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Banana food-fibre nexus: The position of Uganda’s banana smallholder farmers

DAPHINE KAMUSINGIZE^{1,3}, ESTHER RONNER¹, GODFREY TAULYA², PRIVER NAMANYA³, JEROME
KUBIRIBA³, KATRIEN DESCHEEMAEKER¹

¹Wageningen University & Research, Plant Production Systems Group, The Netherlands

²International Institute of Tropical Agriculture (IITA), Uganda

³National Agricultural Research Organization, Nat. Banana Res. Progr., Uganda

Abstract

Globally, there is growing interest to utilise agricultural residues as raw material in diverse industries, including use of banana stems for production of natural fibre. Uganda, where over 80 % of farming households grow bananas for food and income, is gearing up its fibre production to tap into the growing demand. However, successful scaling up of fibre production depends on the feasibility of banana farmers, as potential raw material producers, to re-orient from production of banana as a food crop to a commercial crop with multiple uses e.g. fibre. This could pose negative implications at farm level, on their food self-sufficiency, income and nutrient balances. This study assessed, from the stakeholders perspective, the underlying socio-economic factors motivating farmers’ engagement in fibre production, and the potential implications on their livelihoods. Data were obtained through a systematic set of mixed methods. Out of 8, stakeholders ranked market-access, good agronomic management, social group affiliation and access to alternative nutrient sources as the most important attributes to motivate farmer engagement in fibre production. Overall, resource-endowed farmers belonging to a farmer group, with diverse information sources, more livestock and implementing 100 % of recommended agronomic practices were better positioned to engage compared to those resource-constrained. These resources support the current fibre production demands; e.g., quality of stems produced, but could also help mitigate the potential risks therein. Averagely, all households were food self-sufficient with 7,635–10,149 kcal⁻¹day per adult male equivalent, with banana contributing the most. Average annual household incomes were 833–2,320 USD. Returns from selling all stems harvested could increase incomes by 6–10 %, benefiting mostly the resource-constrained farmers. The proportion of households that were food self-sufficient could however reduce from >80 % to ≤30 % assuming a reduction in banana food production resulting from harvesting stems for fibre before horticultural maturity of bunches. This could also lead to a 40 % reduction in income originally obtained from selling bunches. The increasing global fibre demand offers farmers new income opportunities from the sale of stems. Long term solutions are however required to minimise the potential trade-offs of upscaling fibre production at farm level on the livelihoods of banana-dependent communities.

Keywords: Diversification, East Africa, natural fibre, smallholders, trade-offs