



Water
Resources
Programme

Isotopes and the Water Cycle

The foundation of water management is understanding how freshwater resources are renewed, and how they interact with ecosystems. As we face the task of providing water for the needs of increasing human populations and the environment, nuclear techniques will become paramount. Water in the hydrological cycle is tagged with a variety of isotopic "fingerprints". They tell us about sources and rates of water movement — from moisture in clouds to the deepest aquifers. Integration of isotopic techniques with classical methods has yielded unparalleled insights that are now becoming available to everyone involved in developing and managing water resources.

