

MAIL FROM ... ZAMBIA



With the research project “SAD-Zambia”, the BfR helps to improve food safety and therefore helps to ensure food security in Southern Africa. Dr. Alexandra Fetsch, is the coordinator of the project. The Zambian PhD candidate Bruno Phiri talks about his daily work. Both work in the Unit “Microbial Toxins” at the BfR.



“The SAD Zambia project is a milestone for me and I am very grateful to the BfR for giving me this opportunity. I’ve learnt a lot already and have been able to improve my competence with regard to the diagnosis of disease pathogens. The project doesn’t just help my personal advancement, however, my country can also benefit from it. My working day usually starts with visiting farmers and their herds. I take a look at how the cows are milked and take samples from the animals, the milk and the environment. I also go to milk collection points and markets to take samples. I analyse them in the laboratory at the University. I am already looking forward to conducting further examinations at the BfR. I was there already at the beginning of the project – a very exciting and impressive experience.”

(Bruno Phiri)

In Southern Africa, agriculture plays a key role in fighting poverty, but the increasing production of food of animal origin also poses new challenges in terms of food safety. The BfR research project “SAD-Zambia” (“*Staphylococcus aureus* in the milk food chain in Zambia – combating food-borne diseases and antimicrobial resistance in humans”) aims to understand how the production and marketing of milk and dairy products in Zambia can be made safer. The objective of the project is to assess the extent to which the bacterium *Staphylococcus (S.) aureus* is transmitted to humans via milk and dairy products. In the first step, field studies in various provinces throughout the country will be conducted in order to analyse the prevalence of this pathogen and pinpoint possible weaknesses in the milk food chain in Zambia. The focus is on toxin-forming *S. aureus* strains. Likewise, the extent to which methicillin-resistant *S. aureus* (MRSA) – which are resistant to a certain class of antimicrobials – occur in the dairy food chain will be investigated. This

assessment work also includes a comparison of traditional and modern production systems. At the BfR, the characteristics of the bacterial isolates will be investigated and strain comparison analysis will be performed. In the next step, possible interventions to reduce transmission of bacteria as well as methods for the monitoring of zoonotic and antimicrobial resistant *S. aureus* in the dairy food chain in Zambia will be developed. The purpose of the project is to contribute to the understanding of food-borne risks along the dairy food chain in Zambia. The project has been launched on 1 July 2016 and will run for three years. Financial support is provided by the German Ministry of Food and Agriculture and by internal BfR funds. Alongside the BfR, the International Livestock Research Institute, the University of Zambia and the Central Veterinary Research Institute as part of the Zambian Ministry for Livestock and Fisheries are involved in the project. The research project “SAD-Zambia” will help to establish a long-term partnership in Southern Africa.