Characterization of Food Insecurity Among Malanga Growers in Tabasco, Mexico

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Abstract
Food insecurity is a global issue, and in the case of Mexico, it affects more than a third of its 37 million citizens. The use of traditional crops and their value addition by social enterprises could be one strategy against food insecurity. In the State of Tabasco, malanga (Colocasia esculenta Schott) is a root representative of the zone and high in calories and inedible fiber. This root has been processed by a social enterprise called Gustillos having impacts associated to food security. This enterprise, formed mainly by women, is located in the Ejido Colima, a marginalized community with limited access and availability of basic services, such as potable water, education and health services. The objective of this work was to characterize the food insecurity of the population living from production and value-addition of malanga.

Introduction
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Methodology
The collection of data was divided in three parts:
- Profile of Food Security, Dietary Diversity, and Coping Strategies
- Perception of the Social Enterprise “Gustillos” among the people of the Ejido Colima
- Identification of the Most Significant Change (MSC) among “Gustillos” and malanga growers

Results
- The 100% of the people interviewed know about Malanga and 25% consume it from 2 to 4 days per week.
- The most appreciated characteristic is Malanga’s taste, beyond its nutritional value.
- The most known way of preparation is the “pucho”, which is a kind of soup with different vegetables.
- Nutrition = soup with various ingredients

Summary & Recommendations
- The low level of food insecurity could be linked to land tenure. All family own a small piece of land and work as a community.
- The community has a positive idea and perception of the social enterprise “Gustillos”. This is critical for the relationship and development of the community and the enterprise Gustillos.
- The concept of nutrition is not well defined. It was mostly associated with consumption of “enriched” soups. However, the term is related with fresh meal and non fast food.
- The women members of the enterprises appreciated the knowledge, team work and the motivation of the Most Significant Changes since the beginning of the company. This is associated with the tenets of social entrepreneurship, more focus to social aspects more than to economical aspects.
- Malanga growers mostly identified problems, not solutions. They focused on the economical return of Malanga production and limitations in agricultural inputs to address pests.
- Results also showed that most of the comments expressed by Gustillos’ members were associated with the STABILITY dimension of the food security definition. This dimension is important as underpins the concept of resilience in a limited resource setting.
- Future studies should compare this social enterprise with similar agro-industrial projects in the region in order to confirm findings and assess the differences in their social management.
- It is recommend to evaluate the impact of social enterprises on agricultural pathways to impact nutrition and the perception of the agriculture among the youth.
- The role of social enterprises in agriculture, especially in low-resource settings is an area of great interest to improve food and nutrition security.

References

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Social Enterprise Gustillos

Gustillos was created in 2011.
- Its administration is different than capital enterprises as it focuses on creation of value through the social innovation.
- Gustillos' goals are to provide empowerment, inclusion, and income generation through agro-industrial activities of Malanga.
- By 2015, this enterprise has created more than 15 different new products from the root malanga.

Malanga (Colocasia esculenta Schott)
Malanga (Colocasia esculenta Schott) is a tropical root crop belonging to the monocotyledonous family Araceae. This root has been shown an important ingredient for partial replacement of wheat flour in some products like cookies. It is naturally gluten-free.

Figure 1- Location of studies and photos of the rural areas.

Figure 2- Comparison between social enterprises and Capital Enterprises

Figure 3- Malanga root and products.