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EARTH OBSERVATION SYMPOSIUM (B1)
Water resources management (6)

Author: Ms. Melissa Guzman
Initiative for Interstellar Studies, France, melissa.ann.guzman@gmail.com

Mr. Martin Jüssi
Estonia, martin.jussi@gmail.com
Mr. Iain Fitzpatrick
Australia, iain.fitzpatrick@community.isunet.edu
Ms. Marcy Frioult
Canada, marcy.frioult@community.isunet.edu

GLOBAL WATER INITIATIVE

Abstract

This paper addresses the Global Water Initiative project which investigates the present state of global freshwater management and how space is currently utilized. There are many areas where space could play a larger role. One such area is in managing shared, trans-boundary freshwater resources. In many parts of the globe, nations secure their water needs via exploitation of common resources, which can negatively impact neighboring states that also rely on that resource.

The project methodology employs an interdisciplinary approach to identifying and assessing best-practices from the space community which have a significant potential to contribute to the management of shared resources such as in the Nile River Basin or Tigris-Euphrates Basin. Assessment of the effectiveness of implementing these practices is performed via a range of methods. Combinations of these best-practices are then used to produce interdisciplinary recommendations for managing specific situations that arise as part of conflict over water sharing. These recommendations include the use of scientific and engineering applications from the space community, examples of management models as well as legal and political frameworks for cooperation, and methods of outreach for further increasing knowledge transfer between the water and space communities.

The Global Water Initiative project is being undertaken by a group of students from a diverse range of backgrounds and nationalities, as part of the International Space University (ISU) Master of Space Studies (MSS) program during the academic year 2014/2015.