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Uptake of integrated termite management for improved livelihoods, sustainability and resilience of rainfed farming systems of Eastern Africa

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Key Message

CPWF PN37 research in Nakasongola, Uganda, demonstrated that improved pasture, water and cattle management can overcome destructive foraging by termites and lead to improved water productivity, livestock feed production, and ecosystem health. Damage caused by termites in Africa may be symptomatic of underlying agroecosystem degradation and regime shifts for which holistic transdisciplinary solutions are required.

Summary

Termites are a major constraint to agriculture in semi-arid and humid areas of Eastern Africa. Chemical control typically fails over the long term. Alternatives are needed. CPWF PN37 research in Uganda demonstrated the potential for improving ecosystem resilience and water productivity by controlling termites in degraded rangelands through night corralling of livestock and pasture reseeding. Termites appeared to preferentially feed on deposited manure rather than newly established pasture

grass. Without manure, reseeding failed. With manure, pasture production reached >3000 kg/ha (dry weight). A community survey showed that 64% of respondents viewed this technology positively. Emerging evidence suggests that termite-induced land degradation is symptomatic of agroecosystem collapse and regime shift requiring a more transdisciplinary land, water and socioeconomic approach rather than a specific technology focused on eradicating termites. The original PN37 proposal did not include research on termites. However researchers' curiosity and powers of observation led to these new and unexpected insights. Building on PN37 research, a new CPWF research-into-use (RIU) project involving multiple stakeholders plans to apply integrated termite management (ITM) approaches to selected rural development activities in Ethiopia, Uganda, Burundi and South Sudan to help rehabilitate degraded lands and increase agricultural water productivity and farming system resilience. This RIU project combines socio-economic tools and practices from Nile BDC innovation platforms in rainfed production systems of Ethiopia with technical knowledge derived from Uganda's Cattle Corridor to foster improved ITM throughout termite affected areas of Eastern Africa. We hypothesize that ITM affords one important pathway to improved rainwater management in agriculture in Africa.



IN NAKASONGOLA DISTRICT, UGANDA, OVERCOMING DESTRUCTIVE TERMITE ACTIVITY REQUIRES AN INTEGRATED TERMITE MANAGEMENT (ITM) APPROACH RATHER THAN OVER DEPENDENCE ON CHEMICAL CONTROL (PHOTO BY DON PEDEN, NAKASONGOLA DISTRICT, UGANDA)