Italian side event
“The Po valley compares itself with big international basins”

PO BASIN (Italy)

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General Director Environment, Coast and Soil Department
Emilia-Romagna Region

Istanbul March 18th, 2009
Po River: European Basin District
<table>
<thead>
<tr>
<th><strong>PO PLAIN</strong></th>
<th><strong>ADRIATIC SEA</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LIGURIAN SEA</strong></td>
<td><strong>EMILIA-ROMAGNA REGION</strong></td>
</tr>
</tbody>
</table>

| **Lenght**: 650 km | **16 million inhab (1/4 of Italy) up to 1478 inh/km²** |
| **Area**: 71,000 km² | **114 milion El (15% C, 52% I, 33% A)** |
| **Minimum Flow**: 275 m³/s | **Economy: 40% national GDP** |
| **Max flow**: 10,300 m³/s | **37% of national industries,** |
| **Avg flow**: 1,470 m³/s | **46% of employees** |
| **Average Raining**: 1,108 mm | **55% livestock (in 5 provinces);** |
| **Average flow**: 78,0 * 10⁹ m³/anno (60%) | **35% agricultural product** |
| **Year average temperature**: 5 – 10 °C | **48% energy consumption at national scale** |
Averaged year flow rate is lower than water use permits

1470 m³/sec against

1850 m³/sec

### Year water abstraction in the Po River

<table>
<thead>
<tr>
<th>Uses</th>
<th>Withdrawal Volume (10^6 m³/year)</th>
<th>% Surface water</th>
<th>% Ground water</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drinking</td>
<td>2.500</td>
<td>20</td>
<td>80</td>
</tr>
<tr>
<td>Industry</td>
<td>1.537</td>
<td>20</td>
<td>80</td>
</tr>
<tr>
<td>Irrigation</td>
<td>16.500</td>
<td>83</td>
<td>17</td>
</tr>
<tr>
<td>Overall</td>
<td>20.537</td>
<td>63</td>
<td>37</td>
</tr>
</tbody>
</table>
Water scarcity and flood risks

• Even in a country with abundant water resources, as the Northern Italy.
• The problem of supplying water in the necessary quantity and quality is therefore for us one of the major challenge of the coming years
• The amount of groundwater withdrawal is greater than the input from natural resources and as a consequence the ground water level is in average decreasing and surface water uses attempt the minimum ecological flow into the rivers
• On the other hands, the risk of flooding due to uneven raining patterns and to much higher run-off, coming from ever increasing urbanised areas, is very high.
Sustainable River basin Management

- To reach the goal of sustainable development it is therefore necessary to revise actual resource use and pollution load pressure as well as we need to adopt new and more sustainable spatial planning strategies.
- This means for us that the challenge for the future is the fully implementation of the European Waterframe Directive (WFD, 2000/60/EC) and the Directive on the assessment and management of flood risks (2007/60/EC).
Integrated River Basin Management

- Appropriate government system represented by the Po River Basin Authorities as coordinated expression of all the administrative levels, from the State, to the regions, provinces and municipalities, that also have to ensure the participation of all stakeholders.

- This institutional capacity, that in Italy started since 1989, has offered many opportunities that now we wish to exploit.

- We have a set of integrated water management plans as well as flood risk management plans already adopted in all regions of the Po river basin.

- This year 2009 all these plans will be homogenised into the integrated river basin management plan at District level according to the WFD.
The Po Valley Project

• Simultaneously, we are now starting some integrated projects and, among others
• The integrated project, named “the Po Valley
• The project integrates actions and measures for water quality, flood risk control and cultural and touristic systems
• In a time frame of 6 years (2009-2015)
• 180 MEURO
• More than 60 actions
The interested area and the actors

4 REGIONS
- Piemonte,
- Lombardia,
- Emilia-Romagna
- Veneto

13 PROVINCES
- Cuneo, Torino, Alessandria, Vercelli
- Lodi, Pavia, Cremona, Mantova
- Piacenza, Parma, Reggio Emilia, Ferrara
- Rovigo

Around 490 Municipalities

Po River Basin Authorities

AIPO
Integrated Project objectives

1. To reduce flood risks with a view to giving rivers more space through the maintenance and/or restoration of floodplains and increasing the natural retention areas

2. To promote conservation and ecological integrity of riparian areas and to improve water quality

3. To valorize the natural and cultural heritage of the river areas, improving the sustainable use of recreational areas for the population and tourists

4. To empower the Po river governance system, improving knowledge, participation, capacity building toward a sustainable development
Action 1- Dike highening and strengthening

On the basis of previous adopted Flood Risk Management Plans at river basin scale
Action 1 - Increasing the natural retention areas

Area around 4.3 km²
Around 7 Mm³
Action 1- Recovering of sediment transportation

ON THE BASIS OF THE PO RIVER BASIN MANAGEMENT GUIDE LINES
Action 1- Recovering of hydromorphological characteristics
**Objectives**

1. Biodiversity increase
2. Diffuse Ri-naturation
3. Ricreational and touristic valorization

**ACTIONS**

1. Structuring Ecological networks
   - Increasing afforestation
   - Promoting sustainable agriculture
   - Enlarging wetlands
2. Po pathways and connections
ACTION 2 - Water quality and quantity

On the basis of previous adopted Water Management Plans by Regions
ACTION 2 – WATER QUANTITY

ON THE BASIS OF THE RIVER BASIN WATER BALANCE AND TOWARDS WATER ALLOCATION SCHEME AND DROUGHT MANAGEMENT PROGRAMME
ACTION 2 - Salinization

ANNI 50’ - 60’
2 - 3 Km dalla foce
ACTION 2 - Salinization

ANNI 70’ - 80’
10 Km dalla foce
ACTION 2 - Salinization

ANNI 2000
20 Km dalla foce

300 km²
Objective= 250-300 m³/s minimum flow
ACTION 3 - The Po river landscape

Liquid landscape
Project Ideas for Po river landscaping in the Provinces of Piacenza a Reggio Emilia

International contest
4th of November 2008
ACTION 3- Biking pathway
ACTION 3 - Food and culture
Action 3 – Traditional food
ACTION 4 - Governance

• Knowledge improvement
  – IRBM plan
  – Water conservation and drought contingency programme
  – Water information system
  – Local Heritage Atlas

• Research platform

• Stakeholder participation and Environmental Assessment
AVAILABLE FUNDS

<table>
<thead>
<tr>
<th>ACTION</th>
<th>Amount (MEuro)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACTION 1</td>
<td>81</td>
</tr>
<tr>
<td>ACTION 2</td>
<td>47</td>
</tr>
<tr>
<td>ACTION 3</td>
<td>39</td>
</tr>
<tr>
<td>ACTION 4</td>
<td>8</td>
</tr>
<tr>
<td>Technical as.</td>
<td>5</td>
</tr>
</tbody>
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Total: 180 MEuro
Redazione del Rapporto preliminare sui possibili impatti dell'attuazione del PSS – Autorità di bacino – Ministero Ambiente – Autorità di bacino – Soggetti con competenze ambientali

Definizione della portata e livello che il Rapporto ambientale deve includere max 90 gg (ex art. 13)

1° Forum

5 Workshop

2° Forum

3° Forum conclusivo - Informazione sulla decisione

Protocollo di intesa generale tra il MISE, i Ministeri rappresentati nel Comitato Istituzionale (Ministero dell'Ambiente e della Tutela del Territorio e del Mare, Ministero delle Politiche Agricole Alimentari e Forestali, Ministero dei Beni e Attività Culturali, Ministero delle Infrastrutture, Presidenza del Consiglio – Dipartimento Nazionale Protezione Civile), l'Autorità di bacino del fiume Po e le Regioni Piemonte, Lombardia, Emilia-Romagna e Veneto.

Accordo di Programma Quadro Multiregionale tra le Regioni Piemonte, Lombardia, Emilia-Romagna e Veneto e il Ministero dell'Ambiente e della Tutela del Territorio e del Mare – Direzione Generale Difesa del Suolo e Autorità di bacino del fiume Po

Accordi di Programma regionali

Piano di valutazione Attuazione degli interventi 60 gg (ex art. 14)

Monitoring

Assessment

Negoziation

Monitoring and verification

DIRECTIVE 2001/42/EC ENVIRONMENTAL ASSESSMENT