

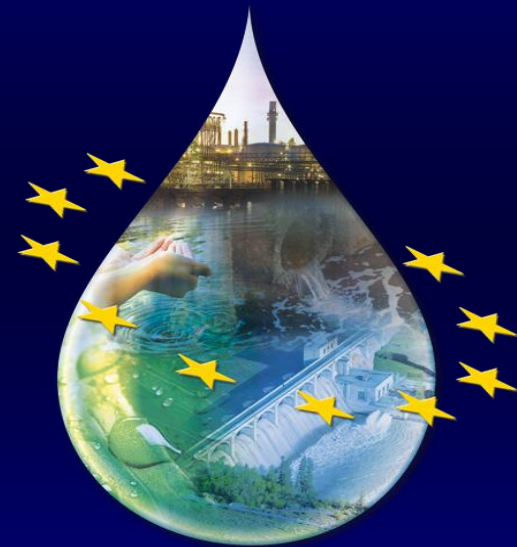


KULTURISK WORKSHOP

The benefits of disaster prevention measures: consolidating and widening an innovative risk assessment methodology
Arsenale di Venezia, CNR-ISMAR, Venice, 19-20 September 2013



National policy for the flood risk management plans (FD implementation)



Giuseppina Monacelli, Barbara Lastoria

ISPRA – Inland and Marine Water Protection Department



ISPRA

Istituto Superiore per la Protezione
e la Ricerca Ambientale

**Italian National Institute for Environmental
Protection and Research**

ISPRA: Italian National Institute for Environmental Protection and Research

- National Public Body depending on Ministry of Environment (MoE)
- Research Institute + Environmental Agency
- National coordinator of the Environmental Agencies System
- Support policies implementation
 - ✓ Define strategies
 - ✓ Produce standards and methodologies for monitoring and evaluation of environmental status
 - ✓ Make methodologies applicable
 - ✓ Organize training activity



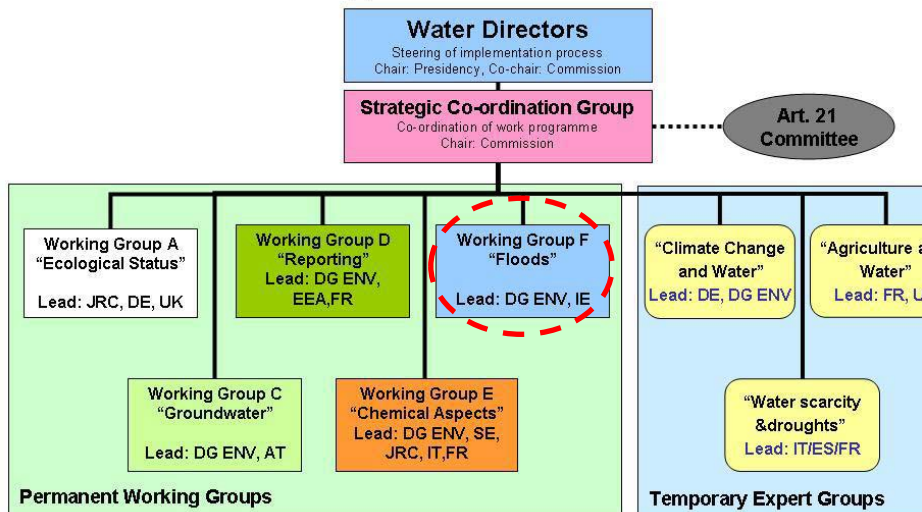
ISPRA role in WFD and FD implementation (On behalf of the Ministry of Environment)

Partecipazione to...

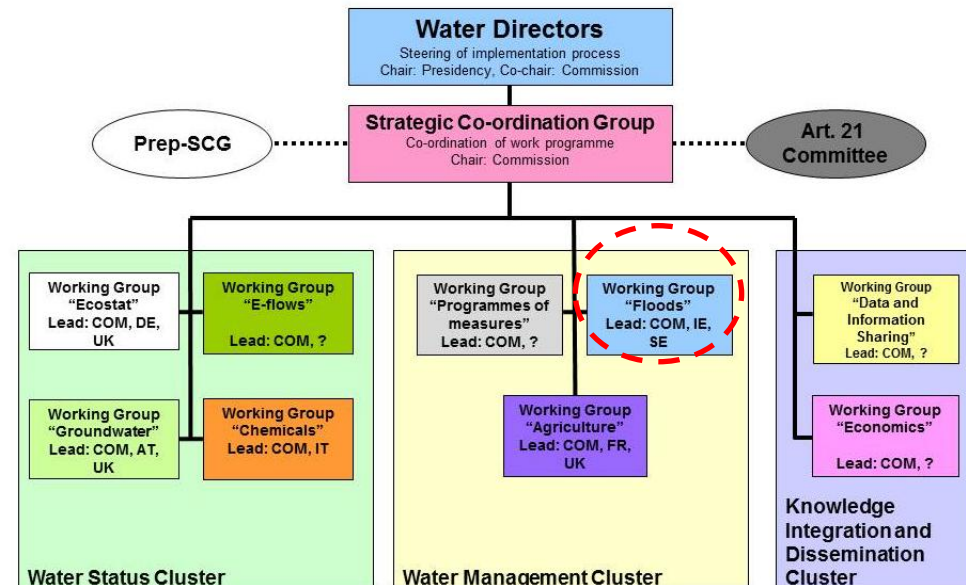
- CIS GROUPS
- EU directives negotiations

ISPRA is the Italian National **WISE** Node (SINTAI - National Information System for Water Protection) for EU reporting

CIS Organisation 2010-2012



CIS Organisation 2013-2015





KULTURISK WORKSHOP

The benefits of disaster prevention measures: consolidating and widening an innovative risk assessment methodology
Arsenale di Venezia, CNR-ISMAR, Venice, 19-20 September 2013



ISPRA is/has been involved in several EU projects associated to the WFD and FD implementation:

CRUE ERA-Net and IWRM-net:

Two FP6 Co-ordination actions devoted to integrate EU researches on “Flood Risk Management” and on “Water Resource Management” and to promote Joint Funding Initiatives.

DANUBE FLOODRISK:

A stakeholder-oriented and transnational project focussed on flood risk assessment and mapping for the Danube floodplains, funded under SEE programme.

REFORM:

An FP7 project which provides a framework for improving the success of HYMO restoration measures to reach, in a cost-effective manner, target ecological status or potential of rivers.

HYMO → Evaluation of morphological dynamics hazard.



Closely related to WFD



Closely related to FD



Related to WFD and the interaction with FD



ISPRA

Istituto Superiore per la Protezione
e la Ricerca Ambientale

Giuseppina Monacelli, Barabara Lastoria
Inland and Marine Water Protection Department



KULTURISK WORKSHOP

The benefits of disaster prevention measures: consolidating and widening an innovative risk assessment methodology
Arsenale di Venezia, CNR-ISMAR, Venice, 19-20 September 2013



The purpose of EU FLOODS DIRECTIVE (Art.1)

to establish a framework for the **assessment and management of flood risks**, aiming at the reduction of the **adverse consequences** for

- **human health**
- **environment**
- **cultural heritage**
- **economic activity**

associated with floods in the Community



Flood Directive (**FD**) applies to all kinds of floods (river, lakes, flash floods, urban floods, coastal floods)

The key tool: the FLOOD RISK MANAGEMENT PLAN

The EU Floods Directive marks out a road map to achieve its purpose



ISPRA

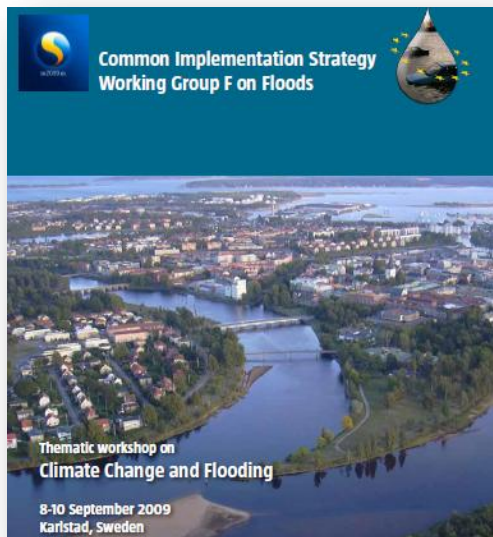
Istituto Superiore per la Protezione
e la Ricerca Ambientale

[Giuseppina Monacelli](#), [Barabara Lastoria](#)
Inland and Marine Water Protection Department

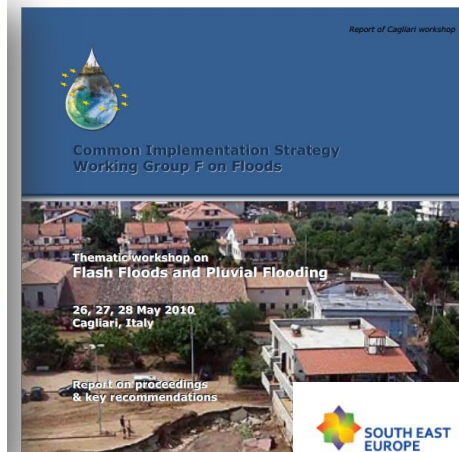


KULTURISK WORKSHOP

The benefits of disaster prevention measures: consolidating and widening an innovative risk assessment methodology
Arsenale di Venezia, CNR-ISMAR, Venice, 19-20 September 2013



CIS Working Group F Thematic Workshop
Floods and Economics
Ghent, 25 - 26 October 2010



WG-F Thematic workshops



Rijkswaterstaat
Ministerie van Verkeer en Waterstaat

European Working Group F Thematic Workshop: Flood Risk Management Plans

Maastricht, the Netherlands
26-27 January 2010
hosted by the Province of Limburg



OUTCOMES: observations, conclusions, open questions and recommendations. Presentations & Final reports on **CIRCABC**.



ISPRA

Istituto Superiore per la Protezione
e la Ricerca Ambientale

Giuseppina Monacelli, Barabara Lastoria
Inland and Marine Water Protection Department





KULTURISK WORKSHOP

The benefits of disaster prevention measures: consolidating and widening an innovative risk assessment methodology
Arsenale di Venezia, CNR-ISMAR, Venice, 19-20 September 2013



The EU FLOODS DIRECTIVE road map

Deadlines for each requirements

FLOOD RISK MANAGEMENT PLAN

2015

(Art. 6) Flood **hazard maps** and flood **risk maps** for PSFRA

2013

(Art. 4,5) Preliminary Flood Risk Assessment (**PFRA**) and identification of Potential Significant Flood Risks Areas (**PSFRA**)

2011

(Art.3) Identification and communication of Units of Management (**UoM**) and Competent Authorities (**CA**)

2010

(Art. 17) Transposition of FD into national legislation

2009

All these steps need to be reviewed every **6 years** in a cycle coordinated and synchronised with the **Water Framework Directive (WFD)** implementation cycle.



ISPRA

Istituto Superiore per la Protezione
e la Ricerca Ambientale

Giuseppina Monacelli, Barabara Lastoria
Inland and Marine Water Protection Department



KULTURISK WORKSHOP

The benefits of disaster prevention measures: consolidating and widening an innovative risk assessment methodology
Arsenale di Venezia, CNR-ISMAR, Venice. 19-20 September 2013



Reporting sheets

Concept paper

European Commission | CIRCABC

EUROPA > European Commission > CIRCABC > env > wfd

WFD CIRCA: "Implementing the Water Framework Directive"

- Information
- Library**
- Events
- Newsgroups

Search

Advanced Search

Clipboard

Main Menu

- Browse categories
- Login
- Help

Titolo ▼

- Art 3 : Administrative arrangements
- Art 4-5 : PFRA
- Art 6 : Flood Hazard Maps and Flood Risk Maps
- Art 7-8 : Flood Risk Management Plans
- Art 9-10 : Coordination with WFD, Public information and coordination
- Art x15 : Reporting
- Art x17 : Transposition

Library > floods_programme_1 > implementation_documents > art_15_reporting

art_15_reporting

The Library is the space where **contents** are stored, managed and shared.

Library Bulk Operations

0 folders and 4 files in this space.

▼ Spaces

Title ▼	Modified Date ▾	Actions
No items to display.		

Page 1 of 1

▼ Content

Title ▼	Size ▾	Modified Date ▾	Actions
Concept_paper_floods_reporting_final_cov.pdf	1.1 MB	23 September 2010 12:26	
Floods Directive Reporting sheets_as of February 2011_ver2	255.2 KB	18 February 2011 13:18	
Floods Directive Reporting Sheets_final_Nov2009		23 September 2010 12:26	
Floods Directive Reportnet page		23 September 2010 12:31	

Page 1 of 1

Reportnet web-link



CIRCABC is Open Source



ISPRA

Istituto Superiore per la Protezione
e la Ricerca Ambientale

Giuseppina Monacelli, Barabara Lastoria
Inland and Marine Water Protection Department



KULTURISK WORKSHOP

The benefits of disaster prevention measures: consolidating and widening an innovative risk assessment methodology
 Arsenale di Venezia, CNR-ISMAR, Venice, 19-20 September 2013



FD reporting obligations: Administrative arrangements Units of Management (UoM) and Competent Authorities (CA)

<http://cdr.eionet.europa.eu/it/eu/fdart3/envs5yfw>

EIONET

Central Data Repository

SERVICES

REPORTNET

TOOLS

TOPICS (ETCS)

You are here: Eionet» CDR» Italy» European Union (EU), ...» Floods Directive Unit of ...» IT_CAUM_20100526

Navigation

- » Search by obligation
- » Search XML files
- » Search for feedback
- » Global worklist
- » Notifications
- » Help

Overview History

IT_CAUM_20100526

Zip Envelope

Description Competent Authorities and Unit of Management under art.3 of Floods Directive
Obligations [Unit of management and competent authorities](#) *Terminated*
Period 2010 - May
Coverage Italy
Reported 2010-05-27 15:31:11
Status Task(s) waiting to be assigned: **Redeliver or finish**



Note

If you want to stay updated about events in this envelope [Subscribe to receive notifications](#) for this country and the current dataflow(s).

Files in this envelope

1	IT_CAUM_20100526.xml	IT_CAUM_xml_20100526	27 May 2010	97.0 KB
2	IT_UOM_20100526.dbf	IT_UOM_20100526.dbf	27 May 2010	2.54 KB
3	IT_UOM_20100526.prj	IT_UOM_20100526.prj	27 May 2010	388 Bytes
4	IT_UOM_20100526.shn	IT_UOM_20100526.shn	27 May 2010	620 Bytes

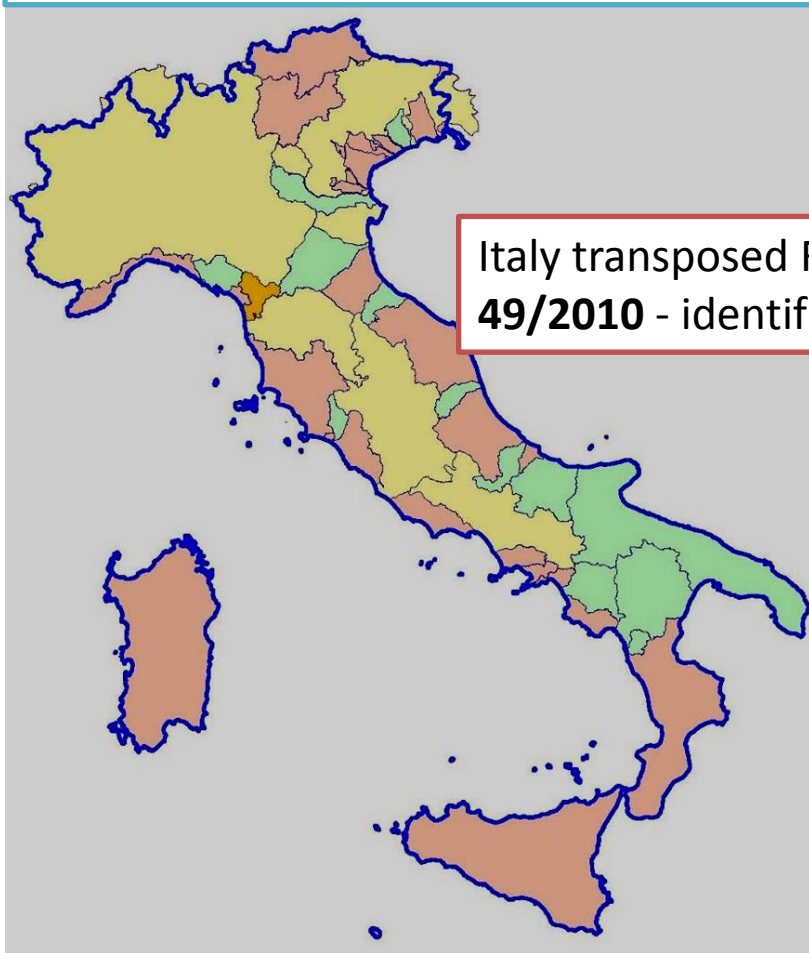


ISPRA

Istituto Superiore per la Protezione
 e la Ricerca Ambientale

[Giuseppina Monacelli](#), [Barabara Lastoria](#)
 Inland and Marine Water Protection Department

Ireland and Italy used the possibility to designate FD UoM smaller than RBDs



Italy transposed FD into **D. Lgs. 49/2010** - identified **51 UoM**

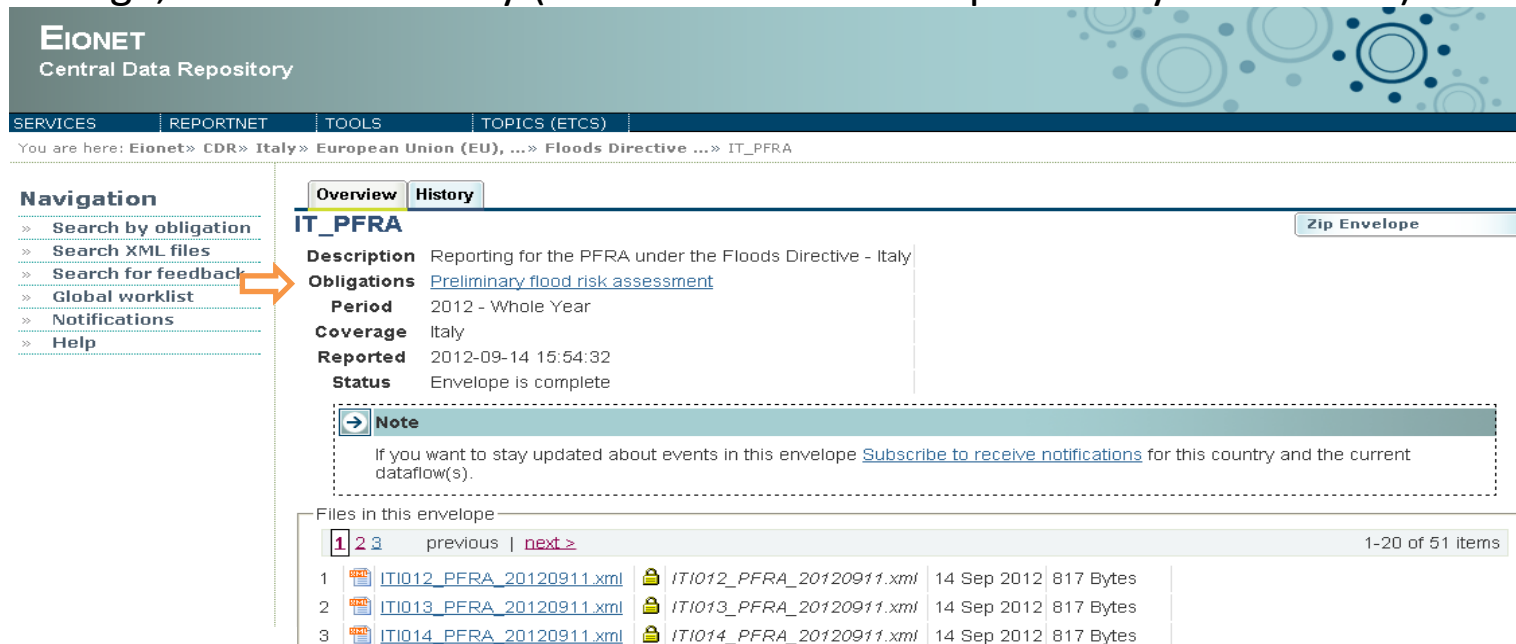


8 RBDs

Instituted by *art. 64 – parte III – D.Lgs. 152/2006*, coordinated by former National Basin Authorities

FD reporting obligations: Preliminary Flood Risk Assessment (PFRA)

- ✓ Aims to identify **Potential Significant Flood Risks Areas**
- ✓ Based on information related to *significant* floods occurred in the past, existing situation and long-term developments including impacts of climate change on the occurrence of floods
- ✓ *Significant*: respect to adverse impacts on human health, environment, cultural heritage, economic activity (defined under the responsibility of each MS)



EIONET
Central Data Repository

SERVICES | REPORTNET | TOOLS | TOPICS (ETCS)

You are here: Eionet» CDR» Italy» European Union (EU), ...» Floods Directive ...» IT_PFRA

Navigation

- » Search by obligation
- » Search XML files
- » Search for feedback
- » Global worklist
- » Notifications
- » Help

Overview | History

IT_PFRA Zip Envelope

Description Reporting for the PFRA under the Floods Directive - Italy

Obligations [Preliminary flood risk assessment](#)

Period 2012 - Whole Year

Coverage Italy

Reported 2012-09-14 15:54:32

Status Envelope is complete

Note

If you want to stay updated about events in this envelope [Subscribe to receive notifications](#) for this country and the current dataflow(s).

Files in this envelope

1 2 3 previous | next >

File Name	Date	Size
IT1012_PFRA_20120911.xml	14 Sep 2012	817 Bytes
IT1013_PFRA_20120911.xml	14 Sep 2012	817 Bytes
IT1014_PFRA_20120911.xml	14 Sep 2012	817 Bytes

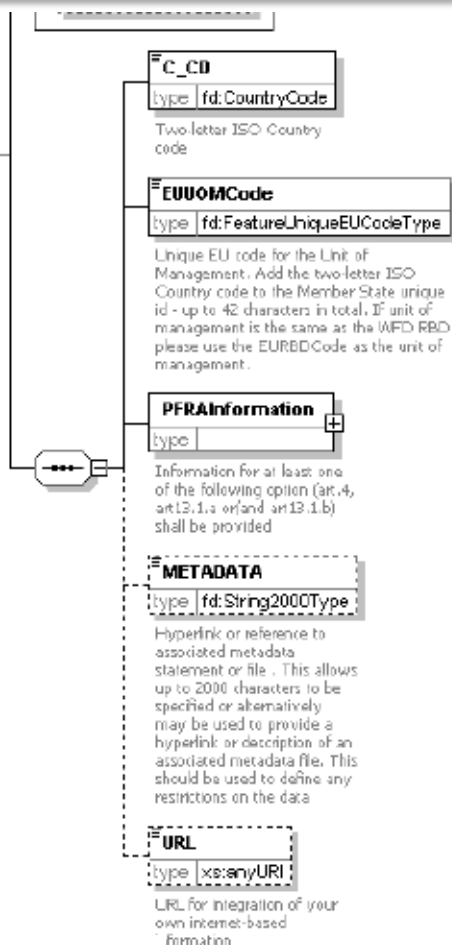
1-20 of 51 items

Transitional measures (FD - Art.13)

Art. 13.1 – not to undertake the PFRA

PFRA

Reporting requirement for Article 4 of the Floods Directive. Requires the Member States to undertake a Preliminary Flood Risk Assessment (PFRA) for each river basin district, unit of management or the portion of an international river basin district or unit of management lying within their territory.



Article4Applied

type:
If Article 4 has been applied then please complete Summary Information and Flood Event Information. The Flood Event Information shall include data for each significant past flood and/or potential future significant floods, where available or readily derivable.

TransitionalMeasuresArt13.1.a

type:
If Article 13.1a has been applied then please complete Summary Information and Flood Event Information. Member States may decide not to undertake the preliminary flood risk assessment referred to in Article 4 for those river basins, sub-basins or coastal areas where they have already undertaken a risk assessment to conclude, before 22 December 2010, that a potential significant flood risk exists or might be considered likely to occur leading to the identification of the area among those referred to in Article 5(1)

TransitionalMeasuresArt13.1.b

type:
Member States may decide not to undertake the preliminary flood risk assessment referred to in Article 4 for those river basins, sub-basins or coastal areas where they have decided, before 22 December 2010, to prepare flood hazard maps and flood risk maps and to establish flood risk management plans in accordance with the relevant provisions of this Directive.

Some MS, such as The Netherlands, Belgium and **Italy**, have decided to apply **article 13.1 on the entire country territory.**



KULTURISK WORKSHOP

The benefits of disaster prevention measures: consolidating and widening an innovative risk assessment methodology
Arsenale di Venezia, CNR-ISMAR, Venice, 19-20 September 2013



The “Italian route” till FD

Major disasters (1951, 1966...)

1989 Wireframe law on soil protection

1990 Institution of RBAs

1998 Disaster of "Sarno"

1998 “Sarno” Law

2007 Completion of *PAI* mosaic

1999 Preliminary mapping

1998 Start of *PAI* planning



ISPRA

Istituto Superiore per la Protezione
e la Ricerca Ambientale

Giuseppina Monacelli, Barabara Lastoria
Inland and Marine Water Protection Department



The “Italian model” in 5 headings (since 1989)

1. Only one subject
2. Planning as the main issue
3. Basin scale
4. A “River basin authority”
5. Two time scales

Flood, landslide risk and water resources define an **unique** thematic and management environment

Every action has to be considered within an **holistic** planning activity. Planning process is **open** to institutions and stakeholders. Plan is finally approved by the Prime Minister and has the force of a **State law**.

Watershed is the planning scale, regardless to administrative boundaries

A specific “Authority” with both regional and state components governs planning and budgeting

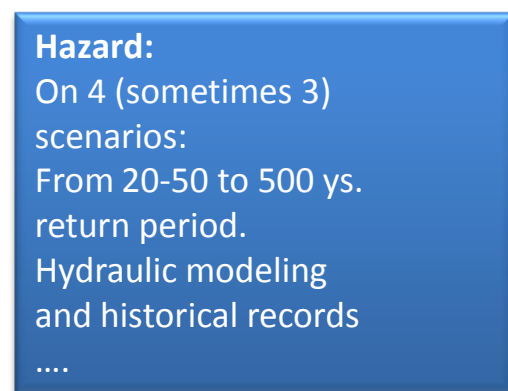
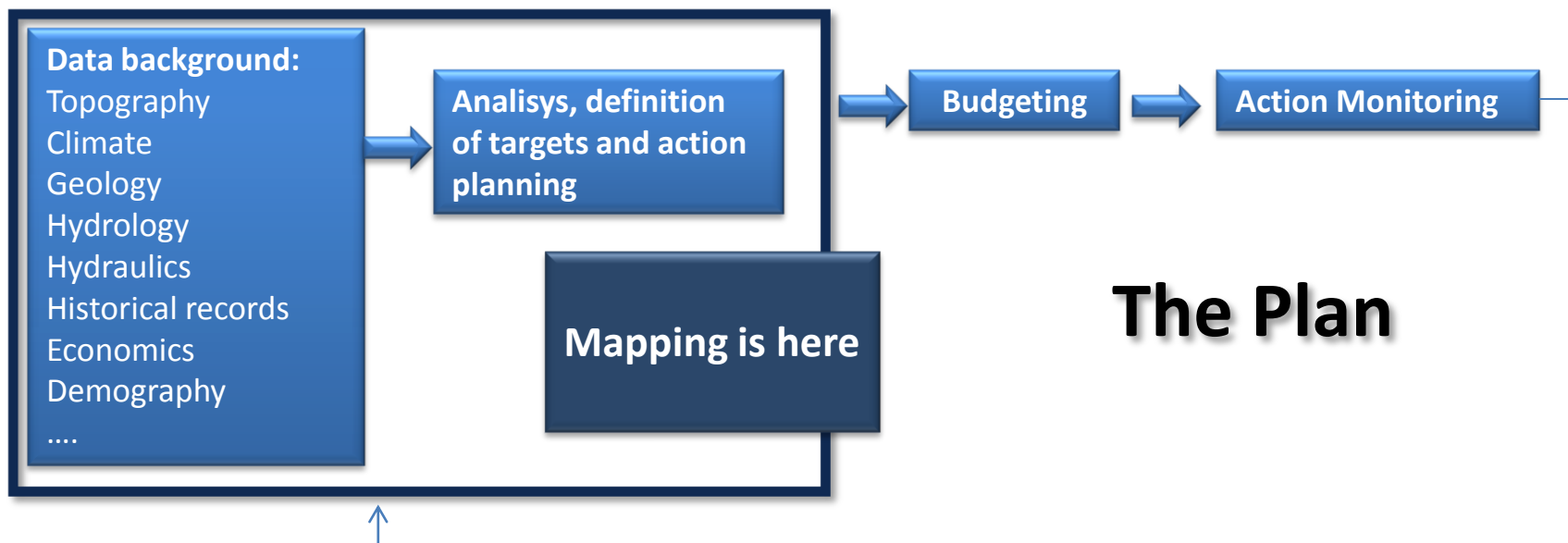
Basin planning is a typical “**deferred time**” scale action. “**Real time**” action is governed by Civil Protection System.



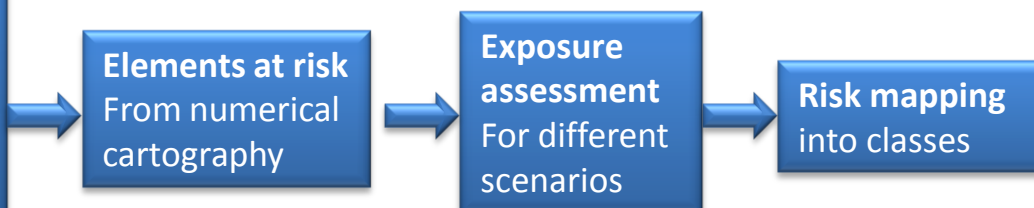


KULTURISK WORKSHOP

The benefits of disaster prevention measures: consolidating and widening an innovative risk assessment methodology
Arsenale di Venezia, CNR-ISMAR, Venice, 19-20 September 2013



National mapping programme



ISPRA

Istituto Superiore per la Protezione
e la Ricerca Ambientale

Giuseppina Monacelli, Barabara Lastoria
Inland and Marine Water Protection Department

FD reporting obligations: Flood hazard maps and flood risk maps

HAZARD MAPS

Applied to PSFRAs

areas flooded according to THREE
Probability SCENARIOS:

- Low
- Medium (Return period ≥ 100 years)
- High (where appropriate)

Elements to be shown

- ☐ the flood extent
- ☐ water depths or water level (as appropriate)
- ☐ the flow velocity or the relevant water flow (where appropriate)

Risk Elements
(Vulnerability, Value)

+

RISK MAPS



KULTURISK WORKSHOP

The benefits of disaster prevention measures: consolidating and widening an innovative risk assessment methodology
Arsenale di Venezia, CNR-ISMAR, Venice, 19-20 September 2013



FD reporting obligations: Flood hazard maps and flood risk maps

RISK MAPS

show the potential **adverse consequences** associated with the 3 flood SCENARIOS expressed in terms of:

- a) the indicative number of **inhabitants** potentially affected;
- b) type of **economic activity** of the area potentially affected;
- c) **IPPC installations** which might cause accidental pollution in case of flooding and potentially affected **protected areas** identified in Annex IV(1)(i), (iii) and (v) to Directive 2000/60/EC;
- d) other information which the Member State considers useful such as the indication of areas where floods with a **high content of transported sediments and debris floods** can occur and information on other significant sources of **pollution**.

Risk Elements

(Vulnerability, Value)

In the Italian Legislative Decree 49/2010 sediment transport and debris flow have a significant role. Many of the most damaging flood events occurred in the past were characterized by high quantity of transported sediments.



ISPRA

Istituto Superiore per la Protezione
e la Ricerca Ambientale

Giuseppina Monacelli, Barabara Lastoria
Inland and Marine Water Protection Department

Detailed list of what information should be provided

Geographic information

Maps prepared at the national level at the most appropriate scale, have to be reported/made available to the Commission (provided to the public with web-links through **WISE**) whilst remaining in a national repository. Overview map of the river basin district or unit of management, clearly identifying areas where more detailed flood hazard maps and flood risk maps are available through national systems (INSPIRE Directive compliant).

Data

Geo-referenced information on:

- ☐ Type of flood or floods
- ☐ Probabilities assigned to each flood scenario
- ☐ Potential adverse consequences associated with the particular flood scenarios expressed as in terms of each risk category
- ☐

Summary text

Summary explaining overall approach and methodology



KULTURISK WORKSHOP

The benefits of disaster prevention measures: consolidating and widening an innovative risk assessment methodology
Arsenale di Venezia, CNR-ISMAR, Venice, 19-20 September 2013



Components of the first FLOOD RISK MANAGEMENT PLAN (2015)

- the conclusions of Preliminary Flood Risk Assessment (**PFRA**)
- flood **hazard maps** and flood **risk** maps
- a description of **objectives** for the management of flood risks for the PSFRA (reduction of potential adverse consequences)
- a summary of **measures** for achieving the objectives and their prioritisation
- a description of the **cost-benefit** methodology, when available, used in transnational context
- a description of the **prioritisation** and the way in which progress in **implementing** the plan will be monitored
- a summary of the **public information and consultation** measures/actions taken
- a list of **competent authorities** and, as appropriate, a description of the **coordination** process within any **international** river basin district and of the coordination process with Directive **2000/60/EC**

The FRMP shall address all aspects of flood risk management, focusing on prevention, protection and preparedness, and taking into account the characteristics of the particular river basin or sub-basin, including flood forecasting and early warning systems



ISPRA

Istituto Superiore per la Protezione
e la Ricerca Ambientale

[Giuseppina Monacelli](#), [Barabara Lastoria](#)
Inland and Marine Water Protection Department



KULTURISK WORKSHOP

The benefits of disaster prevention measures: consolidating and widening an innovative risk assessment methodology
Arsenale di Venezia, CNR-ISMAR, Venice, 19-20 September 2013



Italian challenges in implementing Floods Directive

- ✓ Update the frame of knowledge in the Hydrogeological Management Plans (PAI);
 - Enlarge the extent of flood hazard and risk analysis (small rivers, mountain basins);
 - Create, manage and update database (flood events, changing in land use, etc...) to update Plans, verify the implementation status and the efficacy of measures
 - include the influence of bedload transport in hazard and risk analysis (morphological dynamics)
 - Include the influence of climate change in hazard and risk analysis and in management plans

- ✓ Harmonize Flood Risk Management Plans (FD) and River Basin Management Plans (RBMP).



ISPRA

Istituto Superiore per la Protezione
e la Ricerca Ambientale

[Giuseppina Monacelli](#), [Barabara Lastoria](#)
Inland and Marine Water Protection Department



KULTURISK WORKSHOP

The benefits of disaster prevention measures: consolidating and widening an innovative risk assessment methodology
Arsenale di Venezia, CNR-ISMAR, Venice, 19-20 September 2013



Ministry of Environment established a technical board in which MoE and ISPRA are involved together with Regions, Basin Authorities and other institutions. It aims to produce guidelines for FD implementation built on former plans (PAI).

Till now two documents have been produced:

MINISTERO DELL'AMBIENTE,
DELLA TUTELA DEL TERRITORIO E DEL MARE

*DIREZIONE GENERALE PER LA TUTELA DEL TERRITORIO
E DELLE RISORSE IDRICHE*

DOCUMENTO CONCLUSIVO DEL TAVOLO TECNICO
STATO - REGIONI

INDIRIZZI OPERATIVI PER L' ATTUAZIONE DELLA
DIRETTIVA 2007/60/CE RELATIVA ALLA VALUTAZIONE ED
ALLA GESTIONE DEI RISCHI DA ALLUVIONI
CON RIFERIMENTO ALLA PREDISPOSIZIONE DELLE MAPPE
DELLA PERICOLOSITÀ E DEL RISCHIO DI ALLUVIONI
(Decreto Legislativo n. 49/2010)

con il contributo di:
ISPRA, Istituto Superiore per la Protezione e la Ricerca
Ambientale
AUTORITÀ DI BACINO DI RILIEVO NAZIONALE

Gennaio 2013



Proposta metodologica per l'aggiornamento delle mappe di pericolosità e di rischio

Attuazione della Direttiva 2007/60/CE
relativa alla valutazione e alla gestione
dei rischi da alluvioni
(Decreto Legislativo n.49/2010)



MANUALI E LINEE GUIDA



ISPRA

Istituto Superiore per la Protezione
e la Ricerca Ambientale

Giuseppina Monacelli, Barabara Lastoria
Inland and Marine Water Protection Department



KULTURISK WORKSHOP

The benefits of disaster prevention measures: consolidating and widening an innovative risk assessment methodology
Arsenale di Venezia, CNR-ISMAR, Venice, 19-20 September 2013



ISPRA

Istituto Superiore per la Protezione
e la Ricerca Ambientale

[Giuseppina Monacelli](#), Barabara Lastoria
Inland and Marine Water Protection Department