Enhancing Agricultural Sustainability in Africa: Evaluation Tools for Assessing Policy Impacts on Dairy Farming

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Abstract

Dairy production is an integral part of agriculture and contributes to 20 % of the agricultural GDP in tropical countries like Uganda. Dairying is a smart investment that can generate daily income and enable poor farmers meet up their immediate needs. Therefore, several developmental projects in Africa target dairying for poverty alleviation. Unfortunately, their predicted outcomes are compromised by poor understanding of dairy sectors. According to ILRI, the right policies, marketing systems and technical support must be sought for dairy development. Also, for selection of improved policies, adequate analytical tools need to be developed and applied, especially in typical African agricultural systems, where the farm, family and household are a very complex and hardly separable unit.

Two tools were applied for policy impact analysis, focusing on typical dairy farms in Uganda. Identification of stakeholders and policies affecting dairying, followed by ranking of these policies was done using the EXTRAPOLATE (EX-ante Tool for Ranking Policy Alternatives) model. Deeper policy impact analysis was done using the TIPI-CAL (Technology Impact Policy Impact Calculations) model, further developed in 2005 to suit its applicability on small-scale farms.

The EXTRAPOLATE model identified and ranked eight influential policy areas on dairying as follows: Provision of extension services, provision of veterinary services, consumption promotion, marketing promotion, input provision, credit access, quality improvement and genetic improvement. The TIPI-CAL model revealed that these policies greatly increase the household per capita income, including other non-cash benefits like increased household consumption, manure from animal dung, better family health and better social status. The impacts of the same policies were up to three times higher on farms with graded animals, compared to those with local ones. Though policy ranking differed slightly in both models, it was noticed that they greatly complement each other in explaining policy impacts on the livelihood of farmers and on the whole dairy chain.

This study further illustrates the importance of modelling in depicting the role of various stakeholders such as the government, national and international bodies in regulating or encouraging the allocation of land, labour, capital and expertise to promote sustainable agricultural development.

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