



MONITORING AND BASIC BIOLOGICAL MACROINVERTEBRATES EVALUATION WITH CITIZEN PARTICIPATION OF THE ROCHA RIVER, WITH THE COLLABORATION OF WATER YOUTH NETWORK

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This project focuses in citizen participation, monitoring and evaluation of the Rocha River, Cochabamba, Bolivia, through the analysis of macroinvertebrates. By encouraging local participation, awareness of the river water problems is created and data is obtained for future river water management measures.

INTRODUCTION

The Rocha River Basin is one of the most important watersheds of the Department of Cochabamba. The river has a length of approximately 81 km crossing the third largest city in Bolivia. Over the years, urban growth and industrial activity have increased the water demand and caused environmental degradation on the river water quality. The use of aquatic macroinvertebrates as indicators of the quality of water ecosystems is an efficient, low-cost measure to assess the health of rivers.



Rocha River
(Photo by QUISPE, 2018)

OBJECTIVES

- To develop and implement a methodology of biological indicators for evaluating the quality of the water of the Rio Rocha.
- To actively involve local citizens in assessing the river water quality.
- To determine, based on the collected data, possible anthropic actions that harm the ecological quality of the Rocha River.

CURRENT SITUATION

The Rocha River undergoes physical and chemical monitoring yearly by local authorities. According to Bolivian law 1333, during the rainy season, the quality of the water is classified as A (good condition). However, during the dry season, the water quality classification drops to the lowest category D. To meet the standards, the water requires an initial process of pre-sedimentation followed by physical, chemical and bacteriological treatment.

EXPECTED RESULTS

- A participative methodology of biological monitoring of the Rocha River.
- Trained personnel who will perform the monitoring.
- River data on the biological microorganisms present in the river.
- A free virtual platform which will display the ecological state of the Rocha River.



ACKNOWLEDGMENTS

This project started in January of 2018, thanks to the financial contribution of HELVETAS through the actions of the project "DAR LA CARA AL RIO ROCHA: DGA / GAD LOCAL INITIATIVES" (Give a Face to the Rocha River) of the Departmental Autonomous Government of Cochabamba.