

Salinity intrusion - Its characteristics and impact - Cases in the Asia Pacific region

Dr. Gregory Shahane De Costa

Open Polytechnic of New Zealand, Lower Hull, Wellington, New Zealand

Prof. Toshiharu Kojiri

DPRI, Kyoto University, Gokasho, Uji, Kyoto, Japan

Assoc. Prof. Mark Porter

University of Southern Queensland, Australia, Faculty of Engineering, USQ, Toowoomba, Australia

ABSTRACT: Anthropogenic impacts on hydro-geological systems can result in long term harm and the degradation of the resource if they are not adequately managed.

While this is well known, and witnessed around the world, management options to prevent increasing damage to the surrounding environment are being developed on an individual site basis. Salinity intrusion with the eventual degradation of both land and water quality is one of the most common examples of this type of problem.

This paper presents our observations and analyses of salinity intrusion at selected areas in the Asia Pacific region, namely in New Zealand, Australia, Japan and Sri Lanka.

It discusses the characteristics of each site and analyzes the impacts on the environment.

It also presents the management practices used to mitigate the resulting damage on the environment at each site.