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The Silent Ontology of Farmers’ Experimentation: Getting it Aloud for Promoting Innovations in Nigeria and Benin

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Abstract

During the past two decades considerable advances have been made in reviving local knowledge. On-farm experimentation has been extended to empowering farmers to set their own research agenda and to take full control of them. However, the novelty of these changes has been impaired by the inherently evaluative character of scientific knowledge, which remains primarily concerned about validity and reliability. On the contrary, farmers’ knowledge is essentially embedded in their cultural experience that needs to be decrypted. Since decrypting farmers’ culture is a life-time challenge, most research projects use a collaborative approach to translate farmers’ judgments into quantitative data or laboratory analyses to gain new information. In such joint-learning processes only the outputs of farmers’ knowledge are of scientific interest but not the experiential model they stem from. The latter is inherently implicit and therefore beyond the reach of empirical observations.

In a study on the diffusion of multipurpose legume-based technologies in Nigeria and Benin, these impediments were addressed to shed some light on farmers’ experimentation processes. The technology options were introduced as neutrally as possible without any specific information on how they were to be used or tested. Rather, participants were free to make their own sense of the legume options and to choose those they felt most appropriate for their goals. Based upon (1) the differentiated taxonomy systems that farmers used to select legume options (2) the spatial arrangements they employed to probe their choices, and (3) the explanations they gave of their observations, their experimentation process could be traced.

The results suggest that farmers’ choices were based on plant morphological criteria from which they would anticipate the likely performance of the different legume species. Then a confirmatory, non-hypothesis-based experimentation stage followed. Instead of choosing the best performing species as confirmed by their test, the participants suggested that the promising species should be subjected to a Darwinist learning-selection process before final confirmation of their suitability. Since this third stage is purely processual and non-predictable as to its outcomes, new institutional arrangements are necessary in agricultural research to effectively promote innovations such as legumes-based technologies.

Keywords: Knowledge Construction Process, Legume-based innovations, local knowledge, West Africa