

## **AN ANIMAL HEALTH SCHEME FOR ISOLATED COMMUNITIES IN RURAL MEXICO**

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### **Abstract**

The Municipality of Cosoltepec, located in a region known as the Lower Mixteca ("Mixteca Baja") produces cattle, sheep, goats, backyard animals, rain feed crops such as maize, squash, beans and local fruits like the pitaya. Vegetation is of Xerophytes and low deciduous forest. Topography is irregular and rainfall ranges from 400-600 mm per year, distributed from May to October. Land tenancy is communal and the closest paved road is 17 KM away. Population is about 900 inhabitants mainly young and elder people, intermediate ages are scarce. Population lives concentrated in the village and have their animal's enclosures ("ranchitos") dispersed in an area of 2000 hectares. Cosoltepec, as many other poor communities in México, has a high degree of migration towards Oaxaca (capital city of the state), the neighboring towns of Tehuacan and Huajuapam and Mexico City. Agriculture is the main economic activity of Cosoltepec and plans for a sustainable development program for the Village must include animal production. One of the main aspects to care for is animal health in order to have sustainable production systems. Animal welfare is not a big issue since production is carried out extensively. However, due to the isolation conditions of Cosoltepec and the almost nil availability of services (the nearest vet is in Huajuapam, 60 KM away from the village) and a lack of appropriate public policies, animal health is a problem in Cosoltepec and other communities from Mexico in similar conditions. Notwithstanding authorities from the Capital City of Oaxaca know about the problem, they apply an incomplete animal health scheme since they only distribute some vaccines and deworming agents to the local authority. In order to solve this situation a team integrated by students and academics from the Autonomous Metropolitan University at Iztapalapa (UAMI) designed a participatory animal health program. This consisted in meetings with the community called by the authority and attended by the UAMI. There, animal health problems were discussed with the people and authorities. Vaccinations and deworming sessions were agreed as well as dates and routes to meet people in their *ranchitos* in non grazing hours. Results shown significant improvements in animal's health, satisfaction of the people and community acknowledgement. The paper discusses how participatory and willing interventions might help to overcome problems of isolation and to give some clues for the design of public policies addressing animal health issues.

### **INTRODUCTION**

The municipality of Cosoltepec, is one of many communities of the well-known cultural region as the Low Mixteca. A characteristic of the indigenous communities of the Mixteca Oaxaqueña, is the null or precarious technical support from the part of the government authorities in charge of the animal sanity. Another problem that these communities are facing is the irregular topography of their territories and the little infrastructure of communications (paved roads). On

the other hand, of the many development plans aimed at improving the animal production in rural areas of Mexico, some have been successful but others have failed. The objective of this work was to analyze and to discuss a scheme of animal health for isolated communities with high poverty rates.

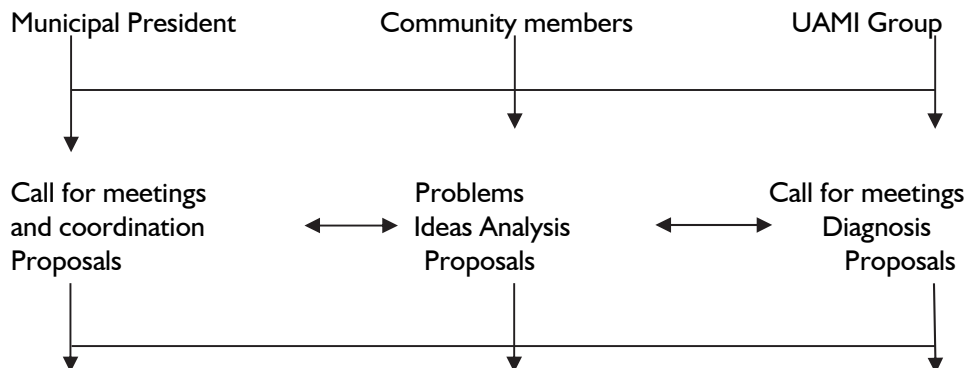
## PHYSICAL ENVIRONMENT

Cosoltepec this located in a mountainous region belonging to the mountains range called “Sierra Mother of the South” that crosses the region Mixteca in parallel form to the Ocean Pacific until the Isthmus of Tehuantepec. The predominant climate is humid warm with rains in summer and its climatic formula, according to Koppen is TO (C) Wo (w). The minimum temperature is of 4° C, the maximum of 40° C and the annual average temperature is 19.0 0C. Annual rainfall is of 800 mm, altitude over sea level ranges from 1780 to 1880 mts, and the rain is distributed form June until September, whilst the dry season goes from October to May. The original vegetation of this area corresponds to the low deciduous forest and xerophytes.

## WORKING SCHEME

Through a participatory approach, a group of students and academics from the UAM Iztapalapa has carried out studies on improving the animal production of this area for several months.. This working model is illustrated in the figure 1.

*Figure 1. Participatory working scheme carried out in the municipality of Cosoltepec*



Design of strategies for a participatory work.

Since the animal production in Cosoltepec contributes to form the incomes of the local families, the services of animal health are very important. Animal production systems in Cosoltepec keep a close relation with the environment as it is shown in the table 1.

**Table 1.** Animal production systems from Cosoltepec

Animals	Population	Production System n	Feeding areas
Bovines	750	Extensive	Rangelands
Swine	115	Backyard	corn
Poultry	1727	Backyard	corn
Goats	1230	Extensive	Rangelands
Sheep	440	Semi Extensive	Rangelands

Diverse sanitary campaigns in Mexico have been effective (foot and mouth disease, screwworm, swine fever). These strategies have worked due to the big injections of technical, economic and humans resources used and they are a first example of a globalized world. However, there is still a lot to do make in illnesses and parasitosis control and eradication. Due to its isolation and the almost null availability of vet services (the nearest veterinarian is in Huajuapam, 60 KM outside of the town) and a lack of appropriate policies from the authorities, animal health is a problem in Cosoltepec and other communities of Mexico with similar conditions. Nevertheless the authorities of the Capital City of Oaxaca know about the problem, they apply an incomplete scheme of animal health since only some vaccines and deworming agents are distributed to the municipal authorities. Before this situation, the working group of the UAM Iztapalapa agreed suited with the local people and authorities the use of the drugs granted by the state government for its application through a campaign.

The vaccinations and dewormings in Cosoltepec were agreed in municipal assemblies, as well as the dates and routes to meet the people in their “ranchitos”. The results of the first wave of vaccinations and dewormings are shown in the table 2.

**Chart 2.** Vaccinations and dewormings carried out in Cosoltepec

Species	Dewormed animals (%)	Vaccinated animals (%)
Bovine	60	60
Goats	100	---
Sheep	100	---
Swine	59	---

According to the local people’s perception, there were notorious improvements in the health of their animals, they expressed satisfaction and we noticed an increase on the confidence of the community toward the working group. In the economic aspects, the peasants expressed that they were obtaining better prices for their animal products (meat especially) due to the absence of parasites. Before this situation, we reach the conclusion that a scheme for the promotion of animal health could be applied given the conditions of poverty and isolation of this type of communities. On one hand, the authority could provide a technician equipped with drugs and instruments for its application and the local inhabitants could pay for the service provided. This working outline

suggests the application of subsidies to the agriculture, method that many countries have abandoned for the sake of the free trade (Serrano, 2002). However this policies doesn't seem since of the most appropriate thing because while some countries or economic blocks (USA and EU) apply strong subsidies to the agriculture, in undeveloped countries, this is considered as an economic policies mistake. It is necessary then that the state governments strengthen the public veterinary service to be able to control or to eradicate illnesses and in this way to contribute to improve the economies of their poorer inhabitants. It is more expensive in the long term not controlling the health of the animals, mainly in isolated areas, that to cut the public expenditure " to save" resources in the short term.

## REFERENCES

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