

Careful resource management is needed on small inhabited islands because demand can stress finite fresh groundwater reserves. Managers need to be informed how the groundwater system functions so that they can optimize the resource use and safeguard it from abuse. Hydrogeological investigation in small islands is broadly similar to basin studies on the mainland but small island scale coupled with data scarcity (including effective rainfall, permeability and baseflow) inhibit conventional groundwater flow modelling. Coastal and offshore baseflow measurement is the greatest uncertainty and research aims to better constrain its determination in the future. Small island hydrogeological investigations are challenging and aquifers can be classified as high-elevation hard fractured rock systems and low-relief karst limestone and sand islands. Although small island hydrogeological techniques have advanced considerably in the last 20 years, they must improve again in the future to help the many communities living in small island states that receive only erratic and unreliable rainfall recharge.