



Non-timber forest product importance for rural household well-being in four coastal communities in Oaxaca, Mexico

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Introduction

Rural household livelihoods usually depend on the use of non-timber forest products (NTFPs) as a strategy for income diversification and survival. Thus, this research seeks to determine the role played by NTFPs at the household level. A survey was conducted with 212 households in four localities with a high degree of marginalization, located on the South Pacific coast of Mexico in Oaxaca State.

Aim

The purpose of this paper is to provide empirical evidence of the role played by NTFPs in objective and subjective well-being in terms of income, savings and people's perception of which NTFPs have a positive influence on their household well-being.

Method

The four rural localities studied in this research, Ventanilla, Escobilla, Barra de Navidad and Vainilla, are located on the Pacific coast of Mexico in the state of Oaxaca. Oaxaca is one of the most diverse states in Mexico due to its biological and cultural diversity, but it is characterized by conditions of extreme poverty (Avila-Foucat et al. 2009, García-Mendoza et al. 2004).

Objective well-being generated by NTFPs was assessed by asking which forest products the participants consumed (such as plants, animals or any other NTFPs) in their daily lives. Then, we asked about how the participants used these products (including food, construction materials, medicines, hand-crafts or others). We explicitly asked the participants if they sold these products in the market as an economic activity or if they collected them only for self-consumption. This question led us to ask about the cost of the products they collected for self-consumption to determine how much the household saved annually.

The range of concepts covered by the notion of "quality of life" is extremely broad. Since the present study focuses on the use of NTFPs, it was possible to identify key concepts for which measuring aspects of subjective well-being would be important, such as fuel (Mayer and Smith 2019, Waddams et al. 2012), health (Cocks and Moller 2002, Rios et al. 2017, Uprety et al. 2011) and food security (Frongillo et al. 2017, Ofiong and Ita 2013). **Subjective well-being** was captured by asking about people's perception of whether NTFPs contributed to their household well-being and how valuable these products were for them. The survey data were transferred from paper to an Excel spreadsheet, and then statistical analysis was performed using the SPSS package.

Results

All households, regardless of income, reported that the use of NTFPs has a positive influence on their well-being.

The collection and self-consumption of fuelwood and medicinal plants by households with lower income generates savings of at least 20% of their total annual gross income.

The most important NTFPs for households' subjective well-being are fuelwood, medicinal plants and bushmeat, including species used for food, fuel and health purposes.

NTFPs are mainly collected for self-consumption, revealing the importance of these natural resources for food security and health, as well as their importance as a source of fuel.

Table 1. Income, NTFP consumption and savings by income decile

Decile	Average annual gross income per household [USD \$/yr.]	Frequency of mentions [%]	Average annual savings per household [USD \$/yr.]	Savings per household [% of annual income]	Income group
1	23 504	90.5	194	0.8	High-income households
2	12 166	71.4	106	0.9	
3	8 581	71.4	308	3.6	Low-income households
4	6 899	81.0	181	2.6	
5	5 531	66.7	186	3.4	
6	4 461	76.2	235	5.3	
7	3 784	81.0	234	6.2	
8	3 016	66.7	168	5.6	
9	2 130	76.2	195	9.1	
10	844	85.7	175	20.7	

Average exchange rate in 2013: \$1.00 USD = \$12.8 MX

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Conclusions

- Objective and subjective well-being are complementary measures of NTFP importance in rural households.
- NTFP use is a livelihood diversification strategy in rural households.
- Savings derived from the consumption of NTFPs are largest for poorest families.
- Recognizing wildlife and forest values is important for social and conservation policies.
- The cultural value of NTFPs is part of people's perception of well-being

More details in the published paper

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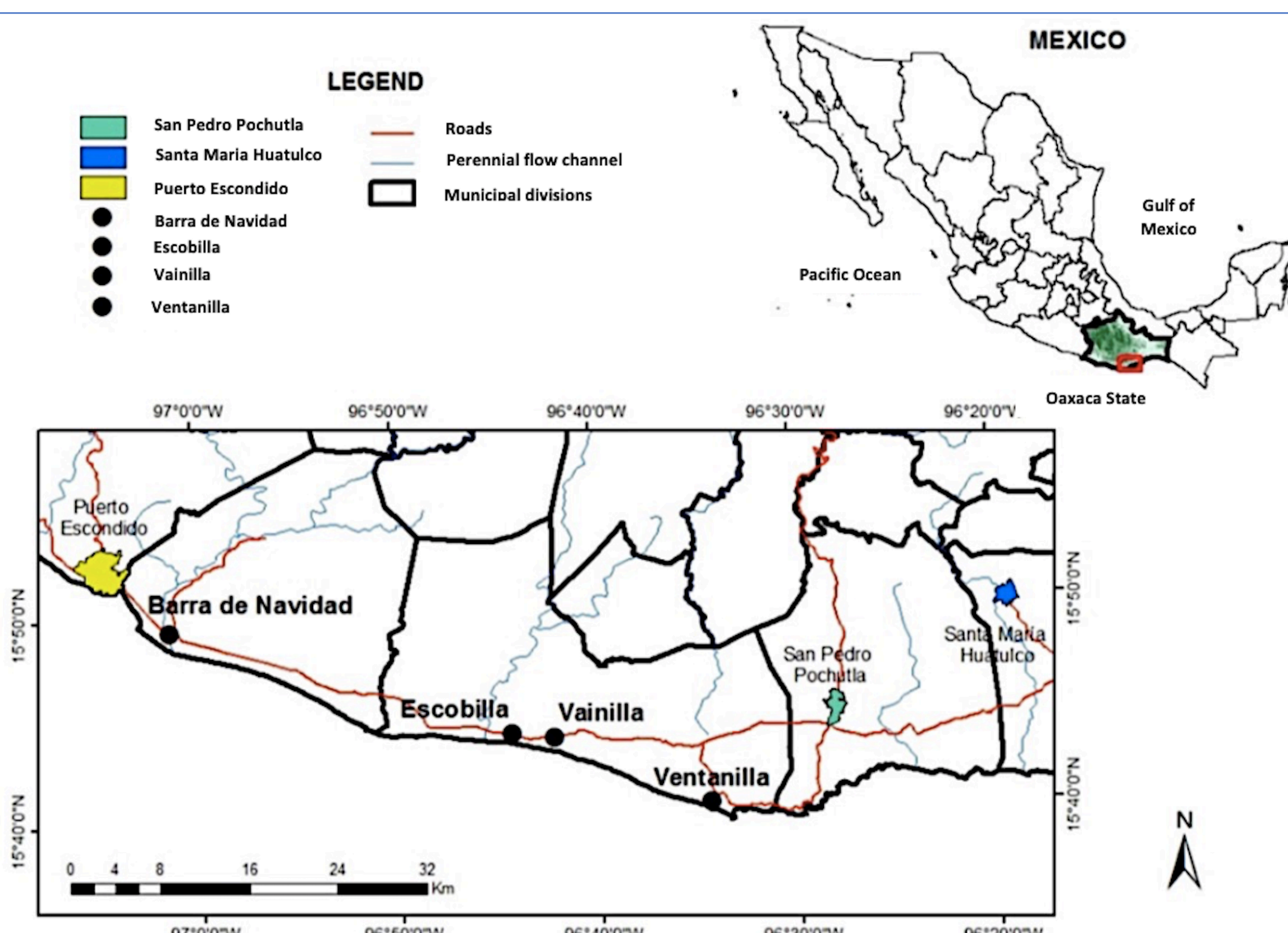


Figure 1. Study area. The four rural localities studied in this research, Ventanilla, Escobilla, Barra de Navidad and Vainilla, are located on the Pacific coast of Mexico in the state of Oaxaca.

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