

**A COOPERATIVE MODEL FOR ENHANCING MARKET PARTICIPATION BY
SMALL HOLDER MANGO FARMERS IN VHEMBE DISTRICT OF LIMPOPO
PROVINCE, SOUTH AFRICA**

By

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A thesis for Doctor of Philosophy in Rural Development (PhDRDV) Degree

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SOUTH AFRICA

September 2014

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ABSTRACT

Intervention approaches for strengthening smallholder mango farming in South Africa and beyond suffer from affected stakeholder deficit. Consequently, there is little or no market participation by this sector. This is taking place at a time when research institutions are increasingly being compelled to find sustainable solutions to such challenges. Clearly, there is urgent need for formulating intervention frameworks and models that are stakeholder-driven.

In Vhembe District Municipality the stakeholders encompass Local Economic Development officers in Municipalities, extension officers, mango processors, fresh produce market agents, mango commodity associations and smallholder mango farmers. All these participated in this study. In phase 1 of this study, all of them participated as key informants. Pre-research activities involved creating awareness of the planned work and instilling a sense of ownership among the stakeholders. They were also requested to commit to play active roles throughout the study. Simple Random sampling procedures were used to select respondents. All the stakeholder groups were invited to participate in focus group discussions in phase 2. The results of the first and second phases of the study were used to develop a questionnaire which was then administered to 152 smallholder mango farmers.

The questionnaire required responses on a modified Likert-type scale ranging from 1 (strongly disagree) to 10 (strongly agree). Furthermore, qualitative data on mango consumer demands were collected during a survey that was based on administering a questionnaire to 261 mango consumers in the entire Vhembe District. Furthermore, analysis of physico-chemical attributes of mangoes were conducted in the laboratories with the aim of comparing the quality of the fruit from smallholder and large-scale commercial farming sectors. The data were analysed using the Statistical Package for Social Sciences (SPSS) version 22.0. Mean scores and standard deviations for each perception were computed and used for ranking. Frequencies of the same perceptions were also calculated. The Tukey range test was carried out to determine if there were differences between means.

The study confirmed that despite the considerable contribution of smallholder mango farming sector to rural development, the farmers still face multiple challenges in production, processing and marketing. Among others, smallholder mango farmers lack on-farm infrastructure, technical skills and financial support. There were considerable post-harvest losses due to rotting. The major processing-based challenges included lack of facilities, and

inadequate technical knowledge and skills. With respect to marketing, long distances between farms and markets, poor road infrastructure linking farms and markets, poor quality of products compared to those of competitors, and lack of control or voice in lucrative markets were key problems they faced. These challenges were the main constraints, which made it difficult for smallholder mango farmers to actively participate in commercial markets.

No significant differences ($P < 0.05$) were observed in all the parameters of quality of mangoes from smallholder and large-scale commercial farming sectors. Mango cultivars from smallholder mango farming systems in Vhembe District were found to fulfil the standard parameters considered when determining marketable quality. The study also confirmed that in Vhembe District, fresh mango and its products are popular among both youth and adult consumers. This implied that a ready market for mangoes from the smallholder farming sector existed. The results of this study were used to suggest an intervention framework anchored on stakeholder participation to resolve the challenges inherent in production, processing and marketing. Furthermore a cooperative model was developed to assist farmers to implement the intervention framework.

This may enable the smallholder mango farmers to improve and participate in all the levels of the commodity supply chain. Although the framework and model were developed for the Vhembe District, they have the potential to reshape smallholder mango farming development/improvement planning in South Africa and beyond. This study has provided pointers on how to fully involve affected stakeholders in decision making and taking action in their own development for achieving sustainable smallholder mango farming and rural development.

Key words: Smallholder mango farmer, market constraints, stakeholder-driven, intervention framework, cooperative model.