



## Overview of Dutch partners - Agriculture, Water and Space sector



Mark Loos

Netherlands Space Office (NSO)



# Netherlands Space Directory

Space Directory

Organisations

Registration

Map

## ITC



[PDF](#)  
[Print](#)

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<http://www.itc.nl>

### General

At ITC knowledge of geo-information management is readily available and is continually being developed and extended. By means of postgraduate education, research and project services, we contribute to capacity building in emerging countries and countries that are

### Directory search

Enter company name



Or choose a Sector

- Industry
- Universities
- Research Institutes
- Value Adding Industry
- Consultants
- Agencies & Associations



### Nieuws

1 - 5 / 9

- > ESA zet volgende stap in Cosmic Vision programma  
4 maart 2010
- > Dutch Space levert zonnepanelen voor Sentinel satellieten  
24 februari 2010
- > PEP-regeling 2010 open voor inschrijving  
7 januari 2010

[www.waterandclimateservices.org](http://www.waterandclimateservices.org)

Netherlands  
Cooperation  
on Water and  
Climate Services



*An unique cooperation of 45 Dutch organisations  
that offer solutions for water and climate related challenges*

***“Joint effort of 45 Dutch private companies, knowledge institutes to create added value within the Information Chain, from satellite to end-user, as a key towards affordable food security and water safety”***

General  
Information  
Services

Flood  
Safety  
Services

Water  
Management  
Services

Water  
Security  
Services

Food  
Security  
Services

Other  
services



# Netherlands Cooperation on Water and Climate Services



*An unique cooperation of 45 Dutch organisations  
that offer solutions for water and climate related challenges*

## Food Security Services



### Agro and Ecosystem services

Combining ecosystem services and agricultural products. Land use systems that produce biomass for energy and chemical industry

[WUR](#) [Contact](#)



### Building with nature

Aquaculture, niche in water management. Adaptation of coastal structures and water management for secured livelihood in delta's for sustainable food production

[WUR](#) [Contact](#)



### Crop Micro-insurance

Meteosat based flood and drought microinsurance reaching every farmer in Africa: RE drought index, CCD flood index, 30 years of data

[EARS](#) [Contact](#)



### Crop monitoring and forecasting

Regional crop monitoring and forecasting providing weather and crop indicators and crop yield forecasts to support policy on trade and food security.

[WUR](#) [Contact](#)



### Data for Agricultural production

Timely, objective and transparent data based on satellite and ground observations for food security and agricultural planning around the globe



### Drymon Soil Moisture detection

Daily measurement of water in the soil with satellites based on daily observations

[NEO](#) [Contact](#)







# Agriculture crop type, area, biomass and change maps

- Description service:

- Easy online access to bi-weekly agricultural crop type, area, biomass and change maps
- Based on cloud-free 5-30m or 250m radar and optical imagery
- In support of farmers, traders, and policy makers for efficient and sustainable agriculture, biofuel feedstock and food security

- Organisation(s) involved:

SarVision together with users

- Countries applied:

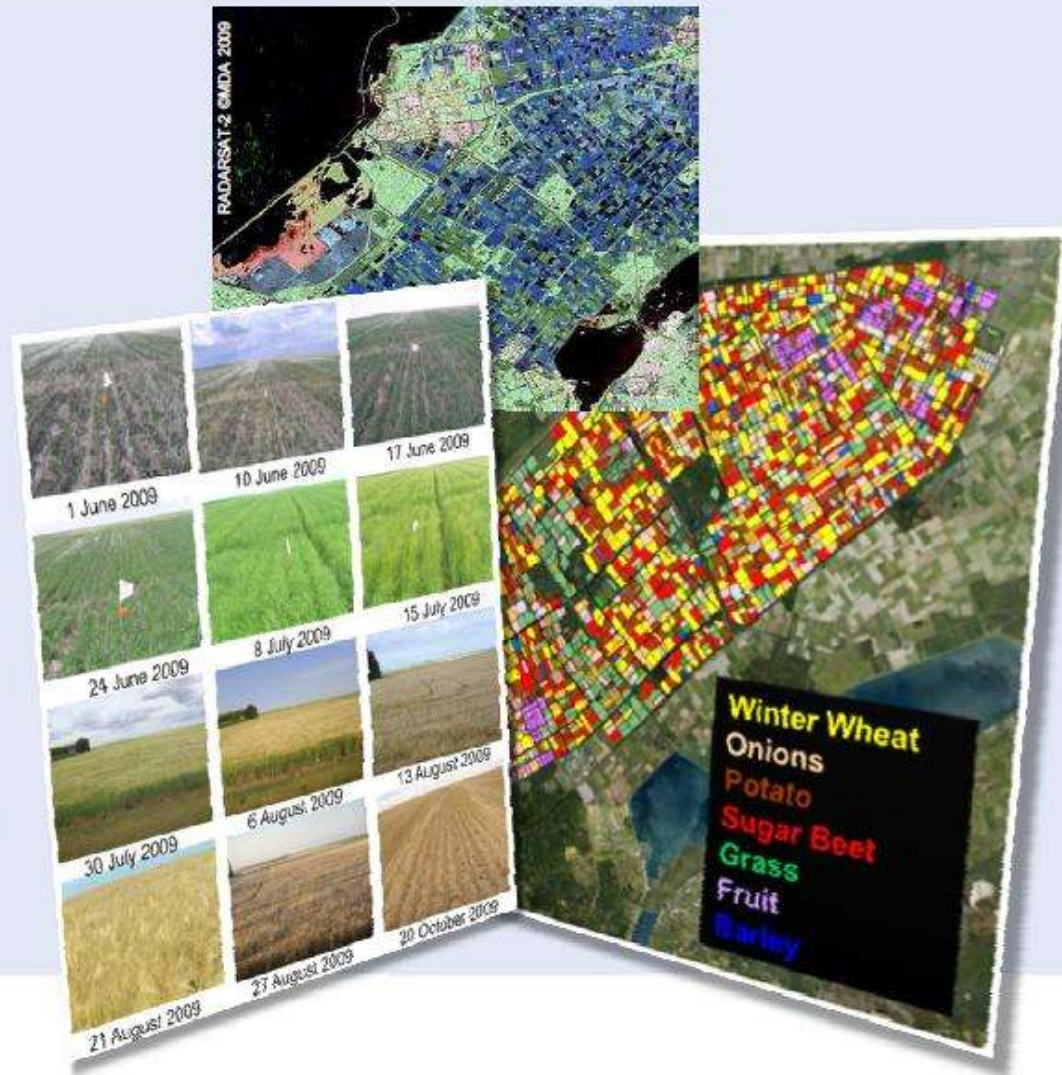
Europe. Near future: South America, West and Central Africa, South East Asia

**More information:**

Website: [www.sarvision.nl](http://www.sarvision.nl)



Contact: Niels Wielaard ([wielard@sarvision.nl](mailto:wielard@sarvision.nl))

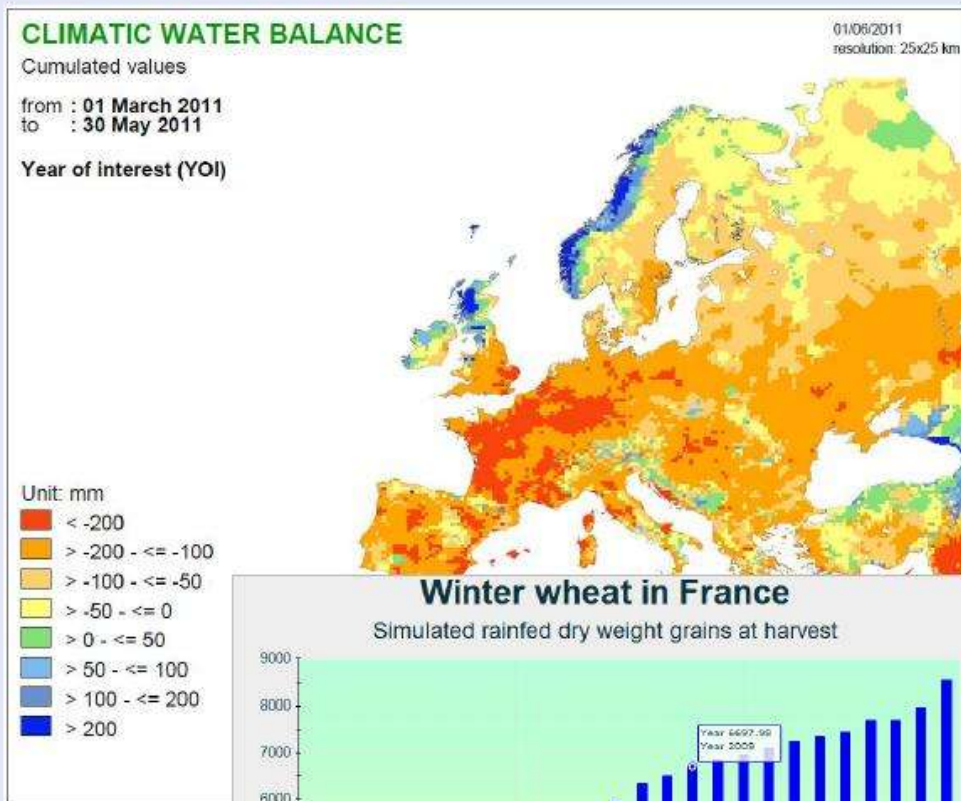


Field photos, radar image and simple crop map Flevoland, NL



# Regional crop monitoring and forecasting

- Providing weather and crop indicators and crop yield forecasts to support policy on trade and food security
- Organisation(s) involved:  
European Commission  
Alterra Wageningen UR, Vito,  
MeteoConsult,  
Un. of Reading, Gisat
- Countries applied:  
Europe and other strategic areas  
of the world

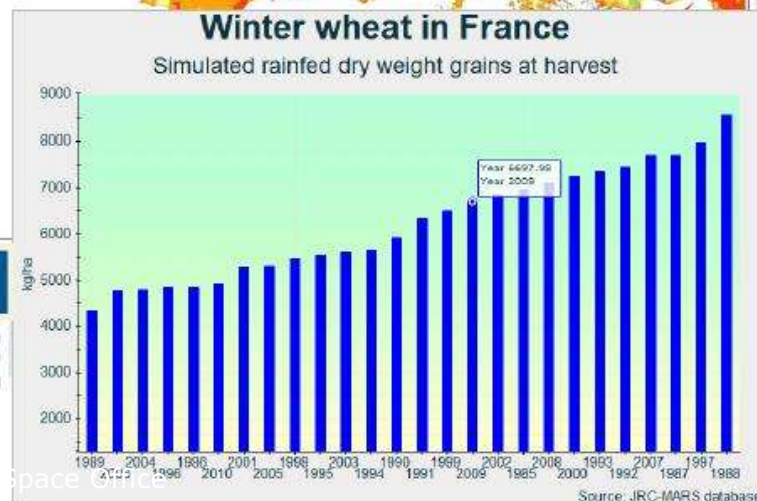


## More information:

Website: [www.marsop.info](http://www.marsop.info)

Contact person: Hendrik Boogaard

Email: [Hendrik.boogaard@wur.nl](mailto:Hendrik.boogaard@wur.nl)





# Continental to Regional Scale Soil Moisture Mapping

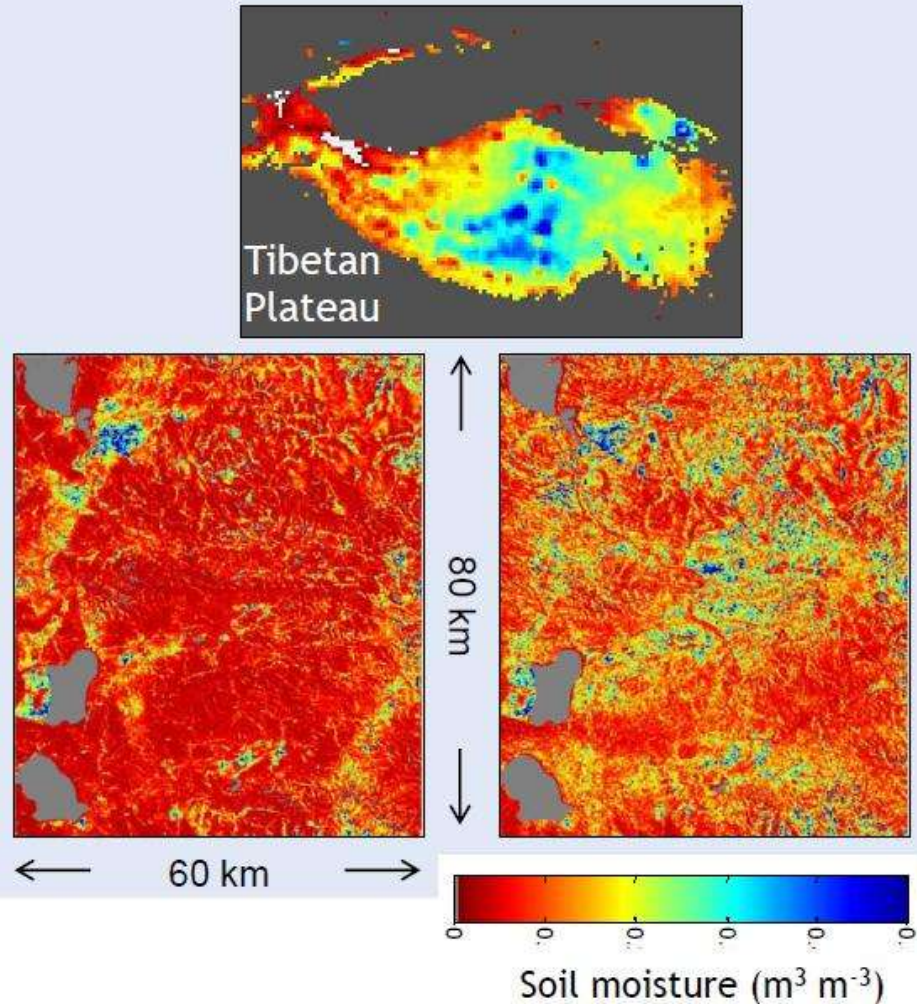
- The Faculty of ITC uses both coarse (25 km) and high (75 m) resolution microwave observation for soil moisture monitoring, which may serve as an early warning system for droughts and floods.
- *Organisation involved:* Faculty of ITC, University of Twente
- *Countries applied:* Netherlands, United States, China

## More information:

Website: <http://www.itc.nl/Pub/research-themes/WCC>

Contact person: Dr. Ir. R. van der Velde or Prof. Dr. Ir. Z. Su

Email: [velde@itc.nl](mailto:velde@itc.nl) or [b\\_su@itc.nl](mailto:b_su@itc.nl)





# WaterPlanner

- online insight in water availability and water needs
  - Irrigation advice
  - Water supply control

Based on:

- Real time moisture content
- Precipitation and evaporation forecast

- Organisation(s) involved:

DHV, Nelen & Schuurmans, Deltares

Together with SME like:

Dacom, MeteoConsult, KNMI, eLeaf, NEO

- Countries applied:

Netherlands, Poland

## More information:

Website: [www.dhv.com/rainapp](http://www.dhv.com/rainapp)

Contact person: Hanneke Schuurmans

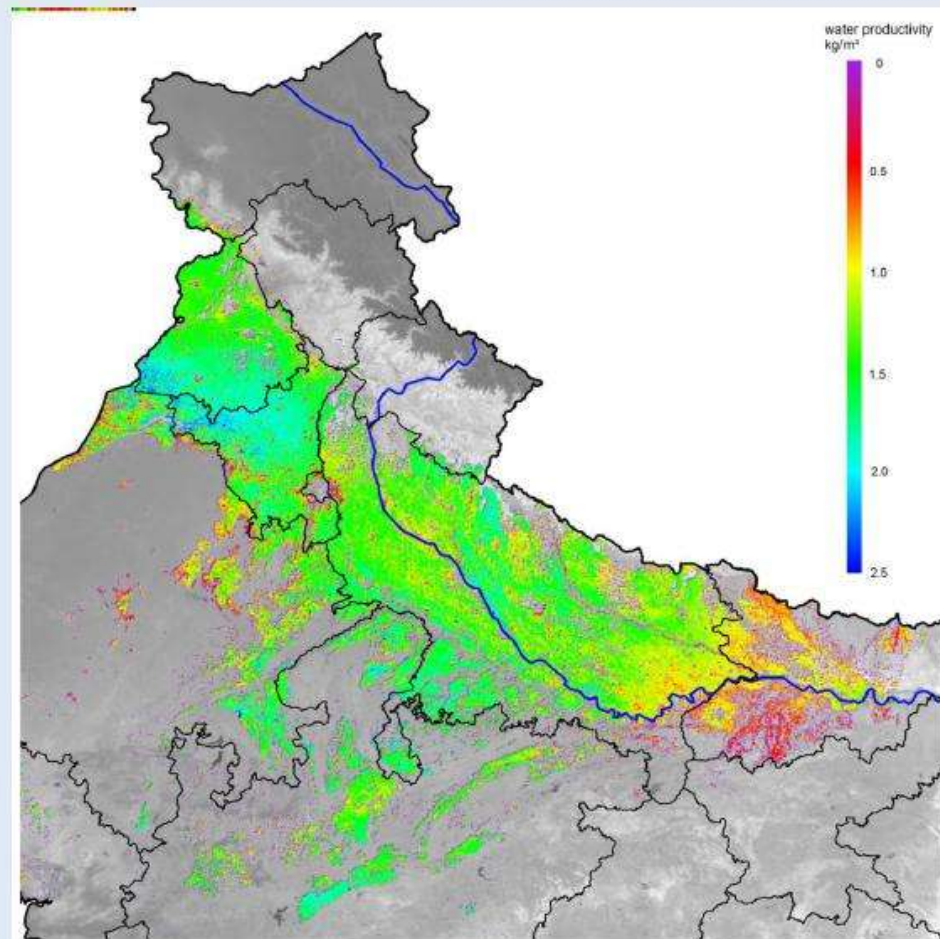
Email: [hanneke.schuurmans@dhv.com](mailto:hanneke.schuurmans@dhv.com)



**Irrigation advice in Poland, based on now- and forecasting of hydrological system**

# Increasing Crop per Drop

- Description service  
Improving land and water productivity
- Organisation(s) involved:  
IFC & Tata
- Countries applied: India, South Africa, Russia  
**More information:**  
Website: [www.eleaf.com](http://www.eleaf.com)  
Contact person: Wim Bastiaanssen  
Email: [wim.bastiaanssen@eleaf.com](mailto:wim.bastiaanssen@eleaf.com)



2009 Wheat water productivity (kg/m<sup>3</sup>) in northwestern India



# GrapeLook: improving efficient grape water and nitrogen use

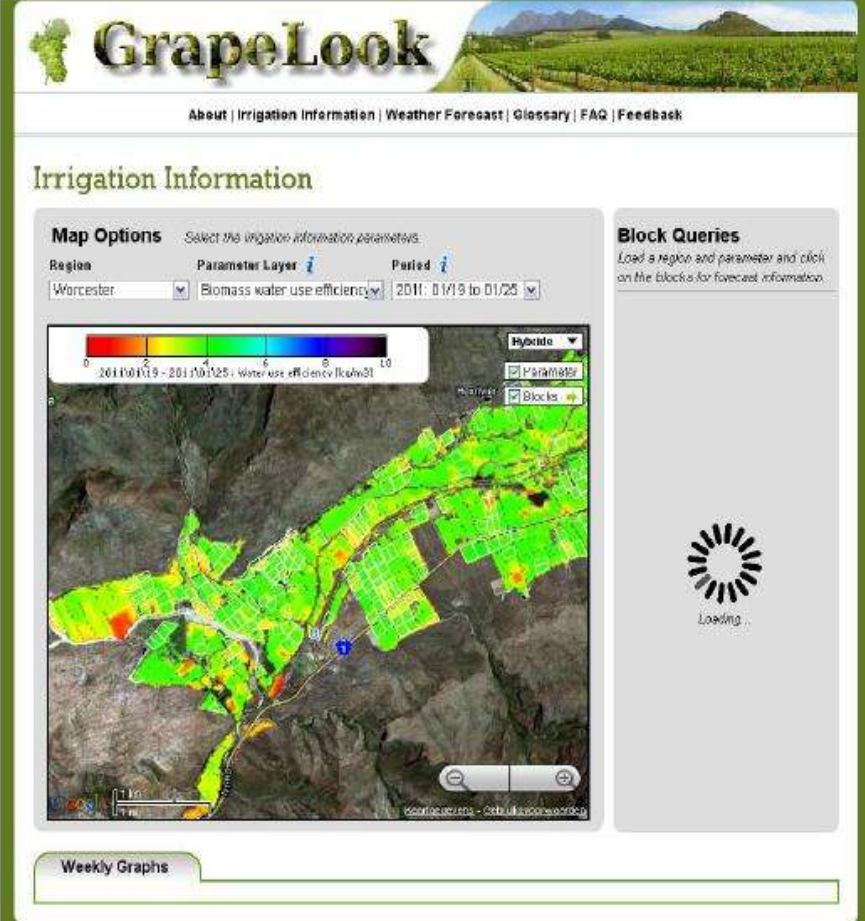
- GrapeLook supports irrigation management decisions by agricultural producers by combining satellite technology and in situ measurements to deliver new sources of information to the Western Cape grape farmers
- Organisations involved: WaterWatch BV and University of KwaZulu-Natal
- Countries applied: South Africa

Balk\_Binnensheet\_blanco.jpg

## More information:

Website: [www.GrapeLook.co.za](http://www.GrapeLook.co.za)

Contact: Annemarie Klaasse ([a.klaasse@waterwatch.nl](mailto:a.klaasse@waterwatch.nl))



The screenshot displays the GrapeLook web application interface. At the top, the logo "GrapeLook" is shown next to a landscape image of a vineyard. Below the logo is a navigation menu with links: "About | Irrigation Information | Weather Forecast | Glossary | FAQ | Feedback". The main content area is titled "Irrigation Information". Under "Map Options", there are three dropdown menus: "Region" set to "Worcester", "Parameter Layer" set to "Biomass water use efficiency", and "Period" set to "2011: 01/09 to 01/25". A color scale legend for "Water use efficiency (t/ha/ha)" ranges from 0 (red) to 10 (purple). The map shows a grid of agricultural blocks with varying colors representing water use efficiency. To the right of the map is a "Block Queries" section with a loading spinner and the text "Loading...". At the bottom of the interface, there is a "Weekly Graphs" section.

# Pesticide Risk Reduction Programme (PRRP)

- PRRP is collaborative programme on pesticide registration and post registration and it functions as a pilot project for other African countries / regions
- Organisation(s) involved: MoA Ethiopia, Alterra Wageningen UR, FAO, UNEP and more
- Countries applied: Ethiopia



## **More information:**

Website: <http://prrp-ethiopia.org>

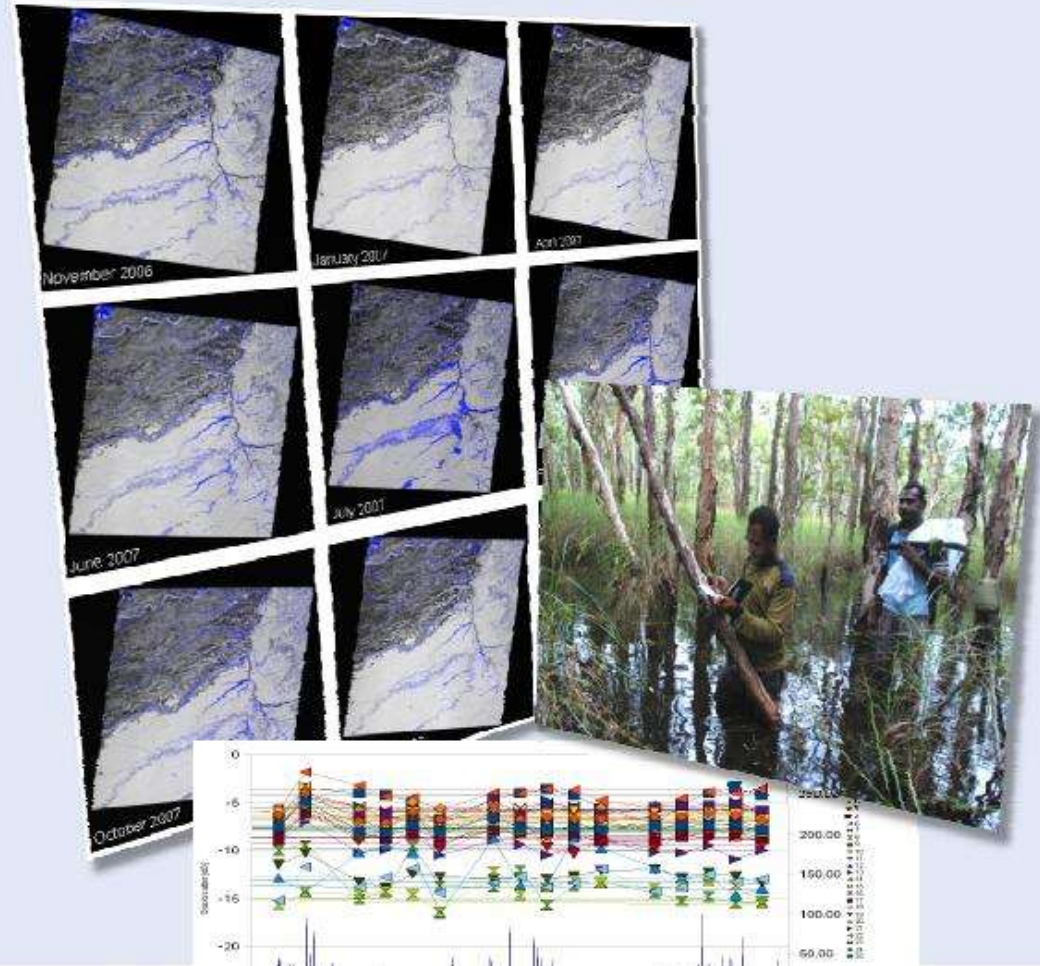
Contact person: Floor Peeters

Email: [floor.peeters@wur.nl](mailto:floor.peeters@wur.nl)



# Flood extent and duration maps

- Description service:
  - Easy online access to bi-weekly flood extent and duration maps
  - Based on cloud-free 5-30m or 100m radar imagery
  - In support of spatial planning, (disaster) risk reduction and agricultural/agro-industrial plantation planning and management
- Organisation(s) involved:  
SarVision together with users
- Countries applied:  
South America, West and Central Africa, South East Asia



## More information:

Website: [www.sarvision.nl](http://www.sarvision.nl)



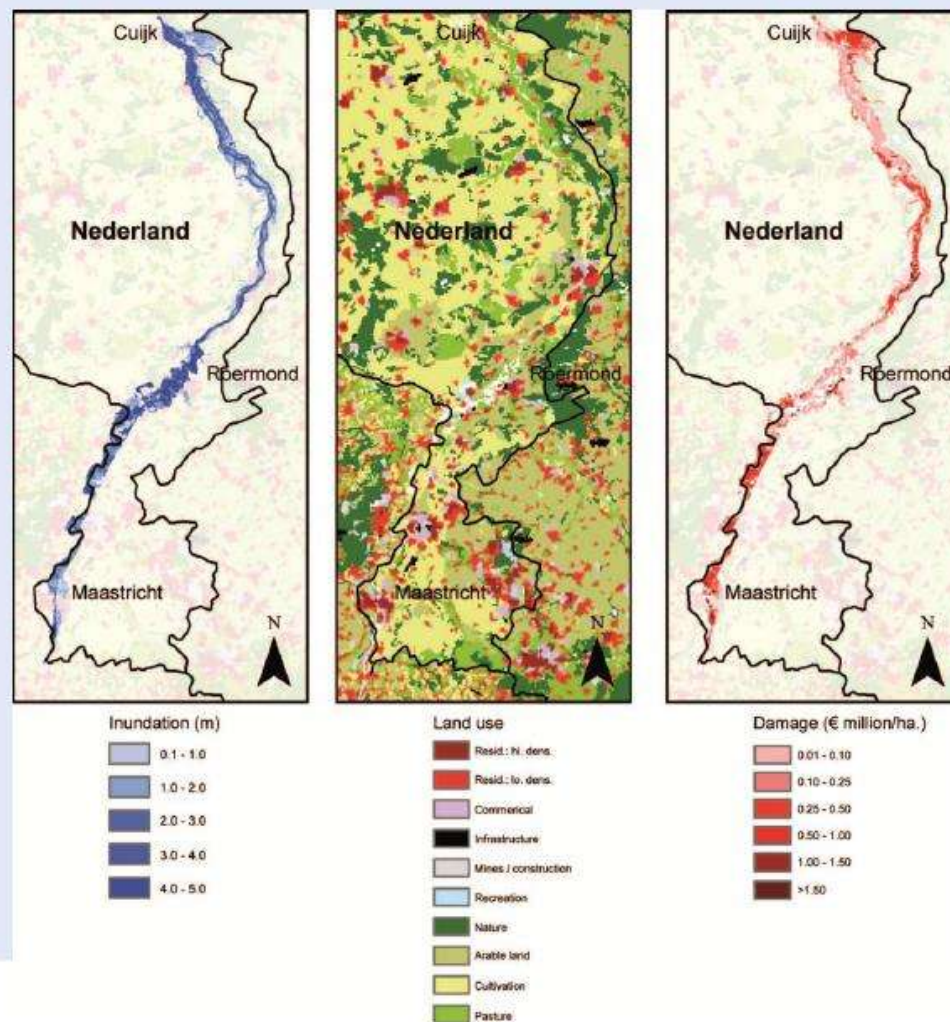
Contact: Niels Wielaard ([wielard@sarvision.nl](mailto:wielard@sarvision.nl))

*Flooding map time series and satellite signal vs rainfall*



# Flood risk modelling

- GIS-based flood risk modelling tools (e.g. Damagescanner) to assess risk in terms of monetary damage and loss of lives.
- Organisation(s) involved: City of Jakarta, City of Rotterdam, Deltares
- Countries applied: Indonesia, Vietnam, Western Europe



## More information:

Website: [www.ivm.vu.nl/SPACE](http://www.ivm.vu.nl/SPACE)

Contact person: Dr. Philip Ward

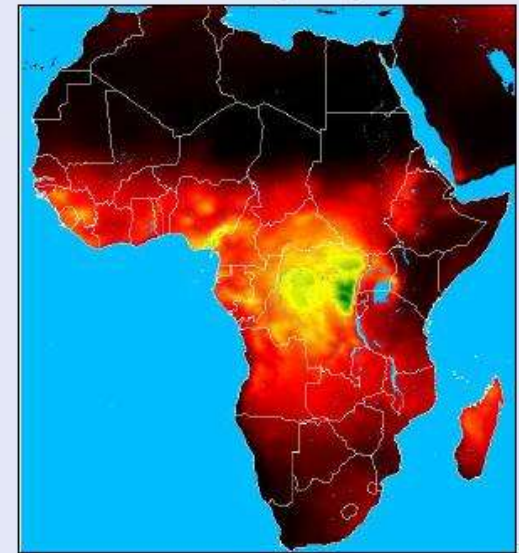
Email: [philip.ward@ivm.vu.nl](mailto:philip.ward@ivm.vu.nl)



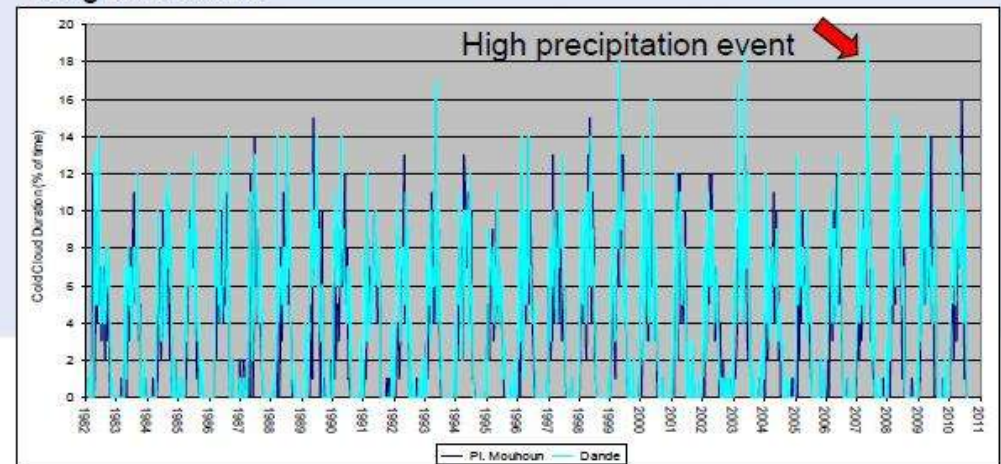
# Crop Micro-Insurance

- Meteosat based flood and drought micro-insurance reaching every farmer in Africa
  - RE drought index
  - CCD flood index
  - 30 years of data
- Organisation involved: EARS
- Region applied: Africa

Risk of excessive precipitation



Long data series



## More information:

Website: [www.ears.nl](http://www.ears.nl)

Email: [andries.rosema@ears.nl](mailto:andries.rosema@ears.nl)

# Training, consultancy and capacity building related to water & soil research

- A platform for knowledge exchange between experts, specialists, field technicians, project designers, team leaders, fieldworkers, farmers and policy-makers involved in water and soil research.
- Organisation involved: Eijkelkamp Training & Consultancy (part of the Royal Eijkelkamp Earth Sampling Group)
- Countries applied: Worldwide



## More information:

Website: [www.eijkelkamp.com](http://www.eijkelkamp.com)

Contact person: Mrs. Marijgje Wijers

Email: [etc@eijkelkamp.com](mailto:etc@eijkelkamp.com)





*Thank you  
for your attention*

**[www.spaceoffice.nl](http://www.spaceoffice.nl)**

*Gateway to the  
Netherlands space sector:*

**[www.spaceoffice.nl/spacedirectory](http://www.spaceoffice.nl/spacedirectory)**

Photo 'the Netherlands by night' taken by Dutch ESA astronaut André Kuipers from ISS with 'night-pod system' developed by cosine