

## Chapter 49

# Applying Indigenous Knowledge in Agricultural Extension in Zimbabwe

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### ABSTRACT

*Indigenous knowledge (IK) has been viewed as local knowledge that has been developed and accumulated, over time, by a community and has been passed down over generations. Such knowledge is represented in most spheres of human activity, such as in agriculture, traditional and alternative medicine, human and animal health, forestry and botany, among others. The purpose of this chapter is to discuss how IK is accessed and used by agricultural extension workers in Zimbabwe. The study reviews the relevant literature and focuses largely on Indigenous Agricultural Knowledge (IAK). The study utilises both quantitative and qualitative methods; a questionnaire was distributed and extension workers drawn from eight provinces of Zimbabwe. Mashonaland Central Province produced the highest number of respondents because the population for the province included ward and village extension workers in addition to the district and provincial extension officers and supervisors targeted in each province. From the projected sixty (60), forty four (44) districts participated. The study observed that indigenous knowledge is relevant in modern day agriculture and should be given sufficient attention in extension work. The study recommends that IK be documented and integrated into research, education and training for posterity.*

### INTRODUCTION

Woytek (1998, p. 1) opines that the literature on indigenous knowledge (IK) does not provide a single definition of the concept, partly due to the differences in background and perspectives of the authors, ranging from social anthropology to agricultural engineering. The United Nations Environmental Programme (2008, p. 21) and Masalu, Shalli and Kitula (2010, p. 4) observe that a variety of terms have been used to describe this form of unique knowledge. These have included such terms as “local knowledge,” “traditional knowledge,” “indigenous traditional knowledge,” “indigenous technical knowledge”, “tradi-

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tional environmental knowledge”, “rural knowledge”, “traditional ecological knowledge” and so forth. Warren (1991), Woytek (1998), and Njiraine, Ocholla and Le Roux (2008) view indigenous knowledge as the local knowledge – knowledge that is unique to a given culture or society, which contrasts with the international knowledge system generated by universities, research institutions and private firms. It is the basis for local-level communication and decision making in agriculture, health care, food preparation, education, natural-resource management, and a host of other activities in rural communities. Rajasekaran, Martin and Warren (1994), Ghorbani, Khodamoradi, Bozorgmanesh and Emami (2012), Dixon (2001), Tikai and Kama (2004), Karthikeyan, Veeraragavathatham, Karpagam and Firdouse (2009) view indigenous knowledge as a systematic body of knowledge and skills acquired by local people through the accumulation of experiences, informal experiments, an intimate understanding of the environment. Woytek (1998, p. 2) observes the characteristics of IK, which distinguishes it from other knowledge as:

- **Local:** It is rooted in a particular community and situated within broader cultural traditions; it is a set of experiences generated by people living in those communities. When transferred to other places, there is a potential risk of dislocating IK.
- **Tacit Knowledge:** Not easily codifiable.
- **Transmitted Orally:** Or through imitation and demonstration. Codifying it may lead to the loss of some of its properties.
- **Experiential Rather than Theoretical Knowledge:** Experience and trial and error, tested in the rigorous laboratory of survival of local communities constantly reinforce IK.
- **Learned through Repetition:** this is a defining characteristic of tradition even when new knowledge is added. Repetition aids in the retention and reinforcement of IK.
- **Constantly Changing:** being produced as well as reproduced, discovered as well as lost; though it is often perceived by external observers as being somewhat static.

According to Reij, Scoones and Toulmin (1996), Woytek (1998), and Warren (1991), the indigenous information systems are dynamic, and are continually influenced by internal creativity and experimentation as well as by contact with external systems and influences such as from immigrants, return migrants, extension workers, and visiting businessmen and so on. Woytek (1998, p. i) and Masalu *et al.* (2010, p. 5) perceive that indigenous knowledge is important as it contributes to communities in many ways.

*It provides the basis for problem-solving strategies for local communities, especially the poor. It represents an important component of global knowledge on development issues. Learning from IK, by investigating first what local communities know and have, can improve understanding of local conditions and provide a productive context for activities designed to help the communities. Understanding IK can increase responsiveness to clients. Adapting international practices to the local setting can help improve the impact and sustainability of development assistance. Sharing IK within and across communities can help enhance cross-cultural understanding and promote the cultural dimension of development. Help in identify innovative pathways to sustainable human development that enhance local communities and their environment.*

The United Nations Environmental Programme (2008) concur, adding that indigenous knowledge systems have enabled the various communities in those countries to live in harmony with their environ-

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