

PROBABILISTIC APPROACH FOR FLOOD SAFETY

Information

<i>Target group:</i>	Engineers at water authorities and consultancies
<i>Entry level:</i>	Expert level
<i>Entry level description:</i>	Bachelor degree, first experiences with flood risk modeling
<i>Vakgebied:</i>	Flood protection
<i>Participants:</i>	16
<i>Coördinator:</i>	Dutch experts of HKV consultants and/or local professional trainers, certified by World Water Academy
<i>Duration:</i>	10 days

Learning targets

Flooding is a severe problem worldwide. The Netherlands is well known on its expertise in managing the water and flood prevention. Due to the recently developed EU Flood Directive, The Netherlands developed new projects in order to determine the flood risks for every area in the country. The projects FLORIS (VNK) and WV21 are the first projects that develop and apply flood risks methods in the Netherlands. The project FLORIS aims to give an actual and realistic estimation of the flood risk for all dike ring areas. The WV21 project calculates flood risks in order to achieve information on new safety level standards.

This course is based on the approach used in the project FLORIS. The participants learn the background of the probabilistic approach and the basic principles of using existing data and modelling. The set-up of a river system and an flood prone area in a model, the modelling itself and the results interpretation is part of the course. Based on the modelling results, the damage of flooding (economic and casualties) is handled. Finally the participants learn how to present the flood hazard and flood risk in maps.

Content

The course consists of the following topics:

- Flood risk management (The Netherlands & EU Flood directive)
- Probabilistic flood risk approach
- Modelling principles (how to build and to use a model?)
- Software packages for modelling
- Data collection and gaps in data
- Damage determination and calculation
- Mapping principles
- Flood hazard map
- Flood risk mapping

Course material

Hand-outs of the presentations, exercises and background information.

Information

The participants have to use computers during the training. The software package in which the participants normally model (like SOBEK or MIKE) could be used in the course.

The participants can work on chosen study areas as practical exercises during the training.