Abstract

Capacity building to design a Master's Degree in Integrated and Sustainable Water Resources Management

In Mexico, due to population growth, water availability has decreased considerably, from 18,000 m^3 inhabitant/year in 1950 to 3,586 m^3 per year in 2019 (INEGI, 2019.) In the state of Sinaloa, the largest use in the state is agricultural production, there is a poor water resources management in part due to the lack of professionals with training on Integrated and Sustainable Water Resources Management (ISWRM). In Sinaloa, the irrigation efficiencies are low, typically 60% and the water productivity (crop per drop) has not improved in the last 20 years. Drought is present in the 18 municipalities reaching extreme and exceptional drought categories. The objectives of this project are: • Design the content of a graduate education program for a Master's Degree in ISWRM; • Develop a workshop for the training academics and professionals in ISWRM; Page 3 of 9 • Strengthen information and tools on water resources management, water conservation and reuse; and • Promote and contribute to implementation of the UN Sustainable Development Goals The master's graduate program in ISWRM will have the commitment to train highly qualified professionals, capable of evaluating, developing and directing projects, effectively using the relevant guidelines and modelling tools and best management practices for the planning, control and evaluation of projects with a comprehensive approach, as well as solving water problems. The faculty has recognized the need to train professionals in ISWRM and therefore teaches the subject at the level of licientatura since 2013; but has made the strategic decision to advance knowledge at the master's level in the 2023 school year. Dr Samuel Sandoval Solis visited the organization in Fall 2022.