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August 2023



Members of the Kanyibok Youth Group having a discussion at their farm. Photo by John Mwacharo

Youth taking lead in community-based adaptation to climate change in Yala

By Emily Mateche

A sthe world reels from droughts, floods, heat waves and wildfires, the global focus is shifting towards green agricultural practices to cope with the effects of climate change. Climatesmart agriculture is emerging as one of the sustainable farming alternatives. And farming, long regarded as a preserve of the middle-aged and elderly, is gaining popularity among youth as a livelihood option for communities residing adjacent to Yala Swamp, Kenya's largest freshwater wetland.

In Siaya County, two youth groups supported by Nature Kenya - under the AfriEvolve project - are charting the path towards sustainable farming through climate-smart agriculture and other naturebased livelihood activities.

At Kanyibok village, near the shores of Lake Victoria, lies a green vegetable farm belonging to the 30-member Kanyibok Youth Group. Black nightshade (*managu*), amaranth (*terere*), collard greens (*sukuma wiki*) and other vegetables cover the approximately 0.2-acre plot, which also serves as a climate-smart agriculture demonstration farm.

"Our farm is small but the harvest is good. Climate-smart agriculture has enabled us to transform our small piece of land into a productive vegetable growing area using minimal resources," says Lilian Akatcha, a member of the group.

The youth group's climate-smart venture has seen them secure tenders to supply vegetables to secondary schools in the area. In addition to schools, the group also supplies their produce to markets nearby.

Through the demonstration farm, the group is educating local farmers on various farming techniques such as application of organic manure, soil and water conservation measures, crop rotation and growing highvalue, fast-maturing and drought-resistant crops. To reduce dependence on rain for farming, the group has installed a solar-powered irrigation kit.

"Using irrigation, we are able to grow vegetables all year round. This means we can supply these vegetables even during the dry season," adds Lilian.

To stay updated and informed, the youth farmers have embraced mobile technology. Using mobile apps, they can get area-specific weather information and advisories from the County Directorate of Meteorology and expert advice from the County Department of Agriculture, Livestock and Fisheries. This information helps them make sound farming decisions like what crops to plant, when to plant, when to harvest, when to stock and how best to control pests and diseases. The use of mobile phone technology is proving useful not only for accessing information but also for marketing and sharing experiences through community social media forums.

In Yimbo, one of the driest regions in Siaya County, another group – Wambasa Youth Group – is also changing the fortunes of local youth through climatesmart agriculture and beekeeping. Group members grow vegetables and cereals on their farms. The group also has an apiary with over 200 hives.

"We hardly look for a market for our honey. Our honey is sold out by the time we harvest," says Robert Ouko, a group member.

Apart from crop farming and beekeeping, the youth group is also into fish farming and chicken rearing.

This new crop of youthful farmers is a source of inspiration to local communities in Siaya who have, in the past few years, seen their farming fortunes dwindle due to the adverse effects of climate change. With climate-smart agriculture, communities are now better prepared to deal with the uncertainties of climate variability.

ovr members' trips are back!

Lakes Nakuru & Elmenteita Oct 20 - 22, 2023 (Mashujaa Day weekend)

Ksh. 20,000 per person (Pay Ksh. 5,000 to reserve)

Pay by MPesa: Pay Bill Business No. 100300 Account Trip

For more inquiries email Angela (nkmembership@naturekenya.org) or Richard (news@naturekenya.org), or call +254 (0) 739 200216

ACTION

KBA in Focus: Kaya Gandini

📕 By Joshua Sese

Aga forests are sacred sites revered and cherished by the Mijikenda community living on the Kenyan Coast. Kaya forests served as important social and spiritual centres for the community, where they conducted rituals, ceremonies, and communal gatherings, while also using them as burial grounds for esteemed ancestors. One such site is the Kaya Gandini Key Biodiversity Area (KBA) in Kasemeni ward, Kinango Sub County, in the vast Kwale County. The KBA is of great cultural and historical significance to the Duruma ethnic group of the Mijikenda community.

Kaya Gandini is a designated Important Bird Area (IBA) and a national monument listed as a UNESCO World Heritage Site. It hosts organisms of conservation concern, such as the endangered Sokoke Pipit, the vulnerable Spotted Ground Thrush and the near-threatened and CITES-listed Fischer's Turaco, among others. The habitat is characterized by semiarid conditions with mixed lowland vegetation of woodland, forest and scrub vegetation on sandy, loam to clay soils.

Despite its biodiversity and cultural importance, Kaya Gandini faces threats to its existence. These include overexploitation through logging, poor land use practices, encroachment, and climate change-induced adversities such as prolonged severe droughts. These threats contribute to biodiversity loss, forest habitat degradation and food insecurity. Further, there is a significant decline in respect for conventional Kaya management systems and practices and a lack of awareness regarding the significance and values of Kaya forests. Lack of knowledge about cultural and traditional practices, especially among young people, is alarming. Many perceive these practices as outdated, increasing the Kaya's vulnerability to biodiversity loss, habitat destruction and cultural erosion.

In efforts to address the challenges, in the year 2021-2022, Nature Kenya implemented a project funded by GEF Small Grants Program (SGP), aimed at enhancing the capacity of grantees to effectively deliver projects towards the conservation of the Mijikenda Kaya Forest landscapes. Fiftytwo individuals from 16 organizations based in Kilifi and Kwale counties were trained. The 52 trainees then trained 95 individuals from 10 additional SGP grantees. Among those trained were community members from the Kaya Gandini KBA.

To further the conservation actions, a biodiversity survey in the neighbouring Kaya Mtswakara was recommended. This will support the delineating the Kaya as a new KBA, or extending the current KBA boundary to include the two Kaya forests as one KBA. Nature Kenya looks forward to directly engaging the local community in the area to enhance their capacity to continue safeguarding this invaluable relict as its custodians.



Elephants in Arabuko-Sokoke Forest. The forest is an important habitat for many wild animals, including elephants. Photo NK Archives

Conserving Arabuko-Sokoke Forest: the economic perspective

By Francis Kagema

A rabuko-Sokoke Forest in Kilifi County is a miracle of resilience. Despite being surrounded by over 135,000 resource-needy local people, the 420km² coastal lowland forest ecosystem has survived, remaining more or less unchanged over the years.

A cost-benefit assessment conducted in 2007 concluded that from a community perspective, Arabuko-Sokoke Forest only offers 'marginal' benefits. The lack of a valuation system for ecosystem services and their contribution to the community can explain the marginal value capture in the forest cost-benefit matrix. At the national level, the GDP ignores most of the value and benefits ecosystem services contribute to our well-being. It is not surprising that the same applies to Arabuko-Sokoke Forest's case. By breaking down one item at a time, this postulation becomes clear.

income was valued at Ksh 19 million in 2019, while beekeeping stood at Ksh 1.6 million. The two enterprises have proper records though most of the honey was sold through undocumented channels. Other monetized benefits summed up contributed over Ksh 18 million during the same period.

Hundreds of community members enter the forest every day for one reason or another. Many of these visits are illegal and detrimental to the forest. Non-timber products sought from the forest include breeding stock for butterfly farming, edible mushrooms, herbal medicines and wild fruits. Harvesting of timber forest products like firewood, timber and poles in Arabuko-Sokoke Forest is illegal. However, the majority of households adjacent to the forest use fuelwood for their cooking needs, and about 70 per cent of this fuelwood comes from Arabuko-Sokoke Forest and Mida

For instance, butterfly farming



For updates visit <u>www.naturekenya.org</u> EDITORIAL TEAM

Fleur Ng'weno, Angela Mecha, Richard Kipngeno and John Mwacharo

LAYOUT

John Mwacharo FRONT BANNER

Peter Usher



NATURALIST

Creek. Fuelwood collected from the forest annually is estimated to be worth over Ksh 383 million. Data on poles harvested and charcoal produced from the forest is missing. A conservative value of Ksh 10 million can be appropriated to these two products obtained illegally.

All these streams together sum up to Ksh. 422 million! This value distributed across a population of 135,557 living within 5km from the forest edge gives Ksh. 3,116 per capita - 3.8 per cent of Kilifi County's GDP per capita. Comparing this value with the gross landscape produce of adjacent communities living up to 5km away from the forest edge, Arabuko-Sokoke Forest accounts for about 4 per cent of the gross domestic product (GDP) and possibly 10 per cent of all income. Several other items, however, remain unaccounted for in this calculation: ecosystem services such as carbon sequestration, water storage, soil protection, climate regulation, and maintenance of a gene pool for the future.

What does all this mean? Arabuko- Sokoke Forest contributes significant regulating ecosystem services like carbon sequestration and climate regulation, as well as provisioning ecosystem services such as medicines and food, which if valued and monetized appropriately and fairly, have substantial input to the lives of the people and their livelihoods. All this presents a strong case for conservation of the forest and its biodiversity.

The Pollinators of Kakuzi

A pictorial by Simon Odhiambo @Kenyanbirder



African hummingbird hawk-moth



Full moons of August

By Fleur Ng'weno

ugust begins and ends with a full moon this year. These two full moons are "supermoons" – a little closer to Earth than usual and looking slightly bigger and brighter. We see all of the moon's sunlit side on a full moon. As the moon continues its orbit around the earth, part of the sunlit side becomes hidden from view. The 'last quarter' moon – a half-lit moon above us at dawn – is on August 8.

The new moon – when the moon passes between the Earth and the sun, and we can't see its sunlit side – is on August 16. Then each night the crescent moon seems to grow, or 'wax', until the 'first quarter' – a half-lit moon above us at sunset on the 24th. The sunlit moon continues to grow, 'gibbous' now, until the second full moon of August 31. When there are two full moons in the same month, the second one may be called a "blue moon".

Planets Aug 2023

Venus, the bright light that has dominated the sky in the west, sinks below the horizon in early August, reappearing in the east before dawn at month's end. Above Venus and the sunset are small but bright Mercury and reddish Mars, very faint now. The crescent moon is near Mercury and Mars on August 18. The planets do not produce light; like the moon, they reflect the light from the sun. Their brightness, for us on Earth, depends on their size and their distance from Earth.

Across the sky, in the east, the planets Saturn and Jupiter rise during the evening. At dawn, golden Saturn is in the western sky, and bright Jupiter is high overhead. The moon is near Saturn on the 3rd and 30th, near Jupiter on the 8th.



August stars

The constellation of Scorpio, the Scorpion, crawls across the southern sky. Look for the red star Antares, the Scorpion's fiery eye – some say its heart. Above Antares, three bright stars form the Scorpion's claws. Southeast of Antares, the Scorpion's body and tail curve like a fishhook, with two stars for the sting. The waxing moon is near Antares on August 24.

Left (east) of the Scorpion is the constellation that the ancient Greeks called Sagittarius, the Archer. The stars in part of Sagittarius form a shape like a teapot, or a shopping basket. North (left) of Sagittarius, the bright star Altair, escorted by two smaller stars, is rising. Still further north, look for the bright white light of the star Vega.

The blue-white star Spica is high in the west; the crescent moon is near Spica on August 21. Arcturus, a bright orange star, is in the northwest. Below Arcturus, the constellation of the Big Dipper (the Plough) seems to be pouring towards the horizon.

In the southwest, the two very bright stars of the Centaur are pointing to the Southern Cross, now setting.

Meteor Shower

From July to August 24, you may see meteors from the Perseids meteor shower. Meteors are bits of dust, rock and ice from space burning up once they fall in the Earth's atmosphere. This month's meteors were left by the passage of Comet Swift-Tuttle. People may call the meteors "shooting stars" or "burning spears". The meteor shower peaks on the night of August 12 to 13. You are most likely to see meteors between midnight and dawn from a dark location with a clear sky. ▲



Amethyst and Scarlet-chested sunbirds

Dancing Acraea

In the **Field**

Birding Updates

Wednesday Morning Bird walks in Nairobi

2nd August - Museum Grounds/Michuki Memorial Park. Meet at 8 am in the open space in front of the entrance to the museum galleries.

9th August - Paradise Lost. Meet at Paradise Lost Main Gate at 8:30 am. Directions: Take Kiambu Road. Turn Left at Paradise Lost junction in Thindigua after Runda Greens before Quick Mart Supermarket. Turn right at Kencom Apartments just after Kasarini Primary School. It's about 500m to the main gate. Thanks to the management for welcoming the birdwalk.

16th August - City Park. Meet at 8:30 am at the parking near the Coca Cola Kiosk. Directions: Coming from the City centre, take Limuru Road past Aga Khan Hospital. Make a U-turn at Total Energies Petrol Station, Limuru Road. Drive back along Limuru Road and turn left onto City Park Road next to City Park Market.

23rd August – Ngong Road Forest Sanctuary. Meet at 8:30 am at the Main Gate. (There's a Sanctuary fee of Ksh. 100 for citizens.) Directions: Coming from the city centre, take Ngong Road towards Karen. After Jamhuri Sports Ground take the first left turn (before the Commonwealth Cemetery). It's 500m to the Sanctuary main gate.

30th August - Ondiri Swamp. Meet at 8:30am at the Ondiri Wetland Information Centre. Directions: Coming from the city centre, take Waiyaki Way towards Kikuyu. Turn left at Gitaru onto Southern Bypass. Slip left onto Kikuyu overpass. Take first left turn after overpass and drive straight to the Information Centre. Ondiri Swamp is the only quaking bog in Kenya, a presumed source of the Nairobi River.

20th August. Sunday Birdwatch - Kapiti Plains. Meet at 8.30 am at the ILRI Kapiti Research Station Gate on Mombasa road. Directions: Coming from the city centre, take Mombasa Road. Pass the Makutano/ Kyumvi junction to Machakos and continue towards Mombasa. After 9 km there is a green sign on left "Kapiti Plains". Turn right to the gate and barrier with the sign "ILRI Kapiti Research Station".

Matatus to Sultan Hamud and Emali will stop at "Kapiti stage". Better still is to hire a Machakos matatu for all those coming by public transport.

This is a day trip; bring a packed lunch and water. There are ticks on Kapiti

Plains, but they are not known to carry diseases.

If you have questions, please write < news@naturekenya.org> or phone 0780-149200

Bird Ringing at Nairobi National Museum grounds usually takes place once a week. usually on Tuesdays. Please confirm with Titus Imboma < Imbomati911@gmail.com> Phone 0721-649452.

Thursday Birdwalks in Malindi

3rd August - Malindi Museum Ground. Meet at 4:00 pm at the Malindi Museum near the Nature Kenya Membership Office.

10th August - Mtangani. Meet at 4:00pm at the Malindi Museum near the Nature Kenya Membership Office.

17th August - Mayungu. Meet at 4:00 pm at Malindi Museum near the Nature Kenya Membership Office.

24th August — Camp Gedeng'. Meet at 4:00 pm at Malindi Museum near the Nature Kenya Membership Office.

31st August - Mtangani via afya Hospital. Meet at 4:00 pm at the Malindi Museum near the Nature Kenya office.

26th August, Saturday Birdwatch - Mida Creek. Meet at 7:30 am at Mida Creek ticket office.

For more information, email: <malindimembers@naturekenya.org > or phone 0725 223042.

Mombasa Birdwalks are held the 3rd Saturday of each month. To check meeting time and place, check Facebook page: <https://www.facebook.com/ groups/FFJmombasa/>

Or contact: Taibali Hamzali <thamzali@ gmail.com> / 0733-980540 or Kelvin Mazera <klvnrua@yahoo.com> / 0720-928783

July 29 Birding at Nairobi National Park

As part of the New York Times' citizen science project, 45 Kenyan birdwatchers braved a cold early morning on July 29 to connect with nature through watching birds in Nairobi National Park. Within three hours, about 110 bird species were recorded by the enthusiastic group who criss-crossed the park in 11 cars. Bird-watching in other Key Biodiversity Areas as part of this project were happening this weekend in New York City and Singapore.



Venue: National Museums of Kenya Meet at Nairobi Museum main gate Date: Friday 25th Aug **Time: 9:00 AM** Contact: 0780 149200 or 0726 006283



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For details on associated groups such as Youth Committee, Succulenta, Mammal Committee and Friends of Nairobi Arboretum or City Park, contact office@naturekenya.org