

Assessing feeds and feed availability for dairy cattle on Pemba Island of Zanzibar, Tanzania

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Background

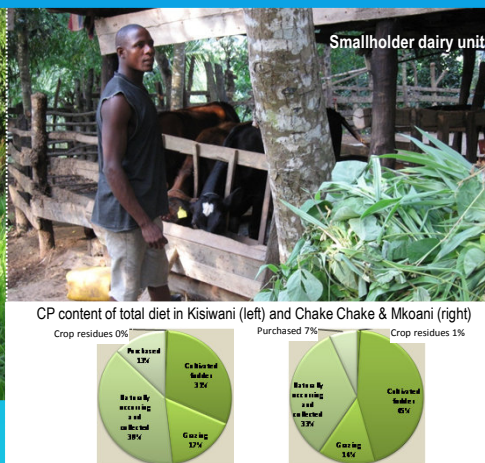
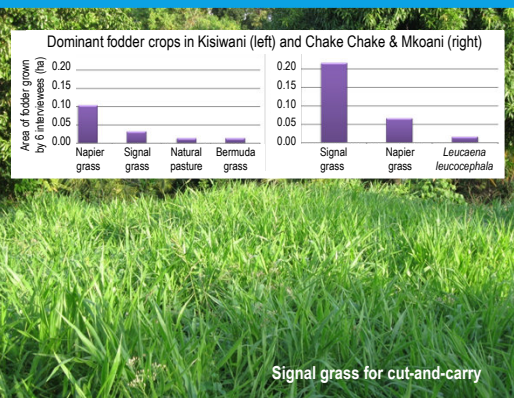
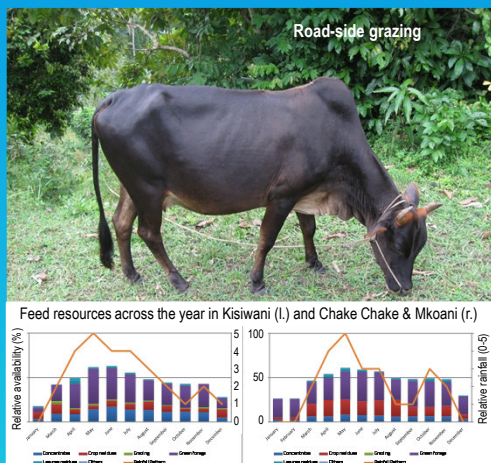
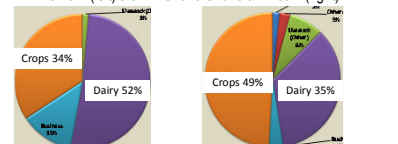
- ◆ Pemba Island is part of Zanzibar archipelago, one of administrative regions of the United Republic of Tanzania.
- ◆ A high proportion of Pemba's population is rural, with agriculture making an essential contribution to livelihoods.
 - ❖ Livestock production is important agriculture.
 - ❖ Population density and rural poverty are high.
- ◆ Pemba is tsetse-free since 1997, and cattle population steadily increased, comprising largely local, so-called 'Zanzibar Zebu'.
- ◆ Milk production has increased in Pemba despite relatively low productivity/cow.
 - ❖ Also due to introduction of improved dairy cattle, although still few (<3%) and more prevalent in the rural-urban domain.



Conclusions

1. Dairy cattle contribute strongly to the livelihoods of relatively poorer people.
2. Feeding can be enhanced, especially in the dry season; BUT promoting and marketing of milk and milk products are currently more important than increasing production.
3. Crop residues are underused and can be particularly useful during the dry season.
4. FEAST is a useful tool for rapid appraisal of feeding challenges and opportunities.

Dairy contributes more to livelihood activities and household incomes (%) in Kisiwani (left) than in Chake Chake & Mkoani (right)



Results

Materials & Methods

- ◆ To identify potential for feed interventions, the dairy value chain was investigated on Pemba Island in July 2012 by CIAT and ILRI in collaboration with local partners.
- ◆ The rapid Feed Assessment Tool 'FEAST' (Duncan et al. 2012) was applied in two group sessions with overall 37 producers (7 women) from Kisiwani, Chake Chake and Mkoani to appraise feed availability.
- ◆ Results combine findings from two focus group discussions and 13 individual interviews.
- ◆ Data analysis was through FEAST MS Excel template.

- ◆ 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 feed component throughout most of the year, second is grazing.
- ◆ Because of land scarcity, about 50% of the farmers
 - ❖ Established plots with improved forages, e.g. Signal (*Brachiaria decumbens*) and Napier grass (*Pennisetum purpureum*), or
 - ❖ Harvest leaves from planted trees/shrubs like *Gliricidia sepium* and *Leucaena leucocephala*.

Results

- ◆ Planted forages contribute markedly to feed quality (crude protein, CP) during the year.
- ◆ Strong seasonality affects grazing, drastically reducing during dry season (Dec-Jan), when crop residues abound.
 - ❖ Little use seems to be made of these residues.
- ◆ Feed for improved cows is supplemented with 'imported' pollard, maize bran, rice polish, minerals, and coconut or sunflower cakes.
- ◆ Cattle are also supplied with garden and kitchen wastes – like peels of cassava, banana, sweet potato – as well as banana pseudo-stems and peels, pineapple waste, breadfruit, and food left from the household.

Acknowledgements

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