Small ruminant production and the small ruminant genetic resource in tropical Africa

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Small ruminant production and the small ruminant genetic resource in tropical Africa

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PREFACE

Goats and sheep ("small ruminants") are an important livestock component in all ecological zones (arid, semi-arid, subhumid, humid, highland) and all types of agricultural systems (smallholder mixed farming, agro-pastoral, pastoral, urban, commercial ranching) in tropical Africa. Small ruminants are complementary to cattle and camels in their production cycles and generally do not compete directly with them for feed. Goats and sheep are owned by more production units in African farming systems than any other species of domestic livestock except poultry. Because of their lower feed requirements, their rapid reproduction cycles and the ease with which they can be handled, they are particularly important for resource-poor households and are often the property of underprivileged groups, such as women and children, within those households.

Small ruminant research and development has been neglected in the past. During the 1980s the advantages of small ruminants have become increasingly recognised by researchers, development workers, policy makers and aid agencies both on the African continent and elsewhere.

In view of the current interest in small ruminants in Africa there is a need to provide a standard text on production systems, the role of goats and sheep in mixed-stocking guilds and mixed livestock/crop systems and on the indigenous genetic resource. Lack of knowledge of the types and production capabilities of African small ruminants encourages the belief that they are poor performers and that development paths should be based on the importation and imposition of supposedly superior "exotic" animals.

It is hoped that this text goes some way to discountenancing this belief and will encourage the use of African indigenous domestic animal types in African development.

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INTRODUCTION AND ACKNOWLEDGEMENTS

Publications with a somewhat similar philosophy to this one were published for the West African region in the 1950s (A classification of West African Livestock. I.L. Mason. Commonwealth Agricultural Bureaux) and for East and South Africa in 1960 (The Indigenous Livestock of Eastern and Southern Africa. I.L. Mason and J.P. Maule. Commonwealth Agricultural Bureaux): although these books are now very much out of date, they are widely quoted in scientific publications. The Institut d'Elevage et de Médecine Védécineterinaire des Pays Tropicaux has published two (1971, 1980) texts on small ruminants in the West African region (Principales races domestiques des zones tropicales d'Afrique francophone et de Madagascar. IEMVT, and Les petits ruminants d'Afrique centrale et d'Afrique de l'Ouest. J. Charray et al. Institut d'Elevage et de Medecine Veterinaire des pays Tropicaux): neither are comprehensive in their treatment of performance (concentrating mainly on pathology) and are largely restricted to countries which were formerly French colonies and, because they are in the French language, are not universally read. One additional book published in 1983, has some country chapters for West Africa and Central/South America but is limited to sheep and lacks depth, particularly in its treatment of Africa (Hair sheep of Wester Africa and the Americas: A genetic resource for the tropics. H.A. Fitzhugh and G.E. Bradford. Winrock International/Westview Press). The massive work of H. Epstein entitled "The Origin of the Domestic Animals of Africa" (1971. Africana Publishing Corporation) is an erudite work which, as its title implies attempts to trace the genology of all domestic livestock but contains no production data at all. All of these sources have been drawn on for general information for many of the types described but are not specifically cited in the lists of references.

Additional general texts include one each on tropical goats and sheep and one on both species combined. The first (Goat Production in the Tropics. C. Devendra and M. Burns. Commonwealth Agricultural Bureaux) went into a second edition in 1983 but still contains relatively little on breeds and on Africa. The second (Sheep Production in the Tropics. R.M. Gatenby. Longmans.) was published early in 1986 and, in relation to breeds, merely provides a list of names: elsewhere it has major chapters on health, nutrition and feeding and a long chapter on wool. The last, published in 1982, (Goat and Sheep Production in the Tropics. C. Devendra and G.B. McLeroy. Longmans) is again not confined to Africa, is rather weak in its treatment of sheep and is aimed primarily at an undergraduate audience.

This current publication does not pretend to catalogue every African indigenous "type", "breed" or "race" of small ruminant that has ever been

identified or described. It does attempt to provide information on the major types or groupings, in particular in respect of their relationship to other types, their areas of distribution, the systems under which they are managed, their major morphological characteristics and their major production parameters. The imbalance in detail under the various entries is evidence, not of the knowledge that has been gained over the last two decades or so, although this is considerable, but of how much remains to be done to characterize and to evaluate the indigenous African small ruminant resource.

The sections on Productivity are best regarded as providing a baseline for future work. Many of the data are, in any case, from traditional systems where animals receive little, other than some management skills, in the way of inputs which might lead to improved performance. Even on stations, however, some inputs have been hard to come by in recent years and it might not be inappropriate to suggest that management skills there, in many cases, are of a lower order than in the traditional systems. Some of the "experimental" results therefore appear to be no better, and are indeed often worse, than those obtained from the field. The total lack of any genetic parameter information is eloquent testimony of what still needs to be done.

I have been singularly fortunate in the last 2 5 years. I have managed large scale ranches, lived and travelled with farmers and pastoralists in their daily lives, worked on development projects, and tried to assist many scientists in the compilation, analysis and interpretation of their research data. In this context I have been able greatly to increase my own knowledge, and have taken advantage of personal communications of the oral kind, of grey literature, and of conventional literature in compiling this document. I could not, even if I would, name everyone who has helped in its construction and its completion. But this book is, indeed, their testament and I am merely their apostle. My fervent hope is that it will encourage all of them to continue in their individual and collective efforts to improve livestock productivity in Africa.

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