

A Scientific SDI for Decision Support within the Project SuMaRiO

Matthias Schroeder¹ & Marie Hinnenthal²

¹Helmholtz Centre Potsdam, GFZ German Research Centre for Geosciences

²Universität der Bundeswehr, Munich

Abstract

The Sino-German project SuMaRiO is characterized by transdisciplinary research of various participants in research institutes, universities and regional authorities in China and Germany. The common goal of all scientific teams is to contribute new approaches for a sustainable land management in the Tarim river basin. Therefore these interdisciplinary research activities confront the scientists with new challenges in information and data exchanges. Therefore, the developing of a scientific data management based on an information- and data-infrastructure is needed, which can collaborative be used across the borders of scientific disciplines. The overarching aim of SuMaRiO (**Sustainable Management of River Oases** along the Tarim River) is to support oasis management along the Tarim River under conditions of climatic and societal changes. One of the main results of SuMaRiO is the developing of an indicator-based Decision Support System (DSS) that allows a Sustainability Impact Assessment (SIA) within regional planning. This SIA will take into account the perspectives of all relevant actors and consider relevant Eco-System Services (ESS) in the problem field of land and water management in the Tarim River basin. The perspectives will be obtained and analyzed through a transdisciplinary research process. Then, under given scenario assumptions, possible actions and their impacts are estimated.