RIVER BASIN MANAGEMENT PLANS

The EXPERIENCE OF

the AUTONOMOUS PROVINCE OF BOLZANO

Trento, 3rd October 2011

Pollinger - Gallmetzer - Horak
• People are connected and attracted by water. They’ve always been on the side of a river. Cities, bridges, and the economy development are all witnesses of this close relationship. Nowadays we have to protect these very fragile areas, so that they can still be inhabited.
Water

“You cannot be defined. You are savored, but you remain unknown. You are not a necessity of life: You are life!”

(Antoine de Saint-Exupéry)
Change of land use

Bressanone

1910

2010

River basin management plans
Pollinger - Galimetzer - Horak

Information and participation
Trento, 3.10.2011
River basin management

Why do we need a management plan?

How can we avoid this?
Increased damage potential

Increased need of protection

Increased economy along the rivers

What can we do?
River basin management plan

- Increased demand for protection of the population
- Increased damage potential with the consequences of flooding
- Agreement of demands
- Alignment of the plans, with interaction from the river basin stakeholders
The aims of a river basin management plan

Sustainable development of the river basin considering the demand of:

- Flood protection
- Development of housing
- Industry
- Water economy
- Ecology
- Tourism
- Agriculture
More space for people means more security, more ecology and more room for leisure.
River basin management

River basin management steps

Analysis of present conditions
Natural dangers
Space
Ecology
Water economy

Synthesis
Networking
Risks – conflicts
Possibilities

Ideal condition
Model

River basin management plan with actions proposal

Projecting and realization of the measures

Public relation through information and participation

Evaluation

I Information (Project and river basin forum)
II Definition and formation of the forum members
III Start model/Results of the analysis
IV Model and networking
V Realisation of guidelines
VI Management plan

AUTONOME PROVINZ BOZEN - SÜDTIROL
PROVINCIA AUTONOMA DI BOLZANO - ALTO ADIGE

Pollinger - Galmetzer - Horak

Trento, 3.10.2011
Project organisation

PROJECT PARTNERS financing

- Department of Hydraulic Engineering
- Municipality 1
- Other departments
- Other representatives of groups of interest

LEADER GROUP preparing

PROJECT TEAM - studying

- Project leader
- Experts (2)
- Experts
- Experts
- Experts

STUDIES

- Dangers
- Space
- Water economy
- Ecology
- Public relation

RIVER BASIN FORUM decision making
Project structure

ANALYSIS

Basics
- Natural dangers
- Land use
- Risks
- Water economy
- Conflicts
- Ecology

COMMUNICATIONS

INFORMATION

PARTICIPATION

PROGRAMMING

Network - Model

Actions

I N F O R M A T I O N

P A R T I C I P A T I O N

COMMUNICATIONS

P R O G R A M M I N G
1. Discharge
Hydrological-hydraulic situation, flood discharge rooms, variations analysis for hydraulic solutions.

2. Bed load
Total bed load volume, bed load budget, debris flow.
1. Rights:  
Public water asset, water rights, other legal regulations, environment and landscape protection, groundwater, fisheries.

2. Space planning:  
Economic actions and added value, construction management plans, landscape management plans, protected areas plans, tourism and recreation, infrastructures.

3. Land use:  
Landscape inventory, (vegetation structures, waters, land use, historical land use maps).
Tourism and leisure
Water economy module

Drinking water, irrigation, energy economy – other water use
Type of buildings, cultivation, use of the waterpower, residual water.

Groundwater
Hydro geological conditions, monitoring network of groundwater level, groundwater output lines, deep well.
1. Terrestrial ecology
Actual and historical features, description and mapping of animals and plants groups (birds, amphibian,...), hazardous areas.

2. Water ecology
Survey of the spineless fish fauna, water structures, water assets, friendly to fish passage, flood caused by energy company, change effect of the river shape and water ecology.
Networking

Risks areas

Hazards and damage potential illustrated with thematic maps.

Conflict areas

Networked thematic maps, links, shortage, potentials,… as a result of the 4 modules.
“Has to be” condition to define a river basin area on the analysis and networking as for legal frame conditions (EU-water directive, EU-flood directive, Water use plan in the province), workshops, River basin -Forum, collective consensus of the realisable plan of actions.

Plan for transfer:

River basin-Forum, workshops, collective consensus, actions catalog list of priorities.
FIVE GOALS
1. Flood protection
2. Good water condition
3. Conservation and improvement of landscape
4. Sustainable water use
5. Information and sensitisation

5 goals → agreement → action proposal
Action proposals: an example
Involved groups of interest

- Fire brigades
- Mayors
- Environment protection associations
- Fisheries
- Handcrafts
- Tourism association
- Civil protection
- Farmers
- Energy companies
- Water protection
- Birdwatchers
- Industries

Nominated representatives of public and private organisations are involved not only for information but also for decision making.
“Totems” at the municipality, screens.

Website: www.stadtlandfluss.it
Prato allo Stelvio primary school:

“With enthusiasm we participate as students and teachers to the project “River-Bus”. The guide and organisation was very well prepared. Compliments to Regina and Othmar’s ability in succeeding to teach some important issues to children. Our students could look at Prader Sand with different eyes. Also, the parents were very positively impressed….”
Leaflets and posters
Newspapers and radio
Projects in South Tyrol – Alto Adige

River basin management plans
Pollinger - Gallmetzer - Horak

Information and participation
Trento, 3.10.2011
## Public relations

<table>
<thead>
<tr>
<th>titel of the project</th>
<th>press</th>
<th>partners with media</th>
<th>Info-flyers</th>
<th>banners</th>
<th>web site</th>
<th>tv, radio</th>
<th>screen presentations</th>
<th>internet</th>
<th>exhibitions</th>
<th>school events</th>
<th>excursions</th>
<th>presentations</th>
<th>river party and inauguration</th>
<th>Events for information</th>
<th>scientific reports</th>
<th>final report</th>
<th>river basin - round table</th>
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<tbody>
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The expenses for information and participation are between 18 and 29% of the total budget.
<table>
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<th>title of the project</th>
<th>duration</th>
<th>area of detection</th>
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<tbody>
<tr>
<td>GBK Untere Ahr</td>
<td>continuing planning and implementation of river revitalisation and access to river</td>
<td>the bottom of the lower valley of the Aurino river is 5.4 km²</td>
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<td>planning and implementation</td>
<td>the bottom of the valley of Vipiteno, Isarco river and Mareta river is 340km</td>
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<td>Etsch-Dialog</td>
<td>planning and implementation</td>
<td>the bottom of the upper valley of Venosta, Adige and affluents is 36 km²</td>
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<td>StadtLandFluss</td>
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<td>the bottom of the valley by Bressanone, Isarco and Rienza is 19 km²</td>
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<td>Passer für Meran</td>
<td>implementation of the pilot project</td>
<td>4.430 m is the length of the Passirio river in Meran and the area is 41,3</td>
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<td>ProDrau</td>
<td>study of variants</td>
<td>the whole river basin Drau is 160,33 km²</td>
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Recreational area by the river

Passer river in Merano

new access to the river, opening in May 2012
Mareta river

An experience of revitalization from 2009 to 2011

2009 before the revitalisation

2010 when the works were finished

2011 following the first flood
Revitalization of the river bed

Aurino river

This project shows how channel widening contributes to achieving the aims of flood control, streambed stabilisation, ecological enhancement and an attractive recreational landscape.

First widening of the river in 2005

Final view of the widening of the river in 2009
Lifting bridge in Sluderno

Saldura river
The future damage by natural catastrophes is the consequence of our decisions today (Mileti 1999)
Thank you for your attention.

Arrivederci!