

IN SITU CONSERVATION OF MILPA LANDRACES IN YUCATAN, MEXICO*

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INTRODUCTION

For centuries Maya farmers have maintained a rich genetic diversity of maize, bean, squash and chile within their “milpa” in swidden agricultural system. The rural population in the Yucatan today is still highly dependent upon milpa crop production for self consumption. This diversity is decreasing due to government modernization programmes, population pressure, and environmental changes.

Objective. To enhance and support a framework of knowledge on farmers (a and b) decision-making processes that influence in situ conservation of agricultural biodiversity through strengthen national institutions for planning and implementation of conservation programs involving a much wider group of actors and stakeholders-farmers, communities, universities, research centres, and other groups for broaden the use and participation in the conservation of agricultural biodiversity.

METHODOLOGY

Social-cultural, ethnobotanical, agronomic, genetic and agro-ecological studies were implemented to understand the extent and distribution of the remaining diversity of maize, bean, squash, and chili, and the processes and reasons used to maintain this diversity in Yaxcaba, Yucatán. Taking account a multidisciplinary approach where participate seven national institution partners.

This included gaining an understanding of how farmers name and manage local landraces (c-d) together with an agromorphological and isozymic characterisation,

studies on gender and economic household activities, rural food processing and consumption characteristics (e-h), and nutritional analysis (e-h).

RESULTS AND LEARNT LESSONS

Participatory breeding methods are useful to reinforce in situ conservation on farm like mass selection and limited back cross in maize which allow recovering genetic diversity of traditional landraces as Nal-Tel. Farmers classify landraces taking account morphology by growth cycle and grain colour, both of which are reflected in Mayan landrace names. For example, fifteen local varieties of maize (i) were recorded (k), three landraces of squashes (m), sixth from beans (i) and eight from chili. Farmer criteria is an important factor for conservation of landraces and adding value in any participatory breeding procedures.

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