

Results were compared to panchromatic multi-temporal satellite images to analyse development and affectation (degree and magnitude). Through basic and probabilistical statistics, comparisons were made and tendencies were established for the sites with greatest environmental issues

according to priority and susceptibility, during the years 1996, 2002 and 2008. The data were projected to 2018.

The left verge of the Macagua area was the most human affected due to its proximity to Ciudad Guayana (Puerto Ordaz and San Félix settlements). It was demonstrated spatial dynamics in a 12-year array, showing reservoir border susceptibility to human settling pressure and other human activities. This would result in a loss of 50% of vegetation cover for year 2018 with vegetal abatements up to 1000 meters of the reservoir surroundings, generating medium term technical, operative and environmental issues that CORPOELEC will have to prevent.

**Keywords:** Macagua, wáter resources, spatio temporal, profit - loss, persistence, environmental issues, reservoir

## **PROGRAMA DE EDUCACIÓN AMBIENTAL - SANITARIO NO FORMAL PARA LA COMUNIDAD EL CHARAL DEL REAL, PARROQUIA EL REAL, MUNICIPIO OBISPOS, ESTADO BARINAS**

**Alicia Elena Gómez Mejías**

### **Resumen**

En este proyecto se presenta el diseño y elaboración de un Programa de Educación Ambiental - Sanitario No Formal (PEASNF) para la comunidad rural El Charal del Real, propuesta que incluye actividades de saneamiento ambiental, extensión y participación comunitaria a través del desarrollo y establecimiento de conocimientos que sirvan de base para la conservación de la zona creando conciencia en todos los habitantes de la misma.

El PEANF fue desarrollado por diferentes actores (amas de casa, padres de familia, líderes comunitarios, educadores, facilitadores ambientales y demás), que hacen vida en la comunidad, estará dirigido a las 27 familias que habitan El Charal del Real. Este programa será ejecutado mediante actividades debidamente planteadas en cuatro (4) subprogramas definidos: Los caminos del agua, Aspectos de saneamiento ambiental, Salud y prevención de enfermedades hídricas y Sistemas de agricultura familiar. Estos subprogramas se elaboraron y organizaron de acuerdo con problemas ambientales que afectan los recursos naturales de esta zona, poniendo en riesgo la salud de las familias de la comunidad y disminuyendo tanto la calidad de los recursos que consumen como su calidad de vida.

Con el programa también se pretende elevar la calidad de la educación en el sector a través de la introducción y comprensión de conceptos nuevos, haciendo uso de estrategias dinámicas de

enseñanza para estimular la participación de la comunidad y darles sentido de pertenencia, responsabilidad moral con el entorno y con ellos mismos. Además, las actividades se plantearon de modo que el individuo pueda desarrollar habilidades y destrezas en la solución de problemas reales que enfrenta en su comunidad diariamente.

**Palabras claves:** educación ambiental no formal, educación sanitaria, participación comunitaria, saneamiento ambiental básico y prevención de enfermedades de origen hídrico.

***ENVIRONMENTAL EDUCATION - NON FORMAL  
SANITARY PROGRAM FOR THE EL CHARAL DEL  
REAL COMMUNITY, OBISPOS MUNICIPALITY,  
BARINAS STATE***

**Abstract**

This project presents the design and implementation of a Not Formal Environmental Health and Sanitation Education Program (PEASNF), for the rural community El Charal del Real Uno, the proposal includes activities of environmental sanitation, extension and community participation through the development and establishment of knowledge that serve as base for the conservation of the zone, developing environmental awareness on the members of the community.

The PEASNF was developed by different members of the community (housewives, family parents, community leaders, educators, environmental facilitators and others). The program will be addressed to 27 families that live on El Charal del Real Uno and it will be executed by means of activities divided in four (4) well established subprograms: The ways of the water, Aspects of environmental sanitation, Health and prevention of water diseases and Systems of familiar agriculture. These subprograms were elaborated and organized in agreement with the environmental problems that affect the natural resources of this zone, putting in risk the health of the families in the community, diminishing the quality of the resources that they have access to, as well as the quality of life.

The program aims to raise the quality of the education in the sector through the introduction and comprehension of new concepts, using dynamic strategies of education to stimulate the participation of the community and to give them sense of belonging, moral responsibility with the environment and with themselves. In addition, the activities were prepared in such a way that the individuals could develop skills for the solution of the problems that arise in the community every day.

**Keywords:** health care, environmental not formal education, sanitary education, community participation, basic environmental sanitation and prevention of diseases of water origin.