

Room for the river in Cat's Bend: Application of the SketchMatch method in Romania

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1 Introduction

The project “Room for the River in Cat's Bend, Romania” is a pilot-project, initiated by the Romanian Ministry of Environment and financed by the Dutch Government. In an interactive process together with regional partners (i.e. policymakers and other stakeholders), this project aimed to draw up integrated regional plans for the Cat's Bend region in the Lower Danube near Galati (Figure 1), based on the flood protection strategy as defined in the project “Ecological and economical restoration of the lower Danube floodplain – Romanian sector” (REELD) and an economic feasibility study carried out by the Danube Delta National Institute in 2007 and 2008 - and using the Dutch “Room for the Rivers” approach.

The Cat's Bend was chosen as project area, in consultation with the Romanian Ministry of Environment. In the past, this region was developed at the expense of natural areas. Many former river forelands are now being used for agriculture. Thus the area had to struggle repeated large flooding and severe water management problems, which had created much damage, particularly in the last few years (Groot & Termes 2009).

The actual national strategy for flood risk management supposes to combine flood mitigation with ecological restoration of former wetlands and socio-economical development. This project tries to implement the strategy by developing integrated regional spatial plans in an interactive process with stakeholders from the area. Creating interaction and communication between stakeholders with diverging perceptions contributes to learning processes (Hommes et al. 2009).

2 Project objective

This project works out spatial concepts, i.e., the space needed by the Danube River in the Cat's Bend region by combining diverse methods: socio-anthropological research (stakeholder interviews), SketchMatch (interactive design) workshop, hydraulic modeling and 3-D GIS visualizations. One of the main goals of this project was to stimulate support and involvement from stakeholders for the implementation of flood protection measures in the Cat's Bend region by consulting and involving these people in the design process and making use of a coherent package of interactive methods.

Regional plans are spatial designs that let one see how the integrated flood management approach could be implemented on a local level. These spatial designs form the basis for the future flood protection policy in the Galați Cat's Bend region (Figure 1).

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3 Methods

The method used to support the interactive process is the so-called '**Sketch Match**'. The SketchMatch is developed by Dutch Government Service for Land and Water Management (DLG) and works as a 'creative pressure cooker'. During a minimum of one to a maximum of three days, a group of stakeholders such as citizens, policymakers, farmers and others came together to analyze, define and work out solutions to a spatial problem. All this is done collectively, in a group. A SketchMatch is facilitated by a process supervisor and one or more spatial designers, who visualize problems and solutions by sketching them out on maps.

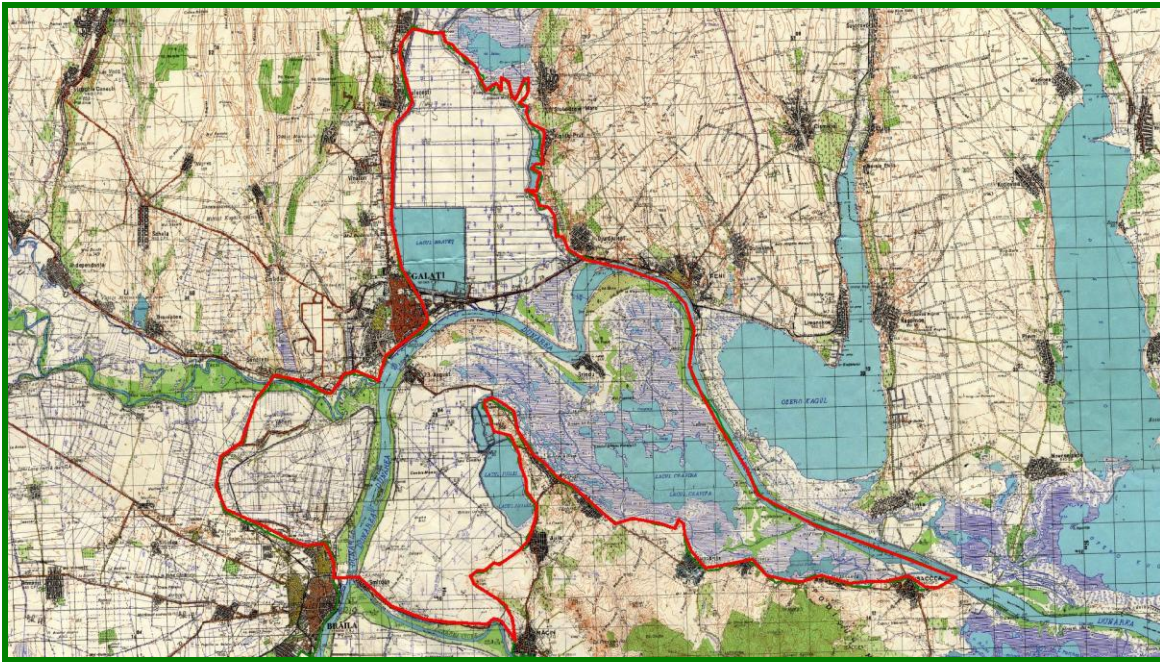


Figure 1. The project region Cat's Bend, near Galați

Various disciplines come together in a SketchMatch: spatial design, GIS, ecology, hydrology, hydraulics, economy, depending of the nature of the project and issues involved. The result of a SketchMatch is a spatial design, in the form of a ground plan, map, book, visual story, model, or whatever form suits the project best.

Often a SketchMatch creates a lot of enthusiasm and accelerates the decision making process. Participants begin to understand each other's interests and try to find jointly supported solutions. It increases support for a spatial plan or policy, because participants have been involved in the creation of it (Dienst Landelijk Gebied 2009).

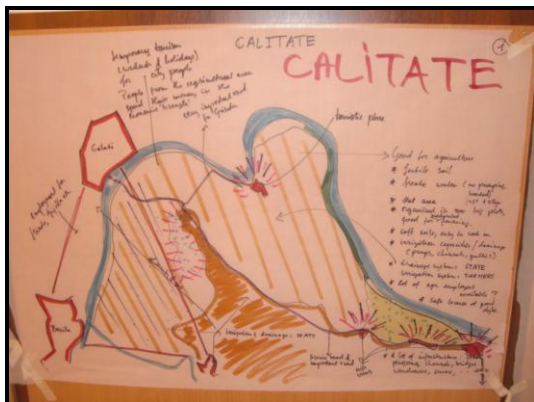
A thorough preparation, including a clear picture of the design assignment and the players involved, is very important. If the right people with the right expectations sit down at the design table, they increase the chance of success (Figure 2).

Initial aims of the SketchMatch in Cat's Bend were, in short:

- Introduce participants to this method of interactive design
- Explore suitable solutions to water management problems in Cat's Bend area. Suitable solutions are:
 - Support by the local, regional and national stakeholders
 - Fit to the usage and characteristics of the local landscape
 - Preferably in accordance with existing policy

4 Results

On the third day there was a resumé of the first two days in the sense of presenting all the sketches resulted from all the working groups. Also it was presented in plenary the general conclusions of the entire SketchMatch session. Furthermore, three sketches were made that include all three categories of issues that were followed in the SketchMatch session: *qualities* (Figure 3), *problems* (Figure 4) and *potentials* (Figure 5). Also on the last day, the project team's designers had the task to integrate these separate building blocks into one final, integrated design-map. They took the three concepts and combined them into an integrated sketch: the Schita Integrata (Figure 6). This Schita Integrata can be seen as the endproduct of the SketchMatch workshop, in which all the efforts and ideas of three days hard work come together.

[illegible]

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It is a regional perspective as an answer to:

- Regional climate issues like droughts and floods
- Regional socio-economic issues like sustainable land use in connection with economic development



Figure 5. Potentials of the Cat's Bend area



Figure 6. Integrated sketch

The three different design concepts, which compose the Schita Integrata are:

1. Connecting and restoring the old Danube branch and wetlands by a new west-east connecting channel along the Macin mountains. This new navigable canal will stimulate microclimate and economic development in the villages and will serve as flood channel at high water.
2. System of infiltration and drainage channels based on the existing system – to reinforce the potential for agricultural production and to improve microclimate.
3. Application of “Room for the River” measures: a dike-displacement north of Grindu locality and a flood channel south of Grindu, contributing to flood protection by reducing water levels of the Danube.

This cooperation between different stakeholders and experts had certain very clear results and advantages for the project and planning process:

- One result is 'raised awareness' among participants. In Cat's Bend, participants became aware of the nature of the region's water system and its interrelationship with other spatial functions (nature, agriculture) and other aspects (economic viability and microclimate). Participants also realized that integrated solutions are needed to solve such complex problems.
- Another aspect of this raised awareness can be called 'empowerment': stakeholders become aware of their own power to create solutions together and of the importance and benefits to cooperate with other stakeholders to reach these solutions.
- Conceptual flexibility is another advantage of the SketchMatch method, which ensures that problems and solutions are defined in such a way that participants support them. This adds up to the feasibility and stakeholders' support for measures once they are implemented. In Cat's Bend, the design assignment was changed so that it could accommodate stakeholders' views. This flexibility is an inherent strength of the SketchMatch, but also implies that end results cannot be predicted beforehand.
- The combination of spatial design and hydraulic modeling brings together facts and vision. In Cat's Bend, design concepts could be screened right away for their rough (hydraulic) effects. This gave participants a better insight into the probable effects of their proposals and discussions (Dienst Landelijk Gebied 2009).

5 Follow-up for the SketchMatch results

The SketchMatch for the Cat's Bend area resulted in an extensive dialogue and shared awareness of problems and solutions. It is important to consolidate and extend this awareness in the near future. Regional and national authorities have to make clear which elements of the proposals they will or will not adopt, based on clear argumentation. At the same time it is important that they state how they will continue to include local stakeholders in the following stages of planning and implementation of measures in the area. This is an important prerequisite to create and maintain generated local support in the near future. If authorities adopt local stakeholders' ideas and anchor these in new policies, this may create a driving force for a successful and sustainable development of Cat's Bend area. Such a development will safeguard the area from future floods, while at the same time stimulating economy, ecology, the resilience of the water system and the living conditions in the Cat's Bend villages.

The SketchMatch can connect top-down thinking (policies or studies like REELD) with bottom-up acting (like the solutions defined by stakeholders in a SketchMatch session). A SketchMatch can generate usable concepts on both the (inter)national level of policy, focusing on the whole Danube Basin, as well as on a local level, focusing on a particular project area. Using this method in national, regional and local planning processes and equipping staff with the required skills is therefore advisable (Dienst Landelijk Gebied 2009).

6 Sketchmatch session conclusions

The Cat's Bend SketchMatch must be seen as a first step in a long process; as the start of a (renewed) dialogue between policymakers and inhabitants, laymen and experts. The SketchMatch's outcomes need to be worked out in more detail, so that they can be incorporated into new policies and be implemented in the future. Local, regional and national administrators must take the lead in this process and continue to work together with local inhabitants, farmers, entrepreneurs and other stakeholder parties (Dienst Landelijk Gebied 2009).

The following main issues were identified: ecology versus economy; use current values and investments; take future management into account; create combinations.

During the SketchMatch session the following principles were developed: "Room for the River Danube"; agriculture and improvement; the old Danube and gradient.

One strategic note is that the project area is only a very small part of the Danube Basin; this implies that it can only provide a small contribution to the catchment approach or river basin management.

The SketchMatch integrated several aspects (technical, social, economic).

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