

Netherlands Cooperation on Water and Climate Services

A strong information chain:

- the key to food and water safety and food security
- the key to climate adaptation
- requires combined water, space, agricultural and geomatics expertise

*Netherlands
Cooperation
on Water and
Climate Services*





Water and Climate Services

Water is essential to society and nature. However, the climate is changing. Long periods without rain can ruin crops or affect other functions that rely on fresh water supply. Also, extreme rainfall events can cause dangerous floods. Every year hundreds of thousands of people are affected by water related disasters. The Dutch water-, agricultural-, space- and geo-information sectors have joined forces to help countries with solving these climate related problems.

[1] Dike monitoring system (Hansje Brinker) [2] Data acquisition using airplanes (Fugro) [3] Mekong Delta Vietnam
[4] Water scarcity [5] Katrina, New Orleans [6] Climate monitoring from space (EARS)

A strong information chain: **the key to food and water safety and food security**

One precondition for successfully coping with droughts and floods is the availability of reliable data when and where it is needed:

- **No data?** No information...
- **No information?** No knowledge...
- **No knowledge?** No good decisions...
- **No good decisions?** No water safety or food security...
- **No water safety or food security?** No economic development...

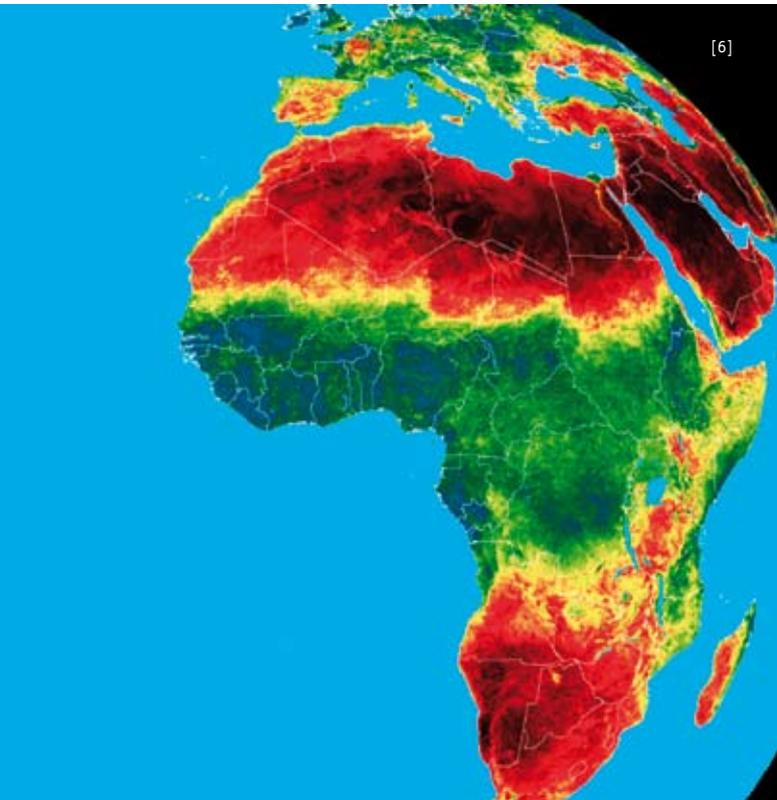


The Netherlands has a unique and innovative role in the development of Water & Climate Services

To minimize drought and flood disasters and achieve a safe environment to live in, a first step is to have an effective data infrastructure. However, most countries don't have an extensive monitoring network. And to set up an effective data infrastructure it usually requires large scale investments.

Netherlands Cooperation on Water and Climate Services, a recent Dutch initiative, aims to contribute to this data scarcity problem. More than 40 Dutch organizations (combination of private companies, NGO's and knowledge institutes) have signed a declaration in February 2011. These organizations have different backgrounds in space and earth observation, water management, disaster management, food security and geomatics. By working together Dutch organisations can provide countries a strong information chain for their water and climate related problems: from data collection (sensor, field observation, satellite) to end-user (farmer, water manager, policy maker). This chain consists of data acquisition, data processing, data storage, data analysis and modelling, the development of decision support services (software) for water managers, policy makers, farmers and other end-users who are interested in Water and Climate related data. To start the chain, innovative methods such as remote sensing techniques are used. The Netherlands has a unique and innovative role in the development of Water & Climate Services.

This new initiative where all Dutch expertise is combined, offers great opportunities. Precipitation, evaporation, (ground)water levels, temperature, radiation, as well as elements such as soil moisture, soil storage, yield and land use, are already routinely measured on an international, national, regional and local scale by using advanced monitoring and remote sensing techniques.



A strong information chain: the key to climate adaptation

A few examples of operational water and climate information services that we have developed for different countries are:

General climate services

- Weather and climate monitoring services
- Land subsidence monitoring systems
- Information management systems for data integration

Water safety services

- Flood forecasting systems
- Crisis management systems
- Automatic dike and dam monitoring systems

Water security services

- Water availability monitoring
- Ground water management systems
- Drought early warning systems

Food security services

- Irrigation management systems
- Crop monitoring systems
- Yield forecasting systems



Contact

Would you like more information?

Do you want to know what this Dutch initiative could mean in relation to your water, food and climate related problems?

Please contact:

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