ABSTRACT

Sustainable supply of timber in Uganda is threatened by the declining wood resource base but the potential of the timber commodity chain in addressing this challenge has been overlooked. This study assessed the impact of timber commodity chain organization and performance on sustainability of timber supply. It was conducted in well-established Kampala timber yards as the focal market and the districts of Mukono, Kibaale and Kyenjo as well as plantation forests reserves of Oruha, Kyehara and Bugamba as the source areas. The operational objectives of the study included conducting an institutional analysis of the timber commodity chain, comparing profile and performance of the timber commodity chain channels, and modelling the impact of timber commodity chain dynamics on sustainability of timber supply. The results of institutional analysis of timber commodity chain evolution showed that the policy and governance environment was the major driving force that initiated and directed changes in the timber commodity chain but incoherence with the socioeconomic and physical environment resulted into vulnerability to exogenous disruptions. Analysis of difference in the profile and performance of the timber commodity chain channels indicated that channels of the timber commodity chain were associated with different actor and activity profile as well as relationship and linkages and there were significant differences (p<0.05) in volume recovery, value addition and distribution equity within and between channels of the timber commodity chain. Dynamic simulation modelling showed that timber commodity chain dynamics impacted on the sustainability of timber supply but the prevailing scarcity could have resulted from resource exploitation patterns prior to the 1990s and may extend up to the early 2030s while the policies advocated for in the past may not have succeeded in ensuring sustainable timber supply. The study recommends that adaptive institutions be adopted to facilitate a systematic and sustainable evolution of the timber commodity chain; factors that determine participation in the various channels of the timber commodity chain be ascertained to inform policies and strategies to foster re-organisation; performance benchmarks for the timber commodity chain be established and a single performance index be developed; efforts to address timber scarcity should take a multidimensional approach; and investigations that incorporate price dynamics, timber imports and timber exports into the model be conducted to ascertain a more reliable assessment of the sustainability of timber supply in Uganda.

Key words: Sustainable supply, sawn-wood, commodity-chain, performance, adaptive cycle, system dynamics.