

# **A Novel Statistical Model for Poverty Estimation**

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## **Abstract**

In this study, individual consumption as a function of income generated by a cow under one-cow-one family program is modelled. The model was applied on sample data collected from Nyaruguru District in Rwanda. The poverty level in the district was estimated and its variance determined. The confidence intervals of the poverty levels were also computed and compared with already established results. It was established that the model is effective.