

Agricultural Extension Officers' Knowledge of Food Security Issues in Trinidad: Implications for Professional Development

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Keywords: Food security, Needs assessment, Caribbean, Trinidad and Tobago, Extension

Introduction

Food insecurity and undernourishment are global issues that plague hundreds of millions of individuals daily. In 2012-2013, 842 million were said to be suffering from chronic hunger (FAO, IFAD & WFP, 2013). Caribbean countries, such as Trinidad and Tobago are not exempt from this struggle, with about 17 percent of the population below the poverty line (CIA, 2007). In addition, agricultural production for the country has been significantly low. Only 8 percent of the required staple foods are grown in country (CIA, 2012). Food security, therefore, has been a topic of discussion for the government, including the development of a *National Food Production Plan 2012-2015* (Ministry of Food Production, Land, and Marine Affairs, 2012). Although enhancing food security is a crucial task for the country's future development, very little is known about frontline individuals that must implement the plan. Previous research has explored producer knowledge (authors, in press).

Purpose

This research was conducted to explore extension officer knowledge related to food security. Results have implications for professional development programming. The objectives were: (a) identify the food security issues in greatest need for additional training and (b) explore how needs may vary based on selected variables.

Methodology

There are 132 extension officers in Trinidad. Data were collected face-to-face from 63 of the officers during January to March 2014. The survey used consisted of two parts: (a) personal demographic and professional experience questions and (b) indicators of knowledge and importance of 27 food security issues derived from The *National Food Production Action Plan 2012-2015* (Ministry of Food Production, Land and Marine Affairs, 2012). Using procedures proposed by Borich (1980), the 27 issues prompted the

farmers to indicate (a) their current level of knowledge of the issue and (b) the importance they attached to the issue. This process allows the researcher to prioritize the training needs of the farmers by considering both the knowledge and importance of the issue to calculate a Mean Weighted Discrepancy Score (MWDS). The most important items with the least level of knowledge would have the highest priority. The responses for the level of knowledge used a Likert scale ranging from 1 = no knowledge to 5 = extremely knowledgeable. The responses for the level of importance used a similar scale ranging from 1 = not important to 5 = extremely important.

Results

Overall, the five food security topics with the greatest need for additional training were: (a) a place to store up-to-date and accurate data and statistics for the agricultural sector (MWDS = 4.62), (b) research and development for both livestock and crop farmers (MWDS = 4.14), (c) national-level legislation that addresses production, land use, health, safety, human resources, and trade (MWDS = 3.84), (d) national-level policies for production, land use, health, safety, human resources, and trade (MWDS = 3.79), and (e) water management and flood control systems such as on-farm ponds, irrigation systems, and rainwater harvesting systems (MWDS = 3.21). Differences in selected food security issues were noted based on: (a) education level, (b) the amount of time they intended to stay in extension, (c) if they had received previous training on food security, and (d) their prevalence of paying attention to global issues. No differences were noted for: (a) extension region, (b) gender, (c) if they currently operate a farm, (d) if they grew up on a farm, or (e) their length of service in extension. It is noteworthy that the top four issues based on overall MWDS did not vary by any of the selected variables indicating universal need for professional development.

Conclusions, Recommendations, and Implications

Results revealed positive MWDS scores for 26 of the 27 food security issues, thus highlighting a need for professional development in this area. The five issues presented above had the most pressing needs and professional development programming should be developed and delivered. Of those five, *research and development for both livestock and crop farmers* may be the most pressing need. Previous research (authors in review) identified this issue as a top need for agricultural producers and the current research indicated the same need for extension officers. It is recommended that the Ministry of Food Production, Land, and Marine Affairs partner with the agricultural universities to immediately address this need. The findings of this research also have implications for educational institutions that produce graduates that work in extension in Trinidad.

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