



European Club of ICOLD
Working Group on
Levees and Flood Defences

Terms of Reference

Context

The Working Group on Levees and Flood Defences of the European Club of the ICOLD has been officially created on June 13th, in Stavanger during the ICOLD 25th congress. Following a letter from Mr Cees Henk Oostinga to the European Club Board (dated 3 April 2015) which included a draft proposition for these terms of reference, the European Club meeting (held 3PM-5PM) accepted the creation of the Working Group after a presentation from Mr Rémy Tourment of its objectives.

A first meeting of the working group, to which participated invited members but also more interested persons following the European Club meeting, was held from 5PM to 7PM. The outputs from discussions in this meeting are incorporated in this version of the Terms of Reference for the Working Group.

Object and objective

The thematic scope for the Working Group primarily includes levees but also other types of flood protection structures (flood walls, mobile structures, ...). The objective of the working group is to demonstrate (through its outputs) that if levees and flood protection structures are to become part of the scope of ICOLD, this would have permanent added value for the ICOLD-community as a whole. We believe the time is right for this because levees are gaining increasing importance in the scope of several National Committees, while at the same time, flood protection and small dams were addressed as future key issues in the Question 96 report of the 25th ICOLD Congress in Stavanger.

The Working Group will, during its duration, work on a limited set of topics, including general topics aiming to provide a setting towards addressing levee-related issues and their similarities and differences with respect to dam-related issues.

General topics

The Working Group will produce a report (or a set of reports) presenting analyses and their results on at least one of the following general topics, that have been agreed upon collectively:

- An overview of facts on levee and flood protection structures / systems (statistics on the situation in each participating country: length of levees, population and area protected, management situation, regulation, recent failures and consequences, ...);
- Documenting similarities and differences in large dams, small dams and levees and their best practices and failure mechanisms, taking into account geographical and other (e.g. institutional, risk) context issues;
- System approach of dams and levees: How do upstream dams and downstream levees interact in terms of their presence, requirements, safety and operation;
- Identifying topic areas not yet covered by the International Levee Handbook (ILH);
 - Topics where ILH extensions could have large added value for dam practitioners;
 - topics requiring further study under the umbrella of levees.

Specific topics

Specific topics will be identified, for example through the general topics activities or by proposition of a member, and can be used to fill in part of the above general topics. Input from ICOLD members, and particularly members from its European Club, will be an important factor in assuring added value for both the dam and levee communities. Care will be taken to avoid overlap with existing ICOLD-initiatives or other known initiatives (research projects for instance).

An initial list of possible specific topics (covering all life cycle phases of levees) has been constructed during the preparation phase of the working group and completed during its first official meeting:

- Dealing with European legislation, such as Water Framework Directive, Floods Directive (including transboundary aspects), harmonized European Standards such as Eurocode, etc.. Eurocode is to be updated in 2020, and specific questions relate to safety approaches, the justification of stability rules and the applicability of Eurocode 7 to dams and levees;
- Risk based approaches in all life cycle phases of levees and dams;
- Inspections and monitoring, including novel real-time monitoring approaches;
- Parallels and differences in failure mechanisms for levees, small dams and large dams, related to piping, stability, revetments, transitions, hydraulic structures etc.;
- Construction and upgrading of levees, including innovative materials;
- Impacts (seismicity, subsidence) on dams/levees due to subsurface extraction of gas, minerals

During the first official meeting in Stavanger, it has been agreed that the first specific topic to work upon will be an analysis of case studies of levee failures, breaches and subsequent inundations of protected areas. Mr Bas Jonkman will lead this action.

Activities

The activities will be writing reports and organizing workshops or webinars on a selection of the topics listed above (or additional topics to be identified).

General activities for the working group:

- Documenting and sharing best practices as described above
- Organizing and running symposia/workshops/webinars on specific topic areas to provide a context networking of professionals and for the coaching and training of young and senior professionals
- Promotion of related research and development.
- Provision of newsletter and/or website

As the term of a Working Group of the European club of ICOLD is usually three years, the ambition is to organize an end-of-term workshop for the 2018 ICOLD Congress in Vienna, and write a synthesis report with the main findings of the Working Group after that.

For the final 2019 report, the aim is then also to document a clear vision in order to define what set of permanent levee-related activities would result in enduring benefits for the whole ICOLD community (see objectives).

Governance

1. Participants. The first participants will be the countries taking the initiative: Netherlands (Rijkswaterstaat, STOWA and Deltares), UK (Environmental Agency and HR Wallingford), France (IRSTEA and DGPR part of MEDDE), Finland and Poland. Meanwhile, Spain, Italy, Czech Republic, Hungary, Slovenia and Russia have also shown interest. After the group has expanded, the members of steering committee will be expanded amongst a wider group of members, with an agreed programme for rotation of membership.

The Chairman and Secretary are chosen for the full three-year term, unless the Working Group unanimously decides otherwise. Membership should be according to regulations from the European Club of ICOLD, but guest contributions from non-members should be allowed when this has significant added value.

According to the number of members and their particular interest, one or more sub-groups will be organized, with their own steering structure in relation to the overall Working Group, on some of the specific topics.

2. Finances. The Working Group will be self-sustaining and if finances are needed, they should be provided by the members of the working group since EUCOLD does not charge any membership fees and has no financial assets. If necessary, co-financing of a working website with data collection/management could be considered.

3. Symposia/Workshops. Symposia/Workshops will be run at convenient times and places, where possible parallel to ICOLD Annual Meetings and European Club Symposia (the latter once per 3 years, the next one in 2016 in Turkey). Another obvious opportunity is in the margins of levee and flood management conferences where similar issues are likely to be discussed. For example the FLOODrisk 2016 conference (Lyon, France October 17th to 21st, 2016) will be offering such opportunities. Where necessary, each workshop will have a small participation fee to cover costs e.g. room rental (if public buildings or ICOLD facilities cannot be used)

List of initial members

M. Rémy Tourment, IRSTEA, France, public RTO

M. Jean Maurin, MEDDE, France, public body

M. Thibaut Mallet, SYMADREM, France, local authority for levee management

M. Marcel Bottema (secretary NethCold), Rijkswaterstaat, The Netherlands, public body

M. Robert Slomp, Rijkswaterstaat, The Netherlands, public body

M. Meindert Van, Deltares, The Netherlands, RTO

Mrs. Jackie Banks of the Environment Agency, Public body

M. Jonathan Simm, HR Wallingford, RTO

M. Juha Laasonen, Finland, Public body

M. Janusz Zaleski, Poland, Public body

Some of these initial members still need to be proposed/confirmed by their National Committees.

More members will be accepted. Membership from the participants to the first official meeting will be considered, they will be invited by the steering board to manifest their interest and possible active participation. Invitations will also be done through National Committees via the European Club.