

# Factors determining the adoption of integrated crop-livestock system in South Kivu Province, East of the Democratic Republic of Congo

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## ABSTRACT

Sub-Saharan African regions are facing the decline in productivity and sustainability of agro pastoral systems. There is therefore the need to reduce the adverse effects of agriculture on the environment with the need to improve agricultural production globally for food security. The study aimed to identify the different factors influencing the adoption of integrated crops-livestock system and to characterize the main types of farms in eastern Democratic Republic of Congo. A survey was conducted among 150 agro-farmers selected in the in the East of the Democratic Republic of Congo. Based on the obtained results, the key variables that significantly affected the adoption of integrated crop-livestock system include age, household size, agricultural experience, membership of a local development association in place, education level, household head, income, access to markets, land ownership, number of fields owned, total area farmed, proportion of hired, access to training, minimization of the use of chemical fuels and total cost of hired labour ( $p < 0.05$ ). Results also revealed that the stall breeding system or method of caring livestock in an enclosed space, especially for cattle in a barn or in a limited space (36.70 %) which is useful technic to minimize waste of manure and reduces the cost of its transportation. In view of the obtained results, integrated crop-livestock systems may be a crucial type of ecological intensification required for ensuring long-term environmental sustainability and food security. Therefore, extension services and existing NGOs should organize proper farmers training by bringing them together in cooperatives in order to help them to reduce the cost of purchase inorganic fertilizers.