



NDF WORKSHOP  
**WG 3 – Succulents and Cycads**  
**CASE STUDY 2 SUMMARY**

*Ceratozamia mirandae*  
Country – **Mexico**  
Original language – English

## **CYCADALES SPP. IN CHIAPAS, MEXICO (*CERATOZAMIA MIRANDAE*).**

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The management and conservation of the cycad *Ceratozamia mirandae* in the Sepultura Biosphere Reserve was made on base eight years of demographic, genetic and systematic studies and working with farmers or “ejidatarios” in three communities of this reserve. The harvesting of seeds of mother plants was made according to the demographic studies that show a high mortality and seed loss in the natural populations due to dry season and accidental fires. The training of farmers on basic horticultural practices has been important for the establishment of nurseries. 10% of three year old seedlings produced in the nurseries was reintroduced when the nurseries were established for four years.

The nurseries are now in their 13<sup>th</sup> year and there have been some regional, national and international sales that benefited the farmers but inconsistently. However, the cycad habitat is being conserved and illegal collecting has been discouraged. The following recommendations are crucial to projects of this type:

1. It is very important to include a sociologists or anthropologists to solve organizational and communication problems between the farmers.
2. Solidarity between the farmers and assessors is important.
3. Long-term funding to this type of lengthy projects is important.
4. Marketing specialist for sales and export are needed
5. Closer collaboration with Reserve personnel and other national authorities such as SEMARNAT and PROFEPA to continue to monitoring the habitat of this cycad