



Sarah Akwabi Mukolwe
2015 AWARD Fellow

Position	Zoologist
Institution	Ministry of Agriculture, Livestock and Fisheries, Directorate of Veterinary Services
Country	Kenya
BSc	Biochemistry and Zoology, University of Nairobi, 2007
Mentor	Esther Gathoni Kanduma, Researcher, Biochemistry, University of Nairobi and International Livestock Research Institute
Research Area	Investigation of emerging and re-emerging pests and parasites of veterinary importance and of livestock parasites and diseases of zoonotic potential.



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Sarah Akwabi Mukolwe, the thirdborn of six children, had her first real encounter with livestock when she was growing up in a pastoralist area in West Pokot Kenya where her father was working at the time. Much later, she was hired by the Ministry of Agriculture, Livestock and Fisheries as a zoologist and found herself working directly with livestock keepers in a semi-arid district of Eastern Province.

Mukolwe’s first project at the ministry was part of the Pan African Tsetse and Trypanosomiasis Eradication Campaign (PATTEC, now known as KENTTEC, Kenya National Tsetse and Trypanosomiasis Eradication Council). “I worked with officers from the Kenya Wildlife Service to educate farmers about tsetse flies and how they affect livestock,” she explains. She also trained farmers to use trypanocides and taught them to set traps for the flies.

During this time, Mukolwe recognized a gap in the services the ministry was offering to farmers. “The villages in my work area had no diagnostic facilities so farmers had to rely on their own observations and the wisdom of the agro-vet shop owners,” she states. This created problems because the shop owners mainly dispensed vitamins, even though the animals were dying. This prompted her to register for an MSc in applied parasitology at the University of Nairobi, where her project is on ticks and tick-borne diseases.

Mukolwe is conducting her MSc research at the International Centre of Insect Physiology and Ecology, working with ticks from a wildlife/livestock interface. Changing land use is forcing livestock keepers to move their animals into wildlife reserves. “Wildlife are resistant to tick-

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borne disease, but livestock are not,” she says. “My research focuses on wildebeest because during their migration they share pasture and water resources with livestock.” The project involves collecting ticks from cattle close to the park and from the wildebeest to study the species diversity and to determine the parasites present. The aim is to influence policy in terms of control, generate better diagnostic tools for farmers, and advise communities living in the interfaces of the dangers to their livestock so that they can monitor the animals. The project focus is ticks because they are also vectors of zoonotic diseases—diseases that are transmitted from animals to humans.

Although it is difficult to work in pastoralist communities as a woman for cultural reasons, Mukolwe is interested in working in arid and semi-arid areas where livestock are key to livelihoods. She wants to promote livestock production, especially small stock, which can withstand harsh conditions, and remains focused on her goal to achieve a position to influence livestock policy. “I would like to convert laboratory research into policies that have a positive impact on pastoralists,” she states. She eventually hopes to work in a livestock research institution that deals in vaccine development and drug design for livestock.

Mukolwe realizes that to achieve her goals she must conduct research, publish papers, and interact with scientists internationally to enable her to design grant-winning projects. She is confident that her experience as an AWARD Fellow will provide her with the skills she needs to be an effective scientist and researcher.

Mukolwe is looking forward to motivating her female colleagues to pursue greater opportunities to generate change in society, and she feels the skills she gains from AWARD courses will help with this. “As a government department our aim is to serve the population but many women settle for desk jobs, which defeats the purpose,” she states.