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Threats and Opportunities for the Sustainable Use of the Indigenous Somba Cattle Breed in the Mixed Crop-Livestock System in North West Benin

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Abstract

With an estimated number of 58,000 heads in 1986, the Somba breed represented 0.3 % of the national cattle population size but its number sharply decreased to about 17,000 in 2000. While it is generally accepted that this breed is threatened in its belt, very little is known about its current production systems and the main reasons for its decline. However, this information, together with the identification of its important functional traits, is necessary for the development of strategies for its conservation and sustainable use. The objective of this study was therefore to characterise the Somba breed in its production system context. For this purpose, 224 cattle farm-households were surveyed in the Boukombe district, the natural habitat of the breed in North West Benin. Information on the socio-economic characteristics of the households and on herd management practices were recorded using a semi-structured questionnaire. In addition, fifteen body measurements related to shape and conformation traits were recorded from 102 adult cattle. Somba cattle have short horns (15.8 ± 10.88 cm) and a small body size with respectively 95.9 ± 5.76 cm and 146.8 ± 11.01 cm for height at withers and body length. Three types of Somba cattle breeders were distinguished: the owners-herders (54.0 %); the owners who entrusted their animals to specialised herders (40.2 %) and the herders who took on entrusted cattle (5.8 %). The average cattle herd sizes were 4.7 ± 3.70 and 58.6 ± 22.83 heads for owner-managed and entrusted herds respectively. The decision to keep Somba cattle was not based strictly on economic parameters. Offtakes were more associated with sociocultural purposes (75.5 %) than market. While crop farming was the main occupation and income source of their owners, the Somba cattle were used for ploughing during the rainy season. Main factors in the decline in the breed population were identified as the general decline in cattle farming and high mortalities (68 % of losses) rather than crossbreeding and/or replacement. Therefore, approach for safeguarding this breed should consist of simultaneously improving general herd management practices and involving farmers in breeding programs aiming at genetic improvement of health, fitness, survival and reproductive traits.

Keywords: Cattle genetic resource, characterisation, crop-livestock farming, *in situ* conservation