

# From biological diversity to cultural diversity: a proposal for rural tourism in Mexico

A. Ysunza-Ogazón

*Department of Experimental and Rural Studies,  
National Institute of Medical Sciences and Nutrition, Mexico City*

## Abstract

Oaxaca is an entity located on the Pacific coast of Mexico and is one of the most diverse states from an ecological and cultural point of view. It occupies the first place in floral diversity and it possesses 35% of the existing ethnic groups in the country. Paradoxically, Oaxaca has the highest incidence of malnutrition and mother-infant mortality cases, as well as significant ecosystem deterioration. The Integrated Center for Community Promoters (CECIPROC) is an NGO that during the last 15 years has been focused on creating a training multidisciplinary model. This includes community health, nutrition, ecology, education and organization, framing its actions in the strategy of Primary Health Care, as a contribution to Sustainable Development. The Program benefits indigenous, mestizo and afro Mexican population. Among the main results of CECIPROC's program include: the creation of Infant Nutrition Rehabilitation Centers, an herbarium – including 450 medicinal plants as well as 220 edible plants –, the incorporation of traditional Mexican medicine into the training model and the construction of an ecological sanitation infrastructure. Its primary objective is to create a leisure place with ecotouristic, academic, and cultural activities. This ecosystemic approach to human health considers a new form of coexistence and relationship with nature. It implies the establishment of a dialogue between transculturality and biodiversity, as well as implementing workshops, seminars, meetings and ethno-ecological tours. It also involves ecotouristic visits, recognizing and protecting ecosystem diversity.

*Keywords: mega diversity, ecosystem and human health, sustainable tourism, multidiscipline, community development.*



## 1 Introduction

Mexico is a country on the American continent that, due to its geographic location and its enormous cultural and historic wealth, offers one of the most important diversity from any perspective.



Figure 1: Biological and cultural diversity of Mexico.

Considering the biological diversity, Mexico holds the fifth place worldwide [1] due to an extensive variety of physiographic and climatic conditions. After Brazil and Colombia, the Mexican Republic has one of the greatest floral diversity, which unfortunately has been seriously affected by environmental deterioration in the last few years.

On the other hand, taking into account the cultural diversity, the country holds the largest number of ethnic groups on the continent. One can actually find 56 indigenous ethnic groups [2] besides the afro Mexicans and mestizos. As a result of this great ethnic diversity, there coexist 64 different indigenous languages – belonging to 11 different linguistic families [3] – along with Spanish; just to give an example of the megadiversity.

Unfortunately this privileged situation has not been translated into a good quality of life that would dignify the majority of the country's population. Approximately, 60% of the population [4] find themselves in a living condition that can be ranged between poverty and extreme poverty. This socioeconomic marginalization is worst in the indigenous population located mainly in those municipalities with more than 70% indigenous speaking language population, living in extreme poverty [5].

The geographic location of Oaxaca, a state on the southern Pacific coast, contributes with its enormous diversity. It occupies the first *place in floral diversity* [6] and it posses 35% of the existing ethnic groups in México, including afro Mexicans. Due to its topographic characteristics – the altitude above sea level range between zero and 3,500 meters – it provides 15 different types of climate which contributes to a great variety of flora and fauna [7].

Table 1: Poverty levels in Mexico.

- 
- 50% of Mexican Population from low to extreme level of poverty (CEPAL)
  - 80% of the extreme level of poverty is located in counties considered as indigenous (CONAPO)
  - State of Oaxaca, 18 ethnic groups :
  - 90% from medium to very high marginality (Programa Estatal en Favor de la Infancia DIF-UNICEF)
- 

Although its enormous wealth in natural and cultural resources, Oaxaca presents the highest incidence of malnutrition and mother-infant mortality cases in the country [8,9]. The main predictable causes of death are: acute respiratory infection, diarrheal sickness, parasitosis, malnutrition, cervical-uterine cancer, etc. It also presents a high index of demographic expulsion [10], agricultural unemployment, irreversible environmental damage and permanent sociopolitical conflicts.

## 2 Working background in multiculturalism, health and environment

The Integral Training Center for Community Promoters (CECIPROC) is a nonprofit civil organization, which foremost objective has been to create an innovative model of integrated training in the areas of community health, nutrition, ecology, education and organization. These actions are coordinated under the strategy of the strategy of Primary Health Action (APS). They can improve the quality of life of the peasant groups as part of a program of Sustainable Rural Development [11].

The target of the Program are the indigenous, mestizo and afro Mexican promoters of Oaxaca and it pretend to be consistent with the diverse reality of the state. Such training has a transdisciplinary, participatory, and replicable character and its goal is to bring solution to some of the main problems which weaken the marginalized rural populations. In other words, it enters into sustainable rural development projects, taking as its premise nutrition and community health, through the training of promoters and the implementation of community development programs [12]. The final outcome pretends to be a rational management of the ecosystem.

The accumulated experience during this process has resulted in a most profound understanding, not only of the nutrition and health of the population, but also of the environmental conditions which prevail in the region. It provides, on the one hand, a regional epidemiological profile and, on the other hand, the identification of available local resources form a holistic point of view.

Our attention is to identify local human resources, so that the community can be seen as an ecological unit which accounts for traditional knowledge and social organization. It could also help to develop a favorable economic and political condition, needed to overcome the complex historic process [13]. All of these ingredients represent for México, and in particular Oaxaca, the most important challenge for the preservation of multiculturalism and biodiversity.



### 3 Some results of the CECIPROC experience

The design and implementation of interactive training workshops directed by the promoters, have succeeded in obtaining the following results [14]:

- Oaxaca Regionalized Nutritional Survey as a creation of Nutrition Rehabilitation Centers;
- Regional diagnosis of ecological sanitation; systematic antiparasitic treatment; plants with multimedicinal features; the construction of ecological toilets (diverted urine).
- CECIPROC herbarium, including 430 medicinal plants as well as 220 edible plants.



Figure 2: CECIPROC Herbarium.

- Incorporation of traditional medicinal practices into the CECIPROC training model: Steam traditional baths (temazcal), traditional masotherapy; use of traditional herbolaria, etc.
- Design of a monitoring system to measure health and nutrition impact.
- Publication of training manuals.
- Promotional videos and cassette recordings.
- Community theater plays and didactic training games.
- Community Development Programs such as: backyard orchard, “milpa” systems, the construction of 190 urine diverted ecological toilets and 120 “Lorena” ecological stoves.

### 4 Justification

Based in the above mentioned considerations and trying to fulfill its economic promise, CECIPROC new options consider the following needs:

- A greater and more efficient management of environmental and human resources. This will allow a more systematic adherence to the community development projects.



Comic

Urine Diverted Toilet

Poster

Figure 3: Ecological sanitation program.

- The necessity to promote an intercultural exchange and awareness as well as a training process emphasizing the multicultural perspective [15].
- To use CECIPROC infrastructure, located at Oaxaca City and also “Rancho CECIPROC”, located at Oaxaca’s Pacific Coast (30 kms from Puerto Escondido), in order to develop this proposal.

## 5 Proposals

- To create a leisure place with ecotouristic, academic, and cultural components as a sustainable rural development with an ecosystemic approach to human health. This implies an improvement considering the environmental management and the economic productivity that will lead to the community’s development. Under such circumstances the cutting edge or core conductor of the development is human health as a product of ecosystem health [16].
- To provide a new form of human coexistence and relationship with nature through the application of transdisciplinary understanding of biodiversity and the interaction, respective respectful dialogue and equality among people and groups of different cultures. This implies the establishment of a dialogue between transculturality and biodiversity.
- To favor a space of human interaction with people from different regions interested in supporting these types of initiatives, while at the same time experimenting with an alternative form of rural tourism in Mexico.
- To design and implement workshops, seminars, meetings and ethno-ecological tours to promote knowledge exchange and spread out the experience of CECIPROC in the areas of ethnobotany and medicine, traditional medicine, nutrition and health and ecological sanitation.
- Perform ecotourism visits: Chacahua Lagoon National Park, Manialtepec Lagoon, Roca Blanca, Mazunte and Cangrejo beaches, Bays of Huatulco, coffee plantations of the South Sierra, North Sierra, etc., to know and recognize different ecological niches (manglares, lagoons, bays, deciduous and evergreen forests, etc.)

## 6 Activities proposed

### 6.1 Workshops

Herbists (galenic medicine, collection and pressing, herbariums and miniherbariums, etc.); traditional medicine; Ethnobotanic medicine and foods; culinary processes of Mexican traditional dishes; Nutrition and Community Health; Ecological sanitation; Development of Ecotechnics: EcoSan (Ecological Toilets), temazcal (traditional steam baths), “Lorena” stove (firewood-saving stoves of mud and sand), organic agriculture, etc.

### 6.2 Tours

Ecotourism visits: Chacahua Lagoons National Park, Turtle Museum, Turtle spawning season in protected areas, CECIPROC Community Development Projects.

### 6.3 Sport and science activities

Botanical excursions, jogging, bird-watching, diving with snorkeling, cycling, camping, fishing, etc.

### 6.4 Services

Temazcal: traditional therapies, mud baths, tai chi, etc., Massages, Nutrition with organic products, etc.

### 6.5 Sale of natural and handicrafts

This proposal aims to develop a new strategy to achieve an environmental, social and economic sustainability tourism, by articulating incorporating our multidisciplinary experience to it. The Conference represents the ideal forum to look for the governance mechanisms needed to support this initiative.



Figure 4: Temazcal: it is an indigenous steam bath of both, therapeutic and spiritual importance.

## References

- [1] García, M.A.; Ordoñez M.J. and Briones, S.M. “*Biodiversidad de Oaxaca*”. Instituto de Biología, UNAM, Fondo Oaxaqueño para la Conservación de la Naturaleza y WWF, México 2004.
- [2] Nahmad, S. et al. Medio Ambiente y Tecnologías Indígenas en el Sur de Oaxaca. Centro de Ecología y Desarrollo, México 1994.
- [3] Olvera, M. et al. *Distribución Municipal de Lenguas Indígenas. Institutos de Geografía e Investigaciones Antropológicas*, UNAM. México, 1977.
- [4] Bolvitnik J. Periódico La Jornada. September, 2002
- [5] Psacharopoulous G.; Patrinos, H. *Indigenous people and poverty in Latin American: an empirical analysis*, World Bank, Washington, D. C., 1994.
- [6] Campos A.; L. Cortés (1992) Plantas y Flores de Oaxaca. *Cuadernos del Instituto de Biología* **18**, UNAM, México D.F., 62 pp.
- [7] Op. Cit. García-Mendoza (2004)
- [8] INEGI/SSA Cinta de Mortalidad Promedio 1998-1999.
- [9] Ysunza, O.A. et al. “Evaluación diagnóstica nutricional por regiones en preescolares de Oaxaca: estudio comparativo”. *Rev. Nutrición Clínica*. **7(3)**, pp. 163–172, 2004
- [10] Varesse, S. “Defender lo múltiple: nota al indigenismo”. *Estudios de Antropología e Historia No. 16*, Centro Regional de Oaxaca, Instituto Nacional de Antropología e Historia, 1978
- [11] Ysunza, O.A. et al. “La capacitación – Acción Participativa con Promotores Comunitarios de Salud: Prioridad para el Desarrollo Rural”, en: García Viveros et al. *Modelos para la Implantación de Proyectos Productivos de Salud y Educación en América Latina*. Funsalud, GSK y OPS, México, pp. 337–362, 2002.
- [12] Ysunza, A. Los programas de nutrición y salud como instrumentos prioritarios para el desarrollo rural. *Seminario, Estrategias y Perspectivas del Desarrollo Rural Regional: Oaxaca. México*, SDR Oax.-UACH-Centro de Ecodesarrollo-Fundación Friedrich Ebert, 1990(2).
- [13] Idem. Ysunza, 1990 (3)
- [14] Ysunza, O.A. (Coord.) *¿No que no? Una experiencia de Promotores Comunitarios de Salud en Oaxaca*. México, INNSZ-CECIPROC, 1996 (1).
- [15] Vargas, L.A.; Campos N.R.; Casillas E.-L. and Ruiz L.A. “Interculturalidad y Atención a los Problemas de Salud: La experiencia mexicana reciente”. UNAM and Yolpahtli, S. C. Documento mimeografiado, México, 2004.
- [16] Lebel, J. “Ecosystem Approach to Human Health”. *International Development Research Center*, Ottawa, Canada, 2003.

