



**COST Action CA16208**  
**KNOWLEDGE CONVERSION FOR ENHANCING MANAGEMENT OF**  
**EUROPEAN RIPARIAN ECOSYSTEMS AND SERVICES (CONVERGES)**  
**Training Course Using Google Earth Engine for Monitoring**  
**Changes in Riparian Vegetation**  
**Online**  
**11/12 February 2021**



*Organized by Ellis Penning, Gennadii Donchyts and Robyn Gwee (Deltares)*

Monitoring the current status of floodplain vegetation and changes therein over time can be challenging and costly due to the vast extend of floodplains in many larger river systems. Satellite images give near real time information on the status of the dominant vegetation classes within the floodplains and allow for long term time series analysis.

The aim of this course is to give a first introduction to the use of Google Earth Engine for the monitoring of floodplain vegetation and analyzing changes over time.

Participants must have some experience with programming in python and be familiar with GIS-based analysis in QGIS or alike.

**\*\*\*Course will proceed with a minimum of 10 candidates and a maximum of 40\*\*\***

**\*\*\*Please register via <https://attendee.gotowebinar.com/register/8760155896378797840>**

**before 20 january 2021\*\*\***

**more information : [ellis.penning@deltares.nl](mailto:ellis.penning@deltares.nl)**

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Thursday 11th February – time in CET (*note time difference for UTC and UTC-2 member states !*)

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9h00-9h15

Welcome to the course, rules of the game, some general words on benefits of using GEE

9h15-9h40

Practical example: the use of GEE for Floodplain vegetation monitoring in the Netherlands

9h40-10h10

Basic features within GEE

10h10-10h50

Guidance on querying a satellite image for your own river system  
*Incl. Use of basic scripting, available scripts and adjustments of scripts*

10h50-11h30

Guidance on selecting satellite images for a period or given date  
*Incl. downloading of data vs cloud-based analysis*

11h30-13h30 Lunchbreak

13h30-16h00

Working on exercise (self-study with support via chat)

16h00-16h30

General feedback on experiences of the first day

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Friday 12th February

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9h00-10h00

General explanations on classification algorithms for vegetation analysis

10h00-11h00

Basic scripting of classifications

11h00-12h00

Querying results (graphs and mapping features, incl. error matrices and accuracy discussion)

*12h00-13h00 lunchbreak*

13h00-16h00

Working on exercise (self-study with support via chat)

16h00-16h30

General feedback and experiences on the training course