

The feeding component in rural and peri-urban smallholder pig systems in Uganda

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Introduction

In the last 30 years, Uganda has had a massive growth in pig population, and currently has the highest per capita consumption of pork in East Africa (3.4 kg year⁻¹). About 90% of the pigs in Uganda are produced in smallholder farms under typical crop-livestock systems, even in the peri-urban setting. The present study aimed to characterize the pig feeding systems, in terms of the use of local feed resources and gender roles.

Materials and methods

Thirty-five focus group discussions (FGD), with 10 farmers per group on average, using a semi-structured checklist, and a household baseline survey (HBS) with a structured questionnaire were carried out in 35 villages of three districts (Kamuli, Masaka & Mukono). Twenty-five represent the rural and 10 the peri-urban value chains (VCs). A total of 352 and 376 farmers participated in the FGD and HBS, respectively. Participating farmers were selected using stratified random sampling based on gender from the list of all pig farmers in the villages under study.

Results

- The main feeding constraints identified by farmers are: dry season fodder shortages, high cost of commercial feeds, price fluctuations of feed ingredients and poor quality of purchased feeds.
- Crop residues, forages and kitchen leftovers represent 70-75% of the total diet, with slight variations along the year. Crop residues are replaced by forages and weeds during the crop growing seasons (March- May & Sept – Dec) (Fig. 1).
- Sweet potato vines are the most preferred forage for pigs, regardless of VC domain; cassava leaves was the second most preferred in the rural VCs, while yam leaves occupied that position in the peri-urban setting (Table 1).
- Feed collection is mainly done by women and children, but the role of men and hired labor becomes more significant in urban settings (Fig. 2). Women and children are also the most involved in feeding pigs.

Figure 1. Relative contribution of feed resources to the diet along the year

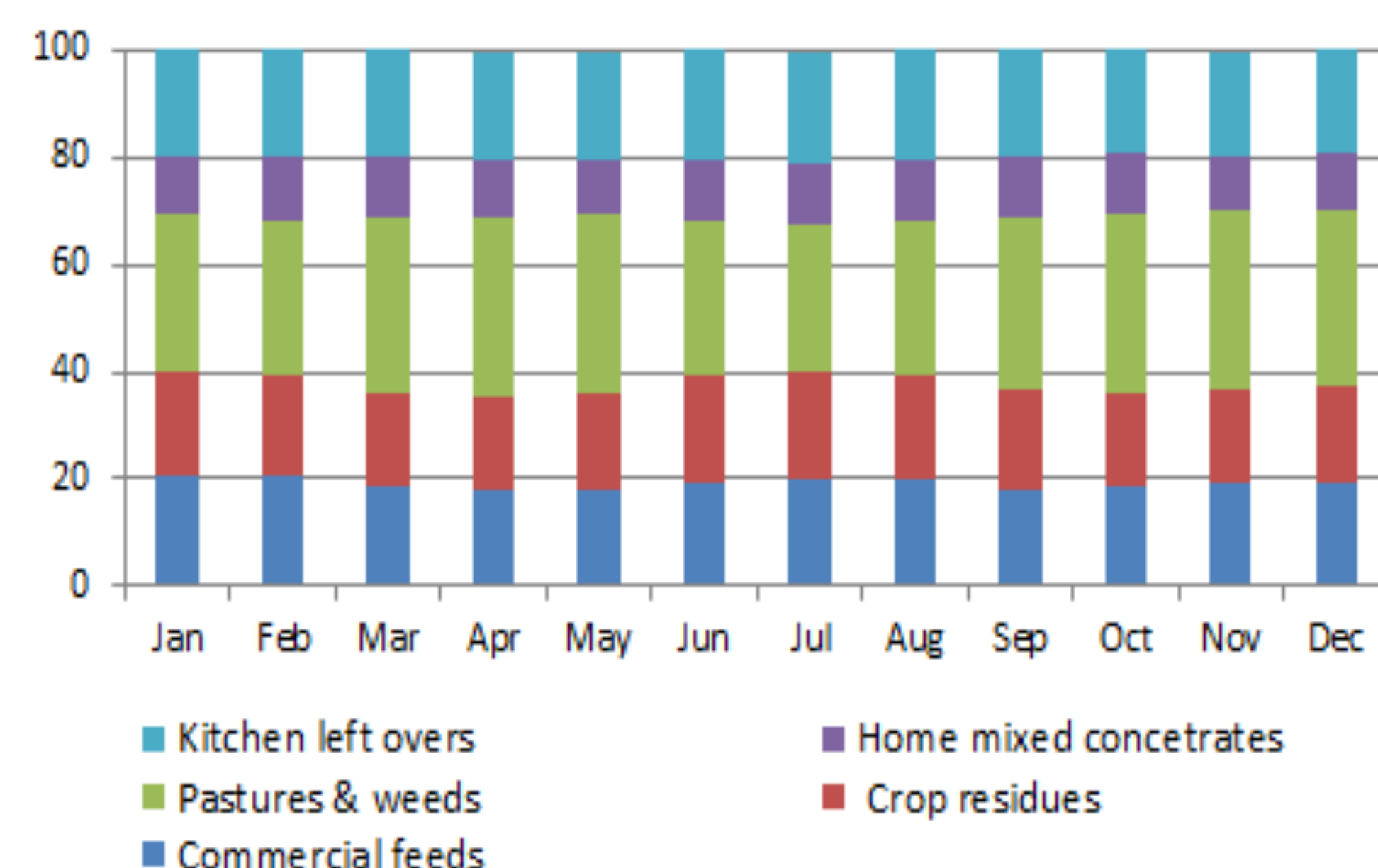
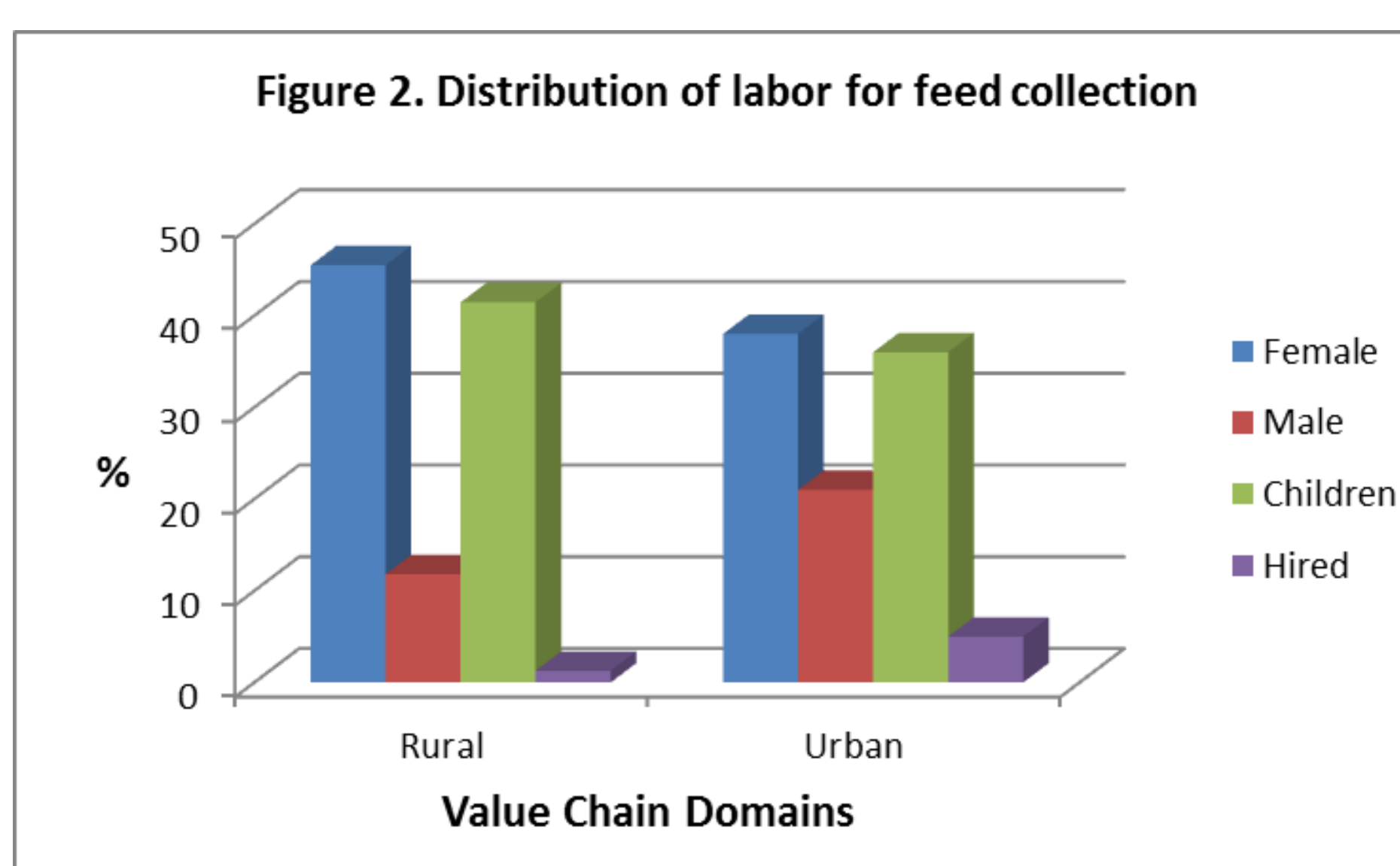


Table 1. Relative preference of forages by farmers, according to VC domain

VC Domain	Sweet potato vines	Cassava leaves	Yam leaves	Amaranthus spp.	Wandering jew	Others
Rural	5.0 ^a	3.3	2.7	1.1	0.9	0.2
Peri-urban	5.0	1.4	2.7	0.5	2.0	1.5

^a 5.0 and 0.1 = most & least preferred, respectively

Figure 2. Distribution of labor for feed collection



Woman collecting sweet potato vines



Pigs fed on sweet potato vines

Research into

The results of this study have guided efforts to focus adaptive research on improving the use of those crop residues and forages most commonly available in the smallholder pig farms (i.e., sweet potato vines, cassava leaves). This has included silage preparation for feed conservation targeting periods of limited availability (crop growing phase & dry season). It has also emphasized the relevance of involving all household members in the participatory evaluation of feed technology innovations.



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