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Assessing Feeds and Feed Availability for Dairy Cattle on Pemba Island of Zanzibar, Tanzania

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Abstract

Pemba Island is part of the Zanzibar archipelago, forming one of the administrative regions of the United Republic of Tanzania. A high proportion of Pemba's population is rural, where agriculture marks an essential contribution to livelihoods with an essential part formed by livestock production. Population density is high and considerable rural poverty exists. Since the islands have become tsetse-free in 1997, the cattle population has steadily increased, consisting predominantly of local cattle, so-called 'Zanzibar Zebu' type. Despite relatively low productivity/cow, milk production has increased in Pemba also due to the introduction of improved cattle, although their population is still small (<3%) and more prevalent in the rural-urban domain. To identify potential for feed interventions by the IFAD-funded 'MilkIT' project, the dairy value chain was investigated on Pemba Island in July 2012 by the International Center for Tropical Agriculture (CIAT) and the International Livestock Research Institute (ILRI) in collaboration with local partners. The rapid Feed Assessment Tool 'FEAST' was applied in two group sessions with overall 37 producers (7 women) to appraise feed availability. Results combine findings from two focus group discussions and 13 individual interviews. Local cattle are mainly tethered under shade and graze on open land, e.g., along roadsides. Improved cattle are stall-fed with cut-and-carry grasses and often supplemented with feedstuffs, like pollard, maize bran, rice polish, minerals, and coconut or sunflower cakes. Collecting naturally occurring forages is the primary component of the feed base throughout most of the year, second is grazing. Because of land scarcity, only about half of the farmers established plots with improved forages, such as Signal (*Brachiaria decumbens*) and Napier grass (*Pennisetum purpureum*), or harvest leaves from planted trees/shrubs like *Gliricidia sepium* and *Leucaena leucocephala*. Planted forages contribute substantially to feed quality throughout the year. Strong seasonality affects grazing opportunities that drastically reduce during the dry season, December to January, when crop residues are plentiful; however, little use seems to be made of these residues. Although feeding has scope for enhancement, key conclusions were that, instead of further increasing production, promoting and marketing of milk and milk products are more important currently.

Keywords: Dairy value chain, feed, focus group discussion, improved forages, seasonality, Tanzania, Zanzibar,