

The Role of Earth Observation in Water Resource Management: *strengths of the Dutch water sector*

May 20th 2009
8.30 AM – 13.00 PM

Rotterdam Airport Hotel
Vliegveldweg 59-61, Rotterdam

Background

Earth observation plays an increasingly important role in water management and hydrology. In recent years an increasing number of Remotely Sensed datasets and algorithms relevant to water managers have emerged. It is now feasible to quantify evapotranspiration and top soil moisture, precipitation and changes in groundwater storage based on RS. The challenge now is to upgrade these research algorithms to an operational water management product and to further integrate earth observation products in hydrological applications. This workshop is organized in the framework of the ESAWAT project which focuses on the needs assessment of future ESA satellites for water management in Southern Europe by integrating and demonstrating a range of remote sensing products in combination with hydrological models. In this informal workshop a select group of around 40 experts from the Netherlands will discuss the different aspects of this emerging field with a specific focus on the strengths of the Dutch water sector.

Objectives

- To provide a state-of-the-art overview of recent progress in hydrological applications of earth observation related to precipitation, evapotranspiration, soil moisture and groundwater
- To identify gaps in sensor availability and spatial and temporal resolution for different operational applications related to water management
- To provide an overview of the comparative advantage of the Dutch water sector in this field with specific focus on the role of cooperation between SMEs, knowledge institutes and Universities.

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Programme

8.30 - 9.00 Welcome and coffee

9.00 - 9.10 Introduction to the workshop – Dr. P. Droogers (FutureWater)

9.10 - 9.30 Use of satellite data in operational hydrological applications - Dr. A. Weerts (Deltares)

9.30 - 9.50 Integrating remote sensing and models for water resources management – Dr. W.W. Immerzeel (FutureWater)

9.50 - 10.10 Satellite-based integrated land and water use information for an alert response to drought – Prof. dr. W.G.M. Bastiaanssen (WaterWatch)

10.10 - 10.30 The use of operational near real time ASCAT surface soil moisture data – Dr. R. de Lange (NEO)

10.30 - 11.00 Coffee Break

11.00 - 11.20 Satellite Based Water Monitoring and Flow Forecasting System in the Yellow River Basin – Ir. A. Rosema (EARS)

11.20 - 11.40 Calibrating hydrological models through satellite observations of small reservoirs - Prof. dr. ir. N.C. van de Giesen (TU Delft)

11.40 - 12.00 Large area indicators of water scarcity and high spatial resolution observations of vegetation for hydro-meteorological modelling - Prof. dr. M. Menenti (TU Delft)

12.00 - 12.20 Future EO missions for water management* - (ESA)

12.20 - 12.40 Bringing space down to earth. Implementation of EO based services in the Netherlands - Dr. R. Grim (NIVR)

12.40 – 13.00 Conclusions of the workshop - Dr. P. Droogers (FutureWater)

*Tentative title

