and other products continues as a way to revive them and the traditional knowledge and practices that surround them.

Through the Ark of Taste, Slow Food Kenya invites communities to rediscover, protect, and promote their rich agricultural, gastronomic, and cultural heritage with pride and dignity, in order not to lose their connection with the land that feeds them and will continue to feed them for generations. So far, 100 Kenyan products have boarded the Ark of Taste. We hope that this number will continue to grow to reflect as much of Kenya's gastronomic diversity as possible. The Ark is a project without end, and we encourage everyone to join us on this journey to research and protect Kenya's food products for the health of our people, traditions, and ecosystems now and in the future.

Several Kenyan Ark of Taste products have become Slow Food Presidia. A Presidium is a community of producers who work to safeguard a traditional product, technique (e.g., of fishing, animal husbandry, farming, or processing), or ecosystem that is at risk of being lost. Today, there are Presidia for 11 of Kenya's 100 Ark products: Endorois Bogoria Kisochon, Gitogo Kiiru Banana, Lare Pumpkin, Mau Forest Dried Nettles, Molo Mushunu Chicken, Molo Sheep, Mutahato Banana, Nzoia River Reed Salt, Ogiek Honey, Pokot Ash Yogurt, and Red Maasai Sheep.

Another important project to defend and promote biodiversity is the Slow Food Gardens, which are developed with families, communities, and schools as spaces to revive, cultivate, and learn about Ark of Taste products as well as other traditional and heirloom varieties. The gardens support sustainable agricul-

ture and help to protect the environment. By using agroecological techniques, the gardens also reduce the need for external inputs such as pesticides, herbicides, and fertilizers, and they help to conserve water and soil fertility.

Ark of Taste products are increasingly available in Kenya's five Earth Markets in Molo, Nakuru, Gilgil, Murang'a, and Kagio. These markets make local products more easily accessible to the community and help producers generate income. There will soon be a new Earth Market in Embu, and we anticipate that Ark of Taste products will start being sold in supermarkets as well. The future is bright.

Slow Food Kenya also promotes Farmer-Managed Seed Systems (FMSS) in which seeds originate from and are disseminated by small-scale farmers. FMSS embrace the ways that farmers have traditionally produced, disseminated, and procured seeds: directly from their own harvest, through barter among friends, neighbours, and relatives, and through local grain markets or traders. FMSS are the principal source of seeds for food crops in Africa, and yet national and regional policies continue to undermine them—for example, with laws that punish farmers who sell or share unregistered or uncertified seeds. Small-scale farmers are custodians of traditional knowledge who have long demonstrated that solutions to the challenges facing the global food system are not to be found in industrial agriculture. Real solutions are in the hands of farmers and in FMSS. Continued overreliance on a small number of crop varieties, on monocultures, and on large quantities of agrochemicals promoted by a handful of multinationals poses a major threat to food biodiversity, traditional food cultures, and the livelihoods of smallholder farmers. With support from Slow Food International and other partners such as the Biovision Foundation and the Agroecology Fund, Slow Food Kenya has created five seed banks to help communities of farmers save their locals seeds (including those at risk of disappearing), multiply them, and share them with fellow farmers to revive agrobiodiversity, enhance nutrition, and promote food security and sovereignty.

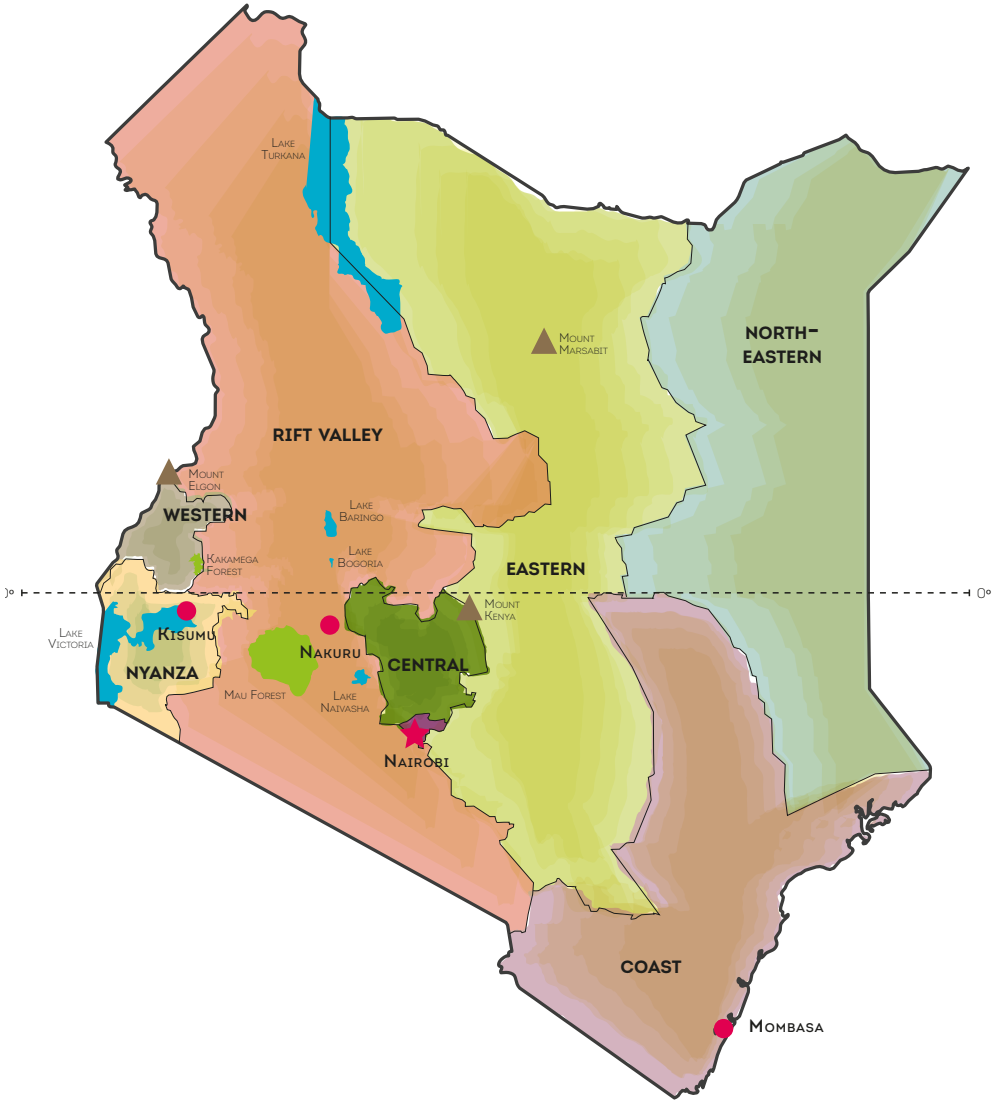
Education and awareness raising are key for conserving agrobiodiversity and gastronomic heritage, and Slow Food Kenya provides producers and consumers alike with many opportunities for learning and exchanging knowledge. Some of the projects and events that Slow Food Kenya facilitates are seed and food fairs, World Disco Soup Day, Terra Madre Day, agricultural shows, and media forums on the radio and TV. Creating and strengthening local and regional networks to unite producers, processors, cooks, and consumers is also vital. The Slow Food Cooks' Alliance aids in the recovery, documentation, and promotion of traditional foods by connecting cooks with the farmers who

grow Ark of Taste and Presidium products. We also organize food *barazas* (dialogues) that bring farmers, cooks, and consumers together to share ideas and promote Kenyan gastronomy.

Slow Food Kenya is also committed to climate justice and to the full participation of Indigenous communities in agroecology and biodiversity conservation, because Indigenous peoples are the custodians of traditional food, knowledge, and management systems.

The fight to save biodiversity is a fight for the future of the planet. We can all do something, each in our own part of the world, every day. Let's not focus only on what we have lost, but also on the incredible wealth of resources and opportunities that still exists in our territories, food systems, and communities.

FORMER PROVINCES OF KENYA



CHAPTER 1

FRUITS AND VEGETABLES

N. 1 CHEPKILUMNDA

Brassica oleracea var. *acephala* DC.

CATEGORY

VEGETABLES

PRODUCTION AREA

Olenguruone, Nakuru County (Rift Valley)

INDIGENOUS COMMUNITY

Kipsigis (Kalenjin)

SEASONALITY

SOW

At the beginning of the rainy season (late March – early April)

HARVEST

Leaves ready for harvest 3-4 months after sowing

SENSORY ANALYSIS

VISUAL

This variety grows up to 1 meter in height and has light green leaves. It is an erect annual herb, often branched, with lobed leaves that are smaller than to those of other brassicas.

TASTE

similar to spinach but more bitter

CONSISTENCY

hard/tough and fibrous

EDIBLE PARTS AND COOKING TECHNIQUES

LEAVES

boiled, stewed, steamed

Chepkilumnda is a traditional green leafy vegetable grown in different areas of Kenya. This particular type is cultivated mostly in the Olenguruone area of southwestern Kenya. It is grown by local people in kitchen gardens along with other vegetables for home consumption. The positive characteristics of this vegetable are a prolonged harvest and resistance to pests, diseases, and drought.

The plant is propagated by use of cuttings that are either bought or shared among farmers. The cuttings (about 20 centimeters long) are usually prepared and planted at the beginning of the rainy season. After 2-3 weeks, the cuttings

start to sprout. Tools used during the preparation of the cuttings include a sharp knife (for cutting off the stem from the parent plant) and a panga machete (for loosening the soil to ease planting).

CULINARY USES

The leaves are eaten steamed and served together with *ugali*, a porridge-like dish made from different types of flour, preferably millet. They can also be boiled, fried with onions and tomatoes, and served with meat. On some occasions chepkilumnda is cooked together with other leafy vegetables such as black nightshade.

The cooked leaves have a characteristic sharp odor and are not bitter. Chepkilumnda has low acid levels and is ideal for people suffering from peptic ulcers.

PRODUCT HISTORY

Chepkilumnda is eaten especially during the harvest period, used for bride-wealth payment, and served for circumcision ceremonies. It is mainly associated with the Kalenjin people. It is a crop linked to local food security for its ability to persist in the fields for long periods and its disease resistance. Presumably, this type of leafy vegetable was used in famine times, when the other, better-tasting types were not available.

Chepkilumnda is grown for both home consumption and for sale in the market because it generates good income. Chepkilumnda continues to thrive during the dry season, which means that there are still vegetables for the family to eat and sell.

Chepkilumnda is one of the traditional crops cultivated in Olenguruone School Garden. This project was started in 2005 with support from NECOFA (Network for Ecofarming in Africa), the Slow Food Foundation for Biodiversity, and the Slow Food Central Rift Convivium. The project provides students with skills to work in the agriculture sector using a sustainable approach.

CURRENT STATUS

Farmers grow the crop both for family use and for sale, but the introduction of hybrid varieties in the area is threatening the future of chepkilumnda. Lack of a ready market for chepkilumnda gives hybrid varieties the upper hand, thereby threatening this local plant. Chepkilumnda is also facing competition from other leafy vegetables.

NOMINATOR: AUSTINE MATHU

N. 2 CHINSAGA

Cleome gynandra L.

CATEGORY

VEGETABLES

PRODUCTION AREA

KISII AND NYAMIRA COUNTIES (NYANZA)

INDIGENOUS COMMUNITY

ABAGUSII

SEASONALITY

SOW

CLEOME GYNANDRA IS AN ANNUAL HERBACEOUS PLANT THAT GROWS THROUGHOUT SUB-SAHARAN AFRICA. IT IS SOWN DURING THE RAINY SEASON AND THRIVES IN SANDY LOAM SOILS WITH GOOD EXPOSURE TO SUNLIGHT. IT DOES NOT PERFORM WELL IN COOL, HUMID CONDITIONS OR HEAVY CLAY SOILS, BUT IT IS SOMEWHAT DROUGHT TOLERANT.

SENSORY ANALYSIS

VISUAL

THE PLANT IS AN ERECT HERB WITH A HAIRY GREEN TO PURPLISH STEM AND MANY BRANCHES. THE COMPOUND LEAVES HAVE UP TO SEVEN LEAFLETS.

TASTE

THE LEAVES ARE MILDLY BITTER TO VERY BITTER AND SOMETIMES HAVE A PEPPERY FLAVOR.

EDIBLE PARTS AND COOKING TECHNIQUES

LEAVES AND SHOOTS

BOILED OR DRIED FOR PRESERVATION

Cleome gynandra, known as *chinsaga* among the Abagusii people living in Kenya's former Nyanza Province, is a leafy vegetable sown at the onset of the rainy season. It is often intercropped with brassicas because it naturally deters some insect pests. The Abagusii recognize three main stages of maturation in the life of chinsaga: *omonyenye* (germination to 4 weeks), *amasabore* (4 to 8 weeks), and *ekegoko* (fully mature, usually after 2 to 3 months). It is recommended that lactating mothers eat chinsaga in the latter two stages. Young shoots or mature stems with their leaves are harvested. In the omonyenye stage, the whole plant may be harvested, but

otherwise it is only the stems and leaves that are picked, which allows for multiple harvests from each plant. Young chinsaga has a mild taste. In the ekegoko stage, the plant begins to flower and its flavor turns bitter.

CULINARY USES

Preparation of chinsaga involves separating the leaves from the stems and then cleaning them in water. The clean leaves are then boiled in salted water in a covered pot until they soften. Traditionally, blood was added to the pot and stirred in with the leaves. This dish was typically served with white or brown *ugali*. Chinsaga can be eaten by anyone at any time, but is especially significant for pregnant and lactating mothers because the Abagusii believe that it enhances milk production and is a good source of iron, thus restoring blood after childbirth. It is also considered to have anti-inflammatory properties, and a juice made from the roots was given to new mothers to help heal the womb. Within the household, it is usually women who are responsible for preparing chinsaga.

PRODUCT HISTORY

In addition to promoting maternal and child health and nutrition, chinsaga is generally appreciated throughout the Abagusii community, especially among elders who prefer the bitter taste of the plant in its mature stage. Many Abagusii continue to rely on agriculture for their subsistence and livelihoods. Chinsaga is produced mainly for home consumption and to a lesser extent for sale.

CURRENT STATUS

Although chinsaga is still consumed in the Abagusii community, its cultivation and use are in decline and, due to the popularity of new preparation methods, it is often not cooked according to traditional recipes. Food preferences have also changed and many people no longer want to eat bitter vegetables, which has contributed to a decrease in the cultivation, sale, and purchasing of chinsaga and similar traditional leafy greens.

N. 3 ENDOROIS BOGORIA KISOCHON

Solanum spp.

Slow Food Presidium®

CATEGORY

SPICES, WILD HERBS AND CONDIMENTS

PRODUCTION AREA

BARINGO COUNTY (RIFT VALLEY)

INDIGENOUS COMMUNITY

ENDOROIS (KALENJIN)

SEASONALITY

HARVEST

GERMINATES DURING RAINY SEASON (MARCH - APRIL) LEAVES HARVESTED MOSTLY FROM JULY - DECEMBER, AND IN SMALLER QUANTITIES FROM JANUARY - APRIL

SENSORY ANALYSIS

VISUAL

THE LEAVES ARE OVATE, UP TO 12 CENTIMETERS LONG AND 8 CM WIDE. THE SMALL WHITE FLOWERS HAVE 5 PETALS AND ARE BORNE IN CLUSTERS. THE FRUIT IS A BERRY, ABOUT 1 CM IN DIAMETER, THAT RIPENS FROM GREEN TO SHINY PURPLISH BLACK.

TASTE

LEAVES ARE BITTER WHEN EATEN RAW, SLIGHTLY BITTER WHEN COOKED.

EDIBLE PARTS AND COOKING TECHNIQUES

LEAVES

RAW (AS MEDICINE)
COOKED (AS FOOD)

Kisochon is the Endorois word for several closely related species in the genus *Solanum*, collectively referred to in English as African nightshade. These plants grow in a variety of climatic conditions, habitats, and soil types at low elevations throughout the tropics, and are cultivated in gardens as well as being collected from the wild in many parts of sub-Saharan Africa. Kisochon is abundant around Lake Bogoria and in the forests of Baringo County in the homeland of the Endorois people, a minority ethnic group who are a sub-tribe of the Kalenjin. It is an annual or short-lived perennial herb or small shrub that grows to a height of about 1 meter (rarely

more than 1.5 m). Since time immemorial, Endorois people have managed wild Kisochon plants and gathered their leaves to use as food and medicine.

CULINARY USES

Kisochon leaves are rich in vitamins, iron, calcium, carotenoids, antioxidants, and protein, contributing to general health. Traditionally, the fresh leaves have been eaten raw in small quantities as a medicine for cold and flu. More typically, they are cooked to reduce bitterness and served as a vegetable. All parts of the plant, including the young shoots, fruits, and roots as well as the leaves, are used medicinally. Kisochon leaves are often enjoyed as a side dish with *ugali* (a stiff porridge that can be made from millet or other grains): They are cooked with a little water over medium heat until the moisture has evaporated and then salted and mixed with goat's milk, goat fat, or cream from cow's milk (depending on availability), and sometimes tomatoes.

PRODUCT HISTORY

Kisochon has special cultural and nutritional significance to the Endorois, who consider the plant a gift from God. It is most plentiful in the lean season between the planting and harvesting of grains such as sorghum and millet and has therefore traditionally been important for food security. The leaves are traditionally harvested on an approximately weekly basis, mainly by women and youngsters as they graze their livestock. Picking is done by hand in the very early morning or late evening, when the quality of the leaves is best. As they gather the leaves, harvesters cut off the growing tip of the plant to encourage lateral growth (the development of side shoots). The leaves are carried home in a traditional goatskin bag called a *lengu*. Kisochon is an important food for special occasions such as dowry payments and wedding ceremonies.

CURRENT STATUS

Despite African nightshades being an important leafy green vegetable in many parts of Africa, the availability and consumption of Kisochon in the Endorois community around Lake Bogoria has been declining in recent years. Members of the younger generation dislike its bitter taste and perceive it as a food for poor people. In 2000, the government allowed the introduction and promotion of "improved African nightshade" through the Kenya Agricultural and Livestock Research Organisation (KALRO), which has created competition with native varieties. Finally, the wide use of chemicals on farmland near where Kisochon grows contaminates wild populations of the plant. Efforts are underway to bring Kisochon into cultivation to guarantee production and make this culturally important food more accessible.

More information about the presidium on page 272

N. 4 KIMUNYI MANGO
(KASIKEU MANGO, MAEMBE MA KIMUNYI)

Mangifera indica L.

CATEGORY

FRUITS AND NUTS

PRODUCTION AREA

MAKUENI, KITUI, AND MACHAKOS COUNTIES, UKAMBANI (EASTERN)

INDIGENOUS COMMUNITY

AKAMBA / KAMBA

SEASONALITY

HARVEST

DRY SEASON (DECEMBER – APRIL)

SENSORY ANALYSIS

VISUAL

THE FRUITS ARE GREEN IN COLOR WHEN UNRIPE. RIPE FRUITS MAY STAY GREEN OR DEVELOP SHADES OF ORANGE (WITH OR WITHOUT PATCHES OF GREEN). THE FRUIT CONTAINS A SINGLE SMALL SEED.

TASTE

SWEET TASTE, EVEN SWEETER THAN HYBRID VARIETIES PRODUCED IN THE AREA

EDIBLE PARTS AND COOKING TECHNIQUES

FRUIT

FRESH FRUIT EATEN RAW

This traditional mango variety, *maembe ma kimunyi* as it is known locally, is sometimes also called *kasikeu* in Ukambani, a stretch of territory between Nairobi and Mombasa.

The tree is successfully grown in a wide range of soils: It does well in sandy soils as well as on loam, black cotton, and even murram soils, depending on elevation. The requirements for good development of the trees are deep soil (at least 3 meters), adequate rainfall (500-1,000 millimetres), good drainage, and a suitable elevation (sea level to 1,200 meters). The plant grows into a huge evergreen tree that takes up to 5 years to begin producing fruits.

This variety is quite hardy and is resistant to pests, disease, and drought. It is often used as rootstock for grafting other, hybrid mango varieties. The fruit ripens very late compared to other varieties. Tools used in cultivation include the *jembe* (hoe), spades, local wooden wheelbarrows, a pruning *panga* (machete), and a grafting knife. Kimunyi mangoes are handpicked, collected in baskets, and transported home using wheelbarrows or carried on the back.

CULINARY USES

The pulp of ripe mangoes, when not eaten fresh, can be processed into juice. Fruits eaten before they are ripe, however, are quite sour.

Today people are trying to add value to mangoes by chopping them into small pieces, drying them, and storing them so that they can be eaten out of season.

PRODUCT HISTORY

The legendary sweetness of the kimunyi mango is referenced in a phrase shared by lovers in Ukambani, which translates to "you are as sweet as a kimyuni mango." This variety in particular is often given as a gift to loved ones. Traditionally, kimunyi mangoes were eaten in season and used to make juice. The juice was then served to guests during special occasions such as naming and marriage ceremonies. It was also served to pregnant women.

The kimunyi mango and other local varieties are highly valued for home consumption in rural Eastern Kenya. It is produced and consumed by the Akamba people in Kasikeu. According to the local people, kimunyi trees are comparatively drought tolerant and less susceptible to pests and diseases than the improved varieties.

Current production is mainly for home consumption, with extra mangoes sold to neighbors and at the market if there are enough. Unfortunately, mango production in Kenya is dominated by a few commercial cultivars. For this reason, small-fruited local mango landraces are declining significantly and are threatened by genetic erosion.

CURRENT STATUS

The kimunyi mango variety is rare and grows best in Makueni County in southern Kenya. Despite the fact that this variety produces good harvests for over 30 years, if a tree grows to a size considered too large, many farmers will chop it down and replace it with smaller hybrid trees that are faster to produce fruit but whose fruit is less sweet. Also, many of these hybrids are grafted onto kimunyi mango rootstock, meaning that the pure tree and its distinctive fruit are becoming increasingly rare.

N. 5 KIONZA
(PIGEON PEA)
Cajanus cajan (L.) Huth

CATEGORY

LEGUMES

PRODUCTION AREA

Usemei and Ngaku villages, Makueni County (Eastern)

INDIGENOUS COMMUNITY

Akamba / Kamba; Mijikenda

SEASONALITY

SOW

October - November

HARVEST

July - August

SENSORY ANALYSIS

VISUAL

Pods are 10 centimeters long, straight or slightly curved, with a hairy surface, green (often streaked with red), dark brown, or purplish black. One pod has an average of seven peas inside, which have a green surface, turning light brown when dried.

TASTE

nutty

CONSISTENCY

crisp

EDIBLE PARTS AND COOKING TECHNIQUES

GREEN PODS, GREEN PEAS, DRY PEAS

boiled, stewed

Kionza is grown in the sandy soils of Usemei and Ngaku villages in Makueni County. This plant is an excellent nitrogen fixer. It grows into a large, tree-like shrub, producing lots of branches and giving high yields. Pigeon pea does well in temperatures of 18-38˚C. It requires an annual rainfall of 600-1,000 millimeters. Seeds are planted directly in a deep, ploughed garden, at a spacing of 35-50 centimeters by 75-150 cm, and a depth of about 10 cm. The crop is usually cut near the ground when most pods are mature, or the mature pods are picked individually. Green pods are picked over a long period in home gardens. After the harvest the stems are cut back to facilitate regrowth. The seeds are shared or bought for cultivation.

Tools used are the *jembe* (hoe), *panga* (machete), and baskets or sacks for harvesting and threshing.

CULINARY USES

Kionza peas are larger and cook faster than other, similar legumes. The peas are cooked together with local *kinyaanya* maize in a dish called *muthokoi*, and are also used to make *kitau*, a soft dish made with the addition of cooked cassava that is popular with babies and the elderly.

In the coastal region where the peas are not a main crop, the Mijikenda community uses the peas to make *mahamri ya baazi*, traditional Swahili doughnuts that are puffy and golden brown. They are made by combining pigeon peas with coconut milk, flour, sugar, and yeast, and are spiced with cardamom. The sweet is a local favorite breakfast snack.

PRODUCT HISTORY

There are games in kionza-growing areas associated with these peas and their harvest, played across generations. In one, people give their competitors each a pod that contains seven peas. Because these pods are quite common, there is a lively exchange of the pods between players, as they trade and shell the peas to prepare a meal. Bets are made and winners get rewards. Another competition tries to find the fastest shellers, and losers have to "pay" the number of kionza pods that they lost by. These games are often played by families and are a time in which grandparents tell stories and pass down knowledge to their grandchildren.

Kionza is very important because it is drought resistant, well adapted to Makueni County's climate, and, more importantly, because it fixes nitrogen in the soil and generates some income for small-scale farmers. It also has many traditional medicinal uses. For example, young leaves are applied to sores, herpes, and itches, and are also used to treat diabetes. It is believed that this product has the ability to prevent anemia and that it has anti-inflammatory properties.

Kionza peas are mainly cultivated for home consumption, with growers keeping this variety for their families while selling other pigeon pea varieties.

CURRENT STATUS

The production of kionza has been in decline due to low yields, the fact that it is labor intensive, and a lack of buyers. It is believed that this is due to the variety failing to meet consumers' preferences and because of its sensitivity to insects and pathogens. Stored kionza seeds are susceptible to insect infestation, so seed viability deteriorates rapidly during storage and causes considerable economic loss.

NOMINATOR: PRISCILLAH NZAMALU

N. 6 KUNDE

Vigna unguiculata (L.) Walp.

CATEGORY

LEGUMES

PRODUCTION AREA

Mutyambua, Kiboko, and Kithasyu, Makueni County (Eastern)

INDIGENOUS COMMUNITY

Akamba / Kamba

SEASONALITY

SOW

Rainy season (starting from March)

HARVEST

Flowering and fruiting begin 2 months after sowing. The seeds mature in 80-100 days.

SENSORY ANALYSIS

VISUAL

The pods are long, smooth, and cylindrical. Inside there are 8-20 seeds, which are small (5-12 millimeters wide), round, and cream colored. The seeds have a distinct white eye surrounded by a dark ring.

TASTE

tastes like squash

CONSISTENCY

firm

EDIBLE PARTS AND COOKING TECHNIQUES

GREEN AND DRY SEEDS, LEAVES

boiled, stewed

Kunde (cowpea) is a climbing, spreading, or erect annual herb in the legume family. The main areas in which the crop is grown are Mutyambua, Kiboko, and Kithasyu, all to the southeast of Nairobi. Cowpeas thrive in dry environments with as little as 300 millimeters of rainfall. Their deep root system helps stabilize the soil and the leaves cover the ground, preventing moisture from evaporating.

Kunde is usually intercropped with cereals such as maize, pulses such as beans, and roots and tubers. It can be grown as either an annual or a perennial

and has a short vegetative cycle, requiring only about 2 months for flowering and fruiting. Neem seed powder is used to protect the seeds in place of chemical pesticides.

CULINARY USES

The dried seeds, fresh seeds, pods, leaves, and young stems are edible. Leaves and seeds of the cowpea are widely used as a food. They are eaten with *ugali* or mashed with maize and potatoes or other legumes.

The seeds are cooked with maize or often made into a rich stew called *muthokoi*, which is eaten with ugali or other foods. To make this dish, the beans are boiled, fried, and finally stewed. Akamba mothers consume this dish while nursing. Cooking is done over a three-stone fireplace.

PRODUCT HISTORY

Kunde is highly valued in Makueni County for its fast growth after rains or with irrigation. The crop is resistant to diseases, pests, and drought. It withstands harsh climactic conditions and can be produced year round when sufficiently watered, ensuring a continuous food supply for families and communities.

The plant is a very good source of tender, dark green leaves that are rich in iron, vitamin E, and vitamin K, and are used as a food by humans, insects, rodents, rabbits, goats, sheep, cattle, and tortoises. The bean pods, both green and dried, can be used as feed for livestock, especially during dry seasons, and they increase milk production in goats and cattle.

Kunde was traditionally eaten on different occasions, including childbirth and initiation ceremonies, and was offered to nursing mothers for strength.

In Makueni County, cowpeas are mainly grown for home consumption, though a few people sell the leaves if they have a surplus.

CURRENT STATUS

This crop is produced almost exclusively by small-scale farmers and the seeds are susceptible to damage from weevils if not stored properly, leaving farmers with nothing to plant the following season and reducing the production area.

In recent times, changes in temperature patterns have affected the yield and seed quality of cowpea. Both the quality and quantity of cowpeas are affected by the amount and distribution of rainfall.

N. 7 LARE PUMPKIN

Cucurbita maxima Duchesne

Slow Food Presidium®

CATEGORY

VEGETABLES

PRODUCTION AREA

LARE VILLAGE, NJORO DISTRICT (RIFT VALLEY)

SEASONALITY

SOW

RAINY SEASON

HARVEST

6 MONTHS AFTER SOWING

SENSORY ANALYSIS

VISUAL

FRUITS ARE OVAL IN SHAPE AND VARY IN SIZE, WITH THE AVERAGE WEIGHT RANGING FROM 3–5 KILOGRAMS. THE SKIN IS LIGHT GREEN WITH WHITE STRIPES AND IT HAS ORANGE FLESH. THE SEEDS ARE LARGE AND WHITE.

TASTE

THE PULP IS SWEET.

CONSISTENCY

ONCE COOKED, IT HAS A CONSISTENCY SIMILAR TO SWEET POTATO.

EDIBLE PARTS AND COOKING TECHNIQUES

FRUIT, LEAVES, SEEDS

BEVERAGES, BOILED, BAKED

WAYS OF PRESERVING

DRYING, FLOUR

The Lare Pumpkin is a local variety from Lare village in the Rift Valley region. It is a creeping, climbing plant with broad leaves and extensive vines. It does well in areas with annual rainfall ranging from 600-900 millimeters, at elevations below 2,200 metres, in loamy, silty, and alluvial soils. Sowing is done directly into the field by hand at a spacing of about 2 meters. The tool used for cultivation is the *jembe* (hoe). This pumpkin is usually cultivated with other vegetable species.

The Lare Pumpkin has a high yield. Both the fruit and the leaves are edible. This variety is well adapted to local conditions and provides good mulch for the soil.

In addition, the flowers attract bees, which increase pollination of other crops. Traditionally, the pumpkins were stored in pits in the earth, wrapped in dry grass. Today granaries are used. The seeds are kept for planting the following year and for exchanging with other farmers.

CULINARY USES

The Lare Pumpkin has many uses. The leaves are consumed as a vegetable in dishes such as *kimito*, which also includes potatoes and broad beans. Due to its highly nutritious properties, this pumpkin is also used in making light food for infants and the elderly.

The orange flesh of the pumpkins is used in different dishes, either boiled or in the form of flour, to enhance color and add nutrition. Pumpkin flour is mixed with wheat flour and used in making chapati bread and *maandazi* (doughnuts). Pumpkins are also used to make a juice; the seeds are eaten boiled or are dried and milled to make a flour, which is used in porridge and for medicinal purposes.

PRODUCT HISTORY

Lare village is located on the eastern edge of the Mau Forest, East Africa's largest montane forest, in the dry highlands of the Rift Valley, an area that has experienced dramatic changes in rainfall patterns in recent years, bringing great concern for future food security. In an effort to remain resilient in a challenging environment, farmers in the Lare region have embraced pumpkin farming because this crop performs well in water-stressed areas, ensuring food security. The product is fed to infants because of its high nutritional value. It is normally consumed around the time of childbirth, by both infant and mother, and during initiation ceremonies. Locals believe that eating pumpkin helps increase a man's sexual prowess. In addition, the crop provides income for the producers, as it is sold in the local markets and neighboring regions. It is easy to transport and it can last a long time without losing its nutritional value. It is also used in local hotels along with other products to make mixed dishes. Pumpkin flour is also in high demand.

CURRENT STATUS

Rainfall has become increasingly erratic as a result of climate change. The decreased quality of land due to drought has caused massive crop failures. But the Lare Pumpkin is resistant to harsh conditions, thus becoming an important source of food and income for farmers. However, production of this crop is threatened by the introduction of non-native varieties, which are faster growing and more productive.

More information about the presidium on page 274

Nominator: Leah Wanjiku Kinita, Samson Kiiru Ngugi

N. 8 MAKODZA GA MUGAZIJA (CASSAVA LEAVES)

Manihot esculenta Crantz

CATEGORY

VEGETABLES

PRODUCTION AREA

KILIFI AND KWALE COUNTIES (COASTAL)

INDIGENOUS COMMUNITY

GIRIAMA (MIJIKENDA)

SEASONALITY

SOW

STEM CUTTINGS ARE PLANTED DURING THE RAINY SEASON.

HARVEST

PLANTS TAKE AT LEAST 6-12 MONTHS TO PRODUCE TUBERS, BUT THE LEAVES CAN BE HARVESTER EARLIER.

SENSORY ANALYSIS

VISUAL

CASSAVA LEAVES ARE LARGE (UP TO 20 CENTIMETERS), PALMATELY LOBED (3, 5, 7, OR SOMETIMES 9 LOBES), AND LIGHT TO DARK GREEN, PURPLE-GREEN, OR PURPLE IN COLOR.

EDIBLE PARTS AND COOKING TECHNIQUES

LEAVES

BOILED, STEWED, FRIED

Cassava (*Manihot esculenta*) is a semi-woody shrub grown in many parts of Kenya for its tubers, which are an important staple in several ethnic communities. It can also be grown for its leaves, which the Giriama people refer to as *makodza ga mugazija*. Though it is a perennial plant, cassava is often cultivated as an annual crop. It grows well in acidic soils in warm, humid climates, though it can tolerate drought. The

plants, propagated from stem cuttings, usually grow to a height of 2-3 meters, but can be much taller. They have one or a few sparingly branched stems from which the leaves grow on long petioles.

CULINARY USES

Cassava varieties are divided into two main types, bitter and sweet. Bitter varieties contain cyanide and their leaves and tubers are poisonous if not properly processed. Makodza ga mugazija can only be eaten after careful cooking to extract the toxins. Once boiled, the leaves are essential ingredients in a number of dishes. They are often fried with onions, tomatoes, and salt, and can also be used as a thickening agent in stews and sauces or made into a pudding. Makodza ga mugazija is typically served with rice, *ugali* (stiff porridge), or groundnuts.

PRODUCT HISTORY

Makodza ga mugazija is a traditional vegetable among the Giriama people (a sub-tribe of the Mijikenda) living along Kenya's coast. It is often intercropped with maize, another staple food. Cassava leaves are very filling and are rich in protein, fiber, and vitamins A and C. They are mainly produced for consumption within the household rather than for sale, since those who do not grow cassava themselves often don't know how to detoxify it.

CURRENT STATUS

Makodza ga mugazija is eaten less and less as food habits and preferences shift, especially in urban areas where people consume other vegetables that are more commonly found in the market. The process of detoxifying cassava leaves is seen as an inconvenience and there is also a perception that this vegetable is poor people's food.

N. 9 MAU FOREST DRIED NETTLES

Urtica massaica Mildbr.

Slow Food Presidium®

CATEGORY

SPICES, WILD HERBS AND CONDIMENTS

PRODUCTION AREA

KARIRIKANIA VILLAGE, MOLO DISTRICT, NAKURU COUNTY (RIFT VALLEY)

INDIGENOUS COMMUNITY

GIKUYU / KIKUYU

SEASONALITY

HARVEST

STINGING NETTLES GROW FROM MID-MARCH TO JUNE AND FROM SEPTEMBER TO OCTOBER.

SENSORY ANALYSIS

VISUAL

THE LEAVES ARE LARGE AND HEART SHAPED; THE SMALL GREEN FLOWERS GROW IN CLUSTERS ARISING FROM THE LEAF AXILS; AND THE FRUIT IS SMALL, ROUND, AND FLAT.

TASTE

FRESH NETTLES TEND TO HAVE A GRASSY, SPINACH-LIKE TASTE, WHILE DRIED NETTLES ARE SLIGHTLY BITTER.

EDIBLE PARTS AND COOKING TECHNIQUES

LEAVES, ROOTS

BOILED, STEWED, HERBAL TEA

WAYS OF PRESERVING

DRYING

The nettle, a perennial plant in the family Urticaceae, grows best in forest margins, clearings, along streams, and in disturbed areas. It is often found adjacent to dwellings or cattle pens. It thrives in fertile soils in both warm and cool climates. The young leaves are preferred for food, so management involves frequent pruning to encourage new growth. The plant is covered in irritating hairs and the sting is harsher in dry weather than when it rains.

The nettles are harvested manually, immediately soaked in water to soften the stinging effect, and then sold, either fresh or after being dried (they are dried in the shade because the sun affects their attractive bright green color) and ground to make a powder.

CULINARY USES

The leaves feature in many traditional Gikuyu recipes, including *mukimo*, which is prepared using mashed potatoes, maize, beans, and nettles. Nettles are combined with millet in the local porridge and are also used as a fresh vegetable, a medicinal herb, and an herbal tea. The roots are used to make soup.

PRODUCT HISTORY

For generations, indigenous communities of the Mau forest in the Rift Valley have gathered leaves and herbs from the local area, including nettles, which have always been an important ingredient in Kenyan cuisine. Nettles are appreciated because they are easily available during the dry seasons when other vegetables are not in production. They are used within the family unit as a vegetable to accompany the main dishes, for the elderly, and also for weaning babies. Herbalists use them to make local medication. Leaves are used in traditional medicine for treating anemia, fainting, colds, and backache. They are also used for feeding livestock and for treating cows affected with milk fever disease.

Stinging nettles are recommended as a dietary supplement for nursing mothers (the leaves contain 6% protein, 3.5% minerals, and are a rich source of iron and vitamin A).

The stinging nettle provides an important source of income for the local community. While the leaves of young plants are mainly sold fresh at local markets, the dried nettles in powdered form have a wider market and are sold all year round.

CURRENT STATUS

Since the early 1980s, the use of nettles has drastically declined. This is due to increasing deforestation and the erosion of knowledge regarding their culinary use. For these reasons, in recent years a group of women has started to grow nettles in the Molo highlands at an elevation of 2,000-3,000 meters, with the best results being obtained on very fertile land in specific areas where cattle once grazed.

More information about the presidium on page 275

nominator: Salome Njeri Mwangi, Samson Kiiru Ngugi

N. 10 MITOO (SLENDERLEAF)

Crotalaria brevidens Benth.
Crotalaria ochroleuca G. Don.

CATEGORY

VEGETABLES

PRODUCTION AREA

NAKURU COUNTY (RIFT VALLEY)

INDIGENOUS COMMUNITY

LUO

SEASONALITY

SOW

RAINY SEASON / SPONTANEOUS

HARVEST

8 WEEKS AFTER SPROUTING

SENSORY ANALYSIS

VISUAL

THE LEAVES ARE GREEN, EITHER SIMPLE OR COMPOUND WITH THREE LEAFLETS. THE NUMEROUS YELLOW FLOWERS BECOME TOUGH-SKINNED, INFLATED SEED PODS. THE NUMBER OF SEEDS CONTAINED IN A SINGLE POD DEPENDS ON THE SPECIES AND RANGES FROM 5 TO 50. THE SEEDS ARE KIDNEY SHAPED AND THEIR COLOR VARIES FROM OLIVE GREEN TO YELLOW-ORANGE OR BROWN.

TASTE

SLIGHTLY TO VERY BITTER, DEPENDING ON THE VARIETY.

CONSISTENCY

THE COOKED LEAVES HAVE A SLIMY TEXTURE.

EDIBLE PARTS AND COOKING TECHNIQUES

YOUNG LEAVES AND SHOOTS

BOILED, STEWED

Mitoo (slenderleaf in English) is an annual or perennial herb in the legume family (Fabaceae) and is native to tropical Africa. The word "mitoo" comes from the Luo language and refers to *Crotalaria brevidens* and *C. ochroleuca*, both of which have a lower degree of toxicity than many other species of *Crotalaria* and are therefore suitable for human consumption. The two species differ in terms of both taste and the size of their leaves: *C. brevidens* is more bitter and has smaller leaves than *C. ochroleuca* (10x2 centimeres versus 13x3 cm).

The plant grows spontaneously among bushes, in the forest (often near termite mounds), in pastures, and in cultivated fields. It is occasionally cultivated on a small scale. In several rural areas of Nakuru County, including Molo and the mountainous areas of the Naivasha District, women familiar with this species collect young leaves and shoots that grow wild at the edges of fields or forests bordering the villages.

CULINARY USES

Mitoo leaves and shoots are prepared in a similar way to other traditional leafy vegetables. Because of its decidedly bitter taste and mucilaginous consistency, mitoo is consumed in small quantities and often combined with other vegetables including *murere* (*Corchorus olitorius*). Together with some *ugali*, mitoo often accompanies stewed meat. In the rural areas of Nakuru County (and more generally in Western Kenya), women soak the previously boiled leaves and sprouts in cow's milk or buttermilk (*mala*), leaving them to ferment for 3 days. In this way it is possible to improve the flavor of the vegetable (reducing the bitter taste) and preserve it for a long time, after which the leaves can be fried or combined with soups and stews.

PRODUCT HISTORY

In the food culture of peoples from Central and Western Kenya, the consumption of leafy vegetables (especially wild and bitter herbs) including mitoo is particularly important among older women. They are among the few people holding the necessary knowledge to collect and prepare these products. The preference for this type of herb has played an important role in the conservation of these species. In addition to its taste, women appreciate mitoo for its slimy and mucilaginous consistency. This characteristic is associated with various healing properties including the lubrication of limbs and the ability to ease labor. Mitoo also plays an important ecological role within local agricultural systems: Being a legume, it fixes nitrogen in the soil and ensures an excellent fodder source for livestock. Mitoo harvesting is managed almost exclusively by women and is for domestic needs. Only surpluses are sold, with sale taking place mainly in the local markets of rural areas.

CURRENT STATUS

Mitoo consumption is limited due to several factors: The available quantity is decreasing due to prolonged drought periods and its cultivation is no longer common in Nakuru County; and changing eating habits among younger people, as well as their migration to urban centers, means that the knowledge and practices linked to this traditional plant are no longer passed on.

N. 11 MOUNT MARSABIT WILD ARABICA COFFEE

Coffea arabica L.

CATEGORY

COFFEE

PRODUCTION AREA

Mount Marsabit, Marsabit County (Eastern)

SEASONALITY

HARVEST

May - July: early crop
September - December: main (late) crop

SENSORY ANALYSIS

VISUAL

The fruit is a drupe 10-15 millimeters in diameter, maturing from bright red to purple, and typically containing two seeds.

TASTE

Bright citrus acidity and chocolate flavor

EDIBLE PARTS AND COOKING TECHNIQUES

SEEDS

Ground and used for preparing coffee

WAYS OF PRESERVING

Fermented, dried and roasted

The origin of arabica coffee has been traced to southwestern and southern Ethiopia, where it grows spontaneously in the understory of mountain rainforests. It is now becoming rare in its wild form. However, there are two places where wild arabica coffee is found outside Ethiopia: Mount Marsabit in Kenya, and Mount Boma in South Sudan.

In Kenya, researchers first collected wild arabica coffee on Mount Marsabit at an elevation of 1,500-1,550 meters. Arabica coffee can still be seen here, growing in the understory and occurring in higher densities in open patches where it competes well with other shrubs and small trees.

CULINARY USES

Wild coffee seeds are used in the preparation of homemade coffee. Processing involves separating the fruit pulp from the seeds by squeezing the fruits in water. The seeds are then washed, dried, and pounded in a mortar to remove the seed wall. Finally, the coffee is roasted in pans and ground or pounded.

PRODUCT HISTORY

Mount Marsabit is a basaltic shield volcano near the town of Marsabit in Eastern Kenya. It is an ecologically and socio-economically important ecosystem, located in the Marsabit National Reserve, which the Kenyan Government established in 1948. The forested mountain is surrounded by a vast area of open dry savannah, thus attracting a variety of wildlife, and it is the only source of permanent surface water in the region.

Communities living around the forest utilize it for fuel, timber, and medicinal plants. They also obtain all their water from wells and springs fed by the forest. Mount Marsabit forest is the only area in Kenya where *Coffea arabica* occurs in wild populations, though it isn't clear whether it is native or naturalized. Wild *Coffea arabica* is among the species of interest to conservationists in this forest, and likely played an important role in coffee domestication in Kenya.

Wild coffee has been known to fetch good prices on the international market due to its connection to the territory, which gives it unique characteristics. As a wild variety, Mount Marsabit coffee probably contains genes for resistance to various coffee diseases.

CURRENT STATUS

Mount Marsabit wild arabica coffee production is under threat from climate change. In addition, like many forests in Kenya, the Mount Marsabit forest is shrinking due to illegal encroachment, unsustainable harvesting practices, poor management, and degradation by dependent communities. This puts the future of the local coffee plants' vital genetic resources at risk, and Mount Marsabit coffee could soon disappear. This resource will be conserved if it can be transformed into real benefits for the communities living in the area.

N. 12 MUKENEA

Zanthoxylum chalybeum Engl.

CATEGORY

SPICES, WILD HERBS AND CONDIMENTS; TEA AND INFUSIONS

PRODUCTION AREA

EASTERN

INDIGENOUS COMMUNITY

AKAMBA / KAMBA

SEASONALITY

HARVEST

YEAR ROUND (BARK);
MARCH, JULY – AUGUST (FRUITS)

SENSORY ANALYSIS

VISUAL

FRUITS ARE ALMOST GLOBOSE FOLLICLES, 5-8 MILLIMETERS LONG, GLANDULAR, PITTED AND PINKISH; THE STIPE IS UP TO 1.5 MM LONG. THE SEEDS ARE OVOID, BLACK AND SHINY, AND 5-7 MM IN DIAMETER.

TASTE

THE LEAVES HAVE A STRONG LEMON AROMA.

EDIBLE PARTS AND COOKING TECHNIQUES

BARK, FRUIT, LEAVES, ROOTS

BOILED, HERBAL TEA, CONDIMENTS

WAYS OF PRESERVING

DRYING

Mukenea is found in most parts of Kenya in dry woodlands, bushlands, or grasslands, often near termite mounds and in rocky areas on the coast. It grows in well-drained red clay soils from sea level to 1,800 meters, in areas with an average daytime temperature of 12-32°C and an annual rainfall of 800-1,400 millimeters. It is a spiny deciduous tree. It can grow from 1.5-10 meters tall; the bole can be 15-40 centimeters in diameter and is conical with large woody spines up to 2 cm long; the crown is narrow.

Propagation is done by seed or with cuttings. Seeds are planted as soon as they are ripe. Bark is harvested throughout the year, while the fruits are harvested in March and July - August. Bark from the stem and roots is harvested by cutting and uprooting, respectively. The leaves and stems are sundried to increase their shelf life. The fruits cannot be stored, as they spoil quickly.

CULINARY USES

Mukenea's leaves, fruit, bark, and roots are used to make a medicinal tea that is believed to calm stomach aches and cure coughs, colds, chest pain, asthma, sore throats, wounds, malaria, pneumonia, fever, and headaches. The bark is also used for flavoring soup. An infusion of the fruits or leaves is given as a tonic to children. The crushed leaves are applied to snakebites.

PRODUCT HISTORY

Mukenea has been used as food, tea, and medicine since at least the 16th century. This plant is strongly linked to the Akamba community of Eastern Kenya, the third largest Bantu-speaking tribe in Kenya.

The Akamba people of Ukambani have a rich ethnomedical knowledge based on their cumulative experiences across time and space. The Akamba people continue to identify medically useful plants in their environment. Different parts of mukunea are still used in local folk medicine. Root and bark decoctions are used to treat menorrhagia, malaria, arthritis, and colds. Leaf infusions are used to relieve peptic ulcers and headaches. Root decoctions are administered to treat amoebic dysentery. Root powder is used against chest pains and coughs. An infusion of the leaves is used to bathe a patient suffering from convulsions. The product was consumed during birth ceremonies among the Akamba community. Pregnant women were given an herbal tea prepared from the leaves to ease child-birth. It was consumed throughout the year and considered both a food and a medicine by the community.

CURRENT STATUS

Mukenea is not commonly found in local markets in Kenya, but mainly harvested for home consumption. Sometimes, herbal medicines using mukenea are sold. However, because of its food and medicinal values, this native plant faces threats of overharvesting if the wild trees are not maintained. Attention to the growth cycle of mukenea and responsible harvesting methods must be considered to preserve this plant for future generations.

Nominator: Priscillah Nzamalu

N. 13 MUKOMBERO
(MKOMBELA, WHITE'S GINGER)

Mondia whitei (Hook. f.) Skeels

CATEGORY

SPICES, WILD HERBS AND CONDIMENTS

PRODUCTION AREA

KAKAMEGA FOREST, KAKAMEGA COUNTY (WESTERN)

INDIGENOUS COMMUNITY

LUHYA

SEASONALITY

SOW

DURING THE ONSET OF THE RAINS

HARVEST

APRIL – SEPTEMBER

SENSORY ANALYSIS

VISUAL

A PERENNIAL, WOODY CLIMBER (LIANA OR SHRUB) WITH A LARGE, TUBEROUS ROOTSTOCK PRODUCING STEMS UP TO 8 METERS LONG. THE LEAVES ARE LARGE (10–30 CENTIMETERS), OVATE WITH A CORDATE BASE, AND GREEN. THE PETIOLE AND VEINS ARE OFTEN REDDISH. THE ROOTS ARE PALE YELLOW TO BROWN ON THE OUTSIDE AND WHITE TO PALE YELLOW INSIDE. THE FLOWERS, WHICH HAVE AN UNPLEASANT ODOR, HAVE FIVE PETALS RANGING IN COLOR FROM PALE YELLOW TO REDDISH-PURPLE. THE FRUIT IS A PAIR OF LARGE, PALE GREEN, CUCUMBER-SHAPED FOLLICLES; IT IS SLIGHTLY WOODY AND CONTAINS MANY SEEDS.

TASTE

THE ROOTS ARE BITTER WITH A VANILLA-LIKE AROMA AND THEY TASTE LIKE A MIX OF GINGER AND LICORICE.

CONSISTENCY

PASTY

EDIBLE PARTS AND COOKING TECHNIQUES

BARK OF THE NARROW ROOTS, FRESH OR DRIED LEAVES

BOILED, TEA

Mukombero is a forest plant with aromatic roots from the family Apocynaceae. It is a perennial, woody, rather robust and vigorous climber that grows from a large tuberous rootstock. The basal portion of the stem is usually leafless. The leaves and flow-

ers mainly appear in the canopy of the supporting vegetation and are thus rarely noticed.

Mukombero predominantly occurs in moist to wet forests, such as the Kakamega tropical rainforest of Western Kenya, and in swamp forest, riverine forest, wooded savannah, and forest margins, at elevations up to 1,800 meters.

It is easily cultivated from seeds, which are collected as the fruit starts to split open. A sharp knife, *panga* (machete), and a hoe are the tools used to harvest the roots.

CULINARY USES

Among the Luhya people, the fresh or dried leaves are cooked and eaten as vegetables. The dried, powdered leaves are used as a condiment. The roots are used to flavor food and tea. The root bark is eaten raw as a snack or to freshen the mouth. The flavor is initially bitter and spicy but becomes sweet after chewing. The dried or fresh roots can also be cooked in meat or chicken stews as a spice to enhance flavor and to improve preservation.

PRODUCT HISTORY

For many years, communities living adjacent to Kakamega Forest have been using the root bark of mukombero in a variety of ways, ranging from chewing the raw roots to mixing root powder with porridge to increase appetite. This plant is connected to the identity of Luhya people in Kakamega County. They used to chew the roots for good luck before performing a difficult task.

Mukombero is still consumed by both young and old people. It is used as a symbol of peace and a sign of power. It is also appreciated for its healing properties: The leaves are used to treat hypertension, stroke, anemia, asthma, hangover, mastitis, and allergies, and are also taken to improve sleep, enhance urination, and ease birth pains. Men who are impotent or infertile are given mukombero as a remedy. In addition, the leaves serve as animal fodder.

CURRENT STATUS

Because of its wide use in African traditional medicine, mukombero has become an endangered species. In some areas, especially around cities and towns, it is rare in the wild due to overexploitation by the local communities for commercial purposes. The root is the most popular part and harvesting it destroys the plant. Habitat destruction is also a threat. Efforts are underway in some places to increase the cultivation of this species in order to relieve pressure on wild populations and create a sustainable market for its sale.

Nominator: Samson Kiiru Ngugi

N. 14 MUKUYU
(ECHOKE, SYCAMORE FIG)

Ficus sycomorus L.

CATEGORY

FRUITS AND NUTS

PRODUCTION AREA

NYERI COUNTY (CENTRAL), TURKANA COUNTY (RIFT VALLEY)

INDIGENOUS COMMUNITY

GIKUYU / KIKUYU; TURKANA

SEASONALITY

HARVEST

JULY – DECEMBER

SENSORY ANALYSIS

VISUAL

THE FRUIT IS AS EDIBLE FIG UP TO 5 CENTIMETERS IN DIAMETER, RIPENING FROM PALE GREEN TO YELLOW OR RED. THEY GROW IN THICK CLUSTERS ON SMALL, LEAFLESS BRANCHES OR FROM THE LEAF AXILS. THE TREE HAS A SPREADING CROWN AND SMOOTH, YELLOWISH-BROWN BARK, AND GROWS UP TO 25 METERS TALL.

TASTE

SWEET

CONSISTENCY

SOFT AND CHEWY

EDIBLE PARTS AND COOKING TECHNIQUES

RIPE FRUIT, INNER BARK

FRESH, STEWED

WAYS OF PRESERVING

DRYING, FLOUR

The sycamore fig occurs naturally in forests, wooded savannahs, and along rivers. When cultivated, the trees are propagated from cuttings and planted during the onset of the rains. This species is fairly fast growing. In some areas it is intercropped with bananas. It usually takes 3-5 years to produce a sizeable harvest.

It grows at elevations up to 2,000 meters in areas with temperatures of 0-40˚C. It prefers deep, well-drained, loam to clay soil rich in nutrients, and needs at least 8 hours of sunlight a day. The soil should retain moisture without becom-

ing water-logged: Too little water cause the flowers and fruits to drop, while too much water causes failure to flower or stunts fruit growth. Extreme weather conditions can also greatly affect the tree's fruiting potential—for example, prolonged high heat and dry weather can slow or stop production.

CULINARY USES

The figs are fleshy and sweet and can be eaten raw or cooked, or dried for later use.

PRODUCT HISTORY

The sycamore fig is used for multiple purposes in various cultures throughout Kenya and has many local names. The name *mukuyu* is shared among many peoples in central and southern Kenya. The trees are an important source of shade for both people and livestock, and a valuable source of honey, as bees build their hives in holes in the trunk. The inner part of the root is used to weave fiber in some communities, and rope can be made from the inner bark. The wood is used to make beehives, utensils (such as mortars and bowls), and musical instruments. It is also used in construction and boat building.

The Turkana people of northwestern Kenya, who call this species *echoke*, make flour from the dried figs and mix it with grain flours to make a porridge called *atap*. They also feed the leaves to their cattle.

In Gikuyu traditions, mukuyu is a sacred tree. Sacrifices to Ngai, the supreme creator, were performed under this tree. It is considered a bad omen when a mukuyu tree falls, and elders must perform a cleansing ritual if this happens. Some ceremonies are still carried out under the mukuyu and the trees are an important meeting place.

The bark, leaves, and milky latex of the sycamore fig all have medicinal value. The Gikuyu use the sap for toothache and the juice of the fruits as a topical treatment for skin diseases or irritation.

CURRENT STATUS

The use of the sycamore fig is declining (the fruits are no longer commonly eaten) due to changing cultural practices and the abandonment of traditions—many people no longer have respect for these trees. Increased rates of land clearance for agriculture and a lack of water due to deforestation are the greatest threats facing this tree in Kenya. It is important to protect the sycamore fig not only because of its cultural value, but also because it is an important food source for a huge variety of wildlife.

Nominator: Jane Waithera Mwangi

N. 15 MURERE
(MURENDA, JUTE MALLOW)

Corchorus olitorius **L.**

CATEGORY

VEGETABLES

PRODUCTION AREA

WESTERN

INDIGENOUS COMMUNITY

LUHYA

SEASONALITY

SOW

DURING THE RAINY SEASON

HARVEST

THE LEAVES ARE READY TO HARVEST STARTING 3-4 WEEKS AFTER GERMINATION.

SENSORY ANALYSIS

VISUAL

IT IS A TALL PLANT, REACHING A HEIGHT OF 2-4 METERS. IT HAS NO OR FEW BRANCHES. THE LEAVES ARE ALTERNATE, SIMPLE, LANCEOLATE, AND 5-15 CENTIMETERS LONG, WITH AN ACUMINATE TIP AND A FINELY SERRATED OR LOBED MARGIN.

TASTE

SIMILAR TO SPINACH

CONSISTENCY

YOUNG LEAVES HAVE A SLIMY TEXTURE (SIMILAR TO OKRA)

EDIBLE PARTS AND COOKING TECHNIQUES

YOUNG LEAVES, FRUIT, SEEDS

BOILED, CONDIMENTS, HERBAL TEA, STEWED

WAYS OF PRESERVING

DRYING, FLOUR

Corchorus olitorius, in the family Malvaceae, grows in different parts of the Rift Valley. It grows naturally in the salt plains and wilderness and is used for food in times of famine. In Western Kenya it is known as *murere* or *murenda*. The plants are harvested manually by uprooting. They are then spread on the ground to dry for about 3 days. Then the seeds are separated from the pods by shaking or threshing using sticks. They are cleaned and dried for an extra day to prepare them for storage. The healthy

seeds with a good shape and medium size are put aside to be planted the following season. Tools and equipment used include a knife to assist in uprooting the plants, baskets for collecting and transporting, and sticks for threshing the seeds when the murere is dry.

CULINARY USES

The young leaves and fruits are used as a vegetable. They have a mucilaginous texture, similar to okra, when cooked. They are easily prepared by boiling them together with ash from bean leaves. The sauce is served with balls made from cassava, which are otherwise rather dry, and usually cooked into a kind of chicken stew. Among the Luhya people of Western Kenya, murere is also eaten with starchy foods like rice, bananas, and *ugali* (prepared from maize or sorghum), which is the staple food of most local communities in Kenya. The seeds are used as soup thickener and in flavoring the dried leaves, which are used for making herbal tea and can be eaten on their own.

PRODUCT HISTORY

Murere requires less maintenance than other cultivated vegetables and can survive in most weather conditions. For this reason and for its nutritional value, this leafy vegetable plays an important role in local food security. Murere is an especially important vegetable for the Luhya people and is closely linked to their identity. Murere was one of the most appreciated vegetables during special occassions such as circumcision; before, during, and after childbirth; and during burial ceremonies. It is said to clean the stomach and relieve constipation due to its slimy texture. It is used traditionally to treat inflammation and pain as well as chronic inflammation of the urinary tract and bladder.

Murere is mainly grown for home consumption, though a few people sell their extra vegetable leaves when available.

CURRENT STATUS

Murere is one of the most important leafy vegetables growing in Western Kenya. It is highly nutritious and is a source of income for farmers. However, this plant is declining due to replacement by high-yielding commercial, exotic vegetable varieties. A lack of available seeds has also led to this plant becoming underutilized.

N. 16 MUTHEU
(KITHEU)

Searsia natalensis (Bernh. ex C.Krauss) F.A.Barkley

CATEGORY

SPICES, WILD HERBS AND CONDIMENTS

PRODUCTION AREA

NGAKU VILLAGE, MUTYAMBUA AREA, MAKUENI COUNTY; CHYULU HILLS NATIONAL PARK (EASTERN)

INDIGENOUS COMMUNITY

AKAMBA / KAMBA

SEASONALITY

HARVEST

AUGUST – SEPTEMBER

SENSORY ANALYSIS

VISUAL

SHRUB OR SMALL TREE UP TO 8 METERS TALL. THE BRANCHES ARE WHITISH OR GREY. THE LEAVES ARE COMPOSED OF THREE DARK GREEN, LEATHERY, OBOVATE LEAFLETS. THE FRUITS ARE OBLONG, LESS THAN A CENTIMETER IN DIAMETER, SMOOTH, AND RED WITH THIN FLESH AND A WAXY COVERING.

TASTE

ONCE BURNT, THE BRANCHES PRODUCE AN AROMATIC SMOKE. FRUITS HAVE A SWEETISH ACID TASTE.

CONSISTENCY

THE LEAVES ARE SMOOTH. WHEN BURNT TO CHARCOAL THE TEXTURE IS FLOURY/ POWDERY.

EDIBLE PARTS AND COOKING TECHNIQUES

FRUIT, STEMS, LEAVES (MEDICINAL)

FRUITS EATEN RAW, ASH USED FOR PRESERVING DAIRY

Mutheu is a shrub or small tree with smooth leaves and whitish-gray stems that grows wild in various parts of Kenya: It is found in Ngaku village in the Mutyambua area of Makueni County in central southern Kenya, and in the Chyulu Hills National Park. Some local farmers have started cultivating it.

This shrub grows in bushlands, wooded grasslands, and dry forest margins. After the fruits ripen they are harvested manually. They can be dried and then

crushed to get the seeds, or eaten fresh, in which case the seeds are discarded. The stems are harvested with a *panga* (a type of machete).

The local Akamba community uses mutheu leaves and stems to smoke the gourds in which traditional dairy products are stored. The neighboring Maasai people use a similar plant (called *mutamaiu*) for the same purpose.

CULINARY USES

The fruits are eaten as a snack and are sour and refreshing. The stems and branches have no scent in their natural state but, when burned, produce a white smoke used to flavor and preserve milk and other dairy products. The smoke gives a particular aroma to yogurt and to the gourds in which milk and yogurt are stored, and increases the shelf life of dairy products. To prepare a gourd, a small branch of mutheu is left to dry. One end of the dried piece is then put in the fire to burn. When the end is completely burnt, it is crushed on the side and bottom of a gourd or calabash. This process is repeated until the inner part of the gourd is completely covered. The excess dust is removed and the gourd is then ready for milk storage.

PRODUCT HISTORY

Traditionally, women prepared mutheu yogurt, mainly in the evening, to increase the shelf life of milk. In addition, the treatment of milk with mutheu ash was necessary to neutralize the bitter taste of the gourds that otherwise would have tainted the milk stored within. During the preparation of mutheu yogurt, it was common to hear singing or storytelling about community heroes. Mutheu-scented yogurt was served to important guests and esteemed members of the Akamba community, such as elders and in-laws, as a sign of pride and respect. The yogurt was also served during weddings and naming and initiation ceremonies.

CURRENT STATUS

Today, the plant is locally rare and many members of the younger generation purchase fermented yogurt and milk from the supermarket. Mutheu cannot be found for sale and was traditionally always harvested from the wild. Recently, some have started to cultivate the plant, but in areas where this has not begun, overharvesting and the conversion of land for agriculture have put the future of mutheu at risk in the Akamba community. The traditional knowledge of how to sustainably harvest and use this plant must be passed down, along with the knowledge of how to propagate the plant for continued production.

Nominator: Priscilla Nzamalu

N. 17 MUU
(KIMUU, BLACK PLUM)

Vitex payos (Lour.) Merr.

CATEGORY

FRUITS AND NUTS

PRODUCTION AREA

MUTYAMBUA, MAKUENI COUNTY (EASTERN)

INDIGENOUS COMMUNITY

AKAMBA / KAMBA

SEASONALITY

HARVEST

DURING THE DRY SEASON (APRIL-JUNE)

SENSORY ANALYSIS

VISUAL

THE FRUIT IS BLACK AND OVAL OR RECTANGULAR IN SHAPE. THE PULP SURROUNDS A SINGLE HARD SEED.

TASTE

NOT OVERLY SWEET. FRUITS TASTE LIKE PRUNES AND CHOCOLATE.

CONSISTENCY

SMOOTH PULP

EDIBLE PARTS AND COOKING TECHNIQUES

FRUIT, YOUNG LEAVES

RAW

Kimuu is a small tree up to 10 meters tall with round, leathery leaves and fruits that resemble black olives. It occurs at elevations up to 1,600 meters in semi-arid regions (650-850 millimeters of annual rainfall) such as Makueni County. This tree prefers sandy soils but will also grow in red clay and rocky soils. It can be propagated by seed or with root and stem cuttings.

Muu (the fruits) are ready for harvesting just as they begin to soften and their color changes to black. To pick ripened muu, gently twist the fruit from the stem. Woven baskets were traditionally used during harvesting and the pulp was allowed to dry naturally in the sun for preservation.

CULINARY USES

People harvest different parts of the tree for making herbal medicines to treat various diseases. Fresh and dry fruits are taken to control diarrhea; sap from young trees is used for treating eye infections; and roots are used in different ways for treating stomach problems. Muu jam is made by washing the fruits, chopping them into small pieces, and heating them with sugar, stirring continuously to dissolve the sugar. In Makueni County, children and herders in particular eat muu as a snack. Young leaves are boiled and eaten as a vegetable.

PRODUCT HISTORY

Among the Akamba, the fruits are mainly eaten during times of food shortage. The pulp is rich in vitamins and minerals. Its vitamin C content is higher than that of oranges. Kimuu wood is used for making firewood, poles, and spoons among the Akamba community. The tree is also a source of fodder and bee forage and is used for constructing beehives. Traditionally, women were given a mixture of the boiled fruits and leaves to prevent premature labor and to control bleeding after childbirth.

There is a saying in the Akamba community—*wiite ta muu ya kwitwa*—that compares the color of a person's skin to that of a ripe muu fruit; it means that one is "as black as muu that has fallen from the tree for being too ripe." Children often gather the unripe fruits and store them in wood to speed their ripening, and elders would often tease children, telling them that the stored fruits would attract thunder and lightning to the house.

The fruits are gathered both for home consumption and sale. Women sell them in some local markets in Eastern Kenya.

CURRENT STATUS

This tree has become locally rare. Many in the area have heard of it but never seen the fruit or the tree for themselves. Kimuu wood is popular in house construction and charcoal production, which has resulted in overharvesting. Sustainable harvesting methods should be emphasized to protect the future of this species.

Nominator: Priscillah Nzamalu

N. 18 NDEREMA (MALABAR SPINACH)

Basella alba L.

CATEGORY

VEGETABLES

PRODUCTION AREA

Nakuru County (Rift Valley)

INDIGENOUS COMMUNITY

Luo; Luhya

SEASONALITY

SOW

Rainy season

HARVEST

Harvesting starts 3 weeks after sowing and continues at regular intervals for up to 6 months (usually 2-4 months).

SENSORY ANALYSIS

VISUAL

A perennial climbing herb with a green or brownish-purple stem. The leaves are shiny, green, thick, and usually 5-10 centimeters long. They are subcircular, ovate, or heart-shaped and are arranged alternately along the vine. The small flowers are borne on spikes growing from the leaf axils and can be white, pink, or red. The small fruits are round and white, red, or black.

TASTE

The raw leaves have the flavor of citrus and pepper. When cooked, they taste like regular spinach.

CONSISTENCY

Raw leaves are juicy and crisp, while cooked ones have a slightly mucilaginous texture.

EDIBLE PARTS AND COOKING TECHNIQUES

LEAVES

raw, boiled, stewed

Nderema, also known as vine spinach or Malabar spinach, is a climbing plant in the family Basellaceae that occurs in tropical Asia and Africa. This plant grows spontaneously in wooded areas and across cultivated fields. It prefers full sun or partial shade in warm or hot humid areas with fertile, moist soil. It is commonly found along streams, lakes, or other bodies of water.

Apart from growing spontaneously, nderema can be cultivated with other leafy vegetables or tree species that act as a natural support. The plant can be propagated through seeds or cuttings. Nderema vines grow rapidly, reaching lengths up to 9 meters.

CULINARY USES

Once gathered, the leaves must be consumed as soon as possible—because of their high moisture content, they tend to deteriorate quickly. They can be eaten raw in a salad, boiled, or stewed. They are usually cooked together with other vegetables to balance their consistency, which is rather watery. Once cooked, they can be used as a primary ingredient in soups and are also good sautéed in a pan with oil and onions, and served with starchy foods such as tubers and boiled plantain (green bananas) or *ugali* made from maize or other cereals.

PRODUCT HISTORY

Nderema used to play a crucial role in the food systems of some rural Kenyan communities. Its leaves are rich in iron and vitamin A, thus making it a food with invigorating and restorative properties. For these reasons, it was traditionally part of the diet of children and pregnant women. It is also considered a suitable food for weak or sick people, especially with mouth conditions such as aphthae or abscesses, because the soft texture of the leaves makes them easily chewable. The mucilaginous texture of the leaves is also associated with various healing properties. For example, cooked leaves are used as a natural remedy against constipation. Finally, the leaves serve as fodder for cattle and increase milk production.

The use of this plant is mainly associated with the Luhya and Luo communities in Western Kenya, but after the migrations that took place during the second half of the 20th century, its consumption spread to other areas. Today, this vegetable can be found in markets in Nakuru County, various rural areas, and to a smaller degree in urban centers. The product offered on the markets is usually gathered form the wild; more rarely, it is cultivated on a small scale.

CURRENT STATUS

Though *Basella alba* is frequently consumed in other parts of Africa and Asia, and despite its excellent nutritional properties and medicinal uses, nderema is not often consumed in Nakuru County. The limited diffusion of this product is due to its mucilaginous texture, which is often not appreciated by people who are not used to it; and to the fact that the leaves deteriorate rather quickly, a crucial factor that hinders its sale.

N. 19 NJAHE
(NJAHI, LABLAB BEAN)

Lablab purpureus (L.) Sweet

CATEGORY

LEGUMES

PRODUCTION AREA

Central

INDIGENOUS COMMUNITY

Gikuyu / Kikuyu

SEASONALITY

SOW

Rainy season (starting late March – early April)

HARVEST

4-5 months after sowing

SENSORY ANALYSIS

VISUAL

Pods are broad and up to 10 centmeters long. Seeds are brown to black with a white hilum (eye) and a long aril.

TASTE

Rich flavor similar to mushrooms

CONSISTENCY

Velvety texture; beans hold their shape well during cooking

EDIBLE PARTS AND COOKING TECHNIQUES

GREEN OR DRY SEEDS, LEAVES

BOILED, STEWED

Njahe, also known as lablab bean, is a legume (family Fabaceae) native to sub-Saharan Africa. It is very important to the Gikuyu people in the central part of Kenya. A climbing perennial plant with thick foliage, it grows at elevations up to 2,000 meters above sea level and tolerates drought, heat, and a wide range of soil types. During the rainy season, njahe is sown directly in the garden. The beans are left on the vine until they have dried. Once fully dry, the seeds are separated from the pods by hand. An easier method is to dump all the dried pods into a bag and either

step all over the bag or hit it repeatedly with a wooden stick or metal rod. Once cleaned, njahe are stored in the granary to be used as needed. The remaining green and dry parts of the plant are fed to cattle, sheep, and goats, especially during the dry season. Because women are the ones primarily responsible for the cultivation and sale of njahe, it is a fundamental part of their diet.

CULINARY USES

Dry or green beans are cooked after being soaked. The beans can be cooked with vegetables or maize, or mashed with potatoes. They may also be boiled, fried, and used as *mboga* (relish) with *ugali*. The beans are cooked and consumed in various ceremonies and events in the social life of the community. During marriage negotiations, Gikuyu people prepare *njahe cia athoni*, a dish made with bananas and njahe.

PRODUCT HISTORY

At one time, njahe beans were used for divination, and it is no coincidence that their name derives from Mount Kenya (Kīrī Nyaga in the Gikuyu language), considered to be the dwelling place of God in the indigenous religion of this community. In fact, the names of seasons were based on this bean—for instance, *kimera kia njahe* means "the season of njahe." This shows how important njahe has been for the Gikuyu people, and it remains a fundamental traditional food to this day, being served to visitors and for important ceremonies. During an *irua* ceremony, for example, young girls are put on a special diet consisting of njahe and a heavy porridge. "Irua" derives from the Gikuyu word for pain and refers broadly to the set of preparations and rituals that make up initiation.

Njahe is also associated with fertility and the female reproductive system. It is said that at one time it was used in a ceremony for the cure of excessive menstrual bleeding, and it is still used today by pregnant women and new mothers, who eat dishes based on this bean especially after giving birth.

CURRENT STATUS

The conservation of njahe in Gikuyu areas around Nairobi is at serious risk due to the expropriation of agricultural lands and the abandonment of local crops in favor of crops and cultivation practices introduced during colonialism. Despite its importance in some communities, njahe is still a neglected crop with unexploited potential.

Nominator: Giuliana Noè

N. 20 NUKIAT

Dovyalis abyssinica (A.Rich.) Warb.

CATEGORY

FRUITS AND NUTS

PRODUCTION AREA

MAU FOREST (RIFT VALLEY)

INDIGENOUS COMMUNITY

OGIEK / OKIEK

SEASONALITY

HARVEST

FRUITS RIPEN IN MARCH - JULY AND OCTOBER - NOVEMBER

SENSORY ANALYSIS

VISUAL

THE FRUITS ARE ROUND BERRIES. SMOOTH, ORANGE-YELLOW PULP WITH A SWEET-SOUR FLAVOR SURROUNDS THE SEEDS.

TASTE

SOUR WITH A SLIGHT SWEETNESS, AROMA REMINISCENT OF APRICOT

CONSISTENCY

TENDER, SIMILAR TO EGG YOLK

EDIBLE PARTS AND COOKING TECHNIQUES

FRUIT

BOILED, FRESH

WAYS OF PRESERVING

DRYING

Nukiat is a shrubby, spiny tree, 3-6 meters tall, with gray bark and dark green, oval-shaped leaves. It grows in the Mau forest in Kenya's Rift Valley, the largest montane forest in East Africa.

This species grows primarily in forest margins. The fruits are green ripening to bright orange or red, and make excellent preserves. Nukiat fruits are harvested from the wild but the trees can be also cultivated. They are propagated from seed collected from dried ripe fruits. They can also be grown from stem

cuttings. The seeds are cleaned, dried, and planted on loamy or sandy soil. The trees are used as fences or hedges around homes. Nukiat fruits are hand harvested by pulling or clipping them off the stem. Tools used for cultivation include the fork *jembe*, machete, and shovel. Woven baskets are used for harvesting. To increase the fruits' shelf life, sun drying is used as preservation method.

CULINARY USES

Nukiat is eaten raw or added to porridge. It also used to make preserves. Among the Ogiek, women and young girls collect nukiat fruits and other berries, mash them with honey in a bamboo tube, and feed the resulting jam to children.

PRODUCT HISTORY

Ogiek women living near Mau Forest collect many different wild fruits and herbs, among which are nukiat berries. In this respect, forests are gendered spaces in Ogiek society and are critical to women's efforts to meet their personal, household, and community responsibilities.

The nukiat is important in the lives of Ogiek hunter-gatherers living in Mau Forest, not only because of the food value of the fruits but also because the tree is important for medicinal purposes: A decoction of the roots is given to mothers who have had complications giving birth and is also taken for stomachache and fever. An infusion of the crushed leaves is used for digestive complaints. Young men hunting in the forest eat nukiat for enjoyment as well as to ease hunger pangs. Nukiat berries can be pressed to make juice. Boys are given these fruits to eat after their initiation rites because it is believed that they facilitate quick healing.

CURRENT STATUS

Between 1973 and 2005, habitat destruction in Mau Forest resulted in a loss of 10% of the area's biodiversity.

The population of naturally growing *Dovyalis abyssinica* trees has been greatly reduced, thereby denying the Ogiek community and communities living adjacent to the forest the benefits of the tree. It is for this reason that today some communities are working to domesticate this plant in household and school gardens.

Nominator: Samwel Muhunyu

N. 21 OBUKUFUMA (OBUKUSUMA)

Termitomyces sp.

CATEGORY

MUSHROOMS

PRODUCTION AREA

Epanga Valley, Bunyore, Vihiga County (Western)

INDIGENOUS COMMUNITY

Luhya

SEASONALITY

HARVEST

Normally available early in the rainy season (April – May)

SENSORY ANALYSIS

VISUAL

It has a grayish cap with a white underside that can grow up to 30 centimeters in diameter. The stem can be as long as 45 centimetres.

TASTE

Similar to Boletus mushrooms when dried

CONSISTENCY

Fleshy

EDIBLE PARTS AND COOKING TECHNIQUES

MUSHROOM

boiled, fried, stewed

WAYS OF PRESERVING

drying, smoking

Obukufuma, or *obukusuma* as it is also called, is a large mushroom in the *Termitomyces* genus. It grows wild around Epanga Valley and the surrounding areas in North Bunyore, Vihiga County, Western Kenya.

Each rainy season the large mushrooms grow on and near termite mounds. The local termites live in symbiosis with the fungi, transporting the mushroom spores to their nests and depositing them on chewed woody debris. There the fungi grow, digesting the cellulose and lignin, leaving behind a sugary substance consumed by the termites.

The mushrooms are usually picked fresh during the morning hours and cleaned. They are then sun dried and smoked and can be stored for over 6 months. Dried obukufuma is usually stored in a well-ventilated basket.

CULINARY USES

Obukufuma mushrooms are generally sundried and smoked but they can also be eaten fresh. They may be boiled, fried, or stewed. The dried mushrooms must be soaked in water and washed before being cooked. Soda ash or *mush-eleka* (ash made from burnt dry vegetables) are traditionally added during the cooking to soften the mushrooms and to cook them faster.

Obukufuma mushrooms can be cooked alone or can be mixed with the leaves of cowpea plants and eaten as a vegetable with maize or sorghum. Luhya people also use them to flavor soups. Dishes prepared with mushrooms are served with starchy foods like rice, *ugali,* or chapati bread.

PRODUCT HISTORY

Wild food still plays an important role in the Luhya food system. During childhood, people are taught about harmful or poisonous plants, mushrooms, insects, and many other materials or products in the local environment. In particular, mushroom collection, production, and utilization are structured by a wide range of cultural norms and beliefs. When someone spots a mushroom before it is mature, he covers it with some moist grass and nobody else can pick that particular mushroom.

Mushrooms are considered gifts from the ancestors. The obukufuma mushroom has an important meaning to the local people. Among the Luhya of Vihiga County, the first one to see a mushroom is thought to have good luck. On the other hand, dreaming about mushrooms is a sign that illness will affect a person close to the dreamer.

CURRENT STATUS

The use of mushrooms as a food source among the Luhya has declined considerably in recent years. But mushrooms are nutritious, tasty, widely distributed, and readily available during the rainy season, so their consumption should be encouraged.

The increased use of synthetic fertilizers on farmlands has reduced the availability of mushrooms. Reduced fallow periods also slow the accumulation of organic matter that encourages the growth of obukufuma. In addition, destruction of large termite nests to clear land for cultivation has negatively affected obukufuma's habitat.

N. 22 OLOIRIEN
(AFRICAN WILD OLIVE)

Olea europaea subsp. *cuspidata* (Wall. & G.Don) Cif.

CATEGORY

FRUITS AND NUTS

PRODUCTION AREA

MAU FOREST
(RIFT VALLEY)

INDIGENOUS COMMUNITY

MAASAI

SEASONALITY

HARVEST

FRUITS RIPEN IN MARCH-JULY AND OCTOBER-NOVEMBER

SENSORY ANALYSIS

VISUAL

FRUITS ARE THINLY FLESHY, OVOID WITH A POINTED TIP, ABOUT 1 CENTIMETER LONG, AND TURN DARK PURPLE WHEN RIPE.

TASTE

BITTER-SWEET

EDIBLE PARTS AND COOKING TECHNIQUES

FRUIT, BARK

FRESH/RAW

WAYS OF PRESERVING

DRYING

The African wild olive—or *oloirien*, as the Maasai call it—is an evergreen shrub or small tree, about 10-15 meters tall, with a dense, spreading crown and gray to dark brown bark that gets rough as the tree matures. The long, narrow, pointed leaves are glossy gray green to dark green above and pale below. The tiny, cream-colored flowers are borne in clusters. The fruits are oval shaped, about 1 centimeter long, and ripen from pale green to pinkish green to dark purple. This tree grows in dry forests, forest margins, and

near water. Once well established, it can tolerate drought and a wide range of temperatures. In addition to growing wild in a variety of habitats, the African olive can be cultivated. It is propagated from seed after the fruits have been dried.

CULINARY USES

The fruits of oloirien are bitter but edible, and are eaten raw. The bark and small stems of the tree are boiled to make an herbal medicine. Charcoal made from the tree is used for cleaning calabashes, and sticks are burned to smoke milk gourds (smoke and ash flavors and helps to preserve the milk kept in the gourds). Burnt sticks are used to flavor soup, as they impart a pleasant aroma.

PRODUCT HISTORY

Oloirien is a culturally significant plant among the Maasai, who value it for its medicinal properties. Despite a traditional diet that is high in fat, incidence of lifestyle diseases is low among the Maasai. This is attributed to their physical activity and the consumption of herbs and plants like oloirien. Olive wood, which is dense and resistant to rot, is used for making *rungu* (clubs), poles for houses, and in various traditional ceremonies.

CURRENT STATUS

Oloirien is mainly used for domestic consumption within the household.

The tree is locally threatened in much of East Africa due to illegal logging, clearing for agriculture, demand for timber and firewood, and overexploitation for medicinal purposes.

N. 23 OLOSESIAI

Osyris lanceolata Hochst. & Steud.

CATEGORY

FRUITS AND NUTS

PRODUCTION AREA

NAROK COUNTY (RIFT VALLEY)

INDIGENOUS COMMUNITY

MAASAI

SEASONALITY

HARVEST

FRUITS RIPEN BETWEEN MAY AND SEPTEMBER

SENSORY ANALYSIS

VISUAL

FRUITS ARE BRIGHT RED GLOBOSE DRUPES UP TO 1 CENTIMETER IN DIAMETER

TASTE

SWEET AND BITTER TASTE

EDIBLE PARTS AND COOKING TECHNIQUES

FRUIT, BARK, ROOTS

FRESH/RAW OR DRIED (FRUIT), BOILED (ROOTS)

WAYS OF PRESERVING

DRYING

The African sandalwood, which the Maasai call *olosesiai*, is a hardy evergreen shrub or small tree that grows to a height of 2-10 meters. It is found in rocky soils in arid and semi-arid grasslands, bushlands, and woodlands, especially at elevations between 900 and 2,500 meters. The small, narrow, pointed leaves are leathery with a yellowish-green or blue-green color. The fruits ripen from yellowish green to red to purple and are usually harvested from the wild, though the tree can also be grown from seed in well-drained loamy soils.

CULINARY USES

Olosesiai fruits are eaten raw and can be preserved by sun drying. The roots were traditionally boiled to create an extract that was added to milk and given to children. The bark and roots are taken as herbal tea or added to soups as a tonic.

PRODUCT HISTORY

The Maasai are nomadic pastoralists who have traditionally relied on wild foraged fruits and other plant foods to supplement their diet of meat, milk, and blood from their animals. Olosesiai fruits are usually only eaten as an emergency food during times of scarctity, though children and herders will eat them as a snack. The Maasai also value olosesiai as a source of medicine: The roots are boiled in water to produce an extract that is given to women after childbirth to control bleeding and increase energy levels, or mixed with milk and given to children to prevent colds and facilitate weight gain. Soup made from bones and olosesiai roots is taken to treat diarrhea and headaches. Olosesiai charcoal is mixed with milk inside a gourd to act as a preservative.

CURRENT STATUS

Olosesiai is wild harvested for personal and household consumption and is not commercialized.

Osyris lanceolata is endangered in East Africa due to overharvesting of its roots, which are used in the production of expensive essential oils. There is a need to encourage farmers to plant this tree on their lands, and some domestication initiatives are under way to relieve pressure on wild populations and provide sustainable livelihoods.

Nominator: Jane Mwangi

N. 24 SOKORIA

Balanites aegyptiaca (L.) Delile

CATEGORY

VEGETABLES

PRODUCTION AREA

West Pokot County
(Rift Valley)

INDIGENOUS COMMUNITY

Pokot
(Kalenjin)

SEASONALITY

HARVEST

New leaves mostly appear between October and December, but they are harvested year round as needed.

SENSORY ANALYSIS

VISUAL

Small tree with compound leaves, each with two gray-green leaflets with smooth margins. Shape and size of the leaflets are variable, but they are usually ovate and 3-6 centimeters long.

TASTE

bitter

CONSISTENCY

Leaves are leathery; soft when young, tough when older

EDIBLE PARTS AND COOKING TECHNIQUES

LEAVES

young leaves are preferred for cooking, while older, thicker leaves are fed to cattle.

Balanites aegyptiaca is a small tree, usually no more than 10 meters tall, with a rounded crown and spiny branches. It grows in arid and semi-arid regions throughout Africa and the Middle East, including in Kenya's West Pokot County, where the indigenous Pokot people refer to it as *sokoria*. The leaves of this tree are highly nutritious and are an important vegetable in the Pokot community, especially in times of drought when other plant foods are in short supply. Sokoria leaves are plucked from the branches and then

any spines, insects, and other foreign materials are removed. Soft young leaves are kept for human consumption, while the tougher, older leaves are used as fodder for livestock.

CULINARY USES

Cleaned tender leaves are collected in a basket and then boiled in water with some salt and cooking oil for about 50 minutes. Tomato and onion are often added and the cooked mixture is served with *ugali* (stiff porridge). The leaves can also be eaten raw.

PRODUCT HISTORY

The Pokot, a sub-tribe of the Kalenjin, are pastoralists who live in West Pokot and Baringo counties in Kenya's Rift Valley, as well as in neighboring parts of Uganda's Karamoja region. Sokoria leaves have traditionally been an incredibly important source of food for Pokot people and their livestock during times of drought and famine. It is one of the few vegetables available during the dry season and may become a central part of the diet when the herds are small or stressed and milk and meat are in short supply. Sokoria trees grow across the landscape in multiple habitats, so Pokot herders encounter them regularly as they move with their animals. Sokoria leaves are mostly harvested for individual and household consumption, not for sale.

CURRENT STATUS

Deforestation for charcoal production is a major problem in West Pokot. With diminishing tree cover, the effects of increasingly frequent drought become even more severe, which, in turn, makes it more difficult for trees to regenerate. Sokoria remains a significant food for the Pokot community despite the availability of other vegetables, and is appreciated for its health benefits, but populations of this and other tree species in the region are at risk from overexploitation and a drying climate.

N. 25 SONGOW'O
(MJAFARI, KNOBWOOD)

Zanthoxylum chalybeum Engl.

CATEGORY

FRUITS AND NUTS;
SPICES, WILD HERBS AND CONDIMENTS

PRODUCTION AREA

KAPENGURIA,
WEST POKOT COUNTY
(RIFT VALLEY)

INDIGENOUS COMMUNITY

POKOT
(KALENJIN)

SEASONALITY

SOW

OCTOBER - DECEMBER

HARVEST

MAY - JULY, SEPTEMBER

SENSORY ANALYSIS

VISUAL

FRUITS ARE GRAY AND 5-8 MILLIMETERS IN DIAMETER. THEY SPLIT OPEN TO EXPOSE A BLACK SEED. THE MIDRIB OF THE LEAVES (WHICH HAVE A SMOOTH OR SERRATE MARGIN) IS PROMINENT AND OFTEN HAS LITTLE SPINES.

TASTE

FRUITS SPICY AND AROMATIC; LEAVES AROMATIC

CONSISTENCY

A LITTLE BIT ROUGH

EDIBLE PARTS AND COOKING TECHNIQUES

FRUIT, LEAVES, BARK

CONDIMENT, FRESH, HERBAL TEA

PRESERVING

DRYING

Songow'o is the Pokot name for *Zanthoxylum chalybeum*, known in Swahili as *mjafari* and in English as knobwood. It is a shrub or tree that grows up to 10 meters in height and has strongly scented, dark gray bark. It occurs throughout Kenya at elevations up to 1,500 meters in dry woodlands, bushlands, grasslands, rocky areas, and near the coast. The branches are lined with spines. The plant has aromatic leaves and small yellow flowers. It is propagated by seed or root sucker.

Songow'o leaves are picked during the growing season and used fresh. The bark is carefully stripped during the rainy season and dried for use in decoctions and liquid extracts. Fruits are also collected for use in decoctions, while the branches are used for smoking milk gourds and as toothbrushes.

CULINARY USES

The fruits are chewed by Pokot women for good breath. The strongly aromatic leaves are used for flavoring tea. The leaves and bark are dried in the sun and ground in a mortar to produce a fine powder. Sometimes they are just ground on or between rough stones. The powder is used to flavor tea and fruit juice. The leaves and seeds, which are strongly aromatic, are collected, dried in the sun, and then crushed to create a powder that is used to flavor tea and soup.

PRODUCT HISTORY

The Pokot are a tribe within the larger Kalenjin community of the Rift Valley region. Songow'o is used in traditional medicine among the Pokot community. Tea made from fruits or leaves and decoctions made from the bark or roots are used as a cure for coughs, colds, chest pain, sore throat, and respiratory diseases such as asthma and tuberculosis. Bark or root decoctions are also used for malaria and fever. Smoke from the burning bark is inhaled to stop fainting and headaches. The branches are traditionally used for sweeping the household to rid it of fleas and mites because of its properties as an insect repellent, and are also placed in grain stores to reduce weevil attack. The dried seeds are used as beads in traditional garments. The wood is used as a fire starter and to make carved spoons, mortars, and other kitchen utensils. Long ago, songow'o was used for administering blessings during ceremonies including initiation, marriage, and childbirth. The bark is used for making tea among the Pokot people and is consumed to facilitate quick healing when the young men undergo circumcision rites.

In Kapenguria, a group of 35 Pokot farmers produce condiments derived from local songow'o trees. These farmers sell the fruit and the bark in many local markets across Pokot County.

CURRENT STATUS

Songow'o is generally rare in many areas due to overexploitation for medicinal purposes, destruction of habitat, and urbanization. Without proper guidance for their sustainable use, songow'o and other plants with medicinal properties are in danger of becoming locally extinct or falling out of use.

NOMINATOR: KADIKAM PKEMOI JACKSON

N. 26 TINGOSWO

Flacourtia indica (Burm.f.) Merr.

CATEGORY

FRUITS AND NUTS

PRODUCTION AREA

WEST POKOT COUNTY (RIFT VALLEY)

INDIGENOUS COMMUNITY

POKOT (KALENJIN)

SEASONALITY

HARVEST

FRUITING OCCURS IN JULY - AUGUST

SENSORY ANALYSIS

VISUAL

THE FRUITS ARE ROUND WITH A DIAMETER OF ABOUT 2.5 CENTIMETERS. THEY RIPEN FROM GREEN TO MAROON TO PURPLE OR BLACKISH. THE PULP IS YELLOWISH AND CONTAINS UP TO 10 SEEDS.

TASTE

SOUR WHEN UNRIPE, SWEET AND SLIGHTLY TART WHEN RIPE

CONSISTENCY

SOFT AND JUICY

EDIBLE PARTS AND COOKING TECHNIQUES

FRUIT

EATEN RAW

F lacourtia indica, known in English as governor's plum or Indian plum, is a shrub or small tree that typically grows to a height of 3-5 meters and rarely exceeds 10 m. It has spines on its truck and branches, and its leaves are oval-shaped, about 12 centimeters long, with a serrated margin. It is widespread throughout Kenya, though not particularly abundant. It grows wild in bushland, woodland, rocky hillsides, and riparian forests up to

elevations of 2,400 meters, and can also be cultivated. The Pokot people (a sub-tribe of the Kalenjin) living in Kenya's Rift Valley call this plant *tingoswo* (plural *tingas*).

CULINARY USES

The fruits of tingoswo are harvested into a basket when ripe, washed, and usually eaten raw, though they may also be dried or fermented. They are rich in minerals and antioxidants, and Pokot people appreciate them for both their flavor and their beneficial effects on health.

PRODUCT HISTORY

The Pokot are traditionally semi-nomadic pastoralists who take advantage of all kinds of wild foods when they're out tending their cattle. They eat tingoswo fruits opportunistically when they're in season, and some Pokot families plant the trees near their houses. West Pokot County is one of the few places where tingoswo is found in markets. Pokot children, women, and men are often found selling the fruits, particularly in larger towns like Kapenguria.

CURRENT STATUS

Deforestation for charcoal production and land degeneration due to overgrazing are major problems in West Pokot that threaten local vegetation. Tingoswo fruits remain a popular food for the Pokot community are are appreciated for their health benefits, but populations of this and other fruit-bearing tree and shrub species in the region are at risk from overexploitation and a drying climate. As tingoswo becomes less available, the traditional knowledge and practices associated with this plant risk being lost, especially given the increasing use of Western biomedicine in place of local medicinal plants that were once common in the diet.

NOMINATOR: STEPHEN OUMA OWINO

N. 27 TSIMBANDE
(BAMBARA GROUNDNUT)

Vigna subterranea (L.) Verdc.

CATEGORY

LEGUMES

PRODUCTION AREA

Kakamega County (Western)

INDIGENOUS COMMUNITY

Luhya

SEASONALITY

SOW

August

HARVEST

December - January

SENSORY ANALYSIS

VISUAL

The pods are approximately 1.5 centimeters long, round or slightly oval shaped, and may be wrinkled. Each pod contains one to two seeds, the color of which can be black, dark brown, red, white, cream, or a combination of these.

TASTE

strong beany flavor

CONSISTENCY

crunchy

EDIBLE PARTS AND COOKING TECHNIQUES

SEEDS

raw, boiled, grilled

PRESERVING

drying

Tsimbande, known in English as the Bambara groundnut, is a major food for the Luhya community in Western Kenya, particularly in Kakamega County. It is grown to a lesser extent by the Giriama and Akamba people on Kenya's coast, and by the Luo, neighbors of the Luhya. Tsimbande are grown in relatively poor soils (usually sand or loam) in hot regions, at elevations up to 1,550 meters. They are planted in rows or randomly, normally after the maize harvest, and harvested 4-5 months later. Chemical fertilizers need not be applied to areas where tsimbande is cultivated because the crop fixes nitrogen.

Harvesting is usually done by uprooting or digging out the entire plant and picking the individual pods, which grow just under the soil surface. The pods are often sundried and then threshed and winnowed to obtain the seeds.

CULINARY USES

Seeds of the Bambara groundnut are cooked with maize or on their own and then mashed, fried, and made into a stew. They are normally cooked or eaten raw (when immature) when vegetables are in short supply. The seeds can also be dried, pounded to remove the seed coat, winnowed, and boiled until they are cooked through, then stirred until smooth and served with rice or *ugali*. Among the Luhya, dry tsimbande can either be pounded or ground and the resulting meal made into a stew or sauce to be served with leafy vegetables. Unshelled pods are boiled, fried, and served with potatoes, banana, or ugali.

PRODUCT HISTORY

The Bambara groundnut is an African indigenous crop. It is the third most important grain legume (i.e., pulse) in the African lowland tropics after the peanut (*Arachis hypogaea*, commonly referred to as the groundnut) and the cowpea (*Vigna unguiculata*). It is a popular traditional food among the Luhya people of Western Kenya.

A number of decades ago, tsimbande were considered important food during droughts and famine. They have a high ceremonial value and are prepared for people to eat during funerals and naming and bridewealth ceremonies.

The seeds are mainly produced for home consumption but sometimes women sell tsimbande to individuals or in the informal markets of the area.

CURRENT STATUS

The Bambara groundnut is considered an orphan crop in Kenya, where its production, like that of many other traditional crops, has been declining over recent decades. Despite the fact that tsimbande is still considered a delicacy by the Luhya community, current levels of production among other communities are low and decreasing. Tsimbande is at risk for a number of reasons: It is difficult to harvest, cooking the dried nuts takes a long time compared to other nuts (thereby requiring more fuel and water to process), and it is difficult to mill due to its fibrous shells. Additionally, it is usually given less value and priority in land allocation because it is grown by women.

NOMINATOR: SAMSON KIIRU NGUGI

CHAPTER 2

HONEY

N. 28 AKAMBA ACACIA HONEY
(UKI WA NZUKI WA KITHIIA)

CATEGORY

HONEY

PRODUCTION AREA

MAKUENI COUNTY (EASTERN)

INDIGENOUS COMMUNITY

AKAMBA / KAMBA

BEE KEEPING TECHNIQUES

TRADITIONAL HIVES ARE GENERALLY MADE FROM MATURE HARDWOOD TREES. BEEKEEPERS PLACE THE HIVES IN *ACACIA MELLIFERA* TREES NEAR STREAMS OR RIVERS, WHERE THESE TREES ARE CONCENTRATED. HONEY HARVESTING IS DONE AT NIGHT AND A SMOKER MADE OF STICKS IS USED TO CALM THE BEES. TRADITIONALLY, ONLY ADULT MEN IN GROUPS OF FIVE WERE ALLOWED TO EXTRACT THE HONEY. THE TOOLS USED TO EXTRACT HONEY AND COMBS INCLUDE A KNIFE FOR CUTTING THE COMB, A SKIN BAG (CALLED *NGUSU*) SLUNG ON THE BACK BY A LEATHER THONG (*MUKWA*) WORN ROUND THE FOREHEAD, AND FIREWOOD FOR SMOKING OUT THE BEES. ACACIA HONEY IS A PRODUCT THAT REQUIRES SOME PROCESSING, INCLUDING MANUAL SIEVING.

Uki wa nzuki wa kithiia is a special kind of honey among the Akamba people of Makueni County.

Traditional beekeepers classify bees into groups depending on size, appearance, and the color of their hairs and wings. The generic name for bees is *nzuki* (*Apis mellifera scutellata*). Honey bees source nectar from different acacia trees such as *Acacia mellifera* (*muthiia* in Kamba). The

Akamba community has a proverb that clearly describes the tree: *Kithiia kyumanasya nthi na miw'a ya kyo'*, which means, "the muthiia plant sprouts from the ground with its thorns," indicating that bravery starts from a very young age.

Acacia mellifera honey is known to be almost transparent and viscous but, once it crystallizes, it becomes white or pale yellow. This honey crystallizes slowly due to its high fructose content.

Honey from *Acacia mellifera*'s white flowers is available in the dry seasons, from January to March and July to September.

PRODUCT HISTORY

The Akamba are a Bantu-speaking people that live in the semi-arid area of Kenya's former Eastern Province, stretching east from Nairobi to Tsavo, and north up to Embu.

Among the Akamba, honey, either in a raw state or in the form of mead, plays an important part in religious ritual. For example, raw honey is used for offerings to the spirits of the ancestors (*aiimu*) when rain or food is desired. When a man dies, honey from his hives is eaten by those taking part in the funeral ceremonies. Unless he had opened a hive shortly before his death (in which case the honey is ready to consume), his hives must be opened in the first instance by a brother. Honey was also exchanged as a gift during weddings.

Honey is used to preserve meat, to make local brew known as *kaluvu*, and to treat hoof and mouth disease in cattle. The wax is thrown away and the brood (eggs, larvae, and pupae) are eaten by men and believed to improve libido.

In Makueni County, honey is collected mostly for sale. Beekeepers trade their honey to middlemen and local brewers.

CURRENT STATUS

A number of factors have contributed to the loss of traditional knowledge and practices of beekeeping. Christian missionaries deemed the customs of brewing beer from honey and using honey to pay bridewealth unacceptable. Deforestation is another factor, and results in part from people cutting trees in an unsustainable way to burn charcoal. This has reduced the number of *Acacia mellifera* trees in the region.

N. 29 AKAMBA *PROSOPIS JULIFLORA* HONEY

CATEGORY

HONEY

PRODUCTION AREA

MAKUENI COUNTY (EASTERN)

INDIGENOUS COMMUNITY

AKAMBA / KAMBA

BEE KEEPING TECHNIQUES

THE BEEHIVE, CALLED *MWATU*, IS MADE FROM THE WOOD OF A TREE KNOWN AS *KITHULU* (*CROTON MEGALOCARPUS*). THE WOOD FOR THE HIVES IS SHAPED AND LEFT TO DRY IN THE SUN, TO RID THE BARK OF ITS UNDESIRABLE AROMAS. PREPARATION OF THE BEEHIVE CAN TAKE AN ENTIRE MONTH AND IS VERY DELICATE WORK. THE BEEHIVES ARE PLACED IN THE *PROSOPIS JULIFLORA* TREE.

DURING THE HARVEST, WHICH TAKES PLACE AT NIGHT, THE BEEKEEPERS LIGHT A SMOKE PRODUCING TORCH TO SMOKE OUT AND STUN THE BEES SO THAT THE HONEY CAN BE EASILY COLLECTED.

IN THE PAST, HONEY WAS STORED AND EATEN IN CRUDE FORM (I.E., WITH THE COMB). TODAY THE LIQUID PART OF THE HONEY IS DRAINED FROM THE COMBS AND IS ENJOYED AT HOME. AFTER MANUAL PROCESSING, IT IS PACKAGED IN SMALL CONTAINERS AND STORED IN A COOL AND DRY PLACE.

Prosopis juliflora honey is collected from the *Prosopis juliflora* tree, a leguminous tree that grows in semi-arid lands and whose bark is used to cure stomach pains. It is an evergreen tree native to South and Central America. In Kenya, the tree was first planted in the former Coast Province. It grows rapidly and tolerates arid conditions and saline soils. *Prosopis juliflora* is a good source of construction materials and it provides various en-

vironmental services such as soil conservation and rehabilitation of degraded soils. The species is also good bee forage, leading to high honey production.

Prosopis juliflora honey is sweet, slightly floral, and very light in color. It usually has a thick consistency.

PRODUCT HISTORY

For the Akamba, honey is an especially important product, with both nutritional and cultural value. One legend says that the gods living in the mountains gave honey to the Akamba ancestors, distributing it equally to the people regardless of their wealth. It is said that the Akamba ancestors positioned their hives high in the trees, as close as possible to the ancestral gods, and that, 4 months later, a community festival was organized so that the harvested honey could be shared.

From the time of placing the first beehive, the owner cannot cohabit with a woman until the bees start building a comb. When he finds that the bees have started building, he will usually brew some beer and pour out a libation for his ancestral spirits (*aiimu*) to give thanks.

Honey is used in various food preparations or added to infusions. Additionally, *Prosopis juliflora* honey plays an important role in ceremonies such as baptisms, weddings, and initiation rites.

CURRENT STATUS

This honey is mainly consumed at home but is sometimes sold locally in small quantities. It is at risk of disappearing because local populations of the native bees are declining due to climate change, and the number of people dedicating themselves to traditional beekeeping practices continues to decrease.

N. 30 AKAMBA SISAL HONEY
(UKI WA MAKONGE)

CATEGORY

HONEY

PRODUCTION AREA

Makueni County (Eastern)

INDIGENOUS COMMUNITY

Akamba / Kamba

BEE KEEPING TECHNIQUES

Hives are placed in large trees near sisal (*Agave sisalana*) plantations. The honey is harvested by two men: An experienced man is accompanied by a young man so that the harvesting knowledge can be passed on from one generation to the next. Harvesting is done twice a year, in June and December, though the pattern is changing due to the effects of climate change. The process is carried out in the evening because bees are less active at this time. Smoke is used to make the bees docile, after which the honey is collected. The extraction is by manual squeezing and sieving with a light piece of cloth.

Bees make this honey from the sisal plant, locally known as *makonge*, hence the name *uki wa makonge* for this honey among the Akamba community. Sisal is native to southern Mexico but is cultivated and naturalized in many African countries.

The generic name for bees is *nzuki* (*Apis mellifera scutellata*). The physical appearance of the African honey bee is very similar to that of the European honey bee: Its upper body is covered in hairs and its abdomen is striped and dark.

The bees collect nectar from sisal flowers and make a honey that is thicker than the one collected from other plants. Its color ranges from cream to orange and it has a distinctive sour taste.

The hives are placed near sisal plantations or individual sisal plants but cannot be hung on the sisal plant itself because it has one stem, with flowers at the top. The hives are usually left in the trees for the whole season and honey is extracted over a period of 1-2 months.

PRODUCT HISTORY

Among the Akamba community, honey is used as a form of bridewealth and it is traditional for a bridegroom to bring a bucket of honey to the bride's family as a token of appreciation and because it implies that the love the bridegroom has for the bride is as sweet as honey. The honey is also used for making mead, which can only be drunk by elderly men (*atumia*). However, young men who marry and settle down may be allowed to drink it under certain conditions.

Sisal honey is applied to open wounds for medicinal purposes. The wax is currently used in making candles and ointments, and propolis is mainly used for its medicinal properties, to improve digestion, and to make cosmetic products.

Honey is mainly harvested for home consumption but with changing times and community dynamics, beekeeping is now becoming a commercial activity. This is partially due to increasing awareness of the health benefits associated with honey.

CURRENT STATUS

Uki wa makonge is rare because of the declining number of traditional beekeepers and because it is only produced near one sisal plantation in Makueni County. Christian missionaries deemed traditional marriage customs (paying bridewealth with honey, etc.) and the practice of brewing mead unacceptable. As a result, many Kenyans who converted to Christianity gave up the beekeeping tradition. The Akamba saying *yesu emuyo kwi uki wa nzuki*, which means "Christ is sweeter than honey," was used to encourage members of the community to join Christianity.

N. 31 AKAMBA STINGLESS BEE HONEY
(UKI WA NGILU)

CATEGORY

HONEY

PRODUCTION AREA

KITUI COUNTY, UKAMBANI (EASTERN)

INDIGENOUS COMMUNITY

AKAMBA / KAMBA

BEE KEEPING TECHNIQUES

STINGLESS BEES MAKE THEIR HIVES IN TREE CAVITIES OR UNDERGROUND, FROM A COMBINATION OF WAX AND RESIN, AND STORE THEIR HONEY IN SMALL STRUCTURES CALLED POTS. IN THE PAST, STINGLESS BEE HONEY WAS HARVESTED EXCLUSIVELY FROM WILD HIVES. TODAY, MANMADE HIVES ARE ALSO USED, THOUGH ONLY TO A LIMITED EXTENT. THE HONEY IS HARVESTED MOSTLY DURING THE DRY SEASONS.

Ngilu is the Akamba word for stingless bees (Meliponini), which live mostly in forests (including the Imba and Mumoni forests in Kitui County), where they forage on nectar, pollen, and over-ripe fruit. Ngilu have small, slender bodies, a dark color, and a generally docile temperament. Their honey, *uki wa ngilu*, which is dark red with floral aromas, is thicker than that from other kinds of stingless bee, and sometimes even sweeter than the honey produced by honeybees (*Apis mellifera*).

USE

In the Akamba community, stingless bee honey has many purposes apart from its general use as a sweetener. For example, it is used to make *kaluvu*, a fermented brew traditionally drunk by elders. Young married men were sometimes allowed to drink kaluvu, but young married women, boys, and girls were not. Uki wa ngilu is also used to preserve meat, which is then consumed during times of drought; and as a medicine to treat colds, chest pains, burns, and wounds.

PRODUCT HISTORY

Honey is used as a form of dowry payment among the Akamba. According to tradition, the bridegroom should offer a bucket of honey to the bride's family to symbolize his love for the bride. When a child was born, he or she was made to taste honey and hot pepper, which symbolize a world that is both sweet and bitter (good and bad). A mixture of honey and chicken bile was given to initiates during circumcision ceremonies to symbolize the pros and cons of adult life, and to newlyweds to symbolize good and bad times in their future married life. Kaluvu made from stingless bee honey was drunk by the elders during special meetings where they were expected to make major decisions.

CURRENT STATUS

In the past, uki wa ngilu was easily available to the Akamba community, but stingless bees have become rare due to the destruction of the forests where they live. Harvesting stingless bee honey was traditionally a destructive practice that involved cutting a tree down to reach the cavity containing the honey, thus contributing to deforestation. Conscious efforts, including the construction of artificial hives, are now being put in place to ensure that stingless bee honey can be harvested sustainably.

N. 32 ILMUTIUK MBOYONG'J HONEY

CATEGORY

HONEY

PRODUCTION AREA

Mau Forest, Nakuru County (Rift Valley)

INDIGENOUS COMMUNITY

Ogiek / Okiek

BEE KEEPING TECHNIQUES

Today three types of beehives are used: box, Kenya Top Bar (KTBH), and the traditional log hive (sometimes smeared with cow dung to make sure that they are completely sealed). The men are responsible for the construction, management, and placing of the hives on the tree (up to 4 meters high) and also the harvesting. The cedar tree is used in hive construction. Women clean the honey (separating it from the combs and propolis) and make other products from it, like creams. Harvesting takes place four times a year, depending on the type of honey and on rainfall.

Ilmutiuk mboyong'j honey is a traditional honey collected by the Ogiek communities living near the Mau Forest. They prefer heavily forested areas where flowering plants are abundant. The honeybees source nectar from the *mboyong'j* tree (a type of Euphorbia), acacia, and other plants, resulting in three different types of honey: mboyong'j, acacia, and multi-floral honey.

Ogiek beekeepers identify two different types of bees depending on the area: the lowland bee, smaller and brown; and the highland bee, which is thinner and

yellow. The latter one, which is the most widespread, produces a sweet honey that is generally preferred. They have hair on the thorax and less hair on the abdomen. They also have a pollen basket on their hind legs. Honey harvesting takes place in February, April, August, and December.

PRODUCT HISTORY

The Ogiek people are one of Kenya's smallest tribes. They live in the Mau Forest and around Mount Elgon (near the Ugandan border) in the dry season, and move out to the plains during the rainy season.

Though some communities have started practicing agropastoralism, the Ogiek have always lived in areas where there are forests adjacent to the plains. Beekeeping and farming remain the most important activities in the Ogiek community, with a long history of beekeeping that has been passed down from generation to generation.

Ogiek communities used to gather honey from the wild. Beekeepers used three types of birds as indicators: *kecheiyat*, a bird that guides hunters to the honeycomb with its call; *wochewet* (eagle), which was used to predict luck in honey gathering; and *merewet* (a kind of falcon), which served as an indicator for season and migration of bees. Today most honey is produced in manmade hives but harvesters still look for wild honey when they go into the forest.

Honey is one of the ingredients in a traditional brew that is used in different ceremonies, such as initiation, marriage, and childbirth. Ogiek people use the honey to treat infections and relieve the pains resulting from childbirth. They mix it with medicinal plants and herbs gathered from the forest. Propolis is used during circumcision as it accelerates the healing process. Honey is also used in treating foot and mouth disease in cows.

CURRENT STATUS

This traditional honey is now under threat from increased incidences of drought as a result of climate change; deforestation for fuel wood; lack of suitable refining equipment and facilities; a reduced number of hives; and pests (especially the honey badger). In Kenya, Slow Food is working together with local beekeeping communities to protect their products and the biodiversity of the natural environment.

N. 33 LAKE BOGORIA ACACIA HONEY

CATEGORY

HONEY

PRODUCTION AREA

Lake Bogoria,
Baringo County
(Rift Valley)

INDIGENOUS COMMUNITY

Endorois
(Kalenjin)

BEE KEEPING TECHNIQUES

The Endorois beekeepers use various types of hives, one of which is the Kapkuikui Super Log Hive, developed by local producers combining traditional and modern techniques. This hive has a capacity of 18-20 kilograms. It is placed on braches and tied with a wire or suspended from a strong branch by a wooden hook. Harvesting takes place at night with the presence of more than one person. A traditional smoker is lit at the harvesting site. Once up the tree, the beekeeper opens the hive, takes out the comb, and places it in a bag made of animal skin. The honey is extracted from the combs by use of manual pressure or a centrifuge.

The Rift Valley region of western Kenya is rich in mountains and lakes. One of the largest lakes in the area is Lake Bogoria, in Baringo County. The Endorois people live on the shores of the lake at an elevation of around 1,000 meters above sea level. Honey production is a very important activity for the Endorois and is practiced by many members of the community.

The bees that occur in this area are *Apis mellifera scutellata*. Beekeepers differentiate these honey bees from stingless bees.

Lake Bogoria acacia honey is collected twice a year, from June to July and September to January. It is brown and has a very sweet but delicate flavor with notes of vanilla.

Beekeepers place the hives on dry trees on the shores of the lake. They look for the presence of certain plant species like *Acacia tortilis, Acacia mellifera, Ficus sycomorus,* and *Grewia similis.*

PRODUCT HISTORY

Honey is an important product in the Endorois community. It is used in different ceremonies, including bridewealth payment, namings, initiations, and weddings. The honey is also used in making a traditional brew called *mriie*, which is consumed during the occasions listed above, as well as during the election of an age group leader and the blessing of young women before they give birth. Honey was and still is used to compensate traditional medicine men for their services. It is known for its medicinal properties, being used as an antiseptic, a cicatrizing balm, and a digestion aid. Honey is also used to improve the taste of bitter herbal drugs.

Traditional beekeeping is an environmentally sustainable activity that provides an alternative income source to the local people. Lake Bogoria acacia honey is processed by the Kapkuikui Livestock Improvement Self-Help Group and other community groups. It can be sold fresh in the period following the harvest or aged for several months, in which case it is stored in traditional wooden barrels that are placed in a cool and dry place.

CURRENT STATUS

The Endorois were expelled from the Lake Bogoria area in the 1970s because the Kenyan government wanted to make it a hunting reserve. After an almost 40-year battle, they have now managed to return to live on their lands. When they were evicted, the Endorois lost their beehives, and thus an important source of economic activity. Although honey production is gradually growing, it is at risk due to increasing deforestation in the area.

N. 34 OGIEK HONEY

Slow Food Presidium®

CATEGORY

HONEY

PRODUCTION AREA

Mariashoni, Nakuru County (Rift Valley)

INDIGENOUS COMMUNITY

Ogiek / Okiek

BEE KEEPING TECHNIQUES

Ogiek beekeepers use traditional log hives made from dried cedar, though they have adopted the Kenyan Top Bar Hive and Langstroth hive to increase honey production. The traditional hives are about 1.4 meters long with a diameter of about 40 centimeters; they are hung on tall cedar trees at a height of at least 10 metres. Beehive construction is done by a few skilled men from each clan. Tools used for harvesting honey include a smoker and a bag made of duiker leather. Honey processing is done at Mariashoni community development CBO using automatic machinery and also manually. Refined honey is stored in 250-gram and 500-gram containers for marketing.

The Ogiek are a Kalenjin-speaking people who live in the Mau Forest west of Nakuru, and the forests around Mount Elgon near the Ugandan border. They are one of Kenya's oldest tribes. Ogiek people's traditional way of life is based on the natural resources provided by the forest: They are hunter-gatherers for whom apiculture is a primary activity.

The small, dark African honey bees (*Apis mellifera scutellata*) kept by the Ogiek prefer the nectar produced by flowers of the *silibwet* plant (*Dombeya torrida*),

which gives the honey collected in August its characteristic whitish-gray color and distinctive flavor. Honey harvested in December, on the other hand, is slightly yellow in color, and honey from February to April varies from reddish to almost black.

Among the Ogiek, it is forbidden to cut certain trees, especially silibwet—this plant is highly valued because it provides nectar for bees. It is also considered a sacred tree.

PRODUCT HISTORY

Beekeeping is one of the major socioeconomic activities carried out by the Ogiek community. During colonial rule the Ogiek people were exterminated and driven from their land. After many years of struggle, recently the Ogiek won a decisive land rights case at the African Court on Human and Peoples' Rights.

Aside from being a staple food, honey is used in different contexts and cultural practices like childbirth, circumcision, and marriage ceremonies. It is also the main source of energy during drought and famines due its ability to keep for long periods. Traditional beer is also made from honey and drunk by elders during their meetings. Honey is used as a preservative for smoked meat and is the vehicle of communication with ancestral spirits. It is given on certain occasions as a symbol of the establishment of new relations.

Traditionally, honey was sold or traded to the Maasai who use it for making a honey wine and also as an essential ritual substance mixed with milk. Nowadays the production of honey for commercial purposes remains relatively low due to a lack of proper equipment for beekeeping, management, and processing, and inadequate knowledge related to commercial beekeeping. These factors lead to low annual honey yield, low competitiveness of honey in the domestic market, and low returns for beekeeping enterprises.

CURRENT STATUS

Mau Forest was heavily exploited due to increased demand for timber and wood. This led to destruction of the indigenous trees where the Ogiek source their honey. Reforestation programs have been launched, though many focus on exotic trees for commercialization. For the Ogiek, destruction of the forest means loss of their homes, staple foods, and way of life.

More information about the presidium on page 280

Nominator: John Kariuki Mwangi

CHAPTER 3

MEAT AND FISH

N. 35 AKAMBA CHICKEN (MUSUKUI)

Gallus gallus domesticus (Linnaeus, 1758)

CATEGORY

BREEDS AND ANIMAL HUSBANDRY

PRODUCTION AREA

MWALA DISTRICT, MACHAKOS COUNTY (EASTERN)

INDIGENOUS COMMUNITY

AKAMBA / KAMBA

HUSBANDRY METHODS

THESE CHICKENS ARE FREE RANGE AND THEIR FORAGED DIET IS SUPPLEMENTED WITH ORGANICALLY GROWN MAIZE AND VEGETABLES. SMALL PIECES OF ALOE VERA ARE ADDED TO THEIR DRINKING WATER TO HELP PREVENT DISEASES.

THE CHICKENS ARE REARED AT HOME BY WOMEN. AT THE AGE OF 8 MONTHS, THE CHICKENS ARE LARGE ENOUGH TO BE SLAUGHTERED.

PARTS USED AND PROCESSING

PRODUCTS DERIVED FROM THE ANIMAL

MEAT, EGGS

WAYS OF COOKING

BOILED, BAKED, FRIED, ROASTED

The Akamba chicken, or *musukui* as it is called locally, is an indigenous breed of chicken raised in the Mwala District of Machakos County, just east of Nairobi, in Kenya's former Eastern Province.

The breed is large, weighing up to 2.5 kilograms when mature. It is distinctive for its long, featherless neck and is well known for its tender meat. Akamba chickens are prolific layers and, because they are good incubators, they have a higher percentage of hatched eggs than other breeds.

CULINARY USES

The meat is boiled or roasted and is served with *ugali*, rice, mashed potatoes, or *muthokoi*, a traditional Akamba dish prepared by boiling maize and adding some ash to remove the outer covering of the maize kernels.

The eggs are eaten alone or served with bread, ugali, or rice. The yolks are large and yellow, and are commonly used in cakes.

PRODUCT HISTORY

The meat of the Akamba chicken is prepared for special guests and brought as a gift by women when they are visiting important relatives. Locally, this breed is thought to be a good omen: If it is prepared for a visitor, their visit is considered successful.

Women in Eastern Kenya have historically been very active at a community level, through participation in food production. Chicken rearing is traditionally considered a women's activity, but provides assets that benefit the whole household. Local chickens are a ready source of savings and income for women. Chicken keeping also promotes crop diversification and investment in natural resource management.

The Akamba chicken is rarely found in markets. It is mainly sold directly by producers or prepared for home consumption, in small quantities. Farmers sell them to neighbors at the farm gate or to consumers in a local market. The animals are killed and dressed at a local butcher or at home. Akamba traders are known to transport chickens from Machakos, Kitui, and Makueni all the way to Mombasa. They sell to individual customers or to small hotels and restaurants that often prefer to slaughter the birds themselves.

CURRENT STATUS

This breed is considered at risk of extinction because the young chicks are particularly prone to attack by predators due to their exposed necks. Because they are good layers, they have also been used to create hybrid breeds and many farmers have chosen to raise the hybrid layers instead of the more vulnerable original breed. Raising and eating hybrid chicken breeds instead of this native breed is also considered by some to be a sign of modernity.

N. 36 ALIYA

CATEGORY

CURED MEAT AND MEAT PRODUCTS

PRODUCTION AREA

KISUMU COUNTY, NYANZA

INDIGENOUS COMMUNITY

LUO

INGREDIENTS

BEEF (LARGE CHUNKS)
SALT

PREPARATION METHOD

TO MAKE *ALIYA*, LARGE CHUNKS OF BEEF (OR OCCASIONALLY GOAT MEAT) ARE SCORED, SALTED, AND DRIED IN THE SUN FOR 3-4 DAYS, BEING TURNED PERIODICALLY SO THAT THEY DRY EVENLY AND COMPLETELY. SOME PEOPLE SMOKE THE MEAT INSTEAD OF SUN DRYING IT. THE SALTING AND DRYING PROCESS REMOVES WATER FROM THE MEAT, INHIBITING THE GROWTH OF MICROORGANISMS THAT COULD CAUSE SPOILAGE. THIS PROCESS HARDENS THE MEAT AND CONCENTRATES ITS NATURAL FLAVORS.

Aliya is a type of dried meat associated with the Luo community. The Luo are traditionally pastoralists who rely on meat and dairy from their animals, making meat preservation an especially important part of their gastronomy. Aliya is usually made from beef, or sometimes from goat meat.

Chunks of meat are salted and sun dried for 3-4 days until they become completely dry and hard with a pinkish-brown color. This product was traditionally made for home consumption and also given freely to neighbors, but not marketed.

CULINARY USES

To prepare aliya for eating, it is boiled for about 4 hours until tender and then seasoned with various condiments such as cooking oil, onions, tomatoes, and spices, according to personal taste. The mixture is simmered for around 15 minutes with fat from milk that has been fermented in a gourd, resulting in a delicious stew. The stew is typically served hot with *ugali* and more fermented milk fat.

PRODUCT HISTORY

The preparation of aliya was an important way of preserving meat, especially during times of plenty when many animals were slaughtered. Together with kuon anang'a, it was an important delicacy in the Luo community, prepared for the bridegroom during wedding ceremonies, or served to special guests. For example, a maternal grandmother might prepare aliya during rare visits from her grandchildren.

Aliya has a shelf life of about a year and was a good food to have on hand for strangers or guests who would show up unannounced during the night.

CURRENT STATUS

Aliya is on the verge of disappearing. Luo people today don't keep as many animals as they once did, and buying meat is often not realistic due to high prices. As a result, very few people prepare aliya at home, and only for special occasions. Current preparation methods involve smoking or partial roasting before sun drying to speed up the drying process. This tends to reduce the natural juices in the meat, making modern aliya less tasty than the traditional version. It is now easier to find aliya in high-end restaurants specializing in Kenyan cuisine than in people's homes.

N. 37 BANJE

Haplochromis sp.

CATEGORY

FISH AND SEAFOOD

PRODUCTION AREA

EPANGA VALLEY, VIHIGA COUNTY (WESTERN)

INDIGENOUS COMMUNITY

LUHYA

FISHING SEASONALITY

JULY - JANUARY

FISHING METHODS

MANY SPECIES OF FISH ARE OBTAINED FROM THE RIVERS IN WESTERN KENYA. FISHING WAS TRADITIONALLY CARRIED OUT VERY EARLY IN THE MORNING AND IN THE EVENING USING BOATS AND ALONG THE SHORE. TRADITIONAL TRAPS CALLED *KUMUKONO* WERE USED FOR FISHING IN SMALL STREAMS. THEY WERE WOVEN FROM REEDS GROWING ON THE RIVERBANK. FISH ARE NOW CAUGHT USING NETS OR HOOKS. FISHING TAKES PLACE THROUGHOUT THE YEAR UNLESS CONTROLLED BY THE FISHERY DEPARTMENT. YOUNG MEN ARE THE ONES PRIMARILY INVOLVED IN FISHING.

PARTS USED AND PROCESSING

PRODUCTS DERIVED FROM THE ANIMAL

WHOLE FISH

WAYS OF PRESERVING

SMOKING

WAYS OF COOKING

BOILED, STEWED

Banje belongs to the genus *Haplochromis* in the family Cichlidae. Its natural habitat is the swamps and streams in Western Kenya, especially in the Epanga Valley.

Banje has a distinctive yellowish underbelly and, when young, bluish lips. This species can reach a length of 12 centimeters. It feeds on benthic invertebrates, periphyton, and macrophytes. It has a life span of about 1 year and reproduces throughout the year. It is a mouth brooder.

CULINARY USES

Women prepare banje by smoking them for 1-2 days. The fish are then skewered on a stick for easy handling and placed in a cooking pot with a little water and traditional salt (*munyu mushelekha*). Some onion can be added, and the dish is served hot. It is eaten by all people irrespective of age and is mainly served with brown *ugali* (millet mixed with sorghum and cassava).

PRODUCT HISTORY

Fishing has always been a major occupation for the Luhya people living in the wetlands of Western Kenya. Fish supplements the diet of many rural communities and fishing is a hobby for many young people. Local youth often learn how to catch fish by making reed traps and placing them in deep waters along the stream. Women prepare the traps using traditional methods. Most of the fishers are involved in fishing for domestic consumption and local sales.

In the past, the wetlands were also used as a source of raw materials for making fishing equipment. The conical basket traps used by the Luhya people were woven from reeds. Another type of fish trap consists of a fence of close-set reeds tied together with papyrus stems and fastened to posts in a complex pattern.

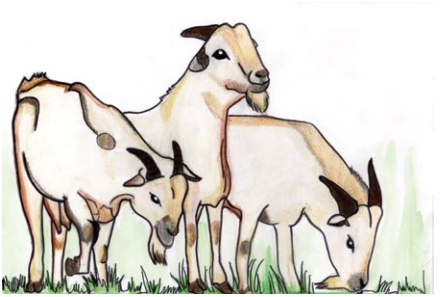
Haplochromis fish are an important source of protein and other nutrients for many communities living in the area and fish is a food that the Luhya community values because of its nutritional content. Banje was traditionally consumed in ceremonies, specifically during childbirth and initiation.

CURRENT STATUS

The main threat to this species is hybridization due to decreased water transparency: Eutrophication and erosion (which results in increased levels of sedimentation) interfere with mating recognition visual cues. In addition, overfishing is an issue. Many small species such as banje are caught not to be eaten, but to be used as bait for larger fish in Lake Victoria.

N. 38 BORANA GOAT
(GALLA GOAT, SOMALI GOAT)

Capra hircus Linnaeus, 1758



CATEGORY

BREEDS AND ANIMAL HUSBANDRY

PRODUCTION AREA

Eastern

INDIGENOUS COMMUNITY

Borana

HUNTING SEASONALITY

Throughout the year

WAYS OF HUSBANDRY

The Borana goat is native to northern Kenya and is one of the important livestock breeds kept by Borana people living in Kenya's former Eastern Province. The Borana are pastoralists who traditionally moved from place to place with their animals in search of water and pastures. Today, sedentary pastoralism is becoming more common due to the continuing loss of grazing land and water resources to private landowners, wildlife conservation, ranches, infrastructure projects, and extractive industries.

PARTS USED AND PROCESSING

PRODUCTS DERIVED FROM THE ANIMAL

meat and milk

WAYS OF PRESERVING

drying

WAYS OF COOKING

frying, boiling, or roasting

The Borana goat, also known as the Galla or Somali goat, is very popular among the indigenous communities of northern Kenya and adjacent parts of Ethiopia and Somalia. This long-legged breed has two sub-types, the Degyir and the Degun. The Degyir is pure white with black skin on the muzzle, feet, and under the tail, while the Degun has color (brown, gray, etc.) around the neck, head, and lower legs, and a black stripe down the spine. Borana bucks grow to a height of up to 75 centimeters and can weigh as much as 70 kilograms, while the does tend not to exceed 60

cm and 55 kg. Borana goats are easy to handle and are well adapted to arid and semi-arid acacia savannahs. As browsers, they can feed on many different types of vegetation, allowing them to survive in adverse conditions. After the dry season, they regain weight very fast compared to other breeds.

CULINARY USES

Borana goats are raised for both milk and meat. Does can continue to breed successfully up to the age of 10, and they produce more milk than other local goat breeds. The meat is used to make traditional products like *fonntuma*.

PRODUCT HISTORY

The Borana people are an Oromo-speaking pastoralist ethnic group from the arid and semi-arid areas of northern Kenya and southern Ethiopia. They depend for their livelihood on cattle, camel, goats, and sheep, and their staple foods are milk and dairy products. Meat is also important but is consumed irregularly. Animals are very valuable and are only slaughtered for special occasions like weddings, initiations, and dowry payment. Though Borana people primarily depend on cattle, goats have continued to play an important role due to their ability to withstand harsh conditions as the impacts of climate change become more severe. Borana goats are also used as dowry, for sacrifices, and to pay fines. Slaughtering a Borana goat for a close relative, in-law, or friend is a great honor, and owning many goats brings men respect and prestige.

CURRENT STATUS

Despite the traditional importance of the Borana goat in pastoralist communities of northern Kenya, this breed has taken a secondary role in the provision of meat and milk, and investment in indigenous goat husbandry is declining. Subdivision of land, private land ownership, infrastructure projects, extractive industries, and commercial ranching continue to reduce the extent of communal grazing lands. Another major threat to the future of the Borana breed is the introduction of exotic breeds (such as the boer goat from South Africa), which either replace or are crossbred with Borana goats. Fortunately, interest in Borana goats is on the rise due to this breed's resilience to increasing heat and aridity brought on by climate change.

N. 39 CHISWA
(TERMITES)

Allodontermes tenax (Silvestri, 1912)

CATEGORY

EDIBLE INSECTS

PRODUCTION AREA

BUNGOMA COUNTY (WESTERN)

INDIGENOUS COMMUNITY

LUHYA

SEASONALITY

TERMITE HARVESTING DEPENDS ON WEATHER CONDITIONS, WITH THE BEST TIME OF YEAR BEING THE RAINY SEASONS FROM MARCH TO MAY AND AUGUST TO OCTOBER. THUNDERSTORMS FOLLOWED BY CLEAR SKIES STIMULATE THE EMERGENCE OF ALATES (TERMITES IN THEIR REPRODUCTIVE PHASE, WHEN THEY HAVE WINGS) FROM THEIR MOUNDS. IN THE ABSENCE OF RAIN, TERMITES CAN BE ARTIFICIALLY STIMULATED TO EMERGE BY MIMICKING RAIN SOUNDS AND INCREASING HUMIDITY AROUND THE MOUNDS.

GATHERING METHODS

WHEN TERMITE ALATES (WINGED, REPRODUCTIVE ADULTS) EMERGE FROM THEIR HOLES FOR THEIR NUPTIAL FLIGHT, THEY ARE COLLECTED INDIVIDUALLY OR TRAPPED USING FLEXIBLE STICKS COVERED WITH MATERIALS LIKE GRASS, LEAVES, CLOTHING, OR A BLANKET. LIGHT IS USED TO ATTRACT AND COLLECT TERMITES THAT EMERGE AT NIGHT. PEOPLE USE SOUND TO INDUCE SWARMING, ESPECIALLY DURING DRIER TIMES OF YEAR WHEN TERMITES WOULDN'T OTHERWISE EMERGE.

PARTS USED AND PROCESSING

PRODUCTS DERIVED FROM THE ANIMAL

WHOLE WINGED TERMITES (ALATES) ARE EATEN

WAYS OF PRESERVING

FRYING, DRYING

WAYS OF COOKING

TERMITES ARE SUN DRIED OR FRIED ON MEDIUM HEAT WITHOUT OIL, WITH SALT ADDED TO TASTE

Termites, which are known as *chiswa* or *tsiswa* among the Luhya people (and as *kumbe kumbe* in Swahili), are social insects with workers, soldiers, queens, and kings. They live in large mounds in grasslands, forests, and farmland. Winged termites, called alates, are 4-15 millimeters long including their wings, which are about twice as long as the body. They have a medium-brown body, amber-colored head, and two equally sized

pairs of clear wings. They eat cellulose from sources including wood, leaf litter, and soil humus, and play a crucial role in decomposition. Alates are considered a delicacy among the Luhya and are also used in traditional medicine.

CULINARY USES

After being collected, chiswa are placed in a frying pan with salt and cooked on medium heat while being stirred continuously until they turn dark brown and slightly crisp. They can also be sun dried with salt until crispy. Chiswa are commonly served with ugali or eaten as salted snacks. They are mostly prepared by women and children in the community.

PRODUCT HISTORY

Chiswa are an essential part of Luhya traditional culture and gastronomy. They are an important source of protein and their sale generates income for many families. The Luhya possess detailed knowledge related to the identification, collection, preparation, and utilization of termites, and they teach their children to differentiate between edible and poisonous species. Termites are considered a gift that comes with the rains, and their mounds are associated with ancestral spirits. The soil from termite mounds is used in various traditional applications, including as a natural iron supplement for pregnant women and in making plaster for the walls and floors of houses. Termites are harvested both to sell at market and for home consumption.

CURRENT STATUS

The consumption of chiswa is declining in the Luhya communities due to lifestyle changes and increasingly unpredictable and unfavorable weather conditions. The use of synthetic pesticides and fertilizers kills termites in and near agricultural areas, and their natural habitat is being destroyed for cultivation and the construction of homes and infrastructure. The disappearance of chiswa would not only mean the loss of a highly appreciated and nutritious food, but would also threaten livelihoods and all of the intangible cultural heritage that surrounds this edible insect, including the ritual music associated with the chiswa harvest.

NOMINATOR: ANNE NYANDIALA

N. 40 DEDE
(LONG-HORNED GRASSHOPPER)

Ruspolia differens (Serville, 1838)

CATEGORY

EDIBLE INSECTS

PRODUCTION AREA

SIAYA COUNTY (NYANZA)

INDIGENOUS COMMUNITY

LUO

SEASONALITY

COLLECTION USUALLY OCCURS ONCE A YEAR DURING THE LONG RAINY SEASON, TYPICALLY FROM MID-MARCH TO MAY.

GATHERING METHODS

DEDE SWARM DURING AND AFTER THE PEAK OF THE RAINY SEASONS, WHICH OCCUR FROM MARCH–MAY AND NOVEMBER–DECEMBER. THEY ARE ESPECIALLY ACTIVE JUST AFTER THE VERY FIRST RAINS. WOMEN AND CHILDREN TYPICALLY COLLECT DEDE EARLY IN THE MORNING BEFORE SUNRISE WHEN THE TEMPERATURE IS COOL AND THE INSECTS ARE INACTIVE AND THUS EASILY CAPTURED. TOOLS USED FOR CATCHING DEDE INCLUDE GLUE, STICKS, NETS, BASKETS, SACKS, AND POTS.

PARTS USED AND PROCESSING

PRODUCTS DERIVED FROM THE ANIMAL

HEAD, THORAX, AND ABDOMEN (WINGS AND APPENDAGES ARE REMOVED)

WAYS OF PRESERVING

DRYING, SMOKING

WAYS OF COOKING

BOILING, TOASTING, SMOKING, DEEP FRYING

Ruspolia differens, though commonly known in English as the long-horned grasshopper, is actually not a grasshopper but a member of the bush cricket family, Tettigoniidae. It is found in grasslands, forest edges, and along roadsides at elevations up to 1,800 meters, and it feeds mostly on the leaves, flowers, and seeds of various grasses. The Luo people, who live in the Lake Victoria basin in the western part of Kenya, refer to this insect as *dede*. In neighboring Uganda, it is called *nsenene*. Long-horned grasshoppers are slender, 4-6.5 centimeters in length, with long, thread-like antennae. This species is a popular edible insect among the Luo and many

other peoples across sub-Saharan Africa. Its specific nutrient content varies depending on its diet, but it is consistently rich in proteins, fatty acids, and some vitamins. The long-horned grasshopper is known for its color polymorphism (it comes in several colors, usually green or brown) and for forming large swarms. Most swarms concentrate in areas with grasses and shrubs, or around streetlights in urban areas. Unlike locusts, dede do not cause extensive damage to crops and vegetation.

◆

CULINARY USES

Once dede are collected, the wings, appendages, and ovipositors (for females) are removed, along with any dirt and other insects that were caught accidentally. They are washed with cold, clean water to which some wood ash is added to increase friction. The clean dede are boiled in salted water with or without spices, and may then be smoked, toasted, or deep fried. Boiled dede are eaten drained or in soup, typically with brown *ugali* (a stiff porridge made from millet) and *osuga* (African nightshade). Because they are only available during specific seasons, dede are often sun dried for a couple of days and then stored for later use.

◆

PRODUCT HISTORY

Dede are a traditional, widely consumed snack among the Luo people, who believe that these insects came from heaven. Many indigenous peoples in the region value dede and other edible insects for their high nutritional content and medicinal properties. Offering dede to guests is a sign of respect, and they are an important food for men, in-laws, and elders during special occasions. Women and children, though primarily responsible for collecting dede, do not traditionally consume the insects nearly as much as men. Long-horned grasshoppers have a cone-shaped head, and pregnant Luo women were prohibited from eating dede to avoid having children with cone-shaped heads. Giving dede to infants was believed to prevent them from speaking.

◆

CURRENT STATUS

Dede populations have decreased due to climate change and the impact on natural habitats of activities such as agriculture, animal husbandry, and urbanization to accommodate the increasing human population in the Lake Victoria region. Loss of traditional knowledge related to dede among the Luo also threatens the future of this culturally important food.

NOMINATOR: ERICK ANTONY OCHIENG

N. 41 FONNFILA

CATEGORY

CURED MEAT AND MEAT PRODUCTS

PRODUCTION AREA

MARSABIT COUNTY (EASTERN)

INDIGENOUS COMMUNITY

BORANA

INGREDIENTS

LEAN MEAT FROM CATTLE, SHEEP, OR CAMELS
WATER
OIL

PREPARATION METHOD

ONCE THE ANIMAL HAS BEEN SLAUGHTERED, ALL THE FAT AND CONNECTIVE TISSUE IS REMOVED. THEN THE MEAT IS CUT INTO THIN STRIPS TO INCREASE THE SURFACE AREA SO THAT IT CAN DRY QUICKLY AND EVENLY. THE STRIPS ARE TIED ON A STRING AND HUNG FROM THE BRANCH OF A TREE TO DRY IN THE SUN FOR 2-3 DAYS. ONCE SUFFICIENTLY DRY, THE MEAT IS BROUGHT DOWN, CUT INTO SMALL PIECES, AND POUNDED IN A LARGE MORTAR. THE POUNDED MEAT IS THEN PUT IN A POT WITH OIL AND WATER AND COOKED OVER LOW HEAT UNTIL ALL THE WATER EVAPORATES AND THE MEAT IS DRY. ONCE IT HAS COOLED, THE MEAT IS STORED AND CAN KEEP FOR 2-3 MONTHS.

Fonnfila is made from the lean meat of cattle, sheep, or camels. It is sun dried, pounded, and fried, and then stored in a traditional container called a *saqe* (made from hides, sticks, and string), or in plastic or metal containers.

PRODUCT HISTORY

The Borana are an Oromo-speaking ethnic group who live in southern Ethiopia and northern Kenya. They are pastoralists who rely for their subsistence on milk and dairy products from cattle, camels, sheep, and goats. Meat is also an important food, but it is not consumed nearly as much as dairy because animals are usually slaughtered only for special occasions like weddings, dowry payments, funerals, and child naming ceremonies, among others. Animals are very valuable and when one is killed, the meat is preserved using traditional techniques to increase its shelf life and ensure food security for the community. Fonnfila was traditionally prepared only for weddings, and any surplus was saved and given to special guests. All members of the community would eat fonnfila.

CURRENT STATUS

Elderly Borana women hold the traditional knowledge and skills for preparing fonnfila. With increasing rural-to-urban migration among the youth, there are limited opportunities for the transmission of traditional knowledge from older to younger generations. And in any case, food preferences among younger Boranas are changing due to increasing exposure and easy access to non-traditional foods. Also, the emergence of slaughterhouses and butcheries has made it easier for people to access fresh meat whenever they need it, unlike in the past when families would slaughter animals for their own consumption and had to preserve the meat. These are among the main factors threatening the future of fonnfila.

N. 42 FONNJAJI

CATEGORY

CURED MEAT AND MEAT PRODUCTS

PRODUCTION AREA

MARSABIT COUNTY (EASTERN)

INDIGENOUS COMMUNITY

BORANA

INGREDIENTS

LEAN MEAT FROM CATTLE, SHEEP, OR CAMELS

PREPARATION METHOD

AFTER THE ANIMAL IS SLAUGHTERED, ALL THE FATTY PARTS ARE REMOVED AND THE LEAN, RED MEAT IS CUT INTO LONG, THIN STRIPS. THESE ARE TIED ON SISAL ROPES, HUNG FROM A TREE, AND ALLOWED TO DRY IN THE SUN FOR 2-3 DAYS. ONCE THE MEAT IS COMPLETELY DRY, THE STRIPS OF MEAT ARE REMOVED FROM THE ROPE AND STORED IN A TRADITIONAL CONTAINER CALLED A *SUBB*. THE DRIED MEAT IS KEPT AWAY FROM MOISTURE TO PREVENT SPOILAGE. WHEN HERDERS ARE READY TO MOVE WITH THEIR ANIMALS, THEY REMOVE SOME FONNJAJI FROM THE SUBB, ROAST IT, AND THEN POUND IT. NOW THEY STORE IT IN PORTABLE CONTAINERS CALLED *DHIBE* AND *DHOOL*, WHICH THEY CARRY WITH THEM INTO THE MOUNTAINS AS THEY SEARCH FOR PASTURE FOR THEIR ANIMALS. AT HOME, FONNJAJI IS BOILED BEFORE BEING CONSUMED, AND IS SERVED WITH ANIMAL FAT. HERDERS WHO ARE AWAY FROM HOME ROAST THE MEAT BEFORE EATING IT.

The Borana are an Oromo-speaking people from southern Ethiopia and northern Kenya. They are pastoralists who move with their animals from one place to another in search of water and pasture. Since time immemorial, their livelihood has revolved around the production of milk and meat. Traditionally, whenever the Borana community slaugh-

tered an animal, they would preserve surplus meat for future consumption during times of shortage.

PRODUCT HISTORY

Borana people possess detailed knowledge and skills associated with meat preservation because their daily activities revolve around the management of livestock and preparation of animal products. The Borana inhabit a semi-arid region that is prone to famine, so meat preservation has always been way of ensuring that the community has access to food at all times. Fonnjaji is prepared by elderly women, mainly during the dry season, and is consumed by all members of the family.

CURRENT STATUS

Elderly Borana women hold the traditional knowledge and skills for preparing fonnfila. With increasing rural-to-urban migration among the youth, there are limited opportunities for the transmission of traditional knowledge from older to younger generations. And in any case, food preferences among younger Boranas are changing due to increasing exposure and easy access to non-traditional foods. Also, the emergence of slaughterhouses and butcheries has made it easier for people to access fresh meat whenever they need it, unlike in the past when families would slaughter animals for their own consumption and had to preserve the meat. These are among the main factors threatening the future of fonnjaji.

N. 43 FONNTUMA

CATEGORY

CURED MEAT AND MEAT PRODUCTS

PRODUCTION AREA

MARSABIT COUNTY (EASTERN)

INDIGENOUS COMMUNITY

BORANA

INGREDIENTS

BEEF OR GOAT MEAT
OIL OR FAT
SALT
SUGAR
CARDAMOM

PREPARATION METHOD

FIRST, THE MEAT IS CUT INTO STRIPS AND DRIED FOR A FEW DAYS. NEXT, THE THIN, DRIED STRIPS ARE ROASTED OVER CHARCOAL AND THEN POUNDED, BREAKING THEM UP AND GIVING THEM A FILAMENTOUS TEXTURE, TO REDUCE THEIR SIZE AND INCREASE SURFACE AREA FOR ABSORBING MORE OIL DURING THE FRYING PHASE. POUNDING TAKES 1-2 HOURS DEPENDING ON THE SIZE OF THE PIECES OF MEAT. WOMEN USE TONGS MADE FROM DRY STICKS TO HOLD THE MEAT STRIPS DURING THE ROASTING PHASE. THREE TO FOUR STRIPS ARE GRASPED IN BETWEEN THE STICKS, HELD OVER THE RED CHARCOAL, AND TURNED CONTINUOUSLY. AFTER ROASTING AND POUNDING, THE MEAT IS DEEP FRIED WITH SALT, SUGAR, AND CARDAMOM UNTIL IT TURNS GOLDEN BROWN.

THE STORAGE PROCESS IS ONE OF THE MOST IMPORTANT ASPECTS OF PREPARATION, FOR BOTH QUALITY AND SHELF LIFE. A TRADITIONAL WOODEN STORAGE CONTAINER CALLED *EJITO* IS USED. THE INSIDE OF THE CONTAINER IS SMOKED USING SPECIAL STICKS IN ORDER TO DRY IT COMPLETELY AND IMPART FLAVOR. *FONNTUMA* CAN BE STORED FOR 3-4 MONTHS AND IS SERVED WITH GHEE.

The Borana people are pastoralists who live in the arid region stretching from southern Ethiopia to northern Kenya. Livestock products such as milk and meat are particularly important in Borana culture. The Borana use many traditional preservation techniques to in-

crease the quality and extend the shelf life of these products, guaranteeing a food source during times of shortage. *Fonntuma* is a traditional dried, roasted, pounded, and fried product made from beef or goat meat. Women are responsible for preparing fonntuma.

PRODUCT HISTORY

Borana pastoralists have a profound knowledge of their livestock and local environment, acquired over a long time. Only a few talented individuals hold the knowledge (much of which is tacit) for making fonntuma. Elderly women prepare and process this traditional meat product. When a household slaughters a bull, women from the neighborhood come together to prepare fonntuma. This activity provides a space for interaction and knowledge transfer among community members. Arid and semi-arid areas are prone to famine, and fonntuma was the best anti-hunger food among the Borana community.

CURRENT STATUS

The emergence of butcheries in the region has made it easier for people to obtain fresh meat, so traditional preservation techniques and the knowledge associated with them are declining. Due to lifestyle changes, the slaughtering of animals has decreased and now takes place only during ceremonies and some festive occasions, such that there are fewer opportunities for knowledge transfer. If the knowledge about this product is not passed down from the elderly women who possess it, fonntuma may disappear. Conscious efforts need to be made to address the intergenerational gap and create awareness among youth to ensure that traditional culinary and cultural practices are preserved.

N. 44 FULU (LAKE VICTORIA HAPLOCHROMINE CICHLIDS)

Multiple species in the tribe Haplochromini

CATEGORY

FISH AND SEAFOOD

PRODUCTION AREA

LAKE VICTORIA (NYANZA)

INDIGENOUS COMMUNITY

LUO

FISHING SEASONALITY

JULY - JANUARY

FISHING METHODS

TRADITIONALLY, THE FISH WERE CAUGHT WITH FISHING LINES, HOOKS, TRAPS, AND SPECIALLY DESIGNED BASKETS. TODAY, NETS ARE MORE COMMON. FISHING WAS CARRIED OUT VERY EARLY IN THE MORNING AND IN THE EVENING, FROM BOATS AND ALONG THE SHORE. IT WAS A DAILY ACTIVITY AMONG THE LUO COMMUNITY UNLESS CONTROLLED BY THE FISHERY DEPARTMENT OR CLAN ELDERS. THE FISHING COMMUNITY HAD TRADITIONAL AND TERRITORIAL RULES AND REGULATIONS, WHICH ENSURED THAT FISHERIES WERE EXPLOITED IN A SUSTAINABLE MANNER.

PARTS USED AND PROCESSING

PRODUCTS DERIVED FROM THE ANIMAL

WHOLE FISH

WAYS OF PRESERVING

DRYING, SMOKING

WAYS OF COOKING

BOILED, FRIED, ROASTED

Haplochromine cichlids are small, often brightly colored, and well adapted to a wide range of habitats and ecological niches. They differ in the size and shape of their bodies, head morphology, male breeding coloration, trophic specialization, and breeding behavior. The various haplochromine species are collectively referred to as *fulu* in the Luo language, *furu* in Swahili, and *nkejje* in Luganda.

Lake Victoria, the largest lake in Africa by surface area, is home to an astonishing diversity of fish: In the middle of the 20th century, there were over 500

species in the lake, many of them endemic. The majority of these species belong to the tribe Haplochromini in the cichlid family. Until the late 20th century, they made up 80% of the total fish biomass in Lake Victoria and played a key role in nutrient cycles.

CULINARY USES

Once caught, in order to improve their shelf life and flavor, the fish are sun dried and then smoked. They may be dried on the ground or on wooden skewers. The latter method makes it easier to smoke or roast the fish, or carry them to market. Because they are so small, fulu are eaten whole, often in a soup served with *ugali* (maize meal), or cooked over charcoal. Traditionally, fulu were simmered with salt and milk. The meal was served with ugali made from sorghum, millet, or cassava. Today, however, fulu are rarely caught for food: Instead, they are used as bait for Nile perch.

PRODUCT HISTORY

Fish is a common meal among the Luo and fulu is significant for the community. It was consumed during ceremonies and special events, particularly during childbirth celebrations. Each woman visiting the nursing mother was supposed to bring fulu for both mother and child. It played a key role in bringing people together. It was also eaten during the Luo night festival, which is a celebration of Luo culture.

Among Luo fishers, rules governing the use of nets, hooks, bait, and canoes ensured the sustainable use of the lake's fish resources. There was adherence to the closed season, which coincided with the working period of the farms. Clan elders controlled access to the lake and, during the closed season, canoes were forbidden to go beyond a certain distance from shore. There was also an element of cooperation in setting up the boats.

Historically, fulu were an important source of protein and other nutrients for many communities living on the shores of the lake. Fulu were also important for generating income, and were commonly sold in markets as far away as Nairobi.

CURRENT STATUS

Lake Victoria is severely ecologically degraded due to industrial pollution. Haplochromines declined at an astonishing rate due to overfishing, the introduction of predators such as Nile perch, decrease in water transparency, and eutrophication. These are the main reasons why the various species known as fulu are at risk of extinction.

NOMINATOR: DUNCAN OKECH

N. 45 GATHUNGURA
(KABUKU)

Lepus victoriae Thomas, 1893

CATEGORY

BREEDS AND ANIMAL HUSBANDRY

PRODUCTION AREA

CENTRAL

INDIGENOUS COMMUNITY

GIKUYU / KIKUYU

HUNTING METHODS

YOUNG MEN HUNT FOR HARES GRAZING IN THE FIELDS. DIFFERENT METHODS ARE APPLIED, INCLUDING USE OF TRAPS, DOGS, BOWS AND ARROWS, OR AMBUSHING THE ANIMALS AT NIGHT. TRADITIONALLY, YOUNG MEN WERE EXPECTED TO BRING HOME SOME HARE MEAT BEFORE UNDERGOING CIRCUMCISION AS A SIGN OF BRAVERY AND READINESS TO TAKE UP NEW RESPONSIBILITIES. HARE MEAT IS FOR HOME CONSUMPTION.

PARTS USED AND PROCESSING

PRODUCTS DERIVED FROM THE ANIMAL

MEAT

WAYS OF COOKING

BOILED, FRIED, ROASTED

The savannah hare, known as *gathungura* in the Gikuyu language, is a wild animal that resembles the domesticated rabbit. It mostly occupies scrubby grasslands within woodlands and mountain regions. It is medium-sized, growing to 41-58 centimeters long and weighing 3 kilograms at most. It has a short tail, long, furry ears, and is richly colored with a grayish–brown back and a russet hue on the breast, neck, and legs. This is a

nocturnal species and it relies on camouflage for evading predators. It feeds on grass and herbs. Gathungura prefers bushy savannahs due to the availability of food and the ease of hiding from predators.

Female hares breed throughout the year with an average litter size of 1.6 young. The gestation period lasts up to 50 days. These animals reproduce very fast.

◆

CULINARY USES

After slaughtering, the meat is left for 2 days to lose moisture, as this is believed to improve the flavor. It is then fried and served with *ugali* or *irio*, an original dish of the Gikuyu people made with mashed potatoes, maize, and pumpkin leaves. It is also roasted and stewed. Hare was used especially during famine periods.

◆

PRODUCT HISTORY

Gathungura and other wild animals play an important role in the diet of the Gikuyu people of Central Kenya. The skin of this animal was used in making drums that were played during ceremonies, and for making Gikuyu traditional hats that were worn by elders. The fur was used for medicinal purposes: It was applied to open wounds to keep the wound dry and quicken the healing.

The hare has been characterized as a trickster in Kenyan/Bantu literature for a long time. The Gikuyu saying *wara ta wa gathungura* means "as cunning as a hare" and smart people in the Gikuyu community are referred to as being *mugi ta gathungura*, or "as bright as a hare." These phrases demonstrate the importance of this animal and its cultural ties with the community. Knowledge about the hare and other animals is transmitted from elders to youth through storytelling.

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CURRENT STATUS

Over the years, gathungura's habitat has declined in Central Kenya due to population pressure and deforestation. It is an important species to protect since communities can use it in times of famine for food security. Restoration of its natural habitat can play a big role in ensuring the survival of this animal.

N. 46 KAMONGO (MARBLED LUNGFISH)

Protopterus aethiopicus Heckel, 1851

CATEGORY

FISH AND SEAFOOD

PRODUCTION AREA

LAKE VICTORIA (NYANZA), LAKE BARINGO (RIFT VALLEY)

INDIGENOUS COMMUNITY

LUO; ILCHAMUS

FISHING METHODS

IN LAKE BARINGO, MARBLED LUNGFISH ARE CAUGHT USING LONG LINES WITH MULTIPLE HOOKS, WITH PIECES OF FISH (USUALLY TILAPIA) AS BAIT. LINES ARE ANCHORED TO A ROCK ON THE SHORE AND KEPT NEAR THE LAKEBED THANKS TO SMALLER STONES POSITIONED AT REGULAR INTERVALS. THE FISHERS WORK INDIVIDUALLY ON SMALL BOATS BUILT FROM AMBATCH WOOD (*AESCHYNOMENE ELAPHROXYLON*). THE LINES ARE PUT IN PLACE DURING THE AFTERNOON AND GATHERED THE FOLLOWING MORNING.

PARTS USED AND PROCESSING

PRODUCTS DERIVED FROM THE ANIMAL

WHOLE FISH, SLICES, FILLETS

WAYS OF PRESERVING

SALT DRYING, SMOKING

WAYS OF COOKING

BOILED, FRIED, ROASTED, STEWED

The marbled lungfish (known as *kamongo* among the Luo) is a freshwater fish in the order Lepidosireniformes found throughout the waterways of Central and East Africa. It has a long, tapered body and a large, flattened head. Its back is dark gray while the belly is lighter. Dark spots are present on the entire surface of the body. It is a fish of considerable size, able to reach a length of 2 meters and a weight of 17 kilograms, though most specimens do not exceed 130 centimeters in length.The marbled lungfish feeds mostly on mollusks, small fish, and aquatic insects. Young lungfish are exclusively insectivorous.

This species lives in shallow waters near the shores of lakes, in swampy areas, and in seasonal tributaries. It survives in hostile environments thanks to its ability to breathe air. During the dry season, lungfish remain buried under the mud to avoid dehydration, breathing through a small hole.

CULINARY USES

Lungfish is usually consumed fresh, although it can be stored with different techniques. Once caught, the fish is eviscerated, filleted, sliced, and then transformed. It can be preserved by salting, hot smoking, or through frying the slices in vegetable oil. The latter technique is more common in the northern part of the Rift Valley. The fish slices are then used to prepare soups, stewed, or fried again and served with starchy foods (*ugali*, porridge, etc.) and leafy vegetables.

PRODUCT HISTORY

Although not native to Lake Baringo, marbled lungfish is an important food and economic resource for local fishing communities. Introduced during the 1970s, it began to be fished more frequently in the following decade. At first, the fishers of the Ilchamus indigenous community (the historical inhabitants of Lake Baringo's shores) captured lungfish with the same nets employed to catch tilapia. With the migration of Luo fishermen from Western Kenya, a change in the fishing technique was introduced and now long lines are common in Lake Baringo, as they are in Lake Victoria. The interaction between Ilchamus and Luo fishers favored the introduction of kamongo into the local community, which previously had almost no interest in eating this fish. Over time, the consumption of marbled lungfish has also spread beyond the fishing communities, guaranteeing a source of animal protein to local populations and therefore improving (or at least changing) the local diet.

In addition to its food importance, this fish represents an important source of income for the lake communities: Lungfish is sold locally or in the urban markets of nearby counties, including Nakuru.

CURRENT STATUS

In recent years the marbled lungfish population—along with populations of other fish species that constitute the basis of local fisheries—has been decreasing due to fishing pressure and the lack of adequate regulations. Additionally, increasing urbanization near Lake Baringo has led to water contamination and an acceleration of the eutrophication process.

N. 47 KENGEI CHICKEN

Gallus gallus domesticus (Linnaeus, 1758)

CATEGORY

BREEDS AND ANIMAL HUSBANDRY

PRODUCTION AREA

Elburgon, Nakuru County (Rift Valley)

INDIGENOUS COMMUNITY

Gikuyu / Kikuyu

BREEDING METHODS

This chicken is locally adapted and takes 7-8 months to mature. A free-range system of rearing is practiced and supplemented with kitchen leftovers, maize, sorghum, wheat, millet, and vegetables. Aloe vera is given to the birds or added to drinking water as a way of preventing and controlling diseases. This chicken is raised in the rural part of Elburgon where it is fed and taken care of by the women in the village, as they take care of other domestic chores. When fully grown, this breed of chicken is slaughtered, sometimes to mark a special occasion. For instance, when visitors arrive, they are welcomed with good meat or eggs.

PARTS USED AND PROCESSING

PRODUCTS DERIVED FROM THE ANIMAL

MEAT, EGGS

WAYS OF COOKING

BOILED, FRIED

Kengei, a local breed linked to the Gikuyu community of Elburgon in Nakuru County, is a short, broad chicken with a unique walking style from which it derives its name: It appears to limp while walking, with a gait similar to that of a duck. Its plumage varies in color and can be red, brown, black, or grey, but is usually black with some white spots. Kengei chickens are heavier than other local chickens, weighing 2.5-3 kilograms.

Roosters can usually be differentiated from hens by their striking plumage, long, flowing tails, and the shiny, pointed feathers on their neck (hackles) and back (saddle), which are typically of brighter, bolder colors than those of hens. Adult chickens have a fleshy crest on their head (comb) and hanging flaps of skin under the beak (wattles).

CULINARY USES

Kengei meat is fried or boiled and served with *ugali* (maize meal), *chapati* (flat bread), or *irio* (mashed potatoes, maize, peas, and pumpkin leaves or nettle) as an accompaniment. Traditionally, the eggs were fried and given to men as a source of energy that could help them while working in the fields.

PRODUCT HISTORY

Kengei was a very popular breed in the Gikuyu community for its beauty, tasty meat, good mothering ability, and consistent egg laying. It was also preferred due to its resistance to diseases and adaptation to the climate conditions that characterize the Kenyan Rift Valley. The chickens were slaughtered and served to guests to show hospitality, and were also served to nursing mothers and during ceremonies such as weddings, namings, and circumcisions. During special occasions such as Easter and Christmas, they are slaughtered so that people can enjoy the juicy meat.

Traditionally, the number of chickens owned by a family was considered a reflection of its wealth. The Gikuyu saying *ihenya ria muthuri ni kuengea* ("the running of the elderly is limping") means that elders perform their duties slowly but perfectly. The saying was used to ask for patience from young people receiving guidance from the elderly. They had to listen and follow the elders' advice no matter how strange it sounded.

This breed of chicken is mainly reared for home consumption rather than for commercial purposes.

CURRENT STATUS

Though some families still keep kengei chickens, the breed is at a risk of extinction due to the fact that it matures slowly and does not reproduce very fast. It is also considered a heavy feeder, which discourages farmers, pushing them to raise exotic and improved breeds.

NOMINATOR: PETER KARANJA NJUGUNA

N. 48 KIDIMU CHICKEN
(KUKU WA KIDIMU)

Gallus gallus domesticus (Linnaeus, 1758)

CATEGORY

BREEDS AND ANIMAL HUSBANDRY

PRODUCTION AREA

KILIFI COUNTY (COAST)

INDIGENOUS COMMUNITY

GIRIAMA (MIJIKENDA)

BREEDING METHODS

THESE CHICKENS, KNOWN LOCALLY AS *KUKU WA KIDIMU*, ARE REARED IN KILIFI COUNTY (ON KENYA'S COAST) MAINLY BY GIRIAMA WOMEN AS THEY CARRY OUT THEIR DAILY ACTIVITIES. KIDIMU CHICKENS ARE KNOWN TO GROW SLOWLY, TAKING 8 MONTHS TO REACH FULL SIZE. THEY ARE GOOD FORAGERS AND WILL EAT A WIDE RANGE OF FOODS, SUCH AS INSECTS, CEREALS (MAIZE, SORGHUM, WHEAT BY-PRODUCTS, AND MILLET), GRASSES, AND KITCHEN LEFTOVERS. CHICKENS ARE SLAUGHTERED BY CHOPPING OFF THE HEAD AND HANGING THEM UPSIDE DOWN TO DRAIN THE BLOOD. THE FEATHERS ARE THEN PLUCKED, THE INNARDS ARE REMOVED, AND THE MEAT IS CUT INTO PIECES THAT ARE EVENTUALLY COOKED. THIS BREED OF CHICKEN IS MOSTLY SLAUGHTERED FOR THE FAMILY TO EAT, NOT FOR VISITORS.

PARTS USED AND PROCESSING

PRODUCTS DERIVED FROM THE ANIMAL

MEAT, EGGS

WAYS OF COOKING

BOILED, FRIED

The Kidimu chicken is a special breed with a very different appearance from other chickens. At first glance, someone unfamiliar with this chicken may even think that it is sick. It has ruffled feathers that characteristically curl upwards, unlike other chickens. It was once common throughout Kenya's former Coast Province, but these days it is restricted mainly to Kilifi County (about 60 kilometers north of Mombasa). Its feathers vary in color from black, brown, and white to red or blueish. It weighs between 2.3 and 2.7 kilograms. Kidimu roosters are bigger than hens and have feathered feet.

CULINARY USES

Kidimu chickens are kept for both eggs and meat. The meat is mainly boiled and fried, and is considered to be more flavorful than other breeds from the region. Pilau rice cooked together with some meat, spices, and onions is considered the best dish to accompany boiled Kidimu chicken.

PRODUCT HISTORY

The Kidimu breed has been kept for generations within the Giriama community and this chicken was commonly used during festivals.

It was, and still is, a taboo to slaughter and serve Kidimu chicken to visitors (which is expressed in the phrase *kuku wa kidimu hachinjiwi mgeni*, or, "Kidimu chicken is not slaughtered for visitors to eat."). This demonstrates the close cultural tie between this breed and the Giriama community.

Diviners traditionally used this breed in healing rituals. There is a belief among the local community that after showering seven times with clean water, a few drops of Kidimu chicken blood, and the leaves of a particular tree, one would be healed of any ailment. When a chicken is used as a sacrifice, it is strangled by hand and a knife is never used.

This chicken occupies an important place in Giriama proverbs. One common saying is *kuku wa kidimu manyonyake si kasoro*, which means, "a hen with naturally ruffled feathers is not defective," indicating that every person has his/her own unique characteristics.

CURRENT STATUS

Where it is still kept, this chicken is mainly raised for consumption in the household, but it is also sold on a small scale in villages. However, since this breed grows slowly and is less productive than others, many people have replaced it with imported breeds that grow faster and larger. Furthermore, with the spread of Christianity and Islam in the region, the ritual and cultural uses of this breed have lost their importance. For these reasons, the number of Kidimu chickens has declined and, without a concerted effort to preserve the population and its genetic biodiversity, this breed and its historical ties to the Giriama community may be lost in the near future.

N. 49 KOCHEGARBU

CATEGORY

CURED MEAT AND MEAT PRODUCTS

PRODUCTION AREA

MARSABIT COUNTY (EASTERN)

INDIGENOUS COMMUNITY

BORANA

INGREDIENTS

MEAT FROM CATTLE OR GOAT (PREFERABLY BEEF SIRLOIN)

PREPARATION METHOD

LEAN RED MEAT IS SLICED INTO THIN STRIPS AND SUSPENDED FROM A ROPE FOR 1-2 DAYS TO DRY AT ROOM TEMPERATURE. ONCE SUFFICIENTLY DRIED, THE STRIPS OF MEAT ARE TAKEN DOWN AND CUT INTO SMALL PIECES, ABOUT THE SIZE OF A PEA. THESE PIECES ARE THEN PUT IN A POT, SPRINKLED WITH SALT, AND COOKED OVER A LOW FLAME UNTIL ALL THE RESIDUAL MOISTURE HAS EVAPORATED AND THE MEAT IS DRY. NEXT, SOME OIL IS ADDED AND THE DRIED MEAT IS DEEP FRIED. IT IS STIRRED CONTINUALLY AND COOKED UNTIL DARK BROWN. MEANWHILE, BARLEY IS COOKED SEPARATELY UNTIL IT SOFTENS. THE FRIED MEAT AND BARLEY ARE MIXED AND THEN COOLED OVERNIGHT OR FOR AT LEAST 10 HOURS.

Kochegarbu, a typical Borana preserved meat product, is prepared by mixing deep fried dried goat meat or beef (*koche*) with barley (*garbu*), and then preserving the mixture in fat of some kind. Kochegarbu is stored inside aluminum or stainless steel jugs, or in traditional

containers called *dhibe* and *dhool*, which are made from hides and carved wood. Traditional containers are smoked to kill any germs and to impart flavor to the meat being stored inside. Kochegarbu keeps for up to 4 months. It can be served with any meal but is most often eaten for breakfast.

PRODUCT HISTORY

The Borana are an Oromo-speaking ethnic group who live in southern Ethiopia and northern Kenya. They are pastoralists who rely for their subsistence on milk and dairy products from cattle, camels, sheep, and goats. Meat is also an important food, but it is not consumed nearly as much as dairy because animals are usually slaughtered only for special occasions like weddings, dowry payments, funerals, and child naming ceremonies, among others. Animals are very valuable and when one is killed, the meat is preserved using traditional techniques to increase its shelf life and ensure food security for the community.

CURRENT STATUS

Elderly Borana women hold the traditional knowledge and skills for preparing kochegarbu. As a result of changing food preferences and livelihood aspirations among the younger generation, this traditional knowledge is not being passed on. Also, the emergence of slaughterhouses and butcheries has made it easier for people to access fresh meat whenever they need it, so traditional preservation is no longer necessary. These factors threaten the future of kochegarbu and similar products that were once an important part of community rituals and vital for food security.

N. 50 MGONGO WAZI

CATEGORY

FISH PRODUCTS

PRODUCTION AREA

LAKE VICTORIA (NYANZA)

INGREDIENTS

NILE PERCH CARCASS
SALT
OIL

PREPARATION METHOD

THE PREPARATION BEGINS WITH FILLETING THE FISH. THE HEAD, SKELETON, AND TAIL THAT REMAIN AFTER THE FILLETS ARE REMOVED ARE SALTED AND DRIED IN THE SUN. THIS LAST STEP IS CARRIED OUT BY HANGING THE CARCASSES ON WOODEN FRAMES FOR A PERIOD THAT VARIES ACCORDING TO THE SEASON. USUALLY THIS OPERATION IS CARRIED OUT DURING THE DRY SEASON. ONCE DRIED, THE BONES AND HEAD ARE TRANSPORTED TO THE SALES POINTS WHERE THEY WILL BE FRIED IN VEGETABLE OIL AND THEN SOLD.

Mgongo wazi refers to the skeletal part of Nile perch (*Lates niloticus*) that remains after the fillets have been extracted—in other words, the head, spine, and tail. This byproduct is also referred to as Nile perch "frame." Local fish traders process fish skeletons bought from fish processing and export factories. The frames are air dried and deep fried before being sold to local people as a nutritional, affordable food. Mgongo wazi is linked to Lake Victoria, whose natural resources provide livelihood to millions of people in Kenya, Uganda, and Tanzania. Since the mid-20th century, the lake has become an important place for the fishing of Nile perch.

PRODUCT HISTORY

Nile perch, a predatory fish, was introduced into Lake Victoria in the mid-1950s to get rid of the small fish, also referred to as "trash fish." Nile perch thrived and multiplied and have formed the basis of a massive commercial fishery in the countries around the lake for the last several decades.

Fishing activities directed toward export have led to an increase in the price of Nile perch, making it difficult for local inhabitants to buy it. As a result, local people have developed a strategy to compensate for the disappearance of native species caused by the introduction of Nile perch: They use the bony remains of fish as an easily accessible protein supply and a source of income to supplement fishing and other economic activities. In Obunga Beach, a densely populated informal settlement between Kisimu and the regional airport, a group of women buy Nile perch frames, process them, and sell the product locally. In this way they are able to make the income they need to buy food and educate their children.

Mgongo wazi is popular in poor areas because it is nutritious and affordable—100 shillings buys enough to make a meal for a family of four people. In the local cuisine, mgongo wazi is used to prepare a traditional soup: The bones are chopped into small pieces and boiled with vegetables and aromatic herbs. This dish is often given to sick people as a tonic.

CURRENT STATUS

The introduction of Nile perch into Lake Victoria, and the fishing industry that grew as a result, has had catastrophic ecological impacts, including pollution (from new settlements and agriculture) and the decline of many fish species endemic to the Lake Victoria basin. In addition, the rise of the fishing industry for export to the European market upset the traditional, small-scale fishing economy and the subsistence of local populations. Locals came to rely on the Nile perch industry and many people migrated to the Lake to seek economic opportunities but, since the early 2000s, the Nile perch population has been declining. This has allowed many native species to rebound, but has also left countless people with less income or completely out of work. And now, even mgongo wazi—on which locals depend when fish became too expensive—has become hard to find because animal feed manufacturers buy up many of the frames to make fishmeal. This competition and the overall decline in Nile perch have driven the price of frames up. Once considered "poor man's food," mgongo wazi is now too expensive for many poor people to afford.

N. 51 MINDET
(HARVEY'S DUIKER, EAST AFRICAN RED DUIKER)

Cephalophus harveyi Thomas, 1893

CATEGORY

BREEDS AND ANIMAL HUSBANDRY

PRODUCTION AREA

MARIASHONI, NAKURU COUNTY (RIFT VALLEY)

INDIGENOUS COMMUNITY

OGIEK / OKIEK

HUNTING SEASONALITY

HUNTING USED TO BE A DAILY ACTIVITY AMONG THE OGIEK COMMUNITY BUT TODAY HUNTING IS MAINLY CARRIED OUT DURING HOLIDAYS IN APRIL, AUGUST, AND DECEMBER. YOUNG BOYS DO MOST OF THE HUNTING.

HUNTING METHODS

MINDET IS FOUND IN AREAS WITH DENSE COVER AND A HIGH DIVERSITY OF SMALL-STEMMED PLANTS. LOCAL PEOPLE HUNT THE ANIMAL USING BOWS AND ARROWS OR TRAPS. ONCE THE MINDET IS CAPTURED, IT IS SLAUGHTERED IMMEDIATELY IN THE FOREST AND THE MEAT IS BROUGHT TO THE VILLAGE.

PARTS USED AND PROCESSING

PRODUCTS DERIVED FROM THE ANIMAL

MEAT

WAYS OF COOKING

BOILED, ROASTED

Mindet is a small antelope that lives in coastal, lowland, and montane forests (including Mau Forest) or forest patches, riverine forest, areas with scrub and thickets, and other habitats with thick vegetation. It is a rich orange-red color with deep brown to nearly black fur on the legs. The face is red and the forehead is black. Both sexes have horns. Mindet are primarily browsers, eating leaves, shoots, seeds, fruit, buds, and bark. Females tend to be slightly larger than males. They have a gestation period of around 210 days.

CULINARY USES

Mindet were an important source of food for the Ogiek community. Traditionally, they were hunted, slaughtered, and then boiled, and seasonings were added after cooking. The meat can also be roasted.

PRODUCT HISTORY

The Ogiek people, one of Kenya's oldest tribes, live in the Mau Forest and the forests around Mount Elgon near the Ugandan border. They have hunted and gathered most of their food since time immemorial, with forest honey and bush meat being particularly important.

Mindet skin was used to make clothes that were worn during initiation and wedding ceremonies, or on a daily basis. Skins could also be sewn together to make a mattress. Clothes made with mindet skins were used as a mantle by beekeepers during honey harvesting. In the past, mindet were hunted mainly for household consumption.

CURRENT STATUS

Mindet inhabit regions with dense vegetation. Today, mindet rely on protected forest areas and populations are declining due to deforestation for timber, agriculture, and human settlements, especially near rivers. The overexploitation of this species as a source of bushmeat is also a threat. Some communities have stopped hunting mindet in order to allow the local population to rebound, but Harvey's duiker is widely hunted throughout its range, often with dogs and wire snares. Beyond posing a threat to mindet, the destruction of forested areas in the Ogieks' ancestral lands to accommodate agriculture and a growing population jeopardizes the Ogeiks' ability to manage their land and resources as they see fit and as they have done sustainably for generations. Much of the forest that remains is in reserves, where indigenous peoples are often not allowed to engage in traditional subsistence practices.

NOMINATOR: SAMSON KIIRU NGUGI

N. 52 MOLO MUSHUNU CHICKEN

Gallus gallus domesticus (Linnaeus, 1758)

Slow Food Presidium®

CATEGORY

BREEDS AND ANIMAL HUSBANDRY

PRODUCTION AREA

Turi, Molo District, Nakuru County (Rift Valley)

INDIGENOUS COMMUNITY

Gikuyu / Kikuyu

BREEDING METHODS

This breed grows slowly, taking 6-8 months to reach maturity. The chickens forage for insects and eat kitchen scraps.

Women are in charge of chicken rearing and slaughtering. The chickens are slaughtered with a knife: The bird's head is held firmly, the arteries and veins along the neck are cut, and the blood is allowed to drain. The bird is then dunked into a pot of scalding water, the feathers are plucked, and the body is rinsed. Finally the chicken is cut into pieces for meat.

PARTS USED AND PROCESSING

PRODUCTS DERIVED FROM THE ANIMAL

MEAT, EGGS

WAYS OF COOKING

BOILED, FRIED, ROASTED

Molo District is located in the Kenyan Rift Valley. Here the Gikuyu community has always raised the Mushunu Chicken, a native breed playing an important part in local food traditions. The Mushunu has an unusual appearance: It is a large bird with an elongated body and a completely featherless neck and head. Its plumage varies in color from black to white, red, or blue. It weighs between 3 and 4 kilograms. The breed is very popular due to its tasty meat, excellent eggs, and good brooding behavior.

CULINARY USES

Chickens are usually cooked to celebrate important festivals or when there are special guests. Whether boiled, roasted, or fried, chicken is generally accompanied by rice or maize *ugali*. According to tradition, women and children eat the wings and neck; the thighs are for the boys and men; the breast is reserved for the husband. The eggs, which are small with a bright brown shell and intense yellow yolk, are used to make food such as pancakes and porridge.

PRODUCT HISTORY

The chickens are mainly eaten during celebrations and the arrival of guests. In Turi, farming methods are passed down from generation to generation. Traditionally, women and children are mainly responsible for looking after the birds. In Elburgon, the Karunga women's group has started to raise Mushunu Chickens. The women earn income from the sales of eggs and meat and put the proceeds into revolving credit funds. This business has helped the women in their social and economic activities and in empowering them, as they do not have to rely on men for all their needs.

CURRENT STATUS

The Molo area suffered badly from the violence in Kenya in 2008: A number of people were killed, there were many refugees, houses were destroyed, and most of the cattle were killed. The women lost most of their animals (chickens and sheep) and are now trying to recover by gradually building up small farms again. Moreover, the availability of Mushunu Chickens has declined. This breed needs to be promoted to keep it from disappearing.

More information about the presidium on page 276

nominator: Peter Karanja Njuguna, Samson Kiiru Ngugi

N. 53 MOLO SHEEP

Ovis aries Linnaeus, 1758

Slow Food Presidium®

CATEGORY

BREEDS AND ANIMAL HUSBANDRY

PRODUCTION AREA

MOLO HIGHLANDS, NAKURU COUNTY (RIFT VALLEY)

BREEDING METHODS

MOLO SHEEP HAVE BEEN BRED IN THE HOMONYMOUS REGION OF KENYA SINCE THE BEGINNING OF THE 20TH CENTURY AND ARE DESCENDED FROM THREE FOREIGN BREEDS: CORRIEDALE, HAMPSHIRE DOWN, AND ROMNEY. MOLO SHEEP ARE FOUND IN THE HIGHLANDS, WHICH TEND TO BE VERY COLD AND RAINY. AS SUCH, THEY HAVE ADAPTED TO THESE CLIMATES WITH AN ABUNDANCE OF THICK WOOL. IT IS THE RESPONSIBILITY OF THE YOUNGEST BOYS IN THE FAMILY TO CARE FOR THE SHEEP EACH MORNING, ENSURING THAT THEY ARE EATING GRASS, WEEDS, AND SWEET POTATO VINES AMONG OTHER FEEDS.

PARTS USED AND PROCESSING

PRODUCTS DERIVED FROM THE ANIMAL

MEAT

WAYS OF COOKING

BAKED, ROASTED, STEAMED

The Molo Sheep is a local breed adapted to the conditions of the Molo Highlands. It is easily distinguished from other sheep breeds by its very thick white fleece, which covers its forehead and cheeks, forming a beard that surrounds its face. It has a small, stocky body, short legs, and a very long tail. The cool and rainy climate in the highlands (2,500 meters above sea level) provides ideal conditions for raising this breed. The animals live on pastures and feed mainly on grass.

Molo Sheep are very hardy and resistant to disease. They give birth several times a year, unrelated to seasons, and are slaughtered from the age of 6 months, when they reach an average weight of 14 kilograms.

CULINARY USES

The tender and succulent meat is highly valued. It is usually baked, roasted, or steamed. Molo lamb meat is also used to prepare a stew known as *kondoo wa kuokwa mazigani*. This stew is slow cooked in a traditional earthenware pot and served with green leafy vegetables and potatoes. Dishes prepared with Molo Sheep meat are an integral part of meals prepared during special occasions such as bridewealth payment.

PRODUCT HISTORY

The early history of this breed is linked to colonialism and the gradual marginalization of the local tribes. It has become an important cultural and economic resource for local communities. Over time, the mix of breeds resulted in the type that exists today. The arrival of British sheep breeds in Kenya dates back to the late 19th century, when British settlers arrived in the White Highlands to build a railway between Kenya and Uganda. The substantial cost of this project resulted in strong criticism from Britain, which subsided only with the promise of fertile land for English settlers. From 1901, certain areas of the highlands became reserved solely for European farmers who brought new breeds of animals to their settlements; local communities such as the Maasai were confined to reservations.

The Molo community uses the very highly regarded wool of their local sheep to make clothes, carpets, woven rugs, scarves, and handcrafts, for domestic use and for sale in the region.

It is possible to find Molo Sheep meat at local butchers, but purchasing the entire sheep is expensive. Many restaurants miles away from Molo claim to sell Molo lamb, but this is likely to be untrue.

CURRENT STATUS

After Kenyan independence in 1963, sheep farms began to be neglected and the agricultural development project that had been designed for the Molo highlands collapsed. The situation was compounded further by subdivision of land, which left little space for sheep farming. Today, although it is universally recognized as one of the best sheep breeds in the country, there are just a handful of farmers who continue to breed the Molo. And although you may find "Molo lamb" on restaurant menus, chances are it is not genuine Molo meat.

More information about the presidium on page 277

NOMINATOR: John Wachira, Samson Kiiru Ngugi

N. 54 MUTURA

CATEGORY

CURED MEAT AND MEAT PRODUCTS

PRODUCTION AREA

CENTRAL

INDIGENOUS COMMUNITY

GIKUYU / KIKUYU

INGREDIENTS

SMALL OR LARGE INTESTINES OF GOATS OR COWS

INTESTINE (MINCED) AND LEG MEAT

BLOOD

SPICES AND HERBS

VEGETABLES

PREPARATION METHOD

A GOAT OR COW IS SLAUGHTERED AND THE INTESTINES ARE REMOVED, EMPTIED, AND CLEANED THOROUGHLY WITH WATER. SOME OF THE INTESTINE IS THEN FINELY CHOPPED ALONG WITH SOME LEG MEAT AND COOKED WELL. HERBS AND SPICES SUCH AS ROSEMARY AND *PIRI PIRI* ARE ADDED FOR EXTRA FLAVOR. ONCE THE MEAT IS COOKED, BLOOD FROM THE SLAUGHTERED ANIMAL IS ADDED TO THE POT (*SUFURIA*) AND THE MIXTURE IS STIRRED UNTIL THE BLOOD IS COOKED. WHEN THE FILLING IS READY, ONE END OF THE INTESTINE IS TIED WITH A STRIP OF BANANA BARK, THE SAUSAGE IS STUFFED, AND THE OPEN END TIED OFF IN THE SAME WAY. THE STUFFING MUST BE DONE WHEN THE MIXTURE IS STILL HOT.

Mutura, also called African sausage, is a traditional meat product found in Gikuyu lands of Central Kenya. It made from either the small or large intestines of goats or cows that are stuffed with cooked minced intestines, leg meat, and blood, and seasoned with vegetables, herbs, and spices such as *piri piri*, a local variety of chili.

Traditionally, Gikuyu people minced the meat using a very sharp machete called a *panga*. The meat was placed on a tree stump (*gitiri*), which was used as a chopping board, and cut into fine pieces. This way of preparing mutura is still common today. According to local people, it makes the sausages sweeter and juicier.

Once stuffed, mutura is usually boiled for few minutes and then roasted on hot coals until it is golden brown. This delicious sausage is served by itself as an appetizer.

PRODUCT HISTORY

Mutura was and still is an essential product at Gikuyu gatherings, made to satisfy the hunger of guests before the main meal. It is usually prepared for wedding ceremonies. On this occasion, a goat is slaughtered and offered to all the wedding guests.

Slaughtering is carried out early in the morning at the host's homestead. Men are in charge of organizing the place and bringing all the tools (knives, pots, etc.) required for this operation. When everything is settled, the goat is hung up, the throat is sliced, and the blood is drained into a container. Salt is added in order to reduce coagulation and preserve the blood in jelly-like form. Finally, men prepare the sausages while women boil and cook the other meat. Mutura and goat meat are served with other traditional dishes and brews such as *muratina* (honey wine).

The preparation of traditional mutura requires particular skills that are passed down through generations.

CURRENT STATUS

Mutura is still made in very small quantities in both rural and urban areas when gatherings are led by elders. It is at risk of extinction, however, because the younger generation often prefers the modern sausages that are aggressively promoted by marketing companies. Unfortunately, it's becoming harder to find this delicacy in an increasingly industrialized country.

N. 55 NDERIT
(SOUTHERN TREE HYRAX)

Dendrohyrax arboreus (A. Smith, 1827)

CATEGORY

BREEDS AND ANIMAL HUSBANDRY

PRODUCTION AREA

MAU FOREST AND MOUNT ELGON (RIFT VALLEY)

INDIGENOUS COMMUNITY

OGIEK / OKIEK

HUNTING SEASONALITY

HUNTING WAS ONCE A DAILY ACTIVITY AMONG THE OGIEK COMMUNITY BUT TODAY HUNTING IS MAINLY CARRIED OUT BY YOUNG BOYS DURING HOLIDAYS IN APRIL, AUGUST, AND DECEMBER

HUNTING METHODS

THIS ANIMAL WAS DISLODGED FROM THE TREE AND THEN KILLED ON THE GROUND, AND THE PRECISE METHOD VARIED BETWEEN HUNTERS AND BASED ON THE SEASON. IN SOME CASES THE HUNTERS COULD CLIMB UP THE TREE AND KNOCK THE HYRAX DOWN WHILE THE OTHERS WAITED ON THE GROUND. DURING THE RAINY SEASON, WHEN THE HYRAXES HIDE IN HOLES, A STICK COULD BE INSERTED INTO THE HOLLOW CAVITY AND RATTLED AROUND MAKING THE HYRAX LOSE ITS GRIP – IT WAS THEN FORCED OUT AND KILLED. IN ADDITION TO THIS, THE ANIMALS COULD BE SMOKED OUT OF THEIR HOLES. OTHER METHODS INCLUDED THE USE OF BOWS AND ARROWS AND TRAPS.

PARTS USED AND PROCESSING

PRODUCTS DERIVED FROM THE ANIMAL

MEAT

WAYS OF COOKING

BOILED, ROASTED

The southern tree hyrax (*Dendrohyrax arboreus*) is found in parts of East, Central, and Southern Africa: Its range extends southward from Kenya and Uganda to South Africa. It inhabits alpine, mountain, highland, lowland, and riverine forests, including Kenya's Mau Forest, where it is know among the Ogiek people as *nderit*.

The nderit resembles a guinea pig. Long, soft, gray-brown fur covers the body and the underside is paler. The hairs are lighter near their tips. The ears have a fringe of white hair. A dorsal gland is ringed by cream-white hair. These animals typically weigh just over 2 kilograms and have an average length of 50 centimeters.

The nderit is folivorous (it eats mostly leaves) and feeds on nearly 150 different plant species, eating leaves, petioles (discarding the leaf), twigs, shoots, fleshy fruit, and hard seeds.

CULINARY USES

The nderit was an important source of food for the Ogiek community. Due to its softness, hyrax meat is ideal for women weaning babies. Children were given hyrax meat mixed with honey during weaning. The mothers used to chew the hyrax meat to soften it, after which it was dipped in pure honey and given to the baby. Traditionally, nderit were slaughtered and boiled without additional seasonings. Later they were hung to dry for few hours before consumption.

PRODUCT HISTORY

The nderit was significant in the traditions of the Ogiek people, the oldest of the hunter-gatherer tribes living in the Mau Forest between Nakuru and Narok counties.

Nderit skin was used in making clothes that were worn during initiation and wedding ceremonies, or on a daily basis. Skins could also be sewn together to make a mattress. Clothes made with nderit skins were used as a mantle by beekeepers during honey harvesting.

Burnt nderit fur mixed with water or honey was used as medicine for cough in children. The stomach entrails acted as a remedy for aching ribs and the ash could help in healing scar tissue. The community believed that covering a newborn in nderit skin guaranteed good health. The cry of the nderit during the day was a warning of impending disaster. It was believed to be a bad omen when a nderit entered a house and, in such cases, it wasn't supposed to be killed as this could cause deaths in the family. Excursions would be abandoned if a hyrax crossed one's path, as they were believed to be animals of misfortune.

CURRENT STATUS

The nderit depends on the forest and specific tree species for survival. It prefers dense forests away from villages, with the presence of bamboo being an added advantage. Increased deforestation and the introduction of exotic forest plantations has seriously affected these habitats, putting the future of this animal at risk. Farming and the establishment of settlement schemes in the forests have resulted in declines in the nderit population.

NOMINATOR: FREDRICK KIPLANGAT LESINGO

N. 56 NGWARE

Multiple species of francolin, subfamily Phasianinae

CATEGORY

BREEDS AND ANIMAL HUSBANDRY

PRODUCTION AREA

CENTRAL

INDIGENOUS COMMUNITY

GIKUYU / KIKUYU

HUNTING SEASONALITY

APRIL - SEPTEMBER

HUNTING METHODS

THE BIRDS ARE USUALLY CAPTURED AFTER BEING TRACKED. THEY CAN ALSO BE TRAPPED BY SPREADING FERMENTED BARLEY IN AN AREA WHERE THEY ASSEMBLE TO FEED. AFTER FEEDING ON THIS, THE BIRD BECOMES "DRUNK" AND THEREFOR LESS MOBILE AND EASIER TO CATCH. THEY ARE HUNTED IN MUCH OF THEIR RANGE USING LOW NETS AND EASILY CAUGHT USING DECOY BIRD CALLS.

PARTS USED AND PROCESSING

PRODUCTS DERIVED FROM THE ANIMAL

MEAT, EGGS

WAYS OF COOKING

BOILED, ROASTED

Ngware is the Gikuyu name for the francolin, a wild bird (actually, several different species) native to Kenya that is hunted for its delicious meat. It is mainly a terrestrial bird that runs along the ground, usually flying in short bursts of less than 30 seconds. The ngware is usually smaller than a chicken, weighing about 1 kilogram. Francolins' plumage ranges in color from buff and brown to gray and black and is patterned to provide camouflage.

Ngware used to be plentiful in the thickets and forests close to where the Gikuyu people lived, mainly in Central Kenya. They live close to human set-

tlements and can be domesticated. The main breeding season is from April to September and the nest is usually a hidden scrape in the ground, though it may sometimes be made above ground level in a niche in a wall or rock. The clutch contains six to eight eggs but larger clutches have been observed. Ngware feed on seeds, grains, and insects, particularly termites and beetles.

CULINARY USES

Both the meat and eggs from ngware were used in Gikuyu traditional cuisine. Meat was traditionally roasted and served with vegetables and *ugali* made with different grains such as millet and sorghum. Ngware meat is light, easy to digest, and good for the blood. Traditionally, hunting ngware was especially popular during the dry season when there were few vegetables available to accompany the meal. People enjoyed eating the meat with ugali or cassava. In the past, wild game was eaten only by men. Women rarely ate meat and then only when it was handed to them by their husbands.

PRODUCT HISTORY

Ngware are known for their loud early-morning calls; they make a "kwarrrr, kwarrrr" sound that many locals think of as a natural alarm clock.

There are a number of proverbs associated with this bird. One of them says *gutire ngware nyinyi muhuririo-ini*, or "no ngware is small when it claws the soil," interpreted to mean that everyone can do great good or evil according to his or her actions. Another is *ngware ikirara muti iguru ndiatigire thi kuri kwega,* which translates to "the francolin sleeps on a tree because it is not alright on the ground," and is interpreted to mean that each person knows his or her business best. These proverbs show how important ngware is in Gikuyu traditions.

Nowadays ngware meat is rare and not usually seen for sale, but is instead mainly eaten in the household.

CURRENT STATUS

These birds used to be numerous because the land was not cleared for cultivation. Today, populations of ngware are in decline due to continued clearing of thickets and forests for agriculture. These birds have already become completely absent in some areas due to the destruction of their original habitat. If ngware disappear, so too will valuable Gikuyu traditions.

N. 57 ONYOSO
(BLACK ANT)

Carebara vidua Smith, 1858

CATEGORY

EDIBLE INSECTS

PRODUCTION AREA

Bondo, Siaya County (Nyanza)

INDIGENOUS COMMUNITY

Luo

SEASONALITY

Once a year during the long rains, usually from February to May.

GATHERING METHODS

Reproductive male and female black ants undertake mating flights once a year during the long rainy season, usually emerging from their holes in the late morning and early afternoon as the sun comes out after the rain. Each reproductive adult is picked as it emerges from the hole. A bowl with a cover is used to prevent the insects from flying out after collection. A bowl without a cover can also be used, but in this case, the wings must be removed first.

PARTS USED AND PROCESSING

PRODUCTS DERIVED FROM THE ANIMAL

All parts of the insect are eaten and are equally nutritious.

WAYS OF PRESERVING

Drying and salting

WAYS OF COOKING

Frying and boiling in salty water

The black ant (*Carebara vidua*) is a popular source of protein among the Luo people living around the Lake Victoria basin. Known as *onyoso* in the Luo language, these ants live in large subterranean colonies where they store food and reproduce. Each colony consists of winged adult males and females and non-reproductive wingless workers, which are smaller in size. Workers construct the nest by excavating subterra-

nean chambers and galleries, and forage for food for the colony. They are omnivores, feeding on living and dead animals including small insects (e.g., lepidopteran larvae and worms); vegetable matter; sweet sugary exudates, nectar, and glandular products from plants and flowers; and honeydew from aphids.

CULINARY USES

After being collected, the ants are de-winged, washed, and sun-dried. They are prepared by boiling in salty water or frying. In some cases, the ants are eaten raw. Onyoso are usually served with brown *ugali* (a stiff millet porridge), which is typically only prepared by married women. These days, due to a reduction in their numbers, the ants are eaten as a snack more often than as part of a full meal. Some people remove the head before eating, while others eat the ants whole.

PRODUCT HISTORY

For Luo communities living in rural areas, onyoso has traditionally been the most sought-after edible insect, considered superior to other insects in terms of both nutritional and medicinal value. These ants contain a lot of protein and their oily abdomens give them a unique, rich flavor. They are a treasured delicacy and are eaten by elders during important occasions such as dowry negotiations and disciplinary cases. Elderly Luos would also regularly consume onyoso as a remedy for various ailments. Onyoso are rare relative to the other edible insects found in the area, like lake flies, termites, and grasshoppers. Because collecting them is quite labor intensive and the total catch is usually small, onyoso are not commonly sold, but kept for personal and family consumption.

CURRENT STATUS

Onyoso is one of several nutritious edible insects that has become endangered in Kenya due to overconsumption and habitat destruction. The growing human population has led to increased demand for land for settlement, infrastructure projects, and agriculture. Climate change is also having an effect: Due to increasing temperatures and shifting rain patterns, black ants don't emerge from underground when they should. Furthermore, there is a lack of intergenerational transfer of knowledge in the Luo community about onyoso, its behaviors, and culinary uses. The cultural value of onyoso among the Luo and other tribes once contributed to its conservation, but now this highly appreciated food might not be available to the next generation.

N. 58 PUNG'UNG'WET
(KENYAN MOLE-RAT)

Tachyoryctes ibeanus Thomas, 1900

CATEGORY

BREEDS AND ANIMAL HUSBANDRY

PRODUCTION AREA

KERICHO COUNTY (RIFT VALLEY)

INDIGENOUS COMMUNITY

KIPSIGIS (KALENJIN)

HUNTING SEASONALITY

MOLE-RATS ARE TRAPPED MOSTLY DURING THE RAINY SEASONS. ELDERS IN THE COMMUNITY DETERMINE THE TIMES FOR TRAPPING, WHICH ARE NORMALLY IN THE LATE MORNING.

WAYS OF HUSBANDRY

MOLE-RATS ARE CAUGHT USING TRAPS. HUNTERS DETERMINE IF A MOLE-RAT HOLE IS OCCUPIED BY LOOKING FOR A HEAP OF FRESH SOIL BY THE ENTRANCE. A SIMPLE TRAP MADE FROM A STICK AND SOME STRING IS SET NEAR THE HOLE AND THEN CHECKED PERIODICALLY.

PARTS USED AND PROCESSING

PRODUCTS DERIVED FROM THE ANIMAL

MEAT AND SKIN

WAYS OF COOKING

THE MEAT IS ROASTED AND THE SKIN IS BURNT TO A FINE POWDER AND USED AS MEDICINE.

The mole-rat, which the Kipsigis people refer to as *pung'ung'wet*, is a medium-sized rodent that lives in dry and moist savannas, farmland, pastures, rural gardens, degraded former forests, and even urban areas. It has soft gray-brown fur, a broad head with powerful jaws, and large incisors.

CULINARY USES

Pung'ung'wet was traditionally an important source of protein among the Kipsigis. Once caught, the mole-rat was skinned, the guts were removed, and then it was roasted whole. The meat was shared equally among everyone present. The skin was burnt to a fine powder to make medicine used to treat whooping cough in children and breast wound infections in women.

PRODUCT HISTORY

Hunters used to sell pung'ung'wet or exchange them for other food products. Sharing the meat brought the community together and fostered a sense of unity. Today, pung'ung'wet are no longer sold in the market.

CURRENT STATUS

Pung'ung'wet was once an important medicine and source of protein, but with the introduction of Western medicine and the ready availability of meat, it is no longer widely consumed in the Kipsigis community.

NOMINATOR: DAVID MWENDWA WAMBUA

N. 59 RED MAASAI SHEEP
(TANGANYIKA SHEEP)

Ovis aries Linnaeus, 1758

Slow Food Presidium®

CATEGORY

BREEDS AND ANIMAL HUSBANDRY

PRODUCTION AREA

KAJIADO DISTRICT, KAJIADO COUNTY (RIFT VALLEY)

INDIGENOUS COMMUNITY

MAASAI

BREEDING METHODS

THE HOUSING STRUCTURE FOR SHEEP IS FENCED WITH WOOD AND CHAINS TO DETER PREDATORS. BOTH CONTROLLED AND UNCONTROLLED BREEDING ARE PRACTICED. CONTROLLED BREEDING AVOIDS LAMBING DURING DRY SEASONS AND MATING TAKES PLACE IN JUNE AND JULY. THE MAASAI PEOPLE AIM TO MINIMIZE THE DISTANCE BETWEEN THE *BOMA* (WATER POINT) AND GRAZING LOCATIONS FOR THE SAKE OF BOTH ANIMALS AND HERDERS. SHEEP SLAUGHTERING WAS TRADITIONALLY COMMON MAINLY DURING WEDDING AND INITIATION CEREMONIES.

PARTS USED AND PROCESSING

PRODUCTS DERIVED FROM THE ANIMAL

MEAT

WAYS OF COOKING

BOILED, FRIED, ROASTED

Also known as Tanganyika sheep, Red Maasai Sheep are so called because the Maasai people of East Africa traditionally raised them. They are found in arid and semi-arid regions of the Great Rift Valley in southern Kenya, northern Tanzania, and parts of Uganda. This breed, which is distinct for having hair instead of wool, is used primarily for meat. The most preferred (and therefore most common) color is red, but sheep are also seen with brown and occasionally pied coats. They have a relatively heavy body, are short (73 centimeters tall at the withers for males, 62 cm for females), fat tailed, and slightly fat rumped. Males weigh 45 kilograms on average while

females weight 35 kg at maturity. Notably, they are also resistant to the *Haemonchus contortus* parasite and other local diseases, which makes them an excellent pastoral breed.

CULINARY USES

The Maasai eat mature sheep of 12 months old or older. The sheep are used both for meat and lard. The meat is either roasted or boiled and eaten throughout the year, especially during ceremonies like marriages and initiations. Meals prepared at the homestead are organized by women and can include various types of stews and other dishes made with sheep meat. Traditionally, meat was either roasted or fried and then mixed with blood. It is served with *monono* or *ugali* made from maize meal.

PRODUCT HISTORY

Red Maasai Sheep are found especially in Kajiado District and the surrounding area. According to legend, the Red Maasai Sheep was the first animal kept by the Maasai. They were involved in the beginning of Maasai life and animal husbandry.

Red Maasai Sheep are still significant to the Maasai community especially during ceremonies and bridewealth payments: The bridegroom brings five sheep to the bride's parents to be allowed to continue with the marriage arrangements. It was the most preferred animal to be given to individuals as a gift. Red Maasai sheep are valued for their uniform red color (the most important color for the Maasai), which matches traditional Maasai clothing as well as the red sand that characterizes the local landscape.

When a ceremony is being held, a Red Maasai Sheep is slaughtered. During drought seasons, the Maasai usually sacrifice a sheep to make the rain come. The sheep to be sacrificed should be of solid color, without any spots. Sheep used to be kept for home consumption but farmers started to run businesses with butcheries and market the meat.

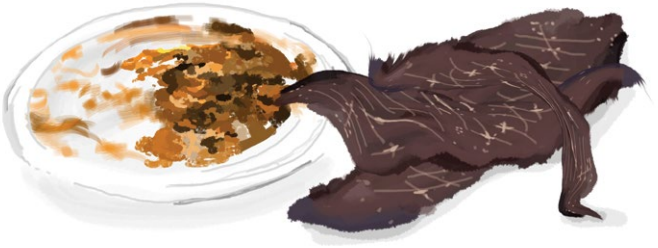
CURRENT STATUS

Red Maasai Sheep husbandry has declined due to the breed's small stature, the fact that it grows hair rather than wool, and crossbreeding with Dorper sheep. Today, pure Red Maasai sheep are rare, making the future of the breed uncertain. The unpredictable seasonal changes and recurrent droughts may, however, lead to greater demand for well-adapted and sustainable sheep such as the Red Maasai.

More information about the presidium on page 282

nominator: Margaret Tunda Lepore, John Kariuki Mwangi

N. 60 RUKURI
(MEAT PRESERVED IN HONEY)



CATEGORY

CURED MEAT AND MEAT PRODUCTS

PRODUCTION AREA

GITHUNGURI, KIAMBU COUNTY (CENTRAL)

INDIGENOUS COMMUNITY

GIKUYU / KIKUYU

INGREDIENTS

HONEY

SHEEP, GOAT, OR CATTLE MEAT

PREPARATION METHOD

TO MAKE *RUKURI*, HONEY IS HARVESTED AND STORED IN WOODEN CONTAINERS. WHEN ANIMALS ARE SLAUGHTERED (USUALLY TWO AT A TIME, ONE FOR THE FAMILY TO EAT FRESH AND ONE WITH WHICH TO MAKE RUKURI), THE RIBS ARE REMOVED AND THE MEAT IS CUT INTO STRIPS AND PUT OVER THE FIRE TO IMPROVE ITS AROMA AND FLAVOR. THE MEAT IS THEN PUT INTO A CONTAINER, CALLED *IKUMBI*, WITH HONEY FOR A MINIMUM OF 80 DAYS BEFORE IT IS READY TO BE CONSUMED. IN THIS WAY, IT CAN BE PRESERVED FOR A VERY LONG TIME.

Rukuri is a traditional Gikuyu cured meat made from roasted sheep, goat, or beef that is preserved with honey. Rukuri made with sheep and goat used to be more common than that made with beef. Meat might be dipped in honey and eaten right away, without time in storage. However, rukuri that has been aged for a long time is considered to have a better flavor. Traditionally, Gikuyu men kept beehives in their gardens to harvest the honey to use as a sweetener, as a medicine, to make traditional beer (called *muratina*), and as a food preservative to make products like rukuri. The honey allows meat to be preserved without refrigeration. It also improves the flavor of the meat.

PRODUCT HISTORY

Traditionally, rukuri played an important role in family decision making: Conversations between husband and wife would begin after he presented her with a piece of rukuri. This token showed a man's love and respect for his wife, and helped to keep marital harmony.

As a preserved product, rukuri could be eaten on a daily basis. However, during special occasions, such as the celebration of bridewealth payments or other rites of passage, special pieces of meat would be dipped into freshly harvested honey to prepare for guests.

Rukuri used to be considered food for the rich because both animals and beehives require important investments. Also, a family had to have enough animals to be able to slaughter them for making rukuri. Animals were precious for the family because they provided meat and rukuri was used as bridewealth (men gave rukuri to the intended wife's family).

Rukuri is traditionally consumed with a special tool called *jife* (a sort of hook) that allows one to take the meat without touching the honey. It used to be eaten alone on a calabash plate. It was offered only to the most respected guests, usually (but not exclusively) men. Rukuri is referred to as "food for the future" because it can be preserved for up to 50 years.

Rukuri appears in traditional Gikuyu sayings. One saying associated with rukuri asks, *ni nyama ĸana ni rukuri?* which means, "is it just meat, or is it rukuri?" Another saying is used when someone tries to hide something from another person, prompting them to ask, *ĸari rukuri?* meaning, "is it rukuri?" to imply that whatever is being hidden must be of great value. *Cama ta rukuri* is another saying, meaning "as sweet as rukuri." This collection of sayings shows the importance of this product in the Gikuyu community, and the fact that it cannot be substituted with other products.

CURRENT STATUS

Rukuri is made in the home for personal and family consumption and is not found for sale. While rukuri is considered a special treat, fewer and fewer individuals still make it today. Many have adopted other methods of preservation, such as refrigeration. In addition, the cost of procuring beehives and beekeeping materials is high, so fewer people keep their own bees. Limited knowledge about this traditional food preservation method among younger generations means that this typical Kenyan food may soon be lost.

N. 61 SIRIGONIOT

CATEGORY

CURED MEAT AND MEAT PRODUCTS

PRODUCTION AREA

MARIASHONI, NAKURU COUNTY (RIFT VALLEY)

INDIGENOUS COMMUNITY

OGIEK / OKIEK

INGREDIENTS

GAME MEAT OR BEEF
HONEY
SALT

PREPARATION METHOD

ONCE CAPTURED, THE ANIMAL IS SLAUGHTERED IMMEDIATELY AND ITS MEAT DIVIDED INTO SMALLER CUTS, WHICH ARE WRAPPED IN LEAVES AND THEN TIED WITH VEGETABLE FIBERS. THE CHUNKS ARE THEN TRANSPORTED TO THE VILLAGE WHERE WOMEN TAKE CARE OF THEIR PREPARATION. THE MEAT IS CUT INTO THINNER SLICES, SPRINKLED WITH SALT AND HONEY, SKEWERED ON 1-METRE STICKS POSITIONED AROUND THE BONFIRE, AND SMOKED. DURING THE SMOKING PROCESS, THE MEAT IS TURNED OVER SEVERAL TIMES TO ENSURE UNIFORM COOKING. ONCE READY, IT IS PLACED IN A *LELKWELEET*, A CONTAINER MADE FROM BAMBOO FIBERS GATHERED IN THE FOREST AND SUBSEQUENTLY INTERTWINED.

Sirigoniot is a salted, dried, and smoked meat traditionally prepared in the Ogiek hunter-gatherer communities of Mariashoni, a village in the north-central area of the Mau Forest in Nakuru County.

This product consists of thin slices of meat sprinkled with salt and honey, dried in the open air, and finally smoked next to an open fire. The meat is skewered on a 1-meter wooden spit called *saartit* in the local language.

In the past, this technique was used to preserve the game hunted in the forest. The same method was used to preserve beef, which the Ogiek obtained from the neighboring Maasai communities in exchange for honey or other forest products. Today, Ogiek from Mariashoni prepare sirigoniot using mainly beef. The dried meat can be cooked directly on the flame or roasted in the ashes. In the latter case, the outer skin is removed and then the meat is minced and served with *ugali*.

PRODUCT HISTORY

Until the second half of the 20th century, the Ogiek practiced a semi-nomadic lifestyle based on honey harvesting and hunting. Over the course of the year, communities living in Mau Forest moved from the highlands to the plains in the eastern part of the forest, following seasonal migrations of bees and wild animals. Hunting was carried out in groups and meat (especially of large animals) was distributed to each community member. Game hunting involved the use of dogs, bows and arrows, spears, sticks, and traps. The most valued animals were antelope, wild pigs, buffaloes, and elephants. Hunting, as well as other activities carried out in Mau Forest, was regulated by various tenets and customs intended to conserve the ecosystem's resources and use them in a sustainable way. Drying and smoking wild game allowed the Ogiek to preserve the meat for several months, thus avoiding waste and guaranteeing an important protein source during seasonal migrations and famine periods.

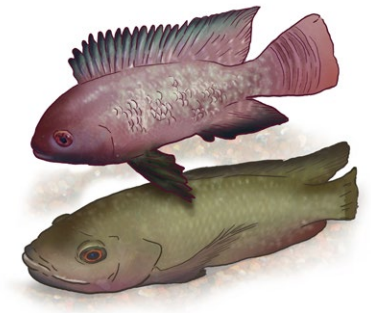
CURRENT STATUS

The Ogiek living in Mariashoni continue to hunt, albeit less frequently than in the past. Communities here have had to cope with drastic declines in the local habitat and wildlife, mainly due to deforestation, climate change, and land conversion for agriculture. Due to these changes, the Ogiek have had to adapt their lifestyle, increasingly basing their livelihood on agriculture, cattle, and sheep herding rather than hunting.

These ongoing dynamics are leading to the erosion of traditional practices and knowledge, including techniques for preserving meat. Today very few people continue to produce sirigoniot, and those that do tend to use beef, not wild game.

N. 62 SUPOREI (BARINGO TILAPA)

Oreochromis niloticus baringoensis Trewavas, 1983



CATEGORY

FISH AND SEAFOOD

PRODUCTION AREA

LAKE BARINGO, BARINGO COUNTY (RIFT VALLEY)

INDIGENOUS COMMUNITY

ILCHAMUS

FISHING METHODS

ILCHAMUS PEOPLE LIVING NEAR LAKE BARINGO CONTINUE TO FISH LIKE THEIR ANCESTORS DID IN HAND-CRAFTED RAFTS (CALLED *ILKADICH*) MADE FROM THE LIGHT WOOD OF THE AMBATCH TREE (*AESCHYNOMENA ELAPHROXYLON*). UNTIL THE SECOND HALF OF THE 20TH CENTURY, FISHING WAS CONDUCTED (TO MEET DOMESTIC NEEDS) WITH A ROD AND LINE ONLY. NOWADAYS LOCAL PEOPLE FISH (ALSO FOR COMMERCIAL PURPOSES) USING GILLNETS.

PARTS USED AND PROCESSING

WHOLE FISH

BOILED, STEWED, FRIED

Suporei, or Baringo tilapia, is a perch-like fish endemic to Lake Baringo in Kenya's Great Rift Valley. It is a sub-species of the Nile tilapia and is easy to breed. Male and female adult fish reach an average length of 30 centimeters and 20 cm, respectively. Males are golden, while females are reddish-brown. This species is the fastest growing of the tilapias, taking only 4 months to reach a harvestable size.

Lake Baringo is one of the important freshwater lakes in the Kenyan Rift Valley. It is a world Ramsar Site (belonging to a list of wetlands of international impor-

tance) with high biodiversity and socioeconomic value. Despite this, the lake is threatened by siltation resulting from human activities in its catchment.

CULINARY USES

Among the Ilchamus, fish is prepared and served with millet or maize meal. It can also be served alone without any accompaniments. Due to its rich protein content, a fish soup is given to infants suffering from kwashiorkor (severe protein malnutrition). Traditionally, fish soups are mixed with various herbal medicines, allowing the soup to act as a carrier material for the medicine. The flavor of suporei meat is mildly sweet and milky. The fish is of high nutritional quality, making it the most popular fish in the region.

PRODUCT HISTORY

For generations, fishing has played an important role to the social and economic life of the Ilchamus people, a Maa-speaking community living to the south and southeast of Lake Baringo. They number about 35,000 and are closely related to the Samburu who live to the northeast. Fish is so valuable to the community that one of the major town centers in the area was given the name *Kampi ya Samaki*, meaning "the fish town." Historically, fish were used to pay bridewealth, with one big, fat fish being enough to earn a man a bride. The Ilchamus also practice pastoralism and are one of the only groups to engage in both cattle rearing and fishing. Most other pastoral communities in the area have traditionally regarded the consumption of fish as taboo.

The large number of suporei once formed a vibrant fishery that supported a fish processing factory and a well-known fish market. However, between the 1960s and 1980s, fish production dropped from between 500 and 600 tonnes to less than 200 tonnes per year. Today, the fishing industry is characterized by fluctuations that have even led to closure of the fishery during the dry season.

CURRENT STATUS

Although Lake Baringo is an important economic lifeline for the communities in the basin (during prolonged droughts, the fishery is the only source of income), the Baringo tilapia is used on a very limited scale for food. Overfishing, environmental concerns (such as nearby businesses emitting sewage into the lake), and pollution from soil erosion have compromised the suporei population. Indiscriminate fishing in shallow waters with nets that do not meet fishing standards results in immature fish being caught, and other fish species introduced to the lake have negatively influenced the suporei's ability to survive.

N. 63 TELIAT

CATEGORY

CURED MEAT AND MEAT PRODUCTS

PRODUCTION AREA

UASIN GISHU AND ELGEYO MARAKWET COUNTIES (RIFT VALLEY)

INDIGENOUS COMMUNITY

KEIYO (KALENJIN)

INGREDIENTS

CATTLE, GOAT, OR SHEEP MEAT
SALT

PREPARATION METHOD

AFTER SLAUGHTERING AN ANIMAL, THE MEAT IS CUT INTO THIN STRIPS, SALTED, AND ROLLED ON STICKS OR SISAL STRINGS. THESE ARE HUNG TO DRY FOR ABOUT 7 DAYS NEAR A FIREPLACE SO THAT THE MEAT CAN TAKE ON A SMOKY AROMA. ONCE DRIED, THE MEAT IS STORED IN A TRADITIONAL CONTAINER CALLED A *KEREBET*, WHICH IS HUNG IN A GRANARY. THE MEAT CAN BE PRESERVED LIKE THIS FOR UP TO 8 MONTHS AND IS TYPICALLY CONSUMED DURING THE DRY SEASON WHEN VEGETABLES ARE SCARCE. IT CAN BE ROASTED, FRIED, OR BOILED, AND IS OFTEN SERVED WITH *UGALI*.

Teliat is a traditional preserved meat prepared by the Keiyo people. It is made by salting and drying beef, mutton, or goat meat and storing it in a container called a *kerebet*, where it will keep for up to 8 months. Teliat has a soft consistency, dark brown color, and sweet, salty taste.

PRODUCT HISTORY

They Keiyo (or Elgeyo) are a sub-tribe of the Kalenjin peoples. Historically, the Keiyo were semi-nomadic pastoralists who raised cattle, sheep, and goats, and cultivated sorghum and millet. Today, they continue to raise livestock and cultivate grains, including maize, which was introduced in the 20th century. Their staple foods are *ugali* (a stiff porridge typically made from maize or sorghum) and *mursik* (fermented milk mixed with ash), which are supplemented with meat. Teliat is made primarily for household consumption rather than the market, and is traditionally prepared by young men and women after an animal is slaughtered.

CURRENT STATUS

Due to population growth, the subdivision of land, lifestyle changes, and migration to urban areas, Keiyo families no longer keep as many animals as they once did. As a result, the practice of preserving meat at home is in decline and teliat is at risk of disappearing.

CHAPTER 4

PROCESSED PRODUCTS

N. 64 BUSAA

CATEGORY

DISTILLED AND FERMENTED BEVERAGES

PRODUCTION AREA

KERICHO COUNTY (RIFT VALLEY)

INDIGENOUS COMMUNITY

LUHYA (ESPECIALLY THE TIRIKI CLAN)

INGREDIENTS

WATER

MAIZE MEAL

GROUND MALTED FINGER MILLET

PREPARATION METHOD

DRIED MAIZE OF THE LOCAL *KATUMANI* VARIETY IS MILLED TO MAKE A COARSE FLOUR, WHICH IS THEN MIXED WITH WATER AND KNEADED INTO A PASTE. THE PASTE IS LEFT TO FERMENT FOR 2–3 DAYS AT ROOM TEMPERATURE AND THEN THE FERMENTED MIXTURE IS ROASTED OVER THE FIRE IN A LARGE PAN (*MUSUPALI*) FOR ABOUT 30 MINUTES UNTIL IT TURNS GOLDEN BROWN. ROASTING PRODUCES THE DESIRED FLAVOR AND COLOR. THE ROASTED FERMENTED MAIZE MEAL IS REFERRED TO AS *TSIMBALE*.

MEANWHILE, FINGER MILLET GRAINS ARE SOAKED IN WATER AND ALLOWED TO GERMINATE. ONCE THEY HAVE GERMINATED, THE GRAINS ARE SUN DRIED UNTIL COMPLETELY DRY. THE RESULTING MALT IS GROUND INTO A COARSE FLOUR USING A SMALL GRINDING STONE CALLED *ISIO*, WHICH IS RUBBED AGAINST A BIGGER STONE CALLED *LUCHINA*. THE FLOUR OBTAINED IS CALLED *KIMERA*, AND IS USED TO BOOST FERMENTATION.

THE TSIMBALE IS MIXED WITH WATER IN A LARGE VESSEL AND THEN THE KIMERA IS ADDED. THE RATIO OF TSIMBALE TO KIMERA IS 10:1. THE MIXTURE IS LEFT IN THE VESSEL FOR 2 DAYS TO FERMENT INTO A MILDLY ALCOHOLIC PORRIDGE-LIKE BREW. THIS IS THEN SIEVED USING A CLEAN CLOTH, AND THE RESULTING *BUSAA* IS READY FOR CONSUMPTION.

Busaa, commonly known as "porridge for elders," is a traditional grain-based brew made in rural areas in the western part of Kenya. This ceremonial beverage is associated with the Luhya people and is also known as "Luhya traditional drink." Busaa is made from ground maize, to which a small quantity of ground malted finger millet is added as a fermen-

tation agent. The drink is thick with a sour, alcoholic taste, and is traditionally drunk through long straws called *oluchese*. Older men belonging to an age set (a group of individuals who were circumcised together) typically sit around a pot of busaa, each drinking from his own straw. Older women also consume busaa.

PRODUCT HISTORY

Busaa has played an important role in the social and cultural traditions of the Luhya community of western Kenya. Traditionally, it was always present during important occasions and ceremonies such as births, weddings, initiations, funerals, and harvest celebrations, and was mostly served to the elders as a sign of respect.

During ceremonies, the elders would drink busaa from a big pot (*isiongo*) using their oluchese. Each man or woman brought his or her own straw and would extend it into the shared pot. The sitting distance from the pot was determined by the length of the straw. The men sat on three-legged stools and the women sat between the men's legs.

Busaa was believed to boost libido in men and was poured on the ground to invoke blessings from the ancestors during good and bad times alike.

CURRENT STATUS

The tradition of preparing and consuming busaa has been passed down from generation to generation since time immemorial, and it once occupied a central place in Luhya social and cultural life. Today, however, many Luhyas—especially members of the younger generations—prefer the standardized modern beverages that have become widely available. The introduction of Christianity is also partly responsible for the decline of traditional brews like busaa, since missionaries discourage the consumption of alcohol. Additional reasons for the gradual disappearance of busaa include the increasing frequency of intermarriage between Luhyas and members of other ethnic groups with different food and cultural practices, and the fact that busaa has come to be viewed as a low-status drink for poor people because it costs less than commercial drinks.

N. 65 BUSIA DRIED CASSAVA

CATEGORY

VEGETABLE PRESERVES

PRODUCTION AREA

BUSIA COUNTY (WESTERN)

INDIGENOUS COMMUNITY

LUHYA

INGREDIENTS

CASSAVA TUBERS

PREPARATION METHOD

CASSAVA TUBERS ARE PEELED, WASHED, AND SUN DRIED FOR ABOUT 6 HOURS TO GET RID OF EXCESS MOISTURE. THE SEMI-DRIED ROOTS ARE THEN PILED IN A CORNER OF THE KITCHEN AND COVERED WITH A SACK FOR A PERIOD OF 3-5 DAYS. ANY MOLD THAT FORMS DURING THIS PERIOD IS SCRAPED OFF WITH A BLUNT KNIFE. NEXT, THE TUBERS ARE PUT ON A CLEAN FLOOR AND CRUSHED WITH A STONE INTO BIG, SOFT PIECES. THE PIECES ARE SUN DRIED FOR A PERIOD OF 12-14 HOURS.

This product is made by drying cassava (*Manihot esculenta*). It is a traditional processed food of the Luhya people living in Western Kenya, particularly in Busia County. It is produced using locally grown cassava, especially the bitter varieties. This crop is drought resistant and well adapted to the climate conditions of the area. The bulk of cassava produced in the region is for human consumption and surpluses are processed into starch or used for animal feed.

Through dehydration, local farmers can preserve the cassava tubers and at the same time detoxify them (bitter cassava contains cyanogenic compounds) and improve their otherwise bitter taste. Dried cassava can be kept for several years.

This product has an irregular shape and a smooth consistency, with the texture of the surface resembling plaster.

PRODUCT HISTORY

Cassava is an important staple food in Busia County and the dried tubers have always been an important resource during famine periods. Cassava production involves both men and women in the local communities: Men take care of the cultivation while women have the duty to peel, cut, and dry the tubers.

Dried cassava is a primary ingredient in different local recipes: It is mixed with sorghum, finger millet, or maize and milled into flour. It can also be milled into flour without any cereal. The flour is added to boiling water and stirred until it cooks into either *ugali* (thick porridge) or *uji* (light porridge). Uji is a beverage while ugali is served with fish, meat, or any green leafy vegetable.

Dried cassava is prepared both for home consumption and to sell. Women sell it directly in the local markets and traders sell it across Kenya, especially in the northern and western parts of the country. This product represents an important economic resource for the rural families of Busia County.

CURRENT STATUS

The method used in Busia for drying/detoxifying cassava is more labor intensive that many other traditional processing techniques, such as simply boiling cassava (which is less effective as a detoxification method) or cutting the tubers into chips for drying and milling. The future of this traditional product is at risk for several reasons. On the one hand, changing eating habits have caused people to turn away from dried cassava in favor of foods that are deemed healthier. On the other hand, the presence of industrial flours on the market (often cheaper than the traditional ones) makes the commercialization of this product difficult.

N. 66 BUTUTIA

CATEGORY

DISTILLED AND FERMENTED BEVERAGES

PRODUCTION AREA

KIRINYAGA COUNTY (CENTRAL)

INDIGENOUS COMMUNITY

GIKUYU / KIKUYU

INGREDIENTS

FINGER MILLET
WATER

PREPARATION METHOD

THE PROCESS OF PREPARING *BUTUTIA* STARTS WITH THE WINNOWING OF THE MILLET TO REMOVE DIRT AND ANY FOREIGN MATERIAL. THE MILLET GRAINS ARE SOAKED IN WATER AND THEN PLACED IN WELL-VENTILATED OPEN PANS AND ALLOWED TO GERMINATE. THE GERMINATED MILLET GRAINS ARE THEN SUN-DRIED. THE MILLET IS GROUND USING GRINDING STONES, AFTER WHICH THE FLOUR IS MIXED WITH WATER. THE MIXTURE IS THEN LEFT TO FERMENT FOR 3 DAYS, AND THE RESULT OF THIS PROCESS IS LOCALLY CALLED *KIMERA*. KIMERA IS THEN DILUTED IN WARM WATER AND FILTERED TO HAVE A HOMOGENOUS FINAL PRODUCT. THE RESULTING FILTRATE IS BUTUTIA, WHICH IS KEPT IN A COOL, DRY PLACE TO MAINTAIN ITS FRESHNESS.

Bututia is a fermented drink made from finger millet that used to be prepared by the Akirinyaga community (Gikuyu) in Central Kenya. Finger millet is an annual plant widely grown as a cereal in different areas of Kenya. Its other names include *wimbi* and African millet. Bututia is prepared using finger millet grains that are first germinated and sun dried.

Women prepare bututia, put it in gourds, and take it to the men working in the fields. After fermentation, the brew has a thick consistency due to the presence of residual grains. Traditionally, these are removed using filters that have been attached to wooden straws through which the beer is drunk from a pot. Usually the drinking pot is shared by a large group of people. Bututia has an acidic taste, a porridge-like consistency, and a light brown color.

PRODUCT HISTORY

This brew was very popular and was consumed during special occasions like harvesting and during land preparation when the rains were believed to be near.

Among the Akirinyaga community, bututia was used as a measure of the amount of land that had to be prepared: A gourd full of bututia would be halfway buried a few meters in front of the starting point to keep it cold. Bututia was then drunk using funnels made from banana leaves (locally known as *mbari*) and the process was repeated by burying another gourd. This served as a motivator for people to continue working and maximize the time they had at their disposal. Land preparation was thus a communal affair in which men moved from one homestead to another.

Bututia is produced both for home consumption and for sale. This brew has been maintained during over a hundred years of Christianization and modernization. Many Akirinyaga people still prefer bututia despite the spread of commercial beers and beverage brands.

CURRENT STATUS

This product is at risk of disappearing due to increasing preference for standardized products. In recent years, commercial flours made from maize and other cereals have replaced the homemade flour made from finger millet. The change in social values to promote individualism has also affected the product negatively.

N. 67 CASSAVA KONG'O

CATEGORY

DISTILLED AND FERMENTED BEVERAGES

PRODUCTION AREA

NYANZA

INDIGENOUS COMMUNITY

LUO

INGREDIENTS

FINGER MILLET
CASSAVA FLOUR
WATER

PREPARATION METHOD

CASSAVA *KONG'O* IS MADE FROM A MIXTURE OF MALTED FINGER MILLET AND CASSAVA FLOUR. THE ENZYMES IN THE MALT CONVERT THE STARCH FROM THE CASSAVA FLOUR TO SUGAR, WHICH CAN THEN BE FERMENTED INTO ALCOHOL. TO MAKE THE MALT (CALLED *THOWI*), FINGER MILLET IS SOAKED IN WATER UNTIL IT STARTS TO GERMINATE AND IS THEN SUN DRIED. ONCE DRIED, IT IS GROUND USING A GRINDING STONE CALLED A *PONG'*. MEANWHILE, CASSAVA FLOUR IS MIXED WITH WATER IN A POT, LEFT FOR 2-3 DAYS TO SOUR, THEN DRIED, AND FINALLY COOKED TO MAKE A STIFF PORRIDGE KNOWN AS *KUON*. THIS SOUR PORRIDGE IS THEN DRIED, CRUSHED, AND MIXED WITH THE GROUND THOWI AND SOME WATER IN A BIG POT (*DAK*). THE MIXTURE IS LEFT FOR 2-3 DAYS TO FERMENT NATURALLY WITH RESIDUAL YEASTS. THE RESULTING BREW IS THEN STRAINED THROUGH A SIEVE CALLED A *DHING* TO SEPARATE THE LIQUID (KONG'O) FROM THE DREGS.

Kong'o is the traditional beer of the Luo, a Nilotic-speaking people from Kenya's former Nyanza Province on the eastern shores of Lake Victoria. Kong'o is usually prepared from grains (millet, sorghum, and/or maize), but can also be made from cassava flour. These staple crops are most often prepared as a stiff porridge called *kuon* (the Luo equivalent of *ugali*), which is the quintessential Luo food. Kong'o is basically a liquid form of

kuon. It is typically consumed by adults (about 45 years or older) during celebrations, rituals, and when deliberating on issues of great concern and interest to the community. Traditionally, kong'o was served in a large communal pot (*thago*) and drunk using long bamboo straws called *oseke*.

PRODUCT HISTORY

Kong'o is an important part of the Luo diet and is considered good for digestion. It is also central to social and cultural life, being consumed during important occasions and celebrations such as marriages, initiations, funeral gatherings, and harvest ceremonies, as well as at informal social gatherings. Even though women are the ones who grow crops and brew beer, the ritual consumption of kong'o is primarily a male activity. When elderly men gather to drink kong'o, each brings his own oseke. Having a drinking straw is the exclusive right of senior men. They sit in a circle around a communal pot (*thago*) of kong'o and reach it with their oseke, which can be up to 2 meters long. Women and young men drink kong'o from cups and are not allowed to join elderly men in drinking from a thago. Kong'o is poured on the ground to invoke blessings from the ancestors.

CURRENT STATUS

Cassava kong'o is less well known than the versions made from millet, sorghum, and maize, and the production and consumption of all types of traditional kong'o have been declining with the influx of industrially produced beers and other commercial beverages, which younger Luo people in particular tend to prefer. Additionally, Christian missionaries have long discouraged the consumption of alcohol. These factors are compounded by the limited intergenerational transfer of traditional knowledge and food-related practices from elders to youth in the Luo community, and the growing tendency for people to move to cities and look for jobs outside of agriculture.

N. 68 EBITATA BREAD

CATEGORY

BREAD AND BAKED GOODS

PRODUCTION AREA

VIHIGA COUNTY (WESTERN)

INDIGENOUS COMMUNITY

ABANYOLE (LUHYA)

INGREDIENTS

LISOTSI BANANA
MAIZE/MILLET/ SORGHUM FLOUR
WATER

PREPARATION METHOD

TO PREPARE THIS BREAD, BANANAS ARE PEELED, CUT INTO PIECES, AND MIXED WITH SORGHUM OR MAIZE FLOUR AT A RATIO OF 1:1. THE INGREDIENTS ARE KNEADED TOGETHER UNTIL THEY FORM A DOUGH. THE MIXTURE IS THEN MADE INTO SMALL LOAVES BY HAND AND WRAPPED IN FRESH BANANA LEAVES. THESE ARE STEAMED OVER A POT OF BOILING WATER FOR ABOUT 20 MINUTES.

Ebitata is traditional bread made from ripe bananas mixed with maize, millet, or sorghum flour. The main ingredient of ebitata bread is the *lisotsi* banana, a variety that the Abanyole people cultivate in Vihiga County, Western Kenya. The fruit has a sticky texture and contains a lot of starch, making it suitable for the preparation of breads and sweets.

In addition, the ripe bananas are thought to prevent stomach aches. Dishes prepared with this variety of banana are considered particularly delicious, nutritious, and healthy.

Ebitata bread is very sweet even though the recipe does not include any added sugar. The crust on the outside is hard but the inner part is very soft.

PRODUCT HISTORY

Ebitata or *omukati kwe lisotsi,* as it is also called, is a traditional product of the Abanyole community, one of the 18 sub-tribes of the Luhya tribe of Western Kenya. Traditionally, this sweet bread has played an important role during social events. Women used to prepare it for ceremonies, especially weddings and namings. During these events, it was usually served with tea or porridge. At individual homes, families would prepare this bread during special days such as Easter and Christmas, but recently the preparation and consumption of this product has declined—only a few people still remember the art of making ebitata bread.

CURRENT STATUS

Ebitata bread is no longer as widespread as it once was due to the lack of the main ingredient necessary for its preparation: In Vihiga County, the lisotsi banana variety is not widely grown because many farmers have concentrated on producing the Cavendish variety, which is in high demand and thus generates more income. Commercialization of other varieties has made many farmers forget to conserve the special lisotsi variety and thus tradional ebitata bread is likely to be lost.

N. 69 GOMBA YA MARIGO

CATEGORY

FRUIT PRESERVES

PRODUCTION AREA

CENTRAL

INDIGENOUS COMMUNITY

GIKUYU / KIKUYU

INGREDIENTS

MUTORE BANANA
SHEEP FAT

PREPARATION METHOD

THIS PRODUCT IS ONLY PREPARED USING THE MUTORE VARIETY OF BANANA. THESE ARE PEELED AND ROASTED ON BURNING COALS UNTIL COOKED THROUGH. AFTER ROASTING, THE BANANAS ARE CUT WITH A KNIFE, PLACED ON SHEEPSKIN TO DRY OUT, AND THEN CRUSHED WITH A PESTLE. ONCE THE PASTE IS PERFECTLY UNIFORM, IT IS MIXED WITH LIQUEFIED SHEEP FAT, WHICH ACTS AS A PRESERVATIVE. ONCE THE FAT IS ADDED, THE PRODUCT CAN BE CONSERVED FOR UP TO 3 MONTHS.

Gomba ya marigo is a traditional dish in the Gikuyu community. It is prepared with a special variety of banana known as *mutore* in the Gikuyu language. Cooked bananas are mixed with fat in order to conserve them for a long time. The mutore banana is a traditional

variety that mainly grows in Central Kenya. It has green skin and orange flesh with a high content of carotenoids. This variety of banana is usually harvested for home consumption. The fruits are roasted or baked before they are eaten. The stems and leaves are used to feed livestock.

PRODUCT HISTORY

Bananas were, and still remain to this day, an important source of nourishment for the Gikuyu community. Every family in Central Kenya (the ancestral home of the Gikuyu people) has a couple of banana trees, and some even have whole groves. Different varieties of banana are cultivated and prepared differently depending on their individual characteristics. Some varieties are considered good only when mature, while others are eaten boiled or roasted while they are still unripe or almost ripe.

Among the Gikuyu, unripe mutore bananas were traditionally the first food given to babies. The bananas were roasted or baked in hot ashes and the skin removed. The mothers chewed the flesh and gave it to their children using their finger as a spoon.

Mutore bananas have also played an important role in traditional Gikuyu ceremonies, especially during marriages. Gomba ya marigo and other dishes prepared with this banana were offered to guests. Furthermore, the dry banana fibers (from the bark and shoots) were used to indicate the place where a wedding would take place.

CURRENT STATUS

Gomba ya marigo was extremely popular during long voyages, especially those undertaken in search of fertile land. The increase in population and the subdivision of land reduced these trips and led to the abandonment of this product. Modern technology like refrigeration has led to an increase in standardized products and has made the pride in this traditional product decrease dramatically.

N. 70 GROUNDNUT AND MAIZE MKANGO
(MKANGO WA NJUGU NA MAHINDI)

CATEGORY

BREAD AND BAKED GOODS

PRODUCTION AREA

TAITA-TAVETA COUNTY, COAST

INDIGENOUS COMMUNITY

TAITA

INGREDIENTS

HONEY

ROASTED AND GROUND MAIZE AND GROUNDNUTS

PREPARATION METHOD

MKANGO IS A TRADITIONAL SWEET MADE FROM GROUNDNUTS (AKA PEANUTS, *ARACHIS HYPOGAEA*) AND MAIZE. THESE TWO MAIN INGREDIENTS ARE ROASTED SEPARATELY, COOLED, AND THEN MIXED TOGETHER AND GROUND BY HAND USING A TRADITIONAL *KINU NA MCHI* (MORTAR AND PESTLE) TO OBTAIN A FINE, SMOOTH FLOUR WITH A VELVETY TEXTURE. BOILED HONEY IS STIRRED INTO THE FLOUR TO MAKE A PASTE. AFTER COOLING, THE RESULTING CAKE-LIKE PRODUCT HAS A DARK BROWN COLOR (THE EXACT SHADE DEPENDS ON HOW LONG THE HONEY WAS BOILED). THE ROASTED NUTS AND MAIZE PROVIDE A NUTTY, EARTHY FLAVOR, AND THE HONEY IMPARTS A TOUCH OF SWEETNESS THAT ENHANCES THE SUBTLE SWEETNESS OF THE MAIZE.

Groundnut and maize *mkango* is a traditional delicacy of the Taita community, a Bantu-speaking people from Kenya's former Coast Province. It is made during the harvest season (September-October) when groundnuts and maize are abundant. Usually prepared for weddings, dowry payments, and naming ceremonies, this sweet was typically

enjoyed alongside tea or porridge. Mkango is known for its nutritional value and, due to its soft texture, it is used to relieve constipation. It is often given to elders as a gift.

PRODUCT HISTORY

Mkango holds a prominent position in Taita community gatherings and celebrations, particularly traditional events like weddings, dowry payments, and naming ceremonies. More than a mere food item, it embodies the values and traditions of the Taita people. Preparing and consuming mkango serve as a symbol of unity, fostering a sense of shared identity and cultural heritage, and strengthening social bonds. Women have traditionally been the ones to prepare mkango and pass the recipe down from generation to generation within the family. They play a crucial role in preserving the knowledge and skills required to create this delicacy, ensuring its continuity and cultural significance.

This sweet was traditionally prepared in the household and intended for local consumption rather than commercial distribution.

CURRENT STATUS

Production and consumption of mkango have declined in recent years due to shifting food preferences and loss of traditional knowledge and expertise, especially among the younger generation; limited availability of ingredients such as traditional maize varieties, in part due to unsustainable agricultural practices and the reduction of biodiversity in local agroecosystems; and competition from standardized, oven-baked cakes and breads made with yeast, which are more affordable and convenient than traditional sweets like mkango. Some people even perceive mkango as an outdated and culturally irrelevant food. But there is also growing interest in reviving traditional foods and therefore, hope that mkango may remain an integral part of Taita food culture and identity.

N. 71 KALUVU
(KIMEE)

CATEGORY

DISTILLED AND FERMENTED BEVERAGES

PRODUCTION AREA

KASIKEU, MAKUENI COUNTY (EASTERN)

INDIGENOUS COMMUNITY

AKAMBA / KAMBA

INGREDIENTS

SAUSAGE FRUIT
SUGARCANE OR HONEY

PREPARATION METHOD

TO MAKE *KALUVU*, SUGAR CANE IS CUT INTO PIECES AND CRUSHED IN A MORTAR WITH A WOODEN PESTLE. THE PULP IS MIXED WITH WATER TO DISSOLVE OUT THE JUICE AND IS THEN FILTERED WITH A SIEVE MADE OF BANANA FIBERS. FINALLY, THE LIQUID IS PUT IN A GOURD NEAR A FIRE AND SLICES OF DRIED SAUSAGE TREE FRUIT ARE ADDED TO MAKE THE FERMENTATION START. THE BREW IS READY AFTER 3-5 DAYS.

THE SAME PREPARATION METHOD IS USED FOR KALUVU MADE FROM HONEY, ALTHOUGH THIS DRINK IS NOT SO COMMON AS KALUVU MADE FROM SUGARCANE.

Kaluvu, also called *kimee*, is a fermented brew made in the Kasikeu area of central southern Kenya by the Akamba people. It is made from sugarcane juice or honey mixed with the dried fruits ofthe sausage tree (*Kigelia africana*), which is known in the Kamba language as *muatine* and in Swahili as *mwengea*. The English name for the tree derives from its fruits, which look like large gray-green sausages. They may be up to 60 centimeters long and weigh up to 6 kilograms. In Makueni County the fruits

are harvested from the wild in April and May, and occasionally in December and January.

Before being dried and used as an ingredient for kaluvu, these fruits are boiled for a long time to extract their natural juices, which are not palatable.

Kaluvu can be brewed in a barrel or a calabash (dried gourd). It is usually drunk from a drinking vessel made of half a small calabash.

PRODUCT HISTORY

Traditionally, only men were allowed to drink kaluvu, as it was considered inappropriate for women to drink alcohol. However, many women did the brewing. Older men consumed this drink in particular during wedding ceremonies. Before the arrival of Christianity in the area, kaluvu was an integral part of these ceremonies. It was traditional for the groom to offer a dried gourd filled with this drink, along with a blanket, to the parents of the bride before she was married. When both sets of parents shared this drink, it was considered to indicate a sealing of the marriage accord. Friends would also take this drink together to show an agreement.

Kaluvu was also used in prayers at shrines, especially when asking for rain. The person offering the prayer would pour out a few drops of the drink to share with the ancestors while speaking the words *kundia vau*, which mean "drink from there."

The brew was also given as payment to casual workers or as a token of appreciation for help. For example, when a person died, the young men who helped to dig the grave were rewarded with a jar of kaluvu.

As a homemade product mainly for rituals or special occasions, kaluvu is sold directly by brewers, not in bars.

CURRENT STATUS

In the past, kaluvu was made naturally without any additives. However, administrators have been forced to ban this drink in many villages due to abuse from corrupt brewers who use methanol or other additives to speed up fermentation and create adulterated drinks that are harmful to those who drink them.

The sausage fruits used to create the brew have also become increasingly rare, due to many riverbeds where they grow drying up. As a result, this drink is being forgotten and replaced by other, commercially produced alcoholic drinks.

NOMINATOR: NURIA GOLLO

N. 72 KINOLO BANANA BREAD
(MKATE WA NDIZI)

CATEGORY

BREAD AND BAKED GOODS

PRODUCTION AREA

KILIFI COUNTY (COAST)

INDIGENOUS COMMUNITY

GIRIAMA (MIJIKENDA)

INGREDIENTS

LOCAL BANANA VARIETIES
MAIZE FLOUR

PREPARATION METHOD

TO PREPARE *KINOLO*, RIPE BANANAS ARE PEELED, PLACED IN A *KINU* (MORTAR), MIXED WITH MAIZE FLOUR, AND POUNDED USING A *MCHI* (PESTLE). THE RESULTING PASTE IS ROLLED INTO SHAPE USING BANANA LEAVES AND ARRANGED IN A COOKING POT. HOT WATER IS ADDED TO COVER THE PREPARATION, AND THE COVERED POT IS LEFT TO COOK OVER A MODERATE FIRE.

Kinolo is a bread-like product made from ripe sweet bananas (usually of the *mabuki* variety) and maize flour. The resulting cooked breads may be purple, brown, or pink in color, depending on the maize variety used to obtain the flour. Typical kinolo has a high ratio of ba-

nanas to flour, producing bread with a sweet taste and a fragrant aroma. The bread loses these qualities when made with too much flour.

PRODUCT HISTORY

Due to the high perishability of ripe bananas, it is difficult to store surplus. Sometimes extra bananas are sold at the market, but the preparation of kinolo bread increases their value, as it can be stored for longer than the bananas themselves. Sales of kinolo help community members to supplement their income. The preparation activities are usually carried out by women. Kinolo bread is served with tea at breakfast or for evening tea. Traditionally, the bread was served to important guests. It was also eaten during occasions such as wedding, naming, and burial ceremonies, as well as for bull and cock fighting ceremonies.

CURRENT STATUS

Kinolo is mainly made in coastal regions of Kenya and is sold in at least one local market. Recently, however, the traditional technique for making this bread has changed. In addition, younger generations are now more used to eating white, wheat-based breads, and are less aware of breads like kinolo.

N. 73 KIPKETINIK

CATEGORY

DISTILLED AND FERMENTED BEVERAGES

PRODUCTION AREA

KERICHO COUNTY (RIFT VALLEY)

INDIGENOUS COMMUNITY

TUGEN (KALENJIN)

INGREDIENTS

WATER

FERMENTED HONEY

FLOWERS, STEMS, AND SEEDPODS OF THE *ROTIIK* TREE

PREPARATION METHOD

TO MAKE *KIPKETINIK*, HONEY IS MIXED WITH WATER IN A LARGE CONTAINER (TRADITIONALLY, A CALABASH) AND PUT NEAR THE FIRE FOR A NIGHT TO KEEP IT WARM. STEMS, FLOWERS, AND SEEDPODS FROM LOCAL TREES SUCH AS *ROTIIK* ARE ADDED TO FACILITATE THE FERMENTATION PROCESS AND IMPART MEDICINAL VALUES TO THE DRINK. THE FERMENTATION TAKES 4-5 DAYS DEPENDING ON THE TEMPERATURE.

Kipketinik is a naturally fermented mead (honey wine) consumed among the Kalenjin peoples, especially the Tugen sub-tribe. Honey is mixed with warm water and flavored with flowers from the sausage tree (*Kigelia africana*), locally known as *rotiik*. The addition of rotiik stems and seedpods to the mixture helps boost fermentation, converting much of the sugar in the honey to alcohol. Kipketinik is sweet with a smooth, slightly viscous consistency. This drink plays an important role in the social and cultural traditions of the Tugen community.

PRODUCT HISTORY

According to Tugen tradition, only adults should consume this refreshing drink. Sharing alcoholic beverages provides an opportunity to socialize and reinforce community bonds and is especially important during initiation ceremonies, dances, and hunting expeditions. During these drinking parties, elders would traditionally offer advice to the young—especially the warriors—about how to be responsible members of the community. All kinds of subjects were discussed, particularly those related to social expectations and conduct. In this way, the youth learned how to realize their full physical, intellectual, moral, and spiritual potential in a balanced and integrated way.

Kipketinik was also used to cleanse people who had broken social norms. If somebody trespassed, for example, the community would hold a festival, the climax of which involved sprinkling kipketinik on the transgressor to cleanse them and welcome them back into the community. The offender was expected to cover the cost of the ceremony, where adults from the community would consume kipketinik.

Sometimes, the Tugen would trade kipketinik with neighboring Kalenjin peoples (such as the Nandi and Kipsigis farming and herding communities) in exchange for products like iron knives and axes, pottery, and tobacco.

CURRENT STATUS

It is very hard to find kipketinik in Kalenjin communities today, and this drink is now endangered for a number of reasons: Migration from rural to urban areas has led to the erosion of many traditions, including the preparation and consumption of traditional brews; and Christian missionaries discourage people from drinking alcohol. In addition, there is a growing preference for mass-produced drinks among the younger generation. All these factors put kipketinik at risk of extinction. Ensuring the intergenerational transfer of traditional knowledge and skills can play a crucial role in its revival.

N. 74 KIPUNDE
(KIBUNDE)

CATEGORY

BREAD AND BAKED GOODS

PRODUCTION AREA

TAITA-TAVETA COUNTY (COAST)

INDIGENOUS COMMUNITY

TAITA

INGREDIENTS

PEMBA NGOO (IMMATURE MAIZE)

SALT

PREPARATION METHOD

KIPUNDE IS A TRADITIONAL STEAMED BREAD MADE FROM MAIZE HARVESTED DURING THE MILK STAGE, WHEN THE KERNELS ARE SOFT AND CONTAIN A SWEET, WHITE FLUID. THE STARCHY LIQUID THAT IS RELEASED WHEN THE IMMATURE KERNELS ARE CRUSHED FORMS A DOUGH SUITABLE FOR MAKING BREAD. CONSUMING YOUNG MAIZE IS KNOWN TO ALLEVIATE STOMACH PAINS AND AID DIGESTION.

TO MAKE KIPUNDE, *PEMBA NGOO* (YOUNG MAIZE) IS PULVERIZED USING A *KINU NA MCHI* (LARGE MORTAR AND PESTLE) UNTIL A STICKY PASTE FORMS. SALT MAY OPTIONALLY BE ADDED TO ENHANCE THE FLAVOR OF THE FINAL PRODUCT. NEXT, THE PASTE IS DIVIDED INTO SMALL PORTIONS, SHAPED INTO BALLS, AND WRAPPED WITH *IDUNDU* (BANANA LEAVES) OR MAIZE HUSKS BEFORE BEING PLACED IN A POT OF WATER FOR STEAMING.

Kipunde has a mildly sweet flavor from the sugary, milky fluid in young maize kernels; a soft texture; and a pleasing aroma resulting from the natural sweetness of the young maize and the earthy fragrance of the banana leaves or maize husks in which it is steamed.

This product's distinguishing features are the use of *idundu* (banana leaves) or maize husks as wrappers for steaming, which add to its visual appeal and impart a unique character to the bread; and the use of *pemba ngoo* (young maize) as the principal ingredient, which provides the starch needed to make the dough.

PRODUCT HISTORY

Kipunde is a traditional product of the Taita, a Bantu-speaking people who live in and around the Taita Hills of southern Kenya and derive their living primarily from agriculture. The Taita community continues to maintain its unique cultural heritage, including the preparation of traditional food like kipunde. The knowledge and skills associated with this bread are passed down within families from mothers to daughters.

Kipunde is a cultural emblem of the Taita community and has long been an important food at social gatherings and ceremonies, particularly weddings, where it is typically prepared by groups of women. Its presence at these events signifies a communal celebration and highlights the interconnectedness of individuals within Taita society. Preparing and eating kipunde together fosters social cohesion. Kipunde is also an important staple food and is often served for breakfast along with tea or porridge.

This bread is most often prepared and consumed within the household or during social events and is not distributed commercially.

CURRENT STATUS

Prolonged droughts in recent times have led to decreased harvests in the rain-fed lowlands where the Taita practice their agricutlure. Many Taita farmers have had to prioritize maize flour production, which requires allowing the maize to reach maturity. This has caused a decline in the availability of young maize and, therefore, in the preparation of kipunde. Furthermore, many members of the younger generation are not learning the recipe for kipunde from their elders. Recording traditional knowledge about kipunde, its ingredients, and maize cultivation methods through storytelling, video archives, and community databases can help ensure the transmission of Taita gastronomic heritage to future generations.

N. 75 KUON ANANG'A

CATEGORY

CEREALS AND FLOURS

PRODUCTION AREA

KISUMU COUNTY (NYANZA)

INDIGENOUS COMMUNITY

LUO

INGREDIENTS

MILLET AND CASSAVA FLOURS
FERMENTED MILK
WATER

PREPARATION METHOD

A MIXTURE OF EQUAL PARTS WATER AND FERMENTED MILK ARE HEATED OVER THE FIRE IN A *SUFURIA* (COOKING POT). ONCE THE LIQUID BOILS, THE MILLET AND CASSAVA FLOUR IS ADDED BIT BY BIT AND STIRRED WITH A WOODEN COOKING STICK TO PREVENT LUMPS FROM FORMING. WHEN ENOUGH FLOUR HAS BEEN ADDED, THE MIXTURE TURNS INTO A THICK, STIFF PORRIDGE, AT WHICH POINT THE HEAT IS REDUCED AND THE PORRIDGE IS ALLOWED TO SIMMER FOR ABOUT 10 MINUTES, BEING TURNED OCCASIONALLY. THE *KUON ANANG'A* IS DONE COOKING WHEN IT BEGINS TO PRODUCE AN AROMA OF ROASTED MAIZE. IT IS SERVED HOT WITH VEGETABLES, MEAT, OR FISH.

Kuon anang'a is a special porridge prepared in the Luo community. It is made from a blend of millet flour (1 part) and cassava flour (2 parts) mixed with some water and milk that has been fermented in a gourd. The cooked porridge is brown and soft with a thick, sticky, dough-like consistency.

PRODUCT HISTORY

Kuon anang'a is a traditional staple food of the Luo, a Nilotic people whose ancestors migrated from the Bahr el Ghazal region in South Sudan to the eastern side of Lake Victoria between the 16th and 19th centuries. Today, the Luo are the fourth largest tribe in Kenya, comprising over 10% of the country's population.

Kuon anang'a was traditionally consumed during important occasions such as weddings, where it was included among the delicacies on the bridegroom's high table. It is known in Swahili as *ugali*, which usually refers to a stiff porridge made from maize. The millet or millet-and-cassava version is also called "brown ugali."

Kuon anang'a was only produced for consumption in the household, especially for hon-ored guests.

CURRENT STATUS

Kuon anang'a is on the verge of disappearing. One major reason for its decline is that people keep fewer cows and what milk they produce is usually sold or used to prepare tea instead of being fermented. More generally, due to an increasing emphasis on careers and professional life, people prefer foods that are easier and less time-consuming to prepare.

N. 76 MAMBUYU
(MABUYU)

CATEGORY

FRUITS AND NUTS; DISTILLED AND FERMENTED BEVERAGES

PRODUCTION AREA

MACHAKOS COUNTY (EASTERN)

INDIGENOUS COMMUNITY

AKAMBA / KAMBA

INGREDIENTS

BAOBAB SEEDS
WATER

PREPARATION METHOD

TO MAKE THIS PRODUCT, BAOBAB FRUITS ARE OPENED AND THE SEEDS ARE SEPARATED FROM THE PULP, PEELED, SUNDRIED, AND ROASTED IN A PAN. THEY ARE THEN GROUND INTO A FINE POWDER IN A HANDMADE WOODEN MORTAR. FINALLY, THE GROUND SEEDS ARE BOILED WITH WATER TO PRODUCE A HOT BEVERAGE DRUNK IN THE MORNINGS LIKE COFFEE. THE SEEDS CAN ALSO BE FERMENTED TO CREATE AN ALCOHOLIC DRINK ENJOYED BY ELDERS.

Mambuyu is locally referred to as "our wild coffee" by people of the Akamba tribe in the dry area of Machakos in southern Kenya. It is made from dehydrated seeds of the baobab tree (*Adansonia digitata*), locally called *mbuyu* (Swahili) or *muamba* (Kamba).

The baobab tree belongs to the mallow family, Malvaceae. It can grow up to 25 meters in height and may live for hundreds of years. It produces fruits 20-30 centimeters long with an ovoid, green, woody shell. Inside are numerous hard, reddish-brown seeds covered with a yellowish pulp. The ripe fruit pulp has a slightly sour taste. The seeds are harvested twice a year, in February and in December, and children, who like the color of the seeds, often assist in the harvest.

PRODUCT HISTORY

The baobab tree plays an important role in Akamba traditions and beliefs. It is said that the name "Akamba" is strongly linked to the baobab tree. The Akamba people came to the Machakos area through Kikumbuliu, where there were many muamba trees. Among the Akamba, this tree was used as an *ithembo* (a place of sacrifice) and hence was considered a sacred tree. Akamba people use the bark of this tree in traditional medicine to treat fever in children. According to local belief, baobab trees should not be debarked during or just before the rainy season, for fear of causing drought.

Pregnant Akamba women once commonly drank mambuyu for its nutritional value (it is an important souce of Vitamin C). Mambuyu is also among the traditional gifts brought to a home after a baby is born. The drink is said to be an excellent source of energy, providing people with the strength to travel long distances for trading. Because coffee used to be expensive, the Akamba people believe that mambuyu is a gift from God, and so the locals used to water the baobab trees every morning to take care of them.

CURRENT STATUS

Today mambuyu is produced mainly for personal or community use, though the prepared drink can occasionally be found at local markets. Baobab seeds can also be purchased locally for preparation of the drink, instead of being harvested directly. However, consumption of mambuyu is in decline; the drink is underappreciated and unknown by many people despite its nutritional value.

N. 77 MOR ALENYA
(TRADITIONAL GHEE)

CATEGORY

CHEESE AND DAIRY PRODUCTS

PRODUCTION AREA

NYANZA

INDIGENOUS COMMUNITY

LUO

INGREDIENTS

FRESH COW'S MILK

PREPARATION METHOD

FRESH RAW COW'S MILK IS SET ASIDE FOR 1-3 DAYS IN A JUG OR, TRADITIONALLY, A *KOO* (A GOURD USED FOR CHURNING MILK) UNTIL IT NATURALLY ACIDIFIES AND STARTS TO COAGULATE. THE CONTAINER IS THEN SHAKEN UNTIL THE BUTTER (CALLED *MO*) FORMS A LAYER ON TOP OF THE BUTTERMILK. THE BUTTER IS STRAINED OFF AND SIMMERED OVER LOW HEAT WHILE BEING STIRRED CONTINUOUSLY UNTIL ITS WATER CONTENT EVAPORATES AND THE MILK SOLIDS SETTLE OUT AND TURN BROWN (THIS SEDIMENT IS CALLED *NG'IENDE*). FINALLY, THE PURE OIL IS POURED OFF OF THE BROWNED MILK SOLIDS. THIS GHEE IS KNOWN AS *MOR ALENYA*. IT IS CLEAR AND GOLDEN YELLOW WITH A RICH, BUTTERY, SLIGHTLY SWEET AND NUTTY FLAVOR AND AROMA.

Mor alenya is a traditional ghee prepared among the Luo community in Kenya's former Nyanza Province, on the eastern shores of Lake Victoria. Turning butter into ghee results in a shelf-stable oil with a high smoke point, excellent for frying. Mor alenya is used to prepare *chapati* (flatbread) and as a condiment, poured over vegetables

or rice to impart its rich aroma, flavor, and unctuous texture. The production of mor alenya results in two byproducts: buttermilk and browned milk solids called *ng'iende*. The buttermilk is drunk or used for cooking vegetables, and the ng'iende is used as a condiment for foods like *ugali* (stiff porridge) and sweet potatoes.

PRODUCT HISTORY

The Luo are agropastoralists who live in the Lake Victoria basin in western Kenya. Cattle and very important in Luo culture—in addition to providing milk, they are a symbol of wealth and prosperity, and are not slaughtered except for special occasions. Cow's milk is used to make butter, with which Luo men and women anoint their bodies; and ghee, which is used in cooking. The Luo also drink milk, but only after mixing it with some sour milk or buttermilk treated with cow urine, as it is believed that drinking pure fresh milk causes tapeworm infestation. It was traditional for women and grandmothers to sing songs and lullabies to children while they churned butter for making mor alenya.

CURRENT STATUS

Mor alenya was traditionally produced by matriarchs or grandmothers in families who had milk-producing cattle. Today, the practice of making this traditional ghee is in decline due to lack of intergenerational transfer of traditional food knowledge and practices, as well as the availability of ready-made cooking oils. Some people adulterate mor alenya with vegetable oil before selling it. Furthermore, many Luo have moved to the city and no longer keep cattle, and even rural families have sold their cattle or had to reduce the size of their herds due to the subdivision of land and lack of access to pasture. Currently, mor alenya is mainly served in expensive restaurants or to esteemed guests visiting rural homes, but it is no longer widely produced.

N. 78 MUKURUGUCU

CATEGORY

VEGETABLE PRESERVES

PRODUCTION AREA

CENTRAL

INDIGENOUS COMMUNITY

GIKUYU / KIKUYU

INGREDIENTS

MAIZE
SOYBEANS
OTHER LEGUMES
KAHURURA
(CUCURBIT LEAVES)

PREPARATION METHOD

THE PREPARATION OF *MUKURUGUCU* BEGINS WITH BOILING MAIZE AND SOYBEANS. VARIOUS GREEN VEGETABLES SUCH AS *KAHURURA* CAN THEN BE ADDED TO MAKE A PASTE. MUKURUGUCU IS SERVED ON ITS OWN OR AS A SIDE DISH WITH VEGETABLES OR SOME STEW. IT WILL KEEP FOR SEVERAL DAYS IN THE POT AFTER COOKING WITHOUT GOING BAD.

Mukurugucu is the name of a paste made with several ingredients mixed together: maize, soybeans, legumes, and *kahurura*, the leaves of the figleaf gourd (*Cucurbita ficifolia*). Pumpkin or other cucurbit leaves can be used as a substitute. *Cucurbita ficifolia* is originally from highland regions of Latin America, but came to Europe, Asia,

and Africa in the 16th and 17th centuries. It occurs in tropical Africa in the highlands of Ethiopia, Kenya, and Tanzania. It is an extensive creeper or climber cultivated in Kenya's central highlands, especially by the Gikuyu. It also grows spontaneously in cultivated areas. The leaves have three to five rounded or obtuse lobules.

Figleaf gourd is grown primarily for its leaves. The immature fruits are occasionally eaten, but are considered inedible in most parts of Kenya. The leaves are used in the preparation of mukurugucu and other traditional dished such as *irio*, a mixture of maize, pulses, and unripe bananas and/or potatoes.

PRODUCT HISTORY

Mukurugucu is a traditional product of the Gikuyu community in Central Kenya. This paste was prepared for home consumption, and everybody in the family shared the meal. It was also prepared during communal activities such as the harvest and the building of traditional huts.

It is still an important meal among the Gikuyu due to its great nutritional value: It is a complete meal, containing carbohydrates, proteins, and vitamins.

CURRENT STATUS

This product is at risk of extinction because of the decline of some of the plant ingredients, such as kahurura, which is no longer cultivated due to changes in eating habits and lifestyle among the younger generation. This has triggered its gradual disappearance. Intergenerational knowledge transfer about this product and other traditional foods is no longer common and this leaves young people with inadequate information for safeguarding mukurugucu. In addition, cooking this meal in the family is viewed as a sign of poverty, which is why people are reluctant to prepare it.

N. 79 MURATINA

CATEGORY

DISTILLED AND FERMENTED BEVERAGES

PRODUCTION AREA

CENTRAL

INDIGENOUS COMMUNITY

GIKUYU / KIKUYU

INGREDIENTS

SAUSAGE TREE FRUIT

HONEY OR SUGARCANE

PREPARATION METHOD

TO MAKE *MURATINA*, FRUITS OF THE SAUSAGE TREE ARE CUT INTO PIECES AND DRIED UNDER THE SUN, AFTER WHICH THEY ARE BOILED IN WATER AND THEN SUN DRIED FOR A SECOND TIME. NEXT, THE PIECES ARE MIXED WITH A SMALL AMOUNT OF SUGARCANE JUICE OR HONEY AND KEPT IN A WARM PLACE; IF THERE IS NO WOOD TO SUSTAIN A CONTINUOUS FIRE, THE MIXTURE CAN BE LEFT IN THE SUN DURING THE DAY. ABOUT 24 HOURS LATER, THE PIECES OF FRUIT ARE SUN DRIED ONCE AGAIN AND THEN MIXED WITH MORE SUGARCANE JUICE OR HONEY. THIS MIXURE IS LEFT TO FERMENT FOR 1-4 DAYS, AFTER WHICH THE MURATINA IS READY TO DRINK.

Muratina is a common weak beer served in rural parts of Kenya. This brew is made especially in the former Central Province of Kenya, mostly by the Gikuyu people. It is prepared from honey, sugar, or sugarcane juice, and is named "muratina" after the fruits that serve as the fermentation agent. These fruits come from *Kigelia afri-*

cana, known in English as the sausage tree because of the long, sausage-like fruits that it bears. The fruits hang on string-like twigs that drop down from the branches. Individual fruits can grow to around 60 centimeters long and can weigh up to 6 kilograms.

The fruit increases the alcohol content, gives flavor to the drink, and likely inoculates the drink with the right kind of yeast for the fermentation. The final drink has a sour, alcoholic taste. Muratina is traditionally drunk out of cow horns.

PRODUCT HISTORY

Muratina has long played an important role in the social and cultural traditions of Kenya's Gikuyu people, who call this drink *njohi ya uuki*. It is one of the items that a groom gives to his bride-to-be as bridewealth. This ceremony starts with the *ruracio*, a feast where the groom and his family bring the bridewealth to home of the bride-to-be. Muratina is served to elders as a sign of respect. At the end of the day, the bride and groom are invited to join the meeting: The father of the bride will then pour some of the muratina into a *ruhia*, a traditional drinking vessel, and as part of the Gikuyu traditions he will ask his daughter if she is sure that she wants him to partake of the drink, thus symbolizing the official start of the bridewealth arrangements. During the wedding ceremony, the bride's family gives her some honey for preparing muratina in her new household.

CURRENT STATUS

This traditional alcoholic drink has been passed down from generation to generation and played a vital role in many social events in Gikuyu culture, such as births, initiations, weddings, and other special occasions. Today an influx of beverages made outside the area has created a preference among younger generations for the standardized tastes of these modern drinks.

N. 80 MUSHELEKHA

CATEGORY

SALT; SPICES, WILD HERBS AND CONDIMENTS

PRODUCTION AREA

WESTERN

INDIGENOUS COMMUNITY

LUHYA

INGREDIENTS

BEAN PODS
DRY MAIZE COBS
SORGHUM HUSKS
BANANA PEELINGS

PREPARATION METHOD

DRY VEGETABLE WASTE IS BURNT TO OBTAIN ASH. THE ASH OR *LIKOSHE*, AS IT IS KNOWN IN THE LUHYA LANGUAGE, IS MIXED WITH WATER AND PUT IN A TRADITIONAL POT CALLED *LUSHELEKHO*. THE LUSHELEKHO HAS HOLES IN IT THAT ALLOW CLEAN *MUSHELEKHA* TO SLOWLY DRIP OUT. THE FILTRATE IS RICH IN POTASSIUM SALT.

Mushelekha is a traditional lye obtained from the ashes of burnt bean pods, dry maize cobs, sorghum husks, and banana peelings. The ash, once filtered, is mainly used to tenderizer tough vegetables, to improve flavor, and to preserve the green color of vegetables. Vegetables cooked in mushelekha are known to keep longer without spoiling. Using this lye also improves the texture of slimy vegetables.

Mushelekha is used only with certain vegetables, such as cowpea, *mitoo* (*Crotalaria* spp.), *murere* (*Corchorus olitorius*), pumpkin leaves, and *nderema* (*Basella alba*). It is also used to cook meat and fish. It is important to use the right quantity of mushelekha in order not to cause a burning sensation in the mouth and to avoid making the food too tender.

PRODUCT HISTORY

Mushelekha is a traditional product of the Luhya people of Western Kenya. They use this lye for the preparation of dishes made with local vegetables. Mushelekha may be used in different ways: Usually a pot of water is placed on the fire to boil, the lye is added and boiled for a few minutes, vegetables are added, and the pot is covered. The cooking vegetables are stirred to ensure even cooking and to avoid burning. Finally, salt is added to taste. Other ingredients may be added including groundnut paste, milk, cream, *ghee*, and animal fat. A second method of cooking using musheleka involves placing the pot containing water and vegetables on the fire and adding the mushelekha once the contents of the pot start boiling.

CURRENT STATUS

Mushelekha is becoming rare and is used only in rural areas of Western Kenya. Outside of these areas it is replaced with sodium bicarbonate, even though this product imparts a different texture and flavor to the vegetables to which it is added.

N. 81 NGARABA

CATEGORY

CEREALS AND FLOURS; CAKES, PASTRIES AND SWEETS

PRODUCTION AREA

KIRINYAGA COUNTY (CENTRAL)

INDIGENOUS COMMUNITY

AKIRINYAGA (GIKUYU)

INGREDIENTS

PEARL MILLET
WATER

PREPARATION METHOD

TO PREPARE *NGARABA*, MILLET IS GROUND USING A MILLSTONE PLACED ON TOP OF BANANA LEAVES, WHICH CATCH THE FLOUR. THE PROCESS IS KNOWN AS *GUFARIRIA* AND CONTINUES UNTIL ALL OF THE MILLET IS GROUND. THE FLOUR IS SIFTED IN A TRADITIONAL SIEVE TO GET RID OF ANY HUSKS OR OTHER UNWANTED MATERIAL. WATER IS ADDED TO THE FLOUR AND THE MIXTURE IS KNEADED MANUALLY TO PRODUCE A DOUGH, WHICH IS THEN GROUND AGAIN IN A PROCEDURE KNOWN AS *GUKIA*: A HANDFUL OF DOUGH IS GROUND WITH A STONE, WATER IS ADDED, AND THE PROCESS CONTINUES UNTIL ALL THE GRAIN IS PERFECTLY GROUND AND THE DOUGH IS SMOOTH. THE DOUGH IS THEN ROLLED IN MAIZE HUSKS AND TIED AT THE ENDS USING STRING MADE FROM THE HUSKS THEMSELVES. THE MAIZE HUSKS CONTAIN ANTIOXIDANTS. ONCE ALL OF THE DOUGH HAS BEEN ROLLED UP LIKE THIS, THE STUFFED STUFFED MAIZE HUSKS ARE PLACED IN A PAN WITH WATER COVERING THEM AND ARE BOILED FOR 30 TO 40 MINUTES ON A HIGH FLAME.

Ngaraba is made from pearl millet and is closely associated with communities in Kirinyaga County. People here produced pearl millet mainly for *bututia* (uncooked porridge), *ucuru wa mukio* (local and traditional porridge from the region), and ngaraba.

Pearl millet is a drought tolerant crop that grows in semi-arid regions below 1,500 meters above sea level. It does well on sandy soils but can be grown in heavy clay soils and will even produce a crop on poor soils. It requires an annu-

al rainfall of 400 to 800 millimeters. Traditionally, the heads of the pearl millet were cut, spread out to dry, threshed, and winnowed. Before using the millet, it was processed into flour using *ithiga*, one grinding stone on top of another, and made into ngaraba.

A cooked portion of ngaraba has an oval shape and the surface is grayish-brown. Its taste is sweet and the consistency is firm.

PRODUCT HISTORY

Ngaraba is eaten cold and can be served to accompany tea or vegetables. It has always been considered a food with a high energy content and was consumed daily in the past.

Millet is a staple food in the Kirinyaga area. Local people used to cultivate a lot of millet due to its resistance to harsh climate conditions and pest infestation, as well as its high content of protein, fiber, vitamins, calcium, and iron. Ngaraba was mainly prepared by women to be served to men who used to move over long distances in search of pasture for animals. It was considered good food for traveling. Herders ate this bread-like product in the morning before they went out to graze their animals, and would not eat anything else all day. Sometimes they would carry this product in case they couldn't get home for several days. Ngaraba was and is an important fallback in times of food scarcity or famine, and it is important that people continue cultivating millet. Ngaraba was often consumed during bridewealth negotiations. The bridegroom's family was served this food to show that they were welcome.

Another commodity in high demand in the region was grinding stones, *ithiga ria gukia*. These were bought for grinding pearl millet, finger millet, and sorghum, all of which were grown locally. According to one person born in the 1880s, it took two women to carry the amount of grain exchanged for one grinding stone.

CURRENT STATUS

Due to modernization and the introduction of new grinding machines, the traditional way of grinding ngaraba is disappearing, even though traditional ngaraba is still recognized as an incredibly nutritious dish. Due to the long preparation time, communities are starting to use alternative processing methods that are much easier, such as cooking millet as porridge. The younger generations are not familiar with ngaraba and some of the older members of the community admit that they last ate ngaraba more than 30 years ago, but that they would love to help revive it.

NOMINATOR: SAMSON KIIRU NGUGI

N. 82 NZOIA RIVER REED SALT

Slow Food Presidium®

CATEGORY

SALT; SPICES, WILD HERBS AND CONDIMENTS

PRODUCTION AREA

NABUYOLE, WEBUYE DISTRICT, BUNGOMA COUNTY (WESTERN)

INDIGENOUS COMMUNITY

BUKUSU (LUHYA)

INGREDIENTS

MUCHUA PLANT
WATER

PREPARATION METHOD

TO PREPARE THIS SALT, BUNCHES OF REEDS ARE ARRANGED ON STONES BY THE RIVER AND ALLOWED TO DRY. THEY ARE THEN HEATED ON A SLOW FIRE FOR UP TO 3 DAYS. THE RESIDUAL ASH IS MIXED WITH HOT WATER, FILTERED, AND BOILED IN A LARGE PAN OVER A FIRE. WHEN THE LIQUID HAS COMPLETELY EVAPORATED, A SALTY MIXTURE IS LEFT ON THE BOTTOM. IT IS COLLECTED, PACKED INTO BANANA LEAVES, AND DRIED UNDER HOT ASHES OVERNIGHT. PEPPER IS SOMETIMES ADDED, GIVING THE SALT A SPICY FLAVOR.

In Western Kenya, local communities have developed a distinctive method for extracting salt from an aquatic plant. In the Webuye District, salt is made from reeds and sedges found in swampy areas. Here *muchua*, a type of thin reed very similar to papyrus (*Cyperus papyrus*), grows in the

waters of the Nzoia River in the dry season (from September to March). Reaching a height of about 2 meters, it is ready for harvesting when the flowers wilt and the highest leaves are almost dried out; before this, the salt concentration is too low. Local people believe that this plant is capable of filtering water. This reed is also appreciated by animals, especially goats and sheep.

PRODUCT HISTORY

Western Kenya was historically excluded from the distribution of commercial salt due to poor transportation infrastructure. For this reason, the local population had to design a method for extracting their own salt from an aquatic plant. It is thought that the origins of this practice date back to the 17th century when the Bukusu community, a sub-division of the Luhya people, migrated eastward from Congo. Since then, the practice has been handed down over generations.

It is said that a long time ago when the reeds became rare due to drought, the villagers used to make the salt from goat droppings. They collected them and followed the same process as explained above.

Every producer gives this product a female name, such as *kumunyu kwa lukhayo*. "Lukhayo" is a name given to a wife who is kind, welcoming, and hardworking.

This salt has various uses in traditional medicine. The locals use it to disinfect wounds, build marrow, and help strengthen bones. It is also used to cure intestinal parasites and sore throats.

CURRENT STATUS

Nzoia River Reed Salt production is very limited as it requires a demanding and time-consuming process and because imported marine salt, first brought with British colonization, has rapidly replaced it. Large-scale deforestation has also caused river levels to drop, with a consequent reduction in marshy areas where the reeds used to produce the salt grow. Only the Bukusu community in the village of Nabuyole, in Webuye District, continues to produce salt using the traditional method.

More information about the presidium on page 279

Nominator: Jotham Wamukota Wasike, John Kariuki Mwangi

N. 83 POKOT ASH YOGURT

Slow Food Presidium®

CATEGORY

CHEESE AND DAIRY PRODUCTS

PRODUCTION AREA

TARSOI, TARTUR, LITION, AND CHAUNET VILLAGES, WEST POKOT COUNTY (RIFT VALLEY)

INDIGENOUS COMMUNITY

POKOT (KALENJIN)

INGREDIENTS

ASH OF *OZOROA INSIGNIS*
GOAT'S OR COW'S MILK

PREPARATION METHOD

THE MILK IS COLLECTED IN A CALABASH, A TRADITIONAL CONTAINER MADE FROM PUMPKIN AND GOURD VARIETIES, AND LEFT TO STAND FOR AT LEAST 3 DAYS. TO MAKE A CONTAINER FROM A GOURD, THE HARD SKIN IS HOLLOWED OUT, DRIED, AND SMOKED OVER THE WOOD OF *CROMWO*, THE SAME SHRUB USED FOR THE ASH. ONCE THE WHEY HAS BEEN DRAINED, THE GOURD IS CLOSED AGAIN AND AGITATED WITH REGULAR MOVEMENTS. WHEN THE YOGURT IS READY, THE ASH IS ADDED, PROVIDING DISINFECTANT PROPERTIES, A DISTINCTIVE AROMA, AND A CHARACTERISTIC BRIGHT GRAYISH COLOR.

In West Pokot, communities in the villages of Tarsoi, Tartur, Lition, and Chaunet traditionally produced an unusual food product: a yogurt made using milk from cows (crosses between local breeds and zebù) or goats, mixed with the ash of *Ozoroa insignis*, a shrub locally known as *cromwo*.

This native tree, from the family Anacardiaceae, is known for its antiseptic properties and faint scent of peanut butter.

This dairy product is obtained through the acidification of raw milk. No starters are used and fermentation develops after a few days, either from the natural flora or from the bacteria growing on the sides of the vessel in which it is made.

The raw milk from cows and goats is not mixed, but processed separately to make two different types of yogurt. The animals graze in open pastures and are milked by hand twice a day.

PRODUCT HISTORY

Known in the local dialect as *mala ya kienyeji* or *kamabele kambou*, ash yogurt used to be extremely important in the diet of the Pokot community and was one of the staple foods for herdsmen looking for pasture.

The cow's milk yogurt is for men, while the goat's milk yogurt, a product with an intense flavor recognized for its nutritional value, is for women and children. Ash yogurt is still prepared today by fermenting the milk inside dried hollow gourds and then adding the ash to give it an aromatic note. It is often eaten together with millet porridge.

Among pastoralist communities of West Pokot, herbal products have played and important role in preserving meat and milk. To prepare cromwo ash, the stems of *Ozoroa insignis* are peeled and dried. One end of a stick is burnt and the charcoals formed are dusted on the inner wall of the gourd. The excess powder is removed and then milk is introduced. According to local people, ash yogurt may be preserved for up to a year.

CURRENT STATUS

As livestock farming is now less widespread and milk is less available, there has been a significant reduction in the production of this yogurt. In addition, the community has lost pride in their traditional food culture. Now ash yogurt is only produced by a few families for their own consumption. Surplus, which is rare, is sold at local markets.

More information about the presidium on page 281
nominator: Moses Pacha, John Kariuki

N. 84 SUKARI NGUURU (JAGGERY)

CATEGORY

SPICES, WILD HERBS AND CONDIMENTS

PRODUCTION AREA

HOMA BAY COUNTY (NYANZA)

INDIGENOUS COMMUNITY

GIKUYU / KIKUYU; LUHYA

INGREDIENTS

SUGARCANE

PREPARATION METHOD

TO PREPARE *SUKARI NGUURU*, SUGARCANE IS COLLECTED AND TRANSPORTED TO A SPECIAL BUILDING TO BE PROCESSED. FIRST, CANE JUICE IS EXTRACTED BY PASSING THE CANES THROUGH METAL ROLLERS OPERATED MANUALLY OR BY MOTOR. THE JUICE IS FILTERED THROUGH SHEETS, POURED INTO METAL POTS, AND BOILED OVER A WOOD FIRE TO OBTAIN A DARK, VISCOUS LIQUID. THIS LIQUID IS POURED INTO CONICAL METAL MOLDS AND COOLED UNTIL IT SOLIDIFIES.

Sukari nguuru is a raw sugar obtained from milling and boiling sugarcane juice. Known in different parts of the world by various names (including *jaggery*, *panela*, or *rapadura*), the origin of this product is linked to the colonial era and, more specifically, the introduction of large-scale sugarcane cultivation to Africa and Latin America. In Kenya, sukari nguuru is pro-

duced in various regions, especially in the western part of the country, an area with the ideal conditions for growing sugarcane. In particular, Homa Bay County is one of the most important regions for the production of sugarcane and its derivatives.

PRODUCT HISTORY

The production of sukari nguuru is mostly a small-scale activity, often carried out at the domestic level. Sugarcane farmers are the ones who deal with the preparation of this product. In this way, they can add value to the raw material and generate a source of supplementary income for their family. Men are primarily responsible for production, while women are involved in selling sukari nguuru in local markets. In some cases, the product is also marketed outside the production area in the major urban centers of Western Kenya.

Sukari nguuru is a fundamental element of the diet of various rural Kenyan ethnic groups: The Gikuyu use it to prepare *muratina* (a fermented beverage), while among the Luhya it is used as a sweetener for porridge and hot drinks. Small pieces of sukari nguuru are a typical dessert given to children in rural areas. This product, in addition to being cheaper than refined sugar, has superior nutritional qualities: It is rich in minerals, including iron, calcium, phosphorus, magnesium, and potassium.

CURRENT STATUS

In recent years there has been a decline in the consumption of sukari nguuru, as this traditional product has been replaced by refined sugar. This change is due to shifting consumption habits, especially in urban areas, and to national policies that favor large-scale sugar production at the expense of small-scale production of sukari nguuru. In some areas, craft production has been banned as it is linked to the illegal production of alcoholic beverages.

N. 85 UCURU WA MUKIO

CATEGORY

DISTILLED AND FERMENTED BEVERAGES

PRODUCTION AREA

NYERI, KIRINYAGA, MURANG'A, AND KIAMBU COUNTIES (CENTRAL); EMBU COUNTY (EASTERN)

INDIGENOUS COMMUNITY

GIKUYU / KIKUYU

INGREDIENTS

DRIED MAIZE
WATER

PREPARATION METHOD

MAIZE THAT HAS BEEN SOAKED IN WATER IS GROUND WITH A LARGE MORTAR AND PESTLE (*NDIRI NA MUTI*) UNTIL A SOFT FLOUR (*KIMERE*) IS OBTAINED. THIS FLOUR IS MIXED WITH WATER TO CREATE A PORRIDGE MIXTURE. ANY MAIZE HULLS OR UNGROUND KERNELS ARE REMOVED AT THIS POINT, AND THE MIXTURE IS PLACED IN A CLAY POT (*NYUNGU*) TO COOK OVER A FIRE. AFTER BOILING, THE COOKED PORRIDGE IS STORED IN A GOURD (*KINYA*), WHICH IS SEALED WITH A DRY EAR OF MAIZE (*MUCHAKWE*). THE MIXTURE IS ALLOWED TO FERMENT FOR 7 DAYS.

Ucuru wa mukio is a traditional fermented porridge in the Gikuyu community. It is prepared in Nyeri, Embu, Kirinyaga, Murang'a, and Kiambu counties, the homeland of the Gikuyu.

It is made from dried maize that is soaked in water for 24 hours to soften. Ucuru wa mukio is usually served cold, typically in a dish made of half of a calabash gourd (*kiihuri*). The porridge has a smooth consistency and sweet-and-sour taste.

PRODUCT HISTORY

Traditionally, ucuru wa mukio was prepared mostly by women and consumed together by everyone. Most people carried a gourd of cold ucuru as a thirst quencher while traveling and also while working in the fields. It was not given to babies.

Ucuru wa mukio was traditionally prepared for ceremonies, including childbirth, bridewealth payments, circumcisions, and harvest time. During circumcision, an important rite of passage, the boy stayed in seclusion for a certain period, after which an adult man led him to his mother's house where he was served fermented porridge as a sign of welcome.

The importance of this dish for the Gikuyu community is demonstrated in the many traditional sayings associated with ucuru. For example, the local proverb *nyoroku ta ucuru wa mukio* means "smooth like the traditional porridge."

Ucuru wa mukio is made in homes for family and community consumption, not sold commercially. Each woman has her own recipe for this dish that she learnt from her mother.

CURRENT STATUS

Today, the introduction of machines for grinding flour has changed the traditional method of grinding flour for porridge. Porridge flour has been commercialized and is now made from various grains besides maize, such as millet and sorghum, and even from tubers, such as cassava and sweet potatoes. These new types of flour have resulted in the decline of the traditional porridge, which is strongly linked to the local community. The new flours lack the properties that give ucuru wa mukio its unique taste and smooth consistency.

N. 86 USORO

CATEGORY

DISTILLED AND FERMENTED BEVERAGES

PRODUCTION AREA

COAST

INDIGENOUS COMMUNITY

GIRIAMA (MIJIKENDA)

INGREDIENTS

GREEN MAIZE
WATER

PREPARATION METHOD

TO MAKE THIS PRODUCT, GREEN MAIZE IS COLLECTED, PUT IN A *KINU* (MORTAR), AND MASHED USING A *MCHI* (PESTLE). THE RESULTING PASTE IS MIXED WITH WATER, STIRRED, AND THEN THE DREGS ARE SEPARATED. THE RESULTING LIQUID IS FERMENTED FOR A FEW DAYS AND THEN COOKED IN A *SUFURIA* (A METAL POT) UNTIL IT IS READY, AT WHICH POINT IT IS PUT INTO AN EARTHEN POT TO COOL DOWN. AFTER COOLING, IT IS CONSIDERED READY FOR CONSUMPTION.

U*soro*, as the Giriama people from Kenya's former Coast Province call it, is a local food known to have been consumed by the forefathers of this community.

It is a fermented drink made from the green kernels of a local variety of maize. The product is white like coconut milk and has a bitter taste.

PRODUCT HISTORY

The Giriama are a Bantu-speaking people living in the coastal areas of Kenya. They are a subgroup of the Mijikenda, whose name literally means "nine homes" or "nine homesteads" in Swahili. The coastal strip contains fertile farming land and the Giriama are experienced farmers that rely on maize, millet, rice, coconut palms, and peas as staples.

Usoro used to be consumed during long journeys. The ancestors of the Giriama community would prepare usoro and put it in a gourd to be carried and consumed as they traveled. Usoro was also prepared and consumed during pre-wedding ceremonies and during harvesting.

CURRENT STATUS

Usoro is only made for personal or community use and is not sold commercially. Today, thanks to the influx and ready availability of food products from other areas, many Giriama youth do not know what usoro is or how to prepare it. If the tradition of making this product is not passed on to the next generation, it could be lost from Giriama culture.

N. 87 WENYE

CATEGORY

CURED MEAT AND MEAT PRODUCTS

PRODUCTION AREA

NYERI, MURANG'A, AND KIAMBU COUNTIES (CENTRAL)

INDIGENOUS COMMUNITY

GIKUYU / KIKUYU

INGREDIENTS

GOAT MEAT
INTESTINES AND STOMACH (GOAT)
FRESH BLOOD (GOAT)
SALT
SPRING ONIONS
RED PEPPERS

PREPARATION METHOD

TO PREPARE *WENYE*, SALT IS ADDED TO FRESH BLOOD TO REDUCE COAGULATION. MEAT IS CUT INTO SMALL PIECES AND COOKED WITH SPRING ONIONS FOR 10-15 MINUTES. THEN PEPPERS ARE ADDED TO THE MEAT MIXTURE, WHICH IS COOKED FOR ANOTHER 10-15 MINUTES WITH THE SALTED BLOOD AND EXCESS FAT. THE MIXTURE IS THEN REMOVED FROM THE FIRE, COVERED, AND LEFT TO REST FOR ANOTHER 5-10 MINUTES. WENYE IS OFTEN SERVED WITH *UGALI* OR POTATOES.

Wenye is a Kenyan food made using goat intestines and stomach lining (called *mahu*). Ingredients include offal, fresh blood, salt, spring onions, and red peppers.

Wenye is a traditional preparation among the Gikuyu community. All the meat from the back and the neck plus vegetables such as cilantro, spring onions, garlic, carrots, bitter herbs, and green and red peppers are used to prepare the dish.

PRODUCT HISTORY

During bridewealth payment ceremonies, wenye is used to make a traditional sausage that is eaten only by the married couple. It is also eaten by elders as a sign of respect and is consumed on other occasions, such as wedding ceremonies and initiation ceremonies.

In Gikuyu communities, whenever a goat is slaughtered, several traditions are followed during its preparation and consumption. Wenye is prepared (traditionally by young men) when a goat is slaughtered at home or in the village, and it is mainly men who eat it; they typically cook the meat and intestines together with vegetables, bitter herbs, and spices before adding the salted blood and excess fat. This mixture is left to fry in its own fat on a low heat and is used to stuff *mutura* and other traditional sausages. Since wenye can be prepared quickly, it is often part of the first or second meal to be consumed after slaughtering a goat, as people use the rest of the animal in other preparations. Today, wenye is still prepared by some households in the Gikuyu community.

CURRENT STATUS

The production of wenye is in decline for a number of reasons. Some interpretations of Christianity discourage the consumption of blood, so many Christians in the area avoid eating and preparing wenye. As a result, many people in the younger generations, especially in urban areas, are unfamiliar with weyne.

CHAPTER 5

STAPLES

N. 88 BULRUSH MILLET
(UWELE, MAWELE, MWELE, MIWELE)

Cenchrus americanus (L.) Morrone

CATEGORY

CEREALS AND GRAINS

PRODUCTION AREA

MAKUENI, KITUI, AND MACHAKOS COUNTIES, UKAMBANI (EASTERN)

INDIGENOUS COMMUNITY

AKAMBA / KAMBA

SEASONALITY

SOW

FROM MID-MAY TO EARLY JUNE

HARVEST

BETWEEN LATE SEPTEMBER AND EARLY DECEMBER

SENSORY ANALYSIS

VISUAL

THE SEEDS RANGE IN COLOR FROM WHITE TO BROWN, BLUE, OR ALMOST PURPLE. MOST ARE SLATE GRAY. THEY ARE GENERALLY SMALLER THAN THOSE OF WHEAT. THE AVERAGE WEIGHT OF A GRAIN IS ABOUT 8 MILLIGRAMS.

TASTE

SLIGHTLY BITTER

CONSISTENCY

SMOOTH AND CREAMY

EDIBLE PARTS AND COOKING TECHNIQUES

GRAINS

BOILED, ROASTED

PRESERVING

DRYING, FLOUR

Bulrush millet, also known as pearl millet, is an erect annual grass, usually between 50 centimeters and 4 meters tall. It is cultivated in areas below 1,500 meters above sea level, requires 400 to 800 millimeters annual rainfall, and grows best in sandy and clay soils. It is well adapted to arid and semi-arid areas and it used to be widely grown in Ukambani, the homeland of the Akamba people. In this region, bulrush millet is mixed with milk to make a paste called *kinaa*.

The seed heads are cut from the plant, spread out to dry, threshed, and winnowed. The grain may be stored almost indefinitely when kept in the right conditions. Before using it, the millet grain is pounded to remove the husks. Among the Akamba, millet is stored in large containers made from twigs and grass stalks. The container is smeared all over with cow dung to keep insects away. When stored in this way, millet can last for more than 10 years.

◆

CULINARY USES

Bulrush millet is particularly known in Kenya for its use in preparing kinaa. To make this product, dry bulrush millet is roasted and ground into a smooth flour, which is then mixed with milk and eaten as needed. It is nutritious and it is easy to pack the flour and milk separately for preparation on the road. The paste is also often used to wean young children.

Among the Akamba people, millet flour is also used to prepare *isandi*. To make it, the flour is put in a gourd with milk and left to ferment. In recent times the grain has been used to make chapati.

◆

PRODUCT HISTORY

Bulrush millet is easy to grow and is drought resistant. It suffers less from diseases and pests than sorghum, maize, and other grains. The grain contains at least 9% protein and a good balance of amino acids. It is rich in fiber and vitamin B1. It has more oil than maize and is a "high-energy" cereal. It does not have the tannins and other compounds that reduce the digestibility of sorghum.

Bulrush millet is strongly tied to the heritage of the Akamba, who traditionally used millet flour during long-distance trading to prepare kinaa, isandi, and a special bread called *kimutu*. This bread could be carried for several days without spoiling. In addition, millet was used in many occasions such as marriage ceremonies, death rites, and the payment of bridewealth.

In Ukambani, bulrush millet is mainly grown for subsistence and is sold locally.

◆

CURRENT STATUS

The high labor requirements associated with cultivating bulrush millet have led to its decline and this crop is now considered endangered in the area; those who wish to continue making traditional kinaa must do so with expensive imported millet. One women's group that cares for orphans and vulnerable children maintains a plot of bulrush millet in the area of Syiembeni.

N. 89 GITHIGO MAIZE

Zea mays L.

CATEGORY

CEREALS AND GRAINS

PRODUCTION AREA

CENTRAL

INDIGENOUS COMMUNITY

GIKUYU / KIKUYU

SEASONALITY

SOW

LONG RAINY SEASON (USUALLY BEGINNING LATE MARCH – EARLY APRIL)

HARVEST

4-5 MONTHS AFTER SOWING

SENSORY ANALYSIS

VISUAL

THE PLANT HAS A TALLER STALK THAN TYPICAL MAIZE, AND WHITE, RED, AND PURPLE KERNELS THAT ARE LARGER THAN THOSE OF THE COMMON VARIETIES.

TASTE

SWEET FLAVOR THAT EMERGES WHEN THE SEED IS CHEWED

CONSISTENCY

DRIED KERNELS HAVE A STARCHY TEXTURE

EDIBLE PARTS AND COOKING TECHNIQUES

GRAINS

BOILED

Githigo is a traditional variety of maize cultivated by the Gikuyu community in Central Kenya. This high-yielding variety is resistant to pests and diseases and well adapted to local environmental conditions. The height of the stalk makes it one of the most resistant varieties against nematode infestation.

In Central Kenya, maize is harvested in the dry season to avoid incidents of grain rotting in the field. On small farms the maize is left to dry on the stalks. The cobs are then removed from their husks by hand and stored. Maize is pe-

riodically dried in the sun until the grains are completely dry. The maize cobs are preserved in granaries or hung in the kitchen where they come in contact with smoke, which deters pests.

CULINARY USES

The large size of the kernels makes this variety ideal for preparing *githeri*, a simple and nutritious dish made from boiled maize. To prepare the dish, maize and beans are put in a pot full of water and left to boil until soft. Many different kinds of beans can be used in this dish, which is an ideal source of protein (something often lacking in the poor diets of many Kenyans). The dish can be flavored further by adding vegetables, potatoes, or even meat. If all of these ingredients are then mashed and mixed correctly, the result is *mukimo*. *Ugali* (a thick porridge) is prepared from stone-ground maize flour.

PRODUCT HISTORY

Maize was introduced to Kenya in the 19th century and has become the main staple crop among Gikuyu people. Githigo maize is believed to have been brought by missionaries before World War I.

This variety of maize is the main ingredient in traditional dishes eaten during important ceremonies like initiations, pre-weddings, weddings, celebrations of the birth of a child, and even engagements. Mukimo, the traditional meal for the Gikuyu community, was not considered a special meal unless it included githigo maize.

Githigo maize matures faster than other maize varieties, making it an important food security crop. This traditional variety requires no artificial fertilizers, just compost and farmyard manure.

Women usually grow maize for domestic consumption, while men are often responsible for cultivating it as a commodity.

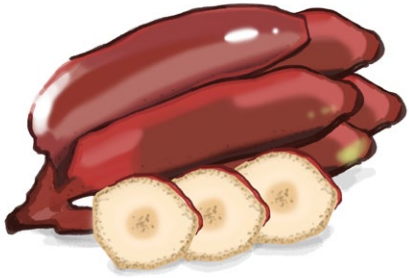
CURRENT STATUS

Due to the growing promotion of hybrid seeds and a lack of undestanding about the consequences of biodiversity loss, this variety is at risk of extinction. In fact, it is incredibly difficult to find githigo maize either directly from farmers or on the market. The situation is further aggravated by government policies that privilege hybrids and GMOs. Some laws even criminalize the reproduction of githigo seeds by farmers.

NOMINATOR: JOHN KARIUKI MWANGI

N. 90 GITOGO KIIRU BANANA
(RED BANANA)

Musa acuminata Colla



Slow Food Presidium®

CATEGORY

FRUITS AND NUTS

PRODUCTION AREA

CENTRAL

INDIGENOUS COMMUNITY

GIKUYU / KIKUYU

SEASONALITY

SOW

AT THE BEGINNING OF THE RAINY SEASON (LATE MARCH – EARLY APRIL)

HARVEST

THE PLANT TAKES 18 MONTHS TO PRODUCE FRUITS, WHICH TAKE ROUGHLY 3 MONTHS TO MATURE.

SENSORY ANALYSIS

VISUAL

THE FRUITS ARE SHORTER AND PLUMPER THAN THE AVERAGE BANANA. THE SKIN IS DEEP RED OR MAROON WHEN RIPE AND THE FLESH IS CREAM TO LIGHT PINK. *KIIRU* MEANS "BLACK" AND REFERS TO THE FACT THAT THE BANANA'S COLOR IS NOT BRIGHT.

TASTE

SWEET, SOME WITH A SLIGHT MANGO FLAVOR, OTHERS WITH AN EARTHY FLAVOR

CONSISTENCY

SOFT

EDIBLE PARTS AND COOKING TECHNIQUES

FRUIT

RAW, BAKED, FRIED, ROASTED

The Gitogo Kiiru Banana variety does well in fertile, well-drained loam soils in areas with 1,000-2,500 millimeters annual rainfall (well distributed throughout the year) and temperatures between 20 and 30°C, at elevations between 600 and 1,800 meters above sea level.

Gitogo kiiru banana trees are propagated with suckers. Pieces of the corm with one or two eyes can also be used. A pit (1x1x1 meter) is prepared and then the topsoil is mixed with manure or compost. The sucker is planted in this mixture

at a depth of 30 centimeters. Dry matter is used to mulch the banana sucker to ensure moisture retention. Tools and equipment used include the *panga* (machete), *jembe* (hoe), spade, wheelbarrow, and watering can.

Gitogo bananas are harvested at varying stages of maturity depending on market requirements. For home consumption, the bunch is cut from the stem after the fingers begin to ripen. At this stage the fruits will ripen fully within 1-2 weeks.

CULINARY USES

Gitogo kiiru bananas are eaten in the same way as yellow bananas, by peeling the fruit before eating. They are frequently eaten whole, chopped, or added to fruit salads, but can also be baked, fried, and roasted. The bananas can be mashed together with lablab beans and served during important occasions. Gitogo kiiru bananas are sometimes sold dried.

Among the Gikuyu people, gitogo kiiru bananas are the main ingredient in traditional dishes such as *mukimo, itaha*, and salads that are served during important occasions such as wedding ceremonies, bridewealth payment ceremonies, and initiations.

PRODUCT HISTORY

The gitogo kiiru banana is appreciated in the Gikuyu community due to its high nutrient content. The ripe bananas are given to nursing mothers to restore their strength. Bunches of these bananas are used in bridewealth payments. Bananas planted on the way up to and at entrance of the house are a sign of respect and welcome for visitors during weddings and other social functions. Often, important visitors are given a bunch of gitogo kiiru bananas as a sign of respect.

This variety is cultivated mainly for home consumption. Excess bananas are sold informally to generate some income but, due to its decline, this variety is no longer found in markets.

CURRENT STATUS

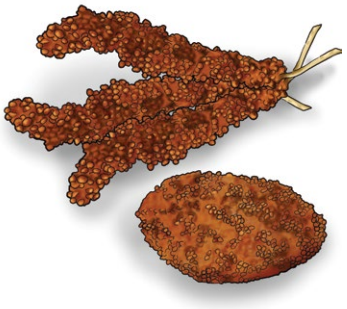
The gitogo kiiru banana is at a risk of extinction because, due to cultural erosion, the knowledge associated with its cultivation is no longer being passed on to the younger generations. The introduction of tissue culture has forced people to adopt hybrid varieties that mature faster than traditional varieties.

More information about the presidium on page 273

NOMINATOR: Jane mwangi

N. 91 KIBWEZI AND NZAUI FINGER MILLET (WIMBI)

Eleusine coracana (L.) Gaertn.



CATEGORY

CEREALS AND GRAINS

PRODUCTION AREA

KIBWEZI AND NZAUI DISTRICTS, MAKUENI COUNTY (EASTERN)

SEASONALITY

SOW

AT THE START OF THE RAINY SEASON

HARVEST

AROUND 6 MONTHS AFTER BEING PLANTED

SENSORY ANALYSIS

VISUAL

THE GRAIN IS SMALL AND OVAL SHAPED AND THE COLOR RANGES FROM LIGHT BROWN TO BROWN.

TASTE

SOUR

CONSISTENCY

PORRIDGE PREPARED FROM GROUND MILLET BECOMES THICK AND ACQUIRES A CREAMY CONSISTENCY.

EDIBLE PARTS AND COOKING TECHNIQUES

GRAINS

BEVERAGES, BOILED, STEWED

PRESERVING

DRYING

Finger millet is an annual grass that grows in tufts and has erect, light-green stems. The leaves are dark green, linear, and mainly smooth with some hair along the edges, and the inflorescence is a cluster of 3–26 "fingers" composed of dense spikelets where the grain is produced. It is mainly grown in Kenya's former Eastern Province. It grows well in areas with moderate rainfall (500-1,000 millimeters annually) at 500-2,400 meters above sea level with an average temperature of about 27°C. It can adapt to

a wide range of soils. It is sown directly by broadcasting or planted in furrows. Harvesting is done when the heads turn brown, at which point they are cut, dried, threshed and winnowed.

CULINARY USES

Finger millet, also known locally as *wimbi*, is an ingredient used in many typical Kenyan dishes. It is eaten as light porridge (*uji*) or used to make *ugali*. Ugali made from millet is served during wedding ceremonies. Finger millet is considered one of the best grains to use in making porridge cooked with milk for weaning children in the area of Ukambani. Wimbi flour porridge is also served to nursing mothers and mothers who have just given birth, to restore their strength. Local brews are made from millet flour.

PRODUCT HISTORY

Finger millet is considered an important crop for food security. It is an excellent source of methionine (an essential amino acid) and is productive in a wide range of environments.

It is an important source of income for women, who process it into various dishes and beverages. The dry stems are used to make traditional bowls, which have high cultural value and are presented to visitors. In addition, finger millet was served after the payment of bridewealth and during wedding festivals and circumcision rituals.

In the Kibwezi and Nzaui districts of Makueni County, the grain is harvested each season by small-scale farmers and is mostly destined for personal consumption. There is increased demand for this variety and its products on the market and it is currently selling better than other varieties. There is also a high demand for brewing purposes.

CURRENT STATUS

In spite of the preference for finger millet grain in Kenya, the production of this crop and the area devoted to its cultivation have been declining. While Kenyans appreciate products made with wimbi, low production levels mean that many must do without this ingredient or purchase grain imported from other African nations at high prices. Moreover, finger millet has greater labor requirement than other crops. Most of the labor input is required for weeding and land preparation. This increases the production cost of finger millet compared to other crops such as maize.

N. 92 KINYAANYA MAIZE

Zea mays L.

CATEGORY

CEREALS AND GRAINS

PRODUCTION AREA

KATHIANI AND MWALA, MACHAKOS COUNTY; KATHONZWENI, MAKUENI COUNTY (EASTERN)

INDIGENOUS COMMUNITY

AKAMBA / KAMBA

SEASONALITY

SOW

APRIL, DURING THE ONSET OF THE RAINS

HARVEST

DURING THE DRY SEASONS, SINCE RAIN CAUSES ROTTING IN THE FIELD

SENSORY ANALYSIS

VISUAL

LARGE, FLAT, WHITE KERNELS OF UNIFORM SIZE

TASTE

SWEET

CONSISTENCY

STARCHY AND HEFTY

EDIBLE PARTS AND COOKING TECHNIQUES

FRESH AND DRY KERNELS

BOILED

Kinyaanya is a variety of maize grown in Kathiani, Mwala, and Kathonzweni, Eastern Kenya, to the east and southeast of Nairobi. It is a fast-maturing, delicious, sweet variety.

Kinyaanya maize flourishes in temperatures of about 15°C and needs between 1,200 and 2,500 millimeters annual rainfall. It requires well-drained loam soils.

This variety has long been a staple food for the local Akamba community, whose people come together to harvest the crop. Younger generations harvest together, while adults form another group: This promotes socializing and relationships.

CULINARY USES

Kinyaanya maize is used in many local preparations. *Muthokoi* is a dish prepared by boiling crushed maize with beans. It is served with butter. Those who work long hours often consume it for lunch. Another dish is *githeri*, a traditional Kenyan stew consisting of beans, maize, meat, and vegetables.

Crushed kinyaanya is also used to make porridge and *ugali*, two breakfast dishes. Kinyaanya maize and related dishes are not found for sale but used for home consumption.

PRODUCT HISTORY

In the past, during the harvest, special songs and dances were performed. The harvest would also bring people together to discuss community issues. The kinyaanya harvest season was very important to the Akamba people for the feeling of unity that it brought. Community members would visit the sick and the disadvantaged and give them words of encouragement. During the special harvesting event called *methyla*, people would cook and eat together while selecting seeds for the next season.

Originally, seeds were exchanged, not bought or sold. Today, new varieties are sold by large commercial organizations to farmers in the surrounding areas. Kinyaanya maize seeds can only be found among older farmers who have kept the crop and had the seeds passed down by previous generations.

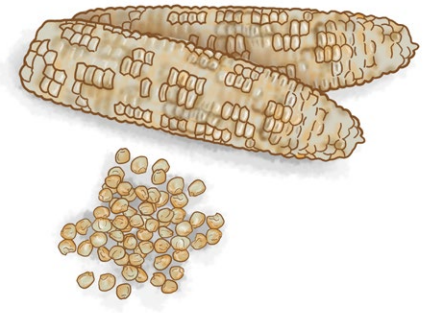
Currently, kinyaanya maize is cultivated in the community gardens of Mwala and Kathonzweni. Gardeners are faced with the challenge of continuing to grow kinyaanya seeds in the face of the introduction of hybrid seeds. They have decided to save two indigenous varieties of maize, kinyaanya and *kinyalili*. The indigenous maize is used to make ugali, githeri, and muthokoi, which are staples for the surrounding communities. The community's main activity is producing seeds, though the women also look after beehives. The group has also started table banking (members save together and borrow when the need arises) to increase their income.

CURRENT STATUS

Unfortunately, this variety is at risk of being lost due to its use in the development of hybridized and genetically modified maize varieties, thanks to its desirable characteristics like resistance to disease, pests, and weeds. These new varieties are sold by large commercial organizations to farmers in the area.

N. 93 KINYALILI MAIZE

Zea mays L.



CATEGORY

CEREALS AND GRAINS

PRODUCTION AREA

MWALA, MACHAKOS COUNTY; KATHONZWENI, MAKUENI COUNTY (EASTERN)

INDIGENOUS COMMUNITY

AKAMBA / KAMBA

SEASONALITY

SOW

APRIL, DURING THE ONSET OF THE RAINS

HARVEST

4-5 MONTHS AFTER SOWING

SENSORY ANALYSIS

VISUAL

THE PLANT IS SHORT, GROWING TO A HEIGHT OF ABOUT 1.5 METERS. THE MAIN DISTINGUISHING FACTOR IS THAT THE COB HAS A VERY BROAD BASE AND A NARROW TIP. THE NUMBER OF ROWS IS VARIABLE; THE KERNELS TEND TO BE LARGE AND FLAT, BUT THEIR SHAPE MAY VARY BASED ON THEIR LOCATION ON THE COB. THEY ARE USUALLY WHITE.

TASTE

SWEET

CONSISTENCY

STARCHY AND HEFTY

EDIBLE PARTS AND COOKING TECHNIQUES

GREEN AND DRY GRAINS

BOILED

Kinyalili is a local variety of maize cultivated in the southern part of Kenya, especially in Makueni and Machakos counties. Kinyalili maize does well in temperatures above 5°C, in areas with 500-1,000 millimeters of rain annually. It requires well-drained, fertile loam soil. Harvesting is usually done during the dry season to avoid the incidence of maize rotting in the field. The maize stalks are cut and piled in the field in straight heaps to allow the grain to dry. The cobs are then removed from their husks. Traditional tools such as *panga* (machete) and *jembe* (hoe) are used for cultivation.

After removing the kernels from the cobs, the grain is dried in the sun. Then it is winnowed and packed in sacks. The maize cobs can also be stored without removing the kernels, and may be hung in the kitchen where they come into contact with smoke, which preserves the maize and deters pests.

CULINARY USES

This maize variety is mainly used to make two special dishes called *muthokoi* and *ngima*. Preparing these dishes for in-laws signified that you were ready to take good care of their daughter. Muthokoi is an Akamba dish prepared from maize whose pericarp has been removed using a mortar and pestle. The lean maize grains are then mixed with legumes and cooked in a pot. Ngima is popularly known as *ugali* in Swahili. To prepare it, maize flour is boiled with water. The mixture is stirred until a thick paste is obtained. It is the staple food of many groups in Kenya. Ngima is also the name of a traditional ceremony celebrated when a child is born. The parents slaughter a goat or bull on the third day after the birth. Many people come to feast and celebrate with the family, and women who have borne children get together to give a name to the child.

PRODUCT HISTORY

The Akamba believe that every serious farmer must have some seeds and that failure to store them invites hunger upon the family. Including this variety of maize in bridewealth payments was appreciated by the groom's in-laws because it was considered a sign of responsibility that could ensure that the family would have enough food at all times.

According to Akamba tradition, women are supposed to plant maize. This is believed to increase the percentage of germination due to the attention given by women especially in ensuring that the seeds are placed at the right depth. Weeding is carried out by both men and women, using oxen and hoes, respectively. Women are in charge of harvesting and selecting seeds for the following season. The selected ears are hung from the kitchen ceiling as way of saving them, ensuring that they are free from moisture and protected against pests.

CURRENT STATUS

Kinyalili is at a risk of extinction as a result of the introduction of hybrid seeds, which are more readily available than this variety. Also, a kilogram of kinyalili costs double the price of other varieties. Efforts are underway to start multiplying the seeds to share them among the community through the Gardens in Africa project.

NOMINATOR: JULIUS MUTUKUMANTHI

N. 94 KITWA
(MUHOGO, KABANDA MENO)

Manihot esculenta Crantz

CATEGORY

ROOTS AND TUBERS

PRODUCTION AREA

NZIU, MAKUENI COUNTY (EASTERN); KILIFI DISTRICT, KILIFI COUNTY (COAST)

INDIGENOUS COMMUNITY

AKAMBA / KAMBA; GIRIAMA (MIJIKENDA)

SEASONALITY

SOW

OCTOBER - DECEMBER

HARVEST

STARTING IN SEPTEMBER

SENSORY ANALYSIS

VISUAL

THE TUBERS OF KITWA HAS TIGHT, BROWNISH SKIN. THE INTERIOR IS LIGHT IN COLOR AND HAS A STARCHY CONSISTENCY.

TASTE

SWEETER THAN OTHER VARIETIES. IT IS LESS SWEET AND TAKES ON A SOUR FLAVOR WHEN GROWN IN MORE FERTILE SOILS.

CONSISTENCY

LEATHERY

EDIBLE PARTS AND COOKING TECHNIQUES

ROOTS, LEAVES

BOILED, ROASTED, BAKED

PRESERVING

DRYING, FLOUR

Kitwa is a cassava variety with brownish skin. It is also known as *muhogo* in Swahili or *kabanda meno* (a name that means that the raw tuber is hard on the teeth) among the Giriama community.

It grows in the poor, sandy soils of the Nziu area of Makueni County in central southern Kenya, as well as in the Kilifi District of southeastern Kenya. The tubers have a tight skin that must be peeled off slowly and with care. Unlike many other cassava varieties, kitwa is susceptible to powdery mildew, which reduce yields. On the other hand, it is a drought-resistant crop. Kitwa is

propagated exclusively from stem cuttings and is usually planted during the rainy season. It takes 8 to 10 months for the tubers to grow to a harvestable size; they are dug from the soil with a fork *jembe*. After harvesting, the stems are stored in a dry place until the next planting.

CULINARY USES

The tubers are the most-consumed part of the plant but the leaves are also edible. Fresh cassava is used to make *kachiri*, or crisps, which are preferred to the potato crisps sold in supermarkets. These are eaten especially around Christmas time. In other areas, the cassava is cooked and mashed together with maize and pigeon peas to make a meal favored by children and the elderly. Dried kitwa can be ground into flour and used in baking bread, cakes, biscuits, *chapati*, and *ugali*. The flour can also be used to starch clothing.

In the Akamba community, cassava is used to prepare *nzukimwa*: The tubers are peeled, sliced into small pieces, and mixed with green maize and cooked beans. This mixture is fried in oil with onions; then water is added and the mixture is left to boil.

PRODUCT HISTORY

Cassava is one of the main staple foods in the Akamba community of Nziu in Makueni County. This crop plays an important role in local food security: Planting and harvesting time is flexible and the tubers can be harvested when most needed; kitwa and other traditional varieties are tolerant of poor, dry soils; the plants can be multiplied by vegetative propagation without the need for seeds, allowing farmers to continue growing the crop without financial input; and kitwa is resistant to drought and thus able to feed the community even in times of famine.

Kitwa was a main food source during long-distance walks (food for the journey) because once eaten it prevented hunger from returning quickly. The product was present during the naming of children after birth. Kitwa is mostly grown for home consumption, but some producers sell the tubers and cassava crisps on the market.

CURRENT STATUS

Because of its lack of resistance to powdery mildew, only a few farmers still specialize in planting this variety. Many of these growers are older and unless the stem cuttings and knowledge of crop management are passed to younger generations, it may soon be lost. Kitwa has been associated with poverty for a long time, which is another main reason why production has been declining.

N. 95 LISOTSI BANANA

Musa sp.

CATEGORY

FRUITS AND NUTS

PRODUCTION AREA

VIHIGA COUNTY (WESTERN)

INDIGENOUS COMMUNITY

ABANYOLE (LUHYA)

SEASONALITY

SOW

SUCKERS ARE SPLIT FROM THE MOTHER PLANT AND PLANTED DURING THE RAINY SEASON (MID-MARCH TO EARLY APRIL).

HARVEST

A PLANT TAKES ROUGHLY 8 TO 12 MONTHS TO MATURE. FRUITS ARE HARVESTED 90-150 DAYS AFTER THE FINGERS START TO FORM.

SENSORY ANALYSIS

VISUAL

THE SKIN OF THE FRUIT VARIES FROM GREEN TO YELLOW DEPENDING ON MATURITY.

TASTE

SWEET WHEN RIPE

CONSISTENCY

GLUE-LIKE TEXTURE WHEN UNRIPE

EDIBLE PARTS AND COOKING TECHNIQUES

RIPE FRUIT

BOILED, ROASTED

Lisotsi is a hardy banana variety that withstands droughts and diseases. For optimal growth, lisotsi requires a warm, humid climate with an average temperature of 20-30°C and 1,000 to 2,500 millimeters annual rainfall.

Lisotsi bananas are cultivated by the Abanyole people of Vihiga County in Western Kenya. The Abanyole are one of the sub-tribes that make up the larger Luhya community, whose ancestors are believed to have migrated from Egypt, following the Nile River up to Khartoum before entering what is now Uganda and Kenya.

In Vihiga County, bananas are harvested throughout the year. For home consumption, a bunch is cut from the stem after the fingers begin to turn light green. Bananas harvested at this stage will ripen within 1-2 weeks. Tools used include hoes, the *panga* (machete), *jembe* (hoe), spade, wheelbarrow, and watering can.

◆

CULINARY USES

Lisotsi bananas are eaten boiled or roasted. This banana is the principal ingredient of *ebitata*, a traditional bread made from ripe lisotsi bananas and cereal flour, which are kneaded into dough that is then cut into balls, wrapped in banana leaves, and steamed. It is served with tea or porridge. It is an important and popular product for Abanyole people during formal ceremonies such as weddings.

◆

PRODUCT HISTORY

Eating ripe lisotsi bananas does not cause an upset stomach. Lisotsi used to be eaten by everyone, especially during drought periods (due to its hardiness).

In the Abanyole community, banana fruits and leaves are associated with the birth of a new child. When a woman gave birth to a boy, a spear was put outside the house to the right, and if the child was a girl a pot supporter made from banana leaves was put to the left side of the house. When people came to visit the home they knew the sex of the child before entering the house. They would bring food, especially bananas.

In the past, if a clan doubted that a child was their blood relation, they performed a ritual to confirm whether the child belonged to them or not. One of the elders would cook unripe bananas. Once ready, he took a piece and mashed it to give to the baby. He would ask the baby to eat the mashed banana if they were indeed of the same blood. If the child ate the mashed banana, it was taken as a sign that she/he was a blood relation. If the child refused, however, she/he would die.

◆

CURRENT STATUS

This variety is disappearing due to the introduction of new banana varieties. Today, the lisotsi banana is not widely grown because many farmers have concentrated on producing the Cavendish variety for income. Commercialization of other varieties has made many farmers forget to conserve this special variety.

N. 96 MARUKU

Dioscorea bulbifera L.

CATEGORY

VEGETABLES

PRODUCTION AREA

Emuhaya District, Vihiga County (Western)

INDIGENOUS COMMUNITY

Abanyole (Luyha)

SEASONALITY

SOW

March–September (mainly in August and September)

HARVEST

Tubers appear after 3.5 months; harvest begins after 6.5 months and continues until the 11th month.

SENSORY ANALYSIS

VISUAL

Fruits are capsules 2.5 centimeters long. The yams have a butterfly shape and are yellow inside. The outer skin is gray with a thin green layer underneath.

TASTE

Close to the taste of white potatoes when cooked

CONSISTENCY

Fibrous

EDIBLE PARTS AND COOKING TECHNIQUES

BULBILS

boiled, roasted

Maruku is a variety of *Dioscorea bulbifera*, the air potato or aerial yam, which bears "tubers" (actually bulbils) along its stem at the base of the leaves. It grows to a height of about 10 meters and produces yams only once a year. After the yams mature, the plant dies back and remains dormant in the ground until the next season, when it sprouts again. The tuberous root can last a year or more in the ground waiting for suitable environmental conditions to sprout.

Although some wild varieties of this plant can be poisonous, many varieties are cultivated for human consumption in Africa. When the bulbils are ready,

they can be picked like fruit. Maruku is associated with the tropical forests of Western Kenya. It is cultivated in home gardens and in banana plantations. The plant can easily be intercropped with cereals and green leafy vegetables. The crop requires sufficient water to produce high yields. It is primarily men who grow maruku, and harvesting it requires strength and particular skills.

CULINARY USES

Maruku is boiled with salt, peeled, and eaten with tea, usually as a snack. It can also be roasted in the ashes of a fire and then peeled. Before cooking, the tubers are soaked in cold water for 2 days to dissolve toxic compounds. Maruku is mainly used when there is a shortage of other foods.

PRODUCT HISTORY

In Vihiga County, maruku is considered a delicacy and appreciated especially by many elderly people who still grow it. Maruku has also played an important role in the social life of local people. The crop occupies a special place in traditional ceremonies such as circumcision, bridewealth negotiations, weaning babies, and other social occasions.

The Abanyole (a sub-tribe of the Luyha people in Western Kenya) use maruku as a treatment for measles in children. It has been used in traditional medicine to treat diarrhea, dysentery, conjunctivitis, fatigue, and depression, among other ailments.

Maruku is still being grown by a few farmers in Emuhaya District and the surrounding areas within Vihiga County, but in small quantities. It is mainly cultivated for personal or family use, and maruku is only rarely found for sale commercially, when an abundant crop produces excess yams.

CURRENT STATUS

The cultivation of this crop in Kenya has declined considerably in recent years. Maruku is disappearing in most gardens as farmers transition to monocultures of other crops. Continuous clearing of natural forests and a lack of knowledge transfer from the elderly to the younger generations have contributed to reducintg biodiversity on farms and to the disappearance of crops such as maruku. Very few people still intercrop it within their banana plantations.

N. 97 MUIBAÌ SWEET POTATO (NGWACÌ YA MUIBAÌ)

Ipomoea batatas (L.) Lam.

CATEGORY

ROOTS AND TUBERS

PRODUCTION AREA

KIAMBU, NYERI, NYANDARUA, AND MURANG'A COUNTIES (CENTRAL); EMBU COUNTY (EASTERN)

INDIGENOUS COMMUNITY

GIKUYU / KIKUYU

SEASONALITY

SOW

MARCH–APRIL, AUGUST–SEPTEMBER

HARVEST

JULY AND DECEMBER

SENSORY ANALYSIS

VISUAL

THE TUBERS ARE LONG AND STRAIGHT. THE SKIN IS LIGHT BROWN AND THE FLESH IS CREAMY WHITE WITH A CRUMBLY TEXTURE.

TASTE

LESS SWEET THAN OTHER VARIETIES

CONSISTENCY

FRIABLE

EDIBLE PARTS AND COOKING TECHNIQUES

TUBERS, LEAVES

BOILED, ROASTED

Muibai is a sweet potato variety that was cultivated by the Gikuyu community during the precolonial and colonial periods (until the first half of the 20th century). It was grown in reserves designated for workers in colonial masters' farms, located in parts of modern-day Kiambu, Nyeri, Nyandarua, Murang'a, and Embu counties. It was normally cultivated during both the long rainy season (*mbura ya njahi)* and the short rainy season (*mbura mwere)*. Sweet potatoes were intercropped with yams. Women were in charge of planting and harvesting the tubers.

Sweet potatoes can be planted at any time as long as there is sufficient moisture in the soil. However, it is best to plant them early in the rainy season.

Usually, muibaì sweet potatoes are ready to harvest when the leaves and ends of the vines start turning yellow. Harvesting is done by digging up the tubers using a hoe, known locally as *jembe*. Locally made baskets (*vyondo*) are used to collect and transport the harvested sweet potatoes.

CULINARY USES

Traditionally, these sweet potatoes were boiled or roasted in hot ashes and serving in the morning with sugarless tea, or *dubia*.

Sweet potato leaves are also edible and are a good source of minerals and vitamins. Young leaves are used as a green vegetable. They are boiled and fried with onion and tomatoes. They can also be used to prepare sauces. While sweet potato tubers are commonly eaten all over Kenya, the use of the leaves in the kitchen is less common. The sweet potatoes are also boiled and mashed with wheat flour to make dough for *chapati*.

PRODUCT HISTORY

Muibaì sweet potatoes were and still are one of the most important crops for the Gikuyu people. They are known as "breakfast food" and are usually boiled the night before, after cooking and eating dinner. Traditionally, in the morning, tea with milk was made and every member of the family would enjoy a good piece of muibai sweet potato with the tea.

Since they are drought resistant, many families still grow these sweet potatoes in their gardens. It is a good crop for food security since it has a number of different uses. The tubers are a source of food while the vines provide fodder for sheep and goats. The sweet potatoes were also used to barter for goats and were, therefore, an important means of accumulating wealth. *Ngwaci ya muibaì* were mostly consumed during the traditional Gikuyu rite of passage of circumcision. It was believed that the tuber provided energy, strength, and quick healing to the young initiates.

CURRENT STATUS

Ngwacì ya muibaì is at risk of extinction because it is being replaced by higher-yielding hybrid varieties and because of lack of knowledge about this particular variety. The younger generations are much less interested in cultivating indigenous crops, and changes in the eating habits of the Gikuyu community mean that more people are consuming processed, modern foods as opposed to traditional foods. As such, this variety is at risk of being lost from the local gastronomy and food biodiversity.

NOMINATOR: SAMSON KIIRU NGUGI

N. 98 MUTAHATO BANANA

Musa sp.

Slow Food Presidium®

CATEGORY

FRUITS AND NUTS

PRODUCTION AREA

CENTRAL

INDIGENOUS COMMUNITY

GIKUYU / KIKUYU

SEASONALITY

SOW

AT THE BEGINNING OF RAINY SEASON (LATE MARCH - EARLY APRIL)

HARVEST

THE PLANT TAKES AROUND 2 YEARS TO REACH MATURITY. THE FRUIT TAKES 3-4 MONTHS TO BE READY FOR HARVESTING.

SENSORY ANALYSIS

VISUAL

THE SKIN VARIES FROM GREEN TO YELLOW DEPENDING ON MATURITY. THE INTERIOR IS WHITE OR ORANGE.

TASTE

NEUTRAL TO SWEET DEPENDING ON RIPENESS

EDIBLE PARTS AND COOKING TECHNIQUES

RIPE AND UNRIPE FRUIT

BOILED, ROASTED

Mutahato is one of the tallest banana cultivars, reaching heights of up to 9 meters. It takes 2 years to mature and thrives in fertile, well-drained soil. It produces delicious fruit that is eaten ripe and may also be cooked or roasted. This type of banana is most productive in areas with annual rainfall ranging from 1,000-2,500 millimeters, at elevations up to 1,800 meters above sea level.

Gikuyu farmers use many parts of the banana tree. The leaves are used for wrapping cooked food that is then roasted; they may also be used as covers for pots. At the end of the banana bunch is a vestigial bulb that is part of the

flower. This bulb, called *mukono* in Gikuyu, is used as a container for liquid. Banana leaves and stems are given to cattle and goats as fodder, mostly during drought periods.

CULINARY USES

Mutahato Bananas are used to prepare a special meal called *thiiri*. Green bananas are peeled and roasted. They are then cleaned (by scratching the surface with a knife) and mashed into a paste that is served in portions locally known as *mataha*, ready for eating. This variety of banana is also boiled together with peas, mashed, and given to young boys after circumcision to provide energy and strength.

Dishes prepared from mutahato bananas are used to prevent diseases in women and children.

PRODUCT HISTORY

In the Gikuyu community, the Mutahato was considered the best banana due to its high nutritional content and was therefore used for weaning babies. The bananas were roasted or boiled, chewed thoroughly by the mother, and given to the baby. This method of feeding babies was very popular in rural areas but changing hygiene norms have led to its decline. Ripe and unripe Mutahato Bananas were given to nursing mothers to restore their strength. They were also given to mothers as a present after the birth of a child. Bunches of bananas were included in bridewealth payments. Bananas planted on the way up to and at the entrance of the house are a sign of respect and welcome for visitors during weddings and other social functions.

Mutahato Bananas are grown both for home consumption and for sale in local markets. Farmers growing this type of banana sell it to the Gikuyu community especially during traditional ceremonies.

CURRENT STATUS

This variety of banana is at a risk of extinction due to the fact that only a few people are growing it, mostly the elderly. In addition, the introduction of tissue culture has forced people to adopt hybrids that mature faster than traditional varieties. Farmers' preference for growing new varieties is largely due to market demand.

More information about the presidium on page 278

nominator: Nancy W. Muhoro

N. 99 NDUMA (TARO)

Colocasia esculenta (L.) Schott

CATEGORY

ROOTS AND TUBERS

PRODUCTION AREA

NAKURU COUNTY (RIFT VALLEY)

INDIGENOUS COMMUNITY

GIKUYU / KIKUYU; KALENJIN

SEASONALITY

SOW

NORMALLY PLANTED DURING THE RAINY SEASON BECAUSE IT REQUIRES QUITE A LOT OF WATER DURING THE FIRST STAGES OF GROWTH

HARVEST

MAINLY HARVESTED ONCE A YEAR, 7-10 MONTHS AFTER PLANTING

SENSORY ANALYSIS

VISUAL

THE CORMS LOOK SIMILAR TO TUBERS SUCH AS CASSAVA. THEIR SHAPE IS IRREGULAR BUT OFTEN OBLONG OR OVATE-OBLONG. THEY ARE BROWN OUTSIDE AND CREAM COLORED WITH BROWN SPOTS INSIDE, AND RESEMBLE A COCONUT IN COLOR AND SIZE.

TASTE

SWEET, SIMILAR TO MAIZE

CONSISTENCY

FIBROUS AND STARCHY

EDIBLE PARTS AND COOKING TECHNIQUES

ROOTS/CORM, LEAVES

BOILED, FRIED, ROASTED

PRESERVING

DRYING, FLOUR

Taro is also known as *nduma* among the Kalenjin and Gikuyu peoples who hail from Kenya's Rift Valley. It is a perennial plant harvested at intervals. It has creeping roots with fleshy corms and its many-branched stem reaches a height of 0.5-1.5 meters, bearing numerous large heart-shaped leaves and a few stalked white flowers. Nduma does well in waterlogged areas and on riverbeds because it requires wet conditions and consumes a lot of water. It is possible to grow nduma away from riverbeds by planting it in trenches. Harvesting of nduma begins by removing the deep corms from their waterbeds using a hoe or blunt machete. Farmers pay careful attention to the root to reduce damage to the corm.

CULINARY USES

Nduma roots (corms), boiled or fried, are served with different stews or eaten with a cup of tea in the morning before going to work, as they provide plenty of energy for the day. They are also a source of fiber. Nduma may be powdered and used to thicken soups and stews made from either cereals or vegetables. It is also used as a substitute for potatoes and bread. Among the Gikuyu of the Rift Valley, nduma is boiled together with sweet potato. The leaves are edible and are usually served with fried beef and steamed cabbage. They can also be used in *mukimo*, which is a mixture of maize, *njugu* (nuts), beans and/or *njahi* (black beans), nduma and/or pumpkin leaves, bananas (ripe), and potatoes.

PRODUCT HISTORY

Nduma was known to be found at grandmothers' homes. Each grandmother had a *kianda*, a low-lying flooded garden patch. Whenever a visitor came, the grandmother would harvest a few corms from the kianda. Back in the house, she would place them in the hot ash of her cooking fire and leave them there to bake for an hour or so. The baked nduma was very nice to eat with a cup of tea. It was the equivalent of cake but with no additives, not even salt. People in rural areas who use a three-stone hearth still prepare nduma in this way. Nduma was an important food during initiation ceremonies, childbirth, and for nursing mothers because it provides a lot of energy and promotes healing.

During the main harvest, farmers were able to gather lots of corms and ended up selling them. This allowed them to earn high incomes because very few people were (and are) involved in producing nduma.

CURRENT STATUS

The introduction of industrial products like bread, cakes, and biscuits has reduced the consumption of nduma, especially among young people who refer to it as a traditional food for the elderly. Urban migration has also greatly affected the production because the older generation left behind in farms cannot work efficiently in the fields, hence there has been a decrease in production. Introduction of Rwandan varieties has also contributed to the decline of the indigenous varieties that are best adapted to the region.

N. 100 NYANKUNDI MILLET

Eleusine coracana (L.) Gaertn.

CATEGORY

CEREALS AND GRAINS

PRODUCTION AREA

MICHINA VALLEY, KISII AND NYAMIRA COUNTIES (NYANZA)

INDIGENOUS COMMUNITY

ABAGUSI (KISII)

SEASONALITY

SOW

LONG RAINY SEASON (FEBRUARY – MARCH)
SHORT RAINY SEASON (AUGUST)

HARVEST

JULY – AUGUST
DECEMBER – JANUARY

SENSORY ANALYSIS

VISUAL

THE SEEDS ARE SMALL, ROUND, AND WHITE.

TASTE

SWEETER THAN OTHER FINGER MILLET VARIETIES

CONSISTENCY

CRUNCHY

EDIBLE PARTS AND COOKING TECHNIQUES

GRAINS

BOILED, STEWED

PRESERVING

DRYING, FLOUR

Nyankundi is a traditional finger millet variety from the west of Kenya. In this region, finger millet is planted in both the long and short rainy seasons. Planting finger millet in the short rainy season requires a lot of labor, especially to clear the fields, which is a most arduous operation. On the other hand, finger millet sown in long rainy season can be at risk from diseases, high rainfall, and cold temperatures.

Abagusii (Kisii) people living in the Michina Valley area cultivate the crop. Locally known as *obori*, finger millet is considered the domain of women. They are in charge of many tasks related to millet production. Apart from participat-

ing in weeding, they are involved in seed selection, drying, threshing, processing, and storing the grains.

CULINARY USES

Nyankundi millet is used to make porridge, *busaa* (a local brew), and *ugali*, a mixture of millet flour and water served with vegetables or traditional yogurt. Nyankundi millet porridge is made from fermented millet flour and is often consumed by nursing mothers, young children, and those recovering from illness. It is typically consumed in the morning, as part of breakfast, but can be taken at any time of day, either hot or cold. Sometimes, cassava or sweet potato flour is also mixed in. Among the Abagusii people, the word for ugali is *obokima* or *obuba*. The name "obuba" also describes a person who likes to eat frequently and in large quantities.

PRODUCT HISTORY

The Abagusii tribe is one of the oldest Bantu groups in western Kenya. Their ancestors arrived in the region from Uganda and later moved from the Mount Elgon area to their current lands, about 500 years ago.

Nyankundi has been cultivated in the Michina area since the pre-colonial period, mainly by the Abagusii community. In the past, the Abagusii bartered finger millet with the Luo and other tribes of western Kenya.

Even today, finger millet is valued as a major crop in the area. This cereal plays an important role in the diet and economy of subsistence farmers. Staple foods prepared from the grain are major sources of minerals and nutrients and are also served after the payment of a dowry and during wedding festivals and circumcision rituals. Traditionally, the head of the family will taste the dishes before they are served to the other members of the household to bless the harvest. During weddings, obuba (finger millet ugali) is offered to people visiting the bride's home prior to the wedding ceremony.

The product is grown for home consumption and also sold on the market, where it is in very high demand.

CURRENT STATUS

Although people prefer finger millet grain, its production has been in decline in recent years due to several production constraints including high labor requirement, weeds, and pests and diseases. The introduction of hybrid grains has also led some farmers to abandon local heirloom millet varieties such as nyankundi.

CHAPTER 6

SLOW FOOD AND ITS INITIATIVES IN KENYA

Slow Food® Kenya

WHAT IS SLOW FOOD?

Slow Food is a global grassroots organization founded in 1989 to prevent the disappearance of local food cultures and traditions and counteract the rise of fast food culture. Since its beginnings, Slow Food has grown into a global movement involving **millions of people in over 160 countries**, working to ensure **everyone** has access to good, clean and fair food. Slow Food is the umbrella organization responsible for guiding and steering the action of the entire movement, which is composed of over 2,000 local chapters and food communities, and reaches millions of people every year.

Slow Food promotes food that is **good, clean and fair for all**: **good** because it is healthy in addition to tasting **good**; **clean** because it is produced with low environmental impact and with animal welfare in mind; and **fair** because it respects the work of those who produce, process, and distribute it. Slow Food works to defend biodiversity and to promote a sustainable and environmentally friendly food production and consumption system; to spread sensory education and responsible consumption; and to connect producers of quality foods with co-producers (conscious consumers) through events and initiatives.

Slow Food is committed to protecting traditional, sustainable, quality foods, defending the biodiversity of cultivated and wild varieties as well as methods of cultivation and production. These are all threatened by the prevalence of processed food, industrial agribusiness, and the rules of the global market.

The **Slow Food Foundation for Biodiversity** was created in 2003 to safeguard food biodiversity and gastronomic traditions around the world. It promotes a sustainable model of agriculture that respects the environment, cultural identity, and animal welfare and supports the right of each community to decide what to plant, produce, and eat. Slow Food has become what it is today based on the safeguarding of products.

The Foundation's activity focuses primarily on countries in the Global South, where defending biodiversity means not only improving quality of life but guaranteeing the very survival of local communities.

It finances and coordinates a group of international projects focused on protecting agricultural biodiversity: the **Ark of Taste, Gardens in Africa, Presidia** and **Narrative Labels, Slow Food Cooks' Alliance**, and **Earth Markets**.

WHAT IS THE ARK OF TASTE?

The Ark of Taste is an online catalogue of foods at risk of disappearing that are a part of the cultures and traditions of the entire world.

The Ark was created to point out the existence of these products, draw attention to the risk of their extinction, and invite everyone to take action to help protect them by seeking them out, buying and consuming them, telling their story, supporting their producers, and, in some cases (such as the case of endangered wild species at risk of extinction), promoting their conservation and reproduction.

The overall objective is not to create a seed bank, a collection of genetic material, or museum to exhibit traditional knowledge, but to rediscover and give value to these resources in order to support local economies.

In addition to plant and animal species, processed products board the Ark because, together with plant and animal biodiversity, cheeses, cured meats, breads, and sweets are also disappearing. These products are expressions of farmers' and artisans' knowledge that exists not in written recipes, but as complex and rich skills and practices passed down through generations.

WHAT ARE THE CRITERIA FOR SELECTING A PRODUCT?

1. *Products can be domestic species (local plant varieties and animal breeds), wild species (only if related to techniques for collecting, processing or traditional uses), or processed products.*
2. *Products must be of particular sensory quality, as defined by local traditions and uses:* Chemical or physical analyses are not sufficient to judge the quality of a product, but nor is tasting. The origin of the product must be understood and communities must be consulted. Ultimately, it is fundamental to consider the palate of the community from which a product originates. A European product could be difficult to understand and appreciate for an African taster, just as an Asian product could be difficult to decipher and appreciate for a European.

3. *Products must be connected to a territory and to the memory, identity, and traditional local knowledge of a community:* The products that interest us are strongly linked to their territory, not just in terms of climate and environment, but also in a cultural, historical, and physical context.

4. *Products must be produced in limited quantities:* The Ark of Taste is a catalogue of products, not producers. Therefore, it is not necessary to have an exact figure of the quantity produced (data which is, however, essential for establishing a Presidium), but it is important to at least identify an order of magnitude, to establish if we are dealing with an artisanal or an industrial product.

5. *Products must be at risk of extinction,* whether real (i.e., imminent) or potential (i.e., when the local social and environmental contexts are such that a reduction in the quantity of the product or the number of producers can be predicted for the coming years).

HOW TO NOMINATE A PRODUCT

Anyone can nominate a product without being an expert, having particular skills, or being a Slow Food member. It is possible to nominate a product from your own area or from other communities or another country. You can nominate a product by filling out the form available on the Slow Food Foundation for Biodiversity website.

The nomination form will be evaluated by the national/regional commission, in countries where they exist. The Foundation website lists the countries in which a commission exists and the relevant contact information for getting in touch with local working groups.

These two bodies – the local commissions and the Slow Food Foundation for Biodiversity – will verify that the nomination fits the criteria established for the project. To do so, the Slow Food Foundation collaborates with advisers from different countries.

If nomination forms are incomplete, additional information will be requested from the nominator.

After approval, the next step is to include a brief description of the product in the online catalogue.

At the time of printing this publication, Slow Food members have entered more than **6,300 products from 150 countries** into the Ark of Taste.

The project: www.fondazioneslowfood.com/en/what-we-do/the-ark-of-taste/

Nomination form: www.fondazioneslowfood.com/en/what-we-do/the-ark-of-taste/nominations-from-around-the-world/nominate-a-product/

WHAT ARE THE SLOW FOOD PRESIDIA?

The Presidia (singular: Presidium), active since 1999, are projects in which Slow Food works with groups of small-scale producers to resolve difficulties they face, uniting isolated producers and connecting them with alternative markets that are more sensitive to their situation and appreciative of their high-quality products. To make the journey from being listed on the Ark to becoming a Presidium, it is essential to make direct contact with producers, who in turn must share Slow Food's values and philosophy and be motivated to develop the project.

CRITERIA

The Presidia can work to protect:

1. A traditional product at risk of extinction (an Ark of Taste product);
2. A traditional production practice at risk of extinction (e.g., fishing, breeding, processing, or cultivating);
3. A rural landscape or ecosystem at risk of extinction.

To create a Presidium, two aspects must always be verified: environmental sustainability ("clean") and social and economic sustainability ("fair")

WHAT IS THE DIFFERENCE BETWEEN THE ARK OF TASTE AND THE PRESIDIA?

While the Ark of Taste is a catalogue of products, the fundamental characteristic of the Presidia is the relationship with producers and the creation of an initiative to support them. Starting a Presidium means visiting producers, finding out how they work and what difficulties they face, and understanding their social and cultural context and their market in order to succeed in putting a promotional initiative into action.

The Slow Food Presidia directly intervene to safeguard traditional products at risk of extinction (products from the Ark) and represent, therefore, the next phase after cataloguing on the Ark. Naturally, it is not possible to have as many Presidia as there are products on the Ark. The hope is that many other organizations and institutions will also mobilize to save these products.

Slow Food has established more than **680 Presidia in over 70 countries** around the world, and there are seven Presidia active in Kenya.

www.fondazioneslowfood.com/en/what-we-do/slow-food-presidia/
www.fondazioneslowfood.com/en/nazioni-presidi/kenya-en/

SLOW FOOD GARDENS IN AFRICA:
CULTIVATING THE CONTINENT'S FUTURE

Africa is a rich continent boasting a huge variety of peoples, cultures, and languages (over 2,000), and an extraordinary wealth of biodiversity. Africa is home to distinct terrains, landscapes, and climates; a diverse heritage of natural resources and foods (fruit trees, grains, vegetables, and animal breeds); and essential ancient knowledge. It is also a young continent, full of energy and creativity. Slow Food works with and promotes this wealth of resources, putting communities, people, and their knowledge at the center of all projects.

Since 2011, the Gardens in Africa project has involved over 50,000 people in 36 African countries, as well as tens of thousands of members and activists around the world. After the original target for the project (1,000 gardens) was reached at the end of 2013, Slow Food decided to re-launch the initiative in 2014 with a new challenge: to create 10,000 gardens across the continent. Creating 10,000 good, clean and fair gardens in African schools and communities means teaching young people about the importance of food biodiversity and access to fresh and healthy food, as well as creating a network of leaders who are aware of the value of their own land and culture. This network can give rise to the leaders of change across all continents, a change based on the liberation of traditional foods and knowledge in a social economy linked to the land and environment.

The gardens are practical models of sustainable agriculture, adapted to the individual characteristics of diverse settings—environmental, social, and cultural—and easily replicable. They can lead the way toward a different model of development in which food production is reconnected with local societies and environmental awareness.

Slow Food is not simply creating a series of gardens in Africa; it is also promoting an idea of agriculture based on knowledge of the terrain and respect for biodiversity and local cultures, an agriculture that is capable of meeting the nutritional requirements of African communities without distorting social relations and destroying the environment, while also honoring local history and knowledge and respecting the land and its dynamic ecological balance.

The traditional varieties of fruits, vegetables, aromatic herbs, and medicinal plants grown in Slow Food gardens are comparatively resistant to disease and drought because they have adapted over time to their specific environments. Seedbeds are created to reproduce seeds so that they do not need to be purchased every year. Compost is made with discarded vegetables, manure, and ash to nourish the land and keep it fertile and healthy. Plants are protected using traditional methods to avoid buying pesticides, which poison the water and soil. Water is conserved by keeping moisture in the soil through mulching, collecting rainwater, and implementing drip irrigation systems. The harvest supplies families and school canteens (in the case of school gardens), with the excess produce being sold at local markets or in small restaurants that sometimes develop next to the gardens.

This project has played a significant role in strengthening Slow Food in Africa. To date, more than **4,000 gardens** have been established in **36 countries**, involving more than 50,000 people.

10 ESSENTIAL INGREDIENTS FOR A SLOW FOOD GARDEN

1. They are created by a community.

The gardens bring together and value the capacities of all community members, uniting different generations and social groups (village or school associations, local administrators, and non-profit organizations). They recover the wisdom of older generations, make the most of the energy and creativity of younger people, and benefit from the skills of experts.

2. They are based on observation.

Before planting a garden, it is necessary to learn about, observe, and get to know the local terrain, varieties, and water sources. The garden must be adapted to its surroundings and local materials should be used to make fencing, compost bins, and nurseries.

3. They do not need a large amount of space.

By looking creatively at the space available, it is possible to find somewhere to put a food garden in the most unlikely places: on a roof, by the side of a footpath, and so on.

4. They are gardens of biodiversity.

Slow Food gardens are places for local biodiversity, which has adapted to the climate and terrain thanks to human selection. These nutritious and hardy varieties of vegetables, medicinal plants, culinary herbs, and fruits trees (e.g., bananas, mangos, citrus) do not need chemical fertilizers and pesticides.

5. They produce their own seeds.

Seeds are selected and reproduced by the communities. This means that every year the plants become stronger and better suited to the local area and money does not need to be spent on buying packets of seeds.

6. They are cultivated using sustainable methods.

Natural remedies based on herbs, flowers, or ash are used to combat harmful insects or diseases.

7. They save water.

Once again, an approach based on observation and creativity is fundamental. Sometimes it only takes a gutter, tank, or cistern to collect rainwater to resolve seemingly insurmountable problems and avoid more expensive solutions.

8. They are open-air classrooms.

Food gardens offer an excellent opportunity for teaching adults and children alike about local plant varieties, promoting a healthy and varied diet, explaining how to avoid using chemicals, and giving value to the craft of farmers.

9. They are useful, but also fun.

Food gardens are a simple and inexpensive way of providing healthy and nutritious food. But even in the most remote villages and the poorest schools, Slow Food gardens are also a place for games, celebrations, and fun.

10. They are networked together.

Neighboring gardens exchange seeds, while those farther away exchange ideas and information. The coordinators meet, write to each other, and collaborate. "Twinnings" between schools and convivia from all over the world allow the creation of new gardens across the continent.

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www.fondazioneslowfood.com/en/what-we-do/10-000-gardens-in-africa-2/

THE SLOW FOOD COOKS' ALLIANCE

The Alliance project started in Italy in 2009 and, so far, has spread to more than 30 other countries, from The Netherlands to USA, and from Mexico to Kenya.

Its objectives are to:

- inspire the creation and strengthening of direct relationships (of work, collaboration, friendship, and solidarity) between cooks and food producers.
- promote Presidia and Ark of Taste products, as well as good, clean and fair products made locally on a small scale, thus protecting food biodiversity at risk of extinction.
- communicate about small-scale farms and artisanal food producers and raise their profile.
- develop and strengthen the Slow Food network in local communities, bringing producers, cooks, and restaurateurs closer to the Slow Food values.
- promote local gastronomic traditions and artisanal knowledge.
- raise awareness about the need to make sustainable consumption choices.

- translate Slow Food's international campaigns (Slow Fish, against food waste and GMOs, in favor of biodiversity and raw milk cheeses, to protect agricultural landscapes, etc.) into concrete, everyday actions.
- provide concrete support to Slow Food projects to protect biodiversity and the activities of the Terra Madre network.

The participating cooks and chefs have diverse backgrounds and cooking styles, but they all share a commitment to protecting food biodiversity and safeguarding gastronomic knowledge and local cultures. They always source high-quality ingredients (local, sustainable, and seasonal) and communicate the origin of their products and the names of the producers who supply them.

For updated data see:
www.fondazioneslowfood.com/en/what-we-do/slow-food-chefs-alliance/
www.fondazioneslowfood.com/en/nazioni-alleanza/kenya-en/

ABOUT SLOW FOOD KENYA

The Slow Food Convivia Association of Kenya (hereinafter referred to as Slow Food Kenya or SFK) is part of Slow Food, a global grassroots organization founded in 1989 to prevent the disappearance of local food cultures and traditions, counteract the rise of fast life, and combat people's dwindling interest in the food they eat, where it comes from, and how our food choices affect the world around us.

Slow Food Kenya started its activities in 2004 after the first edition of Terra Madre Salone del Gusto (an international food and agriculture event that brings together producers and artisans of the food industry from around the world every 2 years in Turin, Italy). It was officially registered in 2014 and launched in 2015. Today SFK brings together 79 local chapters (called convivia) and food communities that are spread in different areas across the country. Its main activities focus on the defense of food biodiversity, sustainable agriculture, and the promotion of local and traditional food. It supports small-scale farmers, fishers, and herders as they rediscover or enhance traditional techniques and helps them to promote their food culture with pride and dignity by ensuring that everyone has access to good, clean and fair food.

The association has actively participated in different projects over the years. Through the Ark of Taste project, 100 products that are at risk of disappearing from Kenya's food culture have been identified and catalogued with the aim of pointing out their existence, drawing attention to the risk of their becoming extinct or abandoned within a few generations, and inviting Kenyans to take action to help protect them. Eleven Slow Food Presidia have been established in the country, for Endorois Bogoria Kisochon, Gitogo Kiiru Banana, Lare Pumpkin, Mau Forest Dried Nettles, Molo Mushunu Chicken, Molo Sheep, Mutahato Banana, Nzoia River Reed Salt, Ogiek Honey, Pokot Ash Yogurt, and Red Maasai Sheep. The aim of the Presidia is to sustain quality products at risk of extinction, protect unique ecosystems, recover traditional processing methods, and safeguard local breeds and plant varieties. Slow Food Kenya is also

involved in Slow Food's flagship Gardens in Africa project. This initiative aims to create 10,000 good, clean and fair food gardens in African schools, villages, and urban areas to guarantee availability of fresh and healthy food to communities. More than 500 gardens have already been established in Kenya. The Slow Food Cooks' Alliance is a network of cooks and chefs helping to defend food biodiversity across the world. It unites cooks from restaurants, hotels, canteens, and other food outlets. The cooks support the Slow Food projects by buying and using products from the Ark of Taste and Presidia. The Cooks' Alliance in Kenya brings together 40 cooks who are working closely with small-scale farmers and food outlets to promote Kenyan gastronomy. Food and Taste Education seeks to reawaken our senses and increase our understanding of where our food comes from, how it is produced, and by whom. Adults and children learn to appreciate the cultural and social importance of food. Food and Taste Education activities continue to play a critical role in creating awareness about the differences between high-quality products and standardized, mass-produced alternatives in Kenya.

CHAPTER 7

SLOW FOOD PRESIDIA IN KENYA

Slow Food Presidium®

ENDOROIS BOGORIA KISOCHON

Production area

Lake Bogoria area, Baringo County, Rift Valley

Producers

Around 30 gatherers from the Sandai Endorois Agro-Ecology Slow Food Community and the Bogoria Endorois Beekepers Slow Food Community

Contacts

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The Sandai Endorois Agro-Ecology and Bogoria Endorois Beekepers Slow Food Communities are working together on the Presidium to ensure that this variety of African nightshade continues to be a key food in the local diet. Local populations of Kisochon are threatened members of the younger generation dislike its bitterness and perceive it as poor people's food. Moreover, in 2000, the Kenyan government allowed the introduction and promotion of "improved African nightshade" through the Kenya Agricultural and Livestock Research Organisation (KALRO), creating a lot of competition with the local variety. The wide use of agricultural chemicals in the area surrounding Lake Bogoria affects soil fertility and the viability of wild Kisochon.

GITOGO KIIRU BANANA

Production area

Kirinyaga County, Central Kenya

Producers

The Presidium unites 25 producers from the Gikuyu community

Contacts

Presidium producers coordinator
Charles Macharia
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The Gitogo Kiiru Banana faces extinction due to the erosion of traditional knowledge related to its cultivation, especially among younger generations. The emergence of tissue culture has prompted the adoption of hybrid varieties with quicker maturation, and these are displacing traditional varieties. The Presidium is committed to assisting producers in safeguarding this native banana type and transmitting the knowledge associated with its cultivation.

LARE PUMPKIN

Production area

Lare village, Njoro District, Nakuru County, Rift Valley

Producers

30 producers belonging to the Nganoini Farmer Field School

Contacts

Presidium producers coordinator
Leah Wanjiku Kinita
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Presidium coordinator
Samson Kiiru Ngugi
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The Presidium was created in 2009 following a study on traditional foods in the Molo area carried out by students at the University of Gastronomic Sciences of Pollenzo, Italy. It unites 30 producers (8 men and 22 women) who belong to the Nganoini Farmer Field School. They work together on all phases of production, from selection of seeds to cultivation and commercialization of the product. The Presidium aims to help the producers promote and commercialize their products on local markets, in school canteens, etc.

MAU FOREST DRIED NETTLES

Production area

Karirikania village, Mau Forest, Molo District, Nakuru County, Rift Valley

Producers

32 producers belonging to the Utugi Self Help Group

Contacts

Presidium producers coordinator
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Presidium coordinator
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Created in 2009 following a study on traditional foods of the Molo region carried out by students of the University of Gastronomic Sciences of Pollenzo, Italy, the Presidium helps growers increase nettle production and promote the product in restaurants and at local markets, with the support of the Slow Food Central Rift Valley Convivium. The 32 Presidium producers belong to the Utugi Self Help Group, based in Karirikania village. The Presidium also provides them with tools, equipment, and protective clothing. In addition to cultivating nettles, the producers raise sheep for meat and wool (to make carpets, dolls, mats, and bags).

MOLO MUSHUNU CHICKEN

Production area

Turi region, Molo District, Nakuru County, Rift Valley

Producers

37 producers belonging to the Kihoto Self Help Group

Contacts

Presidium producers cooordinator
Peter Karanja Njuguna (Chairperson)
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Presidium coordinator
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The Presidium was created in 2009 following research on traditional food products carried out in collaboration with the University of Gastronomic Sciences of Pollenzo, Italy. Its main objective is to support local communities by providing a new boost for farming the Mushunu Chicken. Equipment (incubators, for example) has been purchased to enable the number of birds to be increased and to improve control of animal health. A plan was also drawn up to increase the availability of feed (by cultivating cereals and legumes, and purchasing mills to process the feed). The Presidium has also organized several training sessions, involving international farmers and veterinarians. Furthermore, thanks to the Presidium, electricity has now arrived in the producers' villages.

MOLO SHEEP

Production area

Molo highlands, Nakuru County, Rift Valley

Producers

160 people gathered in six breeders' associations and 27 women in the Karunga Women's Group who process the wool.

Contacts

Presidium producers coordinator
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Presidium coordinator
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After Kenyan independence in 1963, sheep farms began to be neglected and the agricultural development project that had been designed for the Molo highlands collapsed. The situation was exacerbated by the subdivision of land, which left little space for sheep farming. Today, although it is widely recognized as one of the best sheep in the country, there are just a handful of farmers who continue to breed the Molo Sheep. It is rarely found on the menus of hotels and restaurants. The Presidium was set up in 2014 as part of an ecotourism project. Slow Food Kenya and the NGO NECOFA (Network for Ecofarming in Africa) have organized trainings to improve breeding, animal welfare, and the production chain linked to meat and wool.

MUTAHATO BANANA

Production area

Central Kenya

Producers

28 producers currently participate in the Presidium

Contacts

Presidium producers coordinator
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This banana variety is endangered primarily due to its limited cultivation, particularly among the elderly. The availability of Mutahato Bananas has significantly declined locally in recent years. The banana's sap, which stains hands and clothes, makes it less competitive than other varieties like the *kiganda*. Additionally, the introduction of tissue culture has prompted a transition to hybrid bananas that mature more quickly than traditional varieties. These challenges are exacerbated by a general lack of awareness about the Mutahato Banana and its nutritional aspects. The Presidium is committed to assisting producers in safeguarding this native banana type and transmitting the knowledge tied to its cultivation.

NZOIA RIVER REED SALT

Production area

Nabuyole area, Webuye District, Bungoma County, Western Kenya

Producers

30 producers belonging to the Nabuyole Self Help Group

Contacts

Presidium producers coordinator
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Presidium coordinator
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The Presidium was created in 2009 following a study on traditional products carried out in collaboration with the University of Gastronomic Sciences of Pollenzo, Italy. The Presidium helps the community improve the quality of the salt by providing processing equipment, as well as by supporting promotional and commercialization activities. The 30 producers, who belong to the Nabuyole Self Help Group, have prepared production protocols. The Presidium is also working on a project to reforest the area in order to regenerate marshlands where the reeds can grow.

OGIEK HONEY

Production area

Mariashoni, Nakuru County, Rift Valley

Producers

12 groups of beekeepers belonging to the Macodev cooperative

Contacts

Presidium producers coordinator
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Presidium coordinator
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The Presidium was launched to protect the Mau Forest ecosystem and promote the value of the Ogiek people's ancestral culture through their most important product, honey. The Macodev cooperative, which brings together 12 groups of beekeepers, is working to increase production volumes, differentiate the various types of honey produced, improve packaging, and promote the honey in shops, restaurants, and hotels. Since 2015 the Ogiek community has taken part in responsible tourism initiatives in collaboration with the Slow Food Foundation for Biodiversity and NECOFA (Network for Ecofarming in Africa).

POKOT ASH YOGURT

Production area

Tarsoi, Tartur, Lition, and Chaunet villages, West Pokot County, Rift Valley

Producers

About 26 producers, members of Tarsoi Association

Contacts

Presidium producers coordinator
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Presidium coordinator
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The Presidium was created in 2009 following research on traditional foods carried out by students at the University of Gastronomic Sciences of Pollenzo, Italy. The producers in the Presidium already belonged to the Tarsoi Association. With assistance from technical experts, the Slow Food Foundation is helping the producers to improve the quality and quantity of their yogurt by optimizing each stage of production, from animal health and milking to processing and preserving the milk. There are also plans to set up and equip a communal workshop. In addition, the Presidium is working to increase awareness of the product in the district and neighboring areas, and to give producers opportunities for international exchanges to share information.

RED MAASAI SHEEP

Production area

Rosarian village, Nakuru County, Rift Valley
Ol'Keri village, Narok County, Rift Valley

Producers

40 Maasai producers from two communities, one in Rosarian (Nakuru County) and one in Ol'Keri (Narok County).

Contacts

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Presidium coordinator
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Maasai land has long been subject to various pressures. It is often grabbed from herders and given to other groups or private investors. Grazing land has been reduced and the Maasai have been forced to move, often violently. Recurring droughts, worsened by climate change; and growing numbers of young people moving to the cities have compounded these problems. And since the 1970s, Kenyan agricultural policy has promoted crosses between the Red Maasai and imported breeds such as the Dorper, making it increasingly hard to find purebred Red Maasai Sheep. Saving this breed is essential to preserve a genetic resource and a resilient animal able to survive disease and a rapidly changing climate. The Presidium was established thanks to a collaboration between Slow Food and IFAD. One of its objectives is to strengthen the Maasai community through training, technical assistance, experience exchanges, and the creation of marketing channels, with a particular focus on women and youth. The Maasai community will also be involved in the national and international activities of the Terra Madre Indigenous network, a platform for sharing and exchanging experiences that helps indigenous peoples work together to find solutions to common problems.

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“Biodiversity is the greatest promise for the future of humankind.”

Without it, the foundation for human life on the planet is lost, as is the very soil on which civilizations and cultures have been shaped and formed as the result of human adaptation to the natural environment.

Defending, protecting, and promoting biodiversity is therefore not simply one among a number of choices, advanced by the intellectuals of conservation or by nostalgic environmentalists: It is, rather, the only viable path forward. It is a moral duty that we, the generation that inhabits this historic moment, must take on for those who will come after us and live on this planet Earth, a planet that, today, we are trampling, hurting, and mistreating.

From this point of view, the Ark of Taste, a global project that this book takes up in its African—and, in particular, Kenyan—context, is an initiative that seeks to create information, knowledge, and awareness about this unique heritage. Through the Ark, communities are invited to rediscover their agricultural and food heritage, in order not to lose the connection with the land that feeds us and will continue to feed us.

Carlo Petrini

President of the University of Gastronomic Sciences and
Founder of Slow Food

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