

**Towards a Framework for the Integration of Traditional  
Ecological Knowledge and Meteorological Science in  
Seasonal Climate Forecasting:  
The Case of Smallholder Farmers in Zimbabwe**

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**ABSTRACT** Global evidence shows that seasonal climate forecasting can be a useful strategy in adapting to the effects of climate change on agricultural production. Meteorological science based seasonal climate forecasting has been broadly promoted as an important adaptation tool in this regard. However, calls are now mounting for the integration of meteorological based forecasting knowledge with traditional ecological knowledge based systems of seasonal forecasting to minimize system deficiencies in forecasting. Using a mixed methods approach, the study investigates the interface between the two knowledge systems and what integrating them would entail in practice in Matobo District, Zimbabwe. The paper finds that farmers are already utilizing both types of knowledge albeit in an uncoordinated fashion. Those farmers that integrate the two knowledge systems tended to make more definitive farming decisions concerning seasonal climate patterns. The paper recommends a more systematic parallel integration system that recognizes the importance of both knowledge systems.