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Traditional uses of wild grasses amongst three Kenyan farming communities

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Introduction In Kenya , 587 grass species and 142 genera have been documented (Ibrahim & Kabuye , 1988) , and the distribution and uses of some of these grasses have been described (Muyekho , Barrion & Khan , 2004 ; Skerman & Riveros , 1990 ; Ibrahim & Kabuye , 1988) . However , except for studies on forage yields and their nutritive value for livestock production . The information available lacks quantification on the importance to which different communities attach to different traditional uses for different wild grass species in Kenya .

Materials and methods Three administrative districts (Busia , Suba and Machakos) and 6 divisions were deliberately selected based on agro-ecology , ethnicity and production systems , and 312 farmers in those areas were randomly selected and interviewed using a structured questionnaire . Grasses on each farmer s field were collected during the interview and identified by a grass specialist based at ICIPE Mbita . Data was analyzed using the social sciences package SPSS .

Results and discussion There were significant differences amongst the three districts in the total area under grasses , the number of grasses likely to disappear due to overgrazing , the number of grasses that had disappeared , the number that were harmful , and the total number of uses that a farmer had for grasses , but there was no difference among districts in the number of grasses considered important for livestock . There was widespread use of grasses in all 3 communities for thatching and for making manure/mulching , but limited grass use for cultural activities , for human food and for brewing . At least 75% of farmers interviewed in all the 3 communities used wild grasses for thatching although the grass species used differed across communities . Mulching was the second most important use of grasses by the three communities and *C . dactylon* was preferred in all three communities . Additionally *B . insculpta* was used often in Suba , *C . nardus* and *I . cylindrica* in Busia and *P . maximum* in Machakos . Wild grasses were commonly used for making brooms and for weaving although the grass species used differed amongst the three communities . *Loudetia kagerensis* (K .Schum) Hutch was used to make brooms in both Suba and Busia , along with *C . nardus* . while in Machakos *P . maximum* was most preferred . For weaving , farmers in Suba farmers used mainly *C . dactylon* to make mainly baskets while those in Busia farmers preferred *C . nardus* to make mainly ropes . Hay making by more than 10% of the farmers in each district was done with *P . purpureum* in Busia and *P . maximum* and *C . dactylon* in Machakos .

Farmers in Suba preferred *H . rufa* and *P . purpureum* for building while those in Busia preferred *C . nardus* . In Machakos *P . maximum* was the species of choice . Some grass species were also used in trapping fish and termites , *C . dactylon* and *P . maximum* were used in Suba and Machakos , respectively , for both purposes , while in Busia farmers used *C . nardus* for trapping fish .

Musical instruments were made from *H . rufa* in Suba and Busia , as well as *C . nardus* in Busia and *C . ciliaris* in Machakos .

C . dactylon was also used for making mattresses in Suba and Busia and also as human and livestock medicine in all 3 districts .

The importance of wild grass as a saleable commodity varied widely amongst the communities , from 13% of farmers in Machakos to 63% in Suba with the most important species being *B . insculpta* and *H . rufa* in Suba , *P . purpureum* , *C . nardus* and *I . cylindrica* in Busia , and *P . maximum* , *C . dactylon* and *P . purpureum* in Machakos , providing a seasonal income of between \$2 and \$47 29 per hectare .

Conclusions Machakos farmers had the least use for grasses due to the limited number of uses they had for grasses and the negligible number of farmers deriving an income from grasses . This could be attributed to the fact that Machakos farmers have smaller areas of their farms under grasses possibly , due to increased population , a ready market for horticultural crops in the nearby Nairobi market which encourages them to put as much land as possible under crops . Grass conservation in terms of area under grass or number of grass species on the farm is influenced by a variety of factors despite the widespread use of grasses . It is expected that if there was increased demand for the various cultural activities then farmers would increase the required grasses and their acreages need .

Reference

Ibrahim K .M . & Kabuye , C .H .S . ,1988 . An illustrated manual of Kenya grasses . Food and Agriculture Organization of the United Nations 765p .