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# Project out to save lions in the Mara

The Mara Predator Conservation programme aims at monitoring the big cats to help in their conservation

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**Lions quench their thirst at a water point.** PD/COURTESY

According to the just concluded National Wildlife Census, the lion population has been recovering from a low of 1,970 in 2008 to 2,589 in 2021. Though the number is still low, the ministry of tourism and wildlife has pledged to continue efforts to increase their population.

Kasaine Sankan, a senior researcher with Mara Predator Conservation programme observes that in the Mara region, the number of lions have been stable or increased. Over the last five years from 2016, there were 420 lions, in 2017, 464, in 2018, 484, in 2019, 427 and in 2020, 522 lions. The lion counted are over the age of one year. Data on cubs under one year are not used for analysis.

"The research findings indicate that Mara is one of the most critical habitat for lions conservation or wildlife in general for both within Kenya and outside," notes Sankan.

Formed in 2013 by the Kenya Wildlife Trust, the Mara Predator Conservation programme was created to monitor predator population trends, identify threats to predators, establish both lion and cheetah densities and trends over time, as well as provide scientific information for evidence based policy and management decisions.

"Through the above programme objectives, we strive to collect valuable data on lions and cheetahs to help us identify different individuals and their respective spatial data, which is a major step for their numbers and density analysis process," says Sankan.

He adds that all lions and cheetahs are identified separately and are given unique codes and local names to differentiate them.

"For lion Identification, we use whisker spot pattern, nose pigmentation, and colouration, age, sex, ear tears, teeth etc to differentiate individuals. For cheetahs, the body spots are largely used," he notes.

The project covers, Masai Mara National Reserve and Mara Triangle, an area of about 1500 kilometres square. They cover the adjacent conservancies, such as Olare Motorogi, Naboisho, Olkinyei, Siana, Olderkesi, Olarro, Mara North, Lemek, Enoonkishu.

## Community awareness

The programme covers both research and community/livelihoods.

"On the side of research, we are looking at large predator population trends as a long term basis through an annual intensive monitoring session between August and September (90 days); record predator mortalities causes and possible remedies, especially if it's through human wildlife conflict; and predator dispersal through collars to establish movements and home ranges. Collars are mainly on young dispersing males and females on the conservation peripheral areas," he explains.

The project has successfully been able to show the lion numbers and densities over the years, something that has never been done in Masai Mara on a long-term basis. The use of the Spatially Explicit Capture Recapture (SECR) model (later adopted by Kenya Wildlife Service for the national lion survey), community awareness and project through the community side of the programme are some reasons for the success of the project.

Sankan attributes rise in the number of lions to an increase in awareness and tolerance by locals for conservation of the species because of direct and indirect benefits. He also attributes it to efforts made by different conservation organisations to educate the community and also preserve the lions.

"The major problems are increase in human population, human wildlife conflicts that include retaliatory conflict, poisoning, diseases, climate change," he says.

When it comes to climate change, Sankan notes weather patterns have currently been unpredictable.

"This has led to some extreme patterns, such as too much rain, which leads to overgrown vegetation. Herbivores naturally avoid these areas for fear of predators, and move towards community areas where livestock reduces the amount of grass. In turn, lions and other carnivores follow them tand conflict is prone to happen," he says.

## Weather patterns

They also face challenges, such as rise in zoonotic diseases, which affects both domestic and wild animals.

"Mange is a classic example that affects domestic and wild carnivores, especially cheetahs and herbivores," he observes.

Despite the successes, the project has faced various challenges, including logistical and financial, which affect both personnel and vehicles they need to cover the area of study. There is also conflict in policies both at national and local level.

"Dealing with human carnivore conflicts, especially when not reported or detected also through increased livestock numbers and its rapid occurrence keeps the project on constant standby. We strive to collaborate with other stakeholders to harmonise policy and develop a Human Wildlife Conflict protocol. The implementation of rules and regulations, especially with anthropogenic influence on wild animals, including offroading and close proximity to willdife has also been a challenge, especially implementing the rules," he explains.



**Kasaine Sankan, a Senior researcher Mara Predator Conservation programme.** PD/HARRIET JAMES

**BRIEFLY** WITH MWANGI MUMERO

# Holistic approach vital for energy saving technologies adoption, study says



**Understanding households' cultures and values is critical in the introduction of energy- saving technologies in cooking and lighting.**

**And while income levels and education may play a vital role in this energy switch, change will come gradually, according to a joint study by the World Bank, Centre for International Research (CIFOR) and the World Agroforestry Centre (ICRAF).**

**Over three billion people globally have no clean, sustainable energy for cooking. Resultant household pollution, accounts for over four million premature deaths each year.**

**The report says income levels, age, availability of fuel, gender, price and efficiency are some factors that influence the choice of energy source for cooking.**

**Of concern is that 2.7 billion people depend on wood for cooking and heating, putting pressure on dwindling forest resources.**

**Researchers from CIFOR, ICRAF noted that for households to transition to more efficient energy sources will only happen if communities perceive fuel-efficiency as an added benefit.**

**"For instance, families view free distributed fuel-efficient stoves as gadgets which do not service traditional cooking needs. So, they still keep their traditional open fires and the two cooking appliances will run concurrently to serve different purposes," observed Mary Njenga, a bioenergy research scientist at ICRAF.**

**As a result, a full transition to cleaner and more sustainable energy sources must be accompanied by demonstrated clear and practical advantages.**

**Other researchers aver that new technologies in use of energy must be adapted to different needs.**

**"No matter how much one's income increases or their education, some aspects of energy preference do not change," observed Dr Phosiso Sola, a scientist working on natural resource governance and bioenergy at ICRAF.**