

**Title** Assessment of Meat Production and Meat Processing in Niamey/Niger: Hygienic Quality of Fresh Meat and of the Dry Meat Product “Kilishi”

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### **Abstract**

Due to overall population growth, increasing urbanisation and changing dietary habits, meat consumption is increasing in Sub-Saharan Africa. In view of this, the present study assessed hygienic aspects of current meat production and processing practices in Niamey, Niger. During September - December 2006, the microbiological quality of the dry meat product Kilishi (n=2 samples), which was produced by means of a solar dryer, was determined and compared to literature data for dry meat products produced in the traditional way. Lead concentrations in meat samples (n=3) were determined before and after transport from the abattoir to the markets and before and after being processed into Kilishi (n=4). Qualitative interviews with Kilishi producers (n=8) and a quantitative consumer survey (n=58) were conducted in order to determine subjective quality criteria for Kilishi.

The results showed that slaughtering of cattle and small ruminants and carcass processing take place under unhygienic conditions at the out-dated city abattoir and that refrigeration facilities are only used to a marginal extent. Meat transport is done on open pickup vehicles without refrigeration and protection against sun and dust. However, lead concentrations in fresh meat samples after transport were low. Kilishi is traditionally produced by direct sun drying, and the cut lamellas of meat are not protected against dust or flies. After drying, the meat is covered with a spicy peanut sauce (Kilishi Ja and Fari) dried again and grilled. Another type of Kilishi (Rumuzu) is only seasoned with salt and spices before being grilled. Microbiological and chemical analysis of solar dried Kilishi resulted in low counts of indicator organisms and lead concentrations while the traditional products were highly contaminated with bacteria and lead. Interviews of Kilishi producers revealed that established recommendations for the improvement of Kilishi production are not applied because official advice and control is lacking and producers' knowledge concerning hygienic aspects is poor. Most consumers (70%) were satisfied with the hygienic conditions at street production sites for Kilishi, and the solar"-dried Kilishi Ja was less appreciated than the respective traditional product.