# Declaration of the 3rd International Symposium on Flood Defence (ISFD3) 25–27 May 2005, Nijmegen, The Netherlands

## 1 ACKNOWLEDGES

- that the increasing occupation and urbanization of flood-prone areas results in an ongoing rise of investments, assets and vulnerability to flooding (underground infrastructure!), causing a destabilizing growth of economic damage due to floods;
- the catastrophic effect floods may have on victims and countries' economies, especially in developing countries, where it hinders poverty reduction:
- that countries implement structural and nonstructural measures to prevent themselves against flooding, more and more on a catchment based approach, and that important results have been achieved in terms of casualty reduction; and
- that floods remain unavoidable natural hazards, probably aggravated in frequency and magnitude by climate change, and that protection is feasible only up to a reasonable level.

#### **2 TAKES INTO ACCOUNT**

- that technical and non-technical flood protection measures are available which can be used to reduce damages and loss of lives from floods;
- that such measures are today seen in the context of a basin wide flood plain management, that includes economic development, social well being and environmental and ecological preservation in conjunction with flood protection, as partially conflicting targets that must be reconciled, avoiding single purpose solutions;
- that a comprehensive risk based approach is feasible which makes it
  possible to balance benefits arriving from protection against
  disadvantages of flooding, taking into account other values and functions
  of these areas;
- that new knowledge, new disciplines, skills and instruments are needed to develop and implement this new approach successfully; and
- conclusions on flood risk management from the Associated Programme on Flood Management (WMO), from the International Strategy on Disaster Reduction (UN) and the European Union council conclusions on flood risk management.

#### **3 RECOMMENDS**

 policies to be diverted from flood protection to flood risk management (protection, prevention, preparation, response and mitigation, recovery),

- and use the Associated Programme on Flood Management and UN International Strategy on Disaster Reduction as guidelines;
- to adopt basin wide approaches in terms of measures, spatial planning, administrative and legal frameworks, forecasting and early warning, not only for national but also for international rivers, as successfully practiced on the Rhine river;
- countries to develop a strategy, based on an appealing common vision, that provides flood protection against all floods up to an acceptable level, appropriate to the local conditions as feasible under its economic conditions. Emphasis should be on nonstructural measures;
- because of their potential effectiveness, minor environmental effects and low investment and maintenance costs as compared to structural measures. For urban areas innovative solutions can be made available in combination with urban (re)development schemes;
- to consider insurance as an essential element for flood protection, and learn from experiences in some countries and large reinsurance companies how insurance may stimulate flood awareness and citizens and private sectors to take their own responsibility;
- to evaluate structural measures on their operation ability on the long term, as maintenance funds often become scarce after some time;
- to enhance public and stakeholder participation, especially on the local level, to improve awareness, decision making as well as acceptance, maintenance and operations of these measures. Flood risk maps are powerful instruments to increase flood awareness;
- the development of GIS based decision support systems, to evaluate strategies and measures during the planning phase, as well as during flood fighting disaster management;
- research on new disciplines, including social and economic sciences, related to e.g.:
  - communication of the (technical) risk concept to politicians, authorities and inhabitants,
  - behaviour and decision making under stress,
  - cost benefit analysis,
  - flood proof building techniques,
  - public-private arrangements for flood proof urban developments,
  - (financial) arrangements between upstream and downstream citizens,
  - improved inundation predictions and effective dissemination of flood warning information to the public.
- To combine research efforts international cooperation is recommended, like the European programmes Floodscape and Floodsite.

#### 4 AGREES

 to supply this declaration to the World Water Council, to be included in the preparations of the 4th World Water Forum March 2006, Mexico;

### **5 INVITES**

- the Standing Committee to organize a 4th ISFD in Canada in 2008, to present new results on research and exchange new demands from policy development and management;
- the authorities responsible for flood management (Water Managers) to report their experiences with the implementation of flood management policies and day-to-day management in upcoming major events.

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