



Water Services, Stakeholder Preferences and Conflicting Interests: Importance of Public Participation in Water Management

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Water Framework Directive (2000/60/EC)

- created to ensure the sustainable use of water resources in the EU
- a call for the participation of stakeholders in the management of water resources
- why?
- how?

Why stakeholder participation?

- “to improve decision-making, by ensuring that decisions are soundly based on shared knowledge, experiences and scientific evidence,
- that decisions are influenced by the views and experience of those affected by them,
- that innovative and creative options are considered and
- that new arrangements are workable, and acceptable to the public”

(European Commission 2003)

Democracy and participation in resource management

- public participation is an interactive process
- public participation “implies sharing of authority, in which government acknowledges the right of people to a voice in issues likely to affect their interest.
- questions of levels of the degree of power sharing, and of the relationship between traditional representative and new consultative processes” (Bishop and Davis 2002).

How can stakeholders participate?

- necessary to organise the participatory process in the right way
- the tasks are new and often there are no useable methodologies, tools or methods,
- EC guidelines need to be elaborated on to ensure successful application
- today's presentation evaluates the results of a research project initiated to develop a participatory water management process to meet the provisions of the WFD

Forms of participation

- Spectrum of participation models:
 - public participation only in the form of specific, formally structured value judgements (CV, conjoint analysis, citizen juries)
 - group processes, relying on consensus among participants as decision rule (places value not only on the outcome of the decision but also on the process as well)

The CATCH model

- a qualitative decision support tool aimed at facilitating public participation (active involvement) in water management at a catchment level.
- developed by a Swedish research team in 2002 (VASTRA Programme).
- aimed at evaluating alternative management strategies and other specific measures for improving water quality.
- based on the use of “discourse and deliberation” within stakeholder groups.

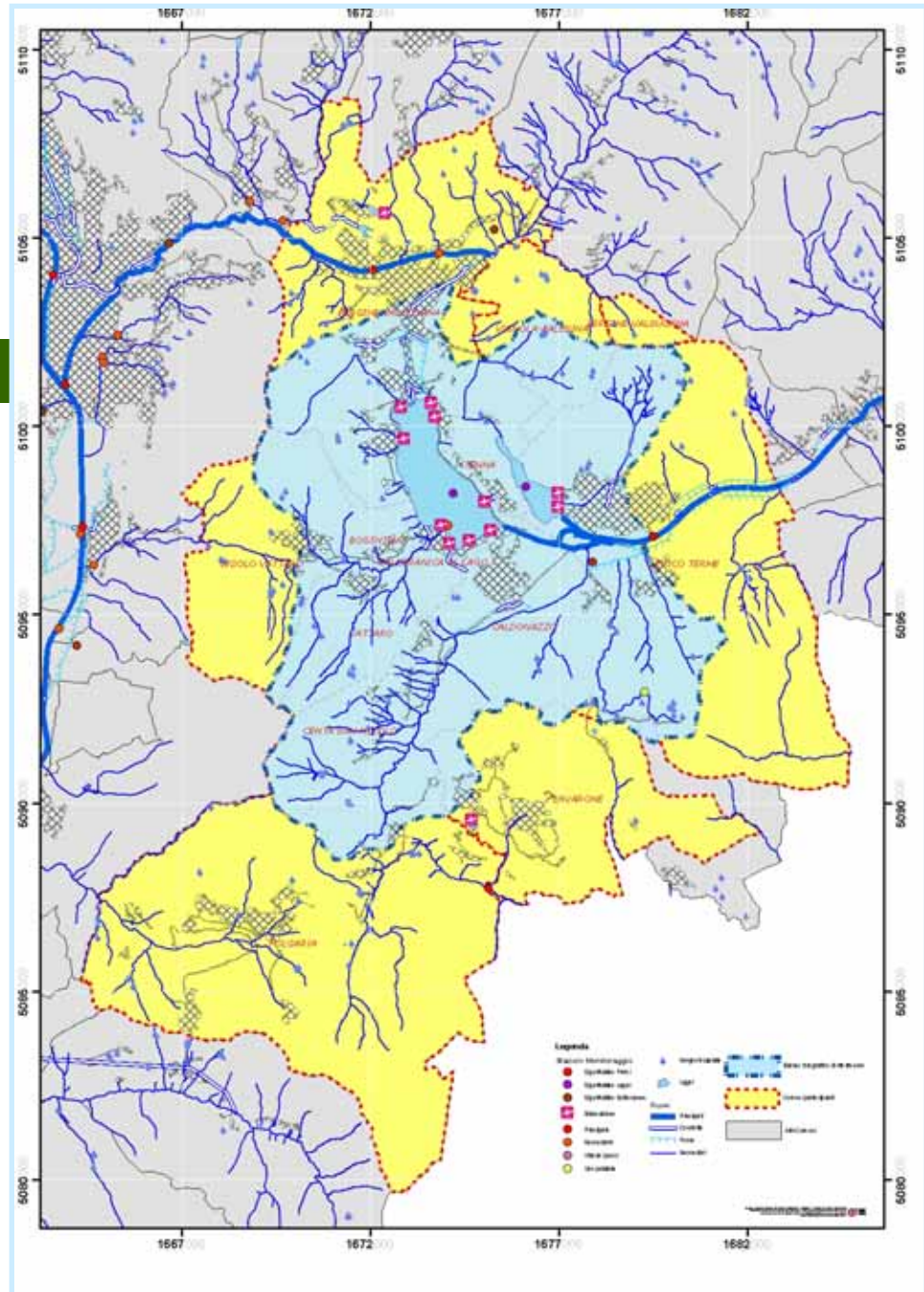
Study area

The model was implemented in a sub-catchment area in Trentino, a region in the North-east of Italy in Spring 2006.



Study area

Map of the sub-catchment



Purposes of the study

- identification and classification of stakeholders in the sub-catchment
- development of a method to structure and facilitate the involvement of stakeholders according to the principles of the WFD
- creation of a process/dialogue among stakeholders which may continue and help with implementation of the WFD

Structure of the study

- 1. Stakeholder analysis**
- 2. Definition of parameters (1st workshop)**
- 3. Evaluation of the relationship between parameters (2nd workshop)**
- 4. Definition of measures (2nd workshop)**
- 5. Evaluation of the relationship between parameters and measures (3rd workshop)**

1. Stakeholder analysis: results

- two different sub-groups:
 - A homogeneous group, composed of the municipalities of the area
 - A heterogeneous group, composed of various associations (a fisherman association, the Provincial Government, the Environment Protection Agency, the Association of Industrialists, three fruits grower cooperatives, the Federation of Irrigation Consort.
- two different implementation processes of the CATCH model were organized, one for each group. Two series of three workshops each were planned.

2. Definition of parameters

- first meeting:
 - facilitator gave the stakeholders some information about WFD, public participation in water management, and the CATCH model
 - stakeholders then asked to identify the relevant socio-economic-environmental parameters for the catchment area
- in the CATCH model:
 - identification of the parameters is a deliberative discursive task.
 - goal is to define an inclusive but limited set of parameters
 - in the process there is no ranking or weighting of parameters.

Example of parameters

PARAMETERS	DEFINITIONS
HOUSEHOLD USE	Drinkable water for household and sanitary use (of residents and tourists)
USE FOR TOURISM AND RECREATION	Use for recreation and sport activities
USE FOR AGRICULTURAL ACTIVITIES	Irrigation
BIODIVERSITY	Richness of animal and vegetal species (not only aquatic)

3. Evaluation of the relationship between parameters

- stakeholders then asked to analyse what effect a change in a parameter has on the remaining parameters, by constructing a series of matrices with each parameter listed on each axis

The symbols denote:

+ = positive effect;
- = negative effect;

0 = insignificant effect;
+/- = indeterminate effect.

Example of cross effect of positive changes in parameters

POSITIVE CHANGE (INCREASE/ IMPROVEMENT)	HOUSE. USE	USE FOR AGRICULT. ACTIVITIES	USE FOR TOURISM AND RECREATION	BIODIVERSITY
HOUSEHOLD USE	☐	0	0	-
USE FOR AGRICULTURAL ACTIVITIES	0	☐	-	-
USE FOR TOURISM AND RECREATION	0	0	☐	-
BIODIVERSITY	0	0	+	☐

Example of cross effect of negative changes in parameters:

NEGATIVE CHANGE (DECREASING/ WORSENING)	HOUSE. USE	USE FOR AGRICULT. ACTIVITIES	USE FOR TOURISM AND RECREATION	BIODIVERSITY
HOUSEHOLD USE	□	+	+	+
USE FOR AGRICULTURAL ACTIVITIES	0	□	+	+
USE FOR TOURISM AND RECREATION	0	+/-	□	+
BIODIVERSITY	0	0	-	□

4. Definition of measures

- form for evaluation of measures is similar to the process for defining and evaluating the socio-economic-environmental parameters
- stakeholders were asked to define general types of measures (an inclusive but limited set), which could be of interest

Example of measures

- new pricing policy (increase in water prices when the consumption of water exceeds a certain amount)
- reduction of losses of water in the distribution system
- creation of a basin wide water distribution system (instead of municipal water distribution systems)
- traffic reduction

5. Evaluation of the effect of measures on parameters

- general measures were evaluated for their direct effect on socio-economic-environmental parameters
- stakeholders were asked to build a matrix with the parameters listed on one axis and the measures listed on the other

Example of effects of measures on parameters

PARAMETERS MEASURES	HOUSEHOLD USE	USE FOR AGRICULT. ACTIVITIES	USE FOR TOURISM AND RECREATION	BIODIVERSITY
NEW PRICING POLICY	-	-	0	0
REDUCTION OF WATER LOSSES	+	+	-	-
CREATION OF A BASIN WATER DISTRIBUTION SYSTEM	+	0	0	0
TRAFFIC REDUCTION	0	0	+	+

DISCUSSION

- during the meetings the CATCH model played a very important role in structuring the participatory process
- the model provided a general framework consisting of a sequence of steps that helped the participants to reach the goal of the process; the identification and evaluation of measures to improve water management in the catchment.

DISCUSSION

- stakeholders found the CATCH method to be a useful tool to organise and structure public participation, avoiding the risk of a chaotic and confused discussion where it is impossible to reach a result
- in addition, the flexible structure of CATCH did not force the discussion to remain within rigid borders and did not influence the results, but rather allowed the participatory process to be free.

DISCUSSION

- the particular structure of the CATCH model, which allows the stakeholders at any time to modify the number and definitions of measures and parameters and to make changes in the analysis of the relationships among parameters and measures, promoted a methodical but extremely dynamic (always *in fieri*) discussion
- this helped the stakeholders to develop a common language and to reach broad agreement (consensus) with respect to the issues that were discussed.

CONCLUSION

- Public participation in water management is an important challenge and should not be carried out in a casual and unorganized way.
- In order to gather benefits from the participatory process it is indispensable to develop methodologies, tools and strategies to identify the stakeholders, to involve them in water management and to structure the participatory process in an appropriate way.



Thank you for your attention.

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