IAF EARTH OBSERVATION SYMPOSIUM (B1)
Assessing and Mitigating the Global Freshwater Crisis (6)

Author: Dr. Paul Bates
University of Bristol, United Kingdom

KEYNOTE: COPING WITH MAJOR SOCIETAL HAZARDS SUCH AS FLOODING DUE TO A CHANGING CLIMATE

Abstract

Climate change over the coming decades will be far reaching and will affect almost every aspect of our lives from food production, health, the economy to the environment. At the same time a growing global population that is increasingly urbanized and interconnected is making society more vulnerable and less resilient. There is also good evidence that climate-related hazards hit those living in poverty the hardest. Reducing our exposure to current climate threats is a critical first step towards mitigating or adapting to future climate change. Current climate and its variability already pose very significant risks, of which flooding is a clear and impactful example.

Changes in global hydrological cycle has been linked to climate change based on observations collected over the past few decades. Intensifying climate changes affecting river systems lead to an increased risk for flooding and droughts and creates overall stress to the global water resources. Significant advancement has been made to better understand, forecast, and mitigate threats have been made. The sophistication of hydrological analysis and models has developed rapidly with new data and increased computational power but there many gaps remain to be pursued to fully employ this knowledge for improved planning and decision making for mitigating this crisis. Promoting and enabling international cooperation is key towards tackling this global problem.