

THE UNECE CONVENTION ON ACCESS TO INFORMATION, PUBLIC PARTICIPATION AND ACCESS TO JUSTICE IN ENVIRONMENTAL MATTERS (AARHUS CONVENTION)

TASK FORCE ON ACCESS TO INFORMATION

ELECTRONIC INFORMATION TOOLS: CASE STUDY BY [*Spain*]

[*NATIONAL FLOOD ZONE MAPPING SYSTEM - SNCZI*]

[<https://sig.mapama.gob.es/snczi/>].

Description:

▪ **1. Brief description:**

The main goal of the SNCZI is the cartographic viewer of flood zones, which allows all those interested to visualize the studies of delimitation of the Public Hydraulic Domain (DPH) and the studies flood mapping zones.

The viewer provides the following information:

- Delimitation of the public hydraulic domain;
- Flooding areas;
- PFRAs (Preliminary Flood Risk Assessments):
 - Hazard Cartography (10/100/500 return period);
 - Risk Cartography (10/100/500 return period);
 - Population
 - Economic
 - Special points (Civil Protection, Hazardous points, Industrial emissions, Cultural heritage)
 - environmental importance areas

▪ **2. Type:**

Governmental

▪ **3. Scope:**

National

▪ **4. Working language(s):**

Spanish

▪ **5. Target users:**

General public;

Managers (water management, spatial planning, natural hazards, civil protection);

RDI+e (development, education, and innovation and entrepreneurship);

▪ **6. Starting year:**

2008

▪ **7. Budget and funding source:**

National General State Budget

▪ **8. Contact:**

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II. Implementation

▪ **9. Policy, legal and institutional context:**

[European Community directives:](#)

- Directive 2000/60/EC – Framework for Community action in the field of water policy;
- Directive 2007/60/EC – the assessment and management of flood risks;

National law:

- Royal Decree RD903/2010 – “Flood risk assessment and management”;
- Royal Decree RD638/2016 – “Regulation of the Public Hydraulic Domain”;

The coordination is in charge of the Ministry for the Ecological Transition in partnership with the River Basin Districts.

▪ **10. Partner organizations involved:**

Ministry for the Ecological Transition

Autonomous Community Governments

Water Basins Authorities (River Basin Districts)

▪ **11. Stakeholders involved, their expected benefits:**

National and Regional Civil Protection authorities

Land uses and urban planning authorities

Consortio de Compensación de Seguros (Government catastrophic risk insurance) -

Research Institutions -

▪ **12. User needs and methods of their assessment:**

User level knowledge of cartographic viewer.

▪ **13. Technology choice:**

Web Geo service (in accordance with the Open Geospatial Consortium (OGC) standards and INSPIRE directive)

III. Evaluation

▪ **14. Results:**

- Approximately 20,000 km river stretches studied;
- More than 100,000 km of flood prone areas delineates
- Good and wide spatial distribution of the river stretches studied;
- More than 1,000 users daily;

▪ **15. Efficiency gains:**

- Management and centralization of flood studies on a national scale;
- Accessibility and usability of information;
- Increased perception of flood risk and self-protection strategies in the population, social and economic agents.
- Improve administrative coordination among all the actors involved in risk management.
- Improve knowledge for proper flood risk management.
- Improve predictive capacity in flood and flood situations.
- Contribute to improve land management and exposure management in flood areas.
- Achieve a reduction, as far as possible risk by decreasing hazard.
- Improve resilience and reduce the vulnerability of elements located in flood areas
- Contribute to the improvement or maintenance of the good state of water bodies through the improvement of their hydromorphological conditions

▪ **16. Risks:**

- The misinterpretation of the information presented;
- The variety of models applied in each river basin and the uncertainty that can generate;

- Sub-representation of river sum kilometers;
- Uncertainty and variability caused by climate change;
- **17. Challenges encountered (please indicate resolved or not):**
 - Increase coverage of the river stretches analyzed; (in development)
 - Promote the usability of the viewer by the civil society; (in development)
 - Interoperability (Web service, App viewer, multiplatform); (in development)
 - Use as a flood risk communication tool; (in development)
 - Create a section on flood forecasting (centralized early warning system) where possible consult the probability of occurrence, levels of rivers and flooded area extension each event) (in development)
- **18. Lessons learned:**
 - Criteria standardization (cartographic, hydrological models and hydraulic);
 - Databases improvement;
 - QA/QC assessment;
- **19. Conditions for successful replication:**
 - Mapping standardized information (layers, legends, scales);
 - National scale (including islands);
 - Usability;
- **20. Overall assessment of the tool:**
 Very good - generally it meets the parameters and objectives very successfully;