

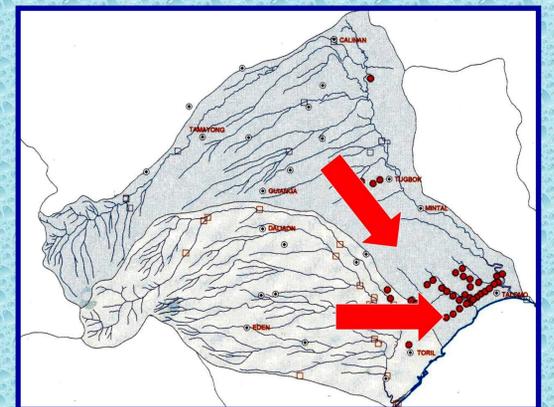
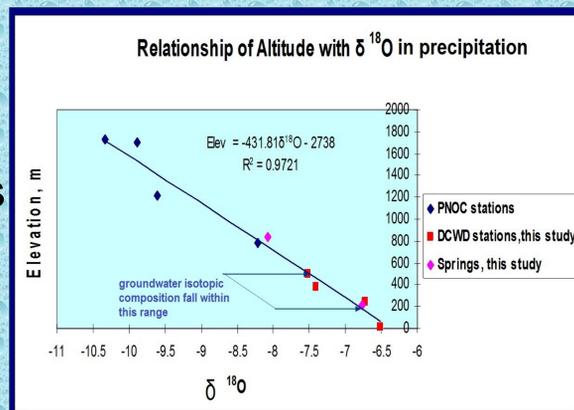
The 40th Anniversary of RCA Exhibition April 16-19, 2012, Beijing, P. R. China

Managing and Protecting Freshwater Resources in Asia and the Pacific

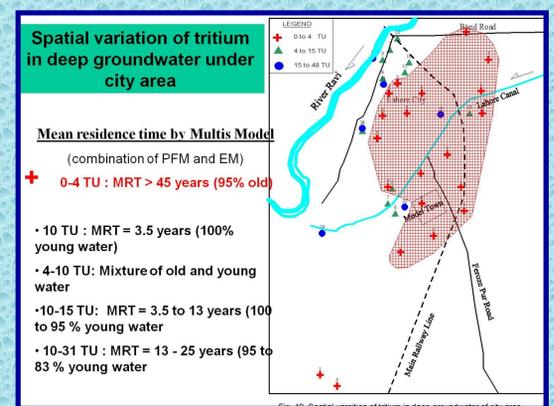
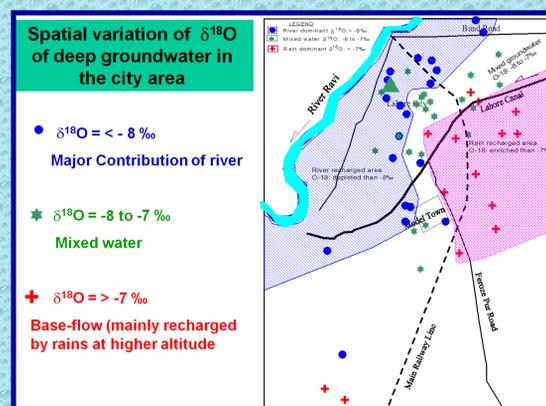
The foundation of water management is understanding how freshwater resources are renewed and how they interact with ecosystems. For over a decade now, the IAEA has been assisting RCA Member States to respond to water challenges in the region by developing infrastructure & human resource capacity to undertake isotope studies. The application of isotope techniques has provided science based information to understand and manage water resources better.

The project **RAS/08/084, Access to Clean Drinking Water**, started in 1999-2000 project cycle, aimed to promote the use of isotope techniques to address specific problems related to drinking water supply and to develop and verify groundwater flow and transport models for selected aquifer systems in the region.

Under the project **RAS/8097, Isotope Techniques for Groundwater Contamination Studies in Urbanized and Industrial Areas** (2003-2006), groundwater quality issues in selected urbanized and industrial areas were addressed using isotope and geochemical techniques. A subproject on geogenic contamination of groundwater focused on arsenic contamination.



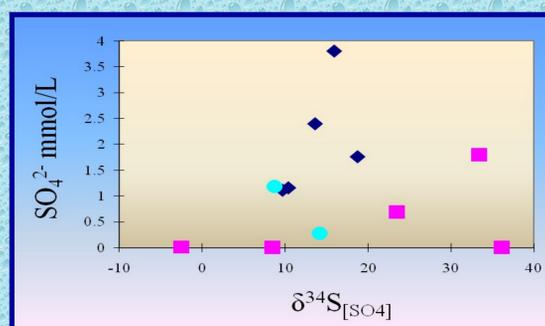
In Davao City Philippines, isotope studies confirmed the groundwater recharge zones delineated by the Mines and Geosciences Bureau from terrain classification studies. This formed part of the basis for the adoption of a resolution for the implementation of watershed management and protection policies (DENR 23, Series of 2005) and to the issuance of City of Davao Executive Order (No.22, Series of 2005), delineating groundwater protection zones in the Talomo –Lipadas watershed.



Field work on high As groundwater at Datong Basin, China

Field work undertaken for groundwater assessment in Thailand

In Pakistan, isotopes in the investigation of groundwater recharge and pollution in Lahore City showed the significant contribution of river to groundwater recharge, and consequently the vulnerability of groundwater to contamination. The information provided basis for verifying a pollutant transport model developed.



Isotopic composition of sulphate in groundwater was employed to study the dynamics of arsenic occurrence in the groundwater in the Datong basin, located in northern part of the Shanxi province in China.



Sampling for C-14 determination in Indonesia

