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Unpacking the relationship among rural livelihoods, indigenous plant's cultivation and food security: Evidence from South Africa

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Abstract

The neglect in the cultivation and utilisation of highly diverse indigenous plants poses a serious threat to food security status and rural development in the majority of the developing nations. Here, we (1) profiled the ethnobotanical and food security analysis of 31 selected indigenous fruits, grains and vegetables in South Africa and (2) estimated the determinants of cultivating indigenous plants and rural livelihood. The data utilized herewith relied on a survey from 31 selected rural areas of the North West Province of South Africa. Descriptive statistics and probit regression analyses were employed to achieve the research objectives. The study revealed that the total income made from the cultivation of indigenous plants was significantly higher among those who owe land than the participants who do not owe the land utilized for the cultivation of indigenuous plants in the study area. Likewise, the rural households that utilizes indigenous grains, fruits and vegetables had between 58–59 % probability of being food secured than their counterparts. Furthermore, the probit regression result indicated that land ownership, rural livelihood assets and ethnobotanical indices were the principal determinant ($p < 0.05$) of indigenous plants cultivation in the study area. We concluded that cultivation and consumption of indigenous plants was important for the food security of rural households. Therefore, policy interventions targeted at improving the present South Africa's land tenure pattern, awareness and indigenous plants farming incentives for more efficient and productive production have the potential to increase the plants wider acceptance, cultivation, rural livelihoods and food security in the marginalized communities of the country.

Keywords: Empirical modelling, food Sovereignty, frequency index, rural development, undervalued plants, use-value

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