Title: HEALTH IMPLICATIONS OF RAINWATER CAPTURE ON ACHIEVING ACCESS TO DRINKING WATER: CASE STUDY OF AN INDIGENOUS COMMUNITY IN JALISCO, MEXICO

The sixth objective of the Sustainable Development Goals proposed by the United Nations is to ensure access to water and sanitation for all. This will be a challenge for many countries throughout the world specially in the global south. In Mexico, about 10 million inhabitants without access to potable water and the communities most affected by poverty and water scarcity problems are often rural and indigenous. We will use as study case an indigenous community located in the Sierra Madre, in Northwest Mexico, where women and children used to spend on average one to three hours a day carrying water and families live with under 20 liters per person per day. Access to water has been changing with the installation of Rainwater Harvesting (RWH) systems to address scarcity and poor quality water. In this paper we analyzed the gastrointestinal data from the last four years at the community level and measured drinking water quality at the household level in rainy and dry seasons. A survey was applied to understand the perception of the benefits of RWH systems as a on daily life and to contrast the quality of water with socioeconomic data and hygiene practice. We find a difference in gastrointestinal disease data between the year previous the installation of RWH. Additionally we find a different drinking water quality at the households with RWH systems. The perception of the health problems (gastrointestinal, skin and respiratory disease) is diverse and change from a cosmological conception and a occidental thinking were they take a responsibility. The understanding of the interactions and feedbacks between rainwater access and health has increasingly improved in the past decades. Nevertheless, a deep empathy with the perception and cultural values of the people were this eco-technology has been installed make us think that to achieve the SDG 6, monitoring and reporting are very important and the responses must be localized and adapted to the country and local context.