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Participatory process management

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Abstract: Although the process of public and stakeholder participation continues to be intensively investigated and discussed in academic circles, the implementation of participatory methods in practice remains problematic. This can be attributed to the lack of knowledge transfer on the one hand, and the general underestimation of participatory approaches in planning processes on the other.

A possible solution - participatory process management - is introduced in this article. Participatory process management means that all participatory activities are embedded in the overall planning activities of a project. The most significant criteria for a participatory process are identified as 'objectives', 'constraints' and 'process' which together form a framework for combining generally applicable methods with local constraints and the objectives of a project. The main elements of the participatory management framework introduced here are levels and classes of participation and a generic process scheme including monitoring and evaluation of participatory processes. This work is based upon long-term experiences of consultants and scientists. However, the insights from the InterReg project TRUST are particularly valuable and confirm the hypotheses that different water management projects are comparable in terms of their participatory process performance. The participatory management framework is a step forward in closing the gap between scientific knowledge about participatory methods and their applicability in practice.

Keywords: participatory management, process planning, guideline for the use of methods, objectives, constraints, choice of participatory methods

1 INTRODUCTION

The incorporation of participatory processes in water management and planning is often poorly conceived, and the impact of stakeholder participation on an entire planning process is frequently mis-interpreted or underestimated. With the release of the European Water Framework Directive [EU, 2000] public and stakeholder participation is prescribed, and the synthesis of expert and lay knowledge is recommended.

Best practice guides on the application of participatory methods have been produced in plenty over the last two decades. However, in many cases a systematic and complete guideline is missing or a specific focus, for example on social learning, communication, democratisation and others, may superpose other significant issues in participatory processes. Although a comprehensive literature review has been done, this article only allows for a few examples:

Ridder et al. [2005] focus on social learning process, give practical advice on how to approach stakeholders and the public, and how to communicate with them; provide water managers with detailed descriptions of chosen participatory methods; and provide a number of conflict-solving approaches. Furthermore, a general structure of participatory processes, a procedural flowchart and an approach to monitor and evaluate the participatory process are identified. However, consis-

tency between methods, structure, monitoring and procedure is rather weak. Procedural schemes are mechanistic and not flexible. The descriptions of the general framework and specific methods and how-tos could be more balanced. One section lists and describes particular methods with reference to a particular phase of a participatory process. However, there is no reference to the 'levels of participation' in which these methods reside. For non-experts this might be confusing, since GIS-methods stands beside role playing games, maps, group model building and others. This book " Learning together to manage together" gives some valuable advise for those individuals and groups who want to know more in how to implement social learning processes in a planned participatory process.

Elliott et al. [2005] provide the reader with general guidelines for the design and realisation of a participatory process, and an in-depth description of a chosen number of participatory methods. The general guidelines give valuable advise for participatory managers, however, a systematic approach in terms of levels of participation as well as a general procedural guideline is missing. Costs and effort are discussed in detail, but oscillate between general remarks and pedantic recitals of how much paper, pencils or word processors are required. The description of participatory methods is detailed, however, the choice is elusive. GIS, role-playing games, mental mapping, group model building and other methods are missing. This book can be valuable, if particular methods are required, and as a source for particular tips and guidelines.

Wates [2000] is a valuable source of practical knowledge about numerous participatory methods that are especially useful for community planning. Some general hints of how to design and implement a participatory process are given, and an interesting 'participation matrix' was developed. However, the general principles have no structure and are rather superficially described. The methods part however, reveals sound knowledge and experience of the author, although it is not complete. Many, sophisticated methods such as group model building, mental mapping or similar are missing. Moreover, there is no system that relates the methods to a general frame work.

Bousset et al. [2005] is another recent guideline of how to apply participatory methods. The choice of methods is limited, and there is no overall framework in relationship to the chosen methods. However, this document holds a comprehensive description in how to implement monitoring and evaluation of a participatory process, including stakeholder feedback.

This short review is far from being complete, but the examples above demonstrate that much work has been done to produce valuable guidelines supporting 'participatory managers' in their search for designing and implementing a participatory process in their planning activities. On the other hand it reveals the complexity of integrating planning procedures such as water resource management, community planning or agricultural projects with participatory processes. This way many guidebooks are not complete or focus on particular topics such as social learning or on particular sectors such as community planning. Moreover, the consistency between a general framework, levels and classes of participation, a process scheme, the applicability of methods as well as the application of evaluation and monitoring is missing. Generally, most authors avoid generalisations that go beyond their sectoral approach. In other words case-study specific or sectoral constraints determine the guidelines to a great extent. This however, makes it more difficult for planners and managers to transfer the guide-book knowledge to their specific projects.

Moreover, planners and managers are often not trained in the field of participatory processes, and thus overwhelmed with the multitude of methods from which to choose or simply do not know of their existence. They may also lack knowledge of the implications of employing particular methods within a planning process. As a result, methods are selected based upon the experience of the responsible authority, which is often limited, and does not permit space for experimentation and expansion of available knowledge. In other words, contrary to well-educated engineers, planners or ecologists there are usually no properly-educated 'participatory managers'. The role of the participatory manager is often taken over by communication officers, engineers, planners or ecologists, who may not be explicitly trained to manage a participatory process.

The following sections present an approach that may support water managers in choosing from a

variety of available methods, find the balance between local specifics and common procedures, as well as between domain and expert knowledge such as engineering methods, ecological impact assessment and participatory approaches.

2 ASSUMPTIONS, INDICATORS AND FRAMEWORK

The design of an appropriate participatory management strategy can be characterised by three distinct indicators: (1) process (2) constraints and (3) objectives. *Process* implies the available methodology its costs and capability as well as the consequences of applying particular methods [Krywkow, 2007]. *Constraints* refer to the boundary conditions of a particular case study. These conditions include:

- the physical environment such as land use, size of a river basin, climate and weather, geology, slope and others;
- the stakeholders and lay people who are involved in a particular land-use activity or have particular interest in the management of the region under investigation;
- the available resources: budget, time and staff;
- legal constraints such as planning permissions, the right of the public to comment/object to planning proposals;
- cultural and behavioural differences which distinguish countries or regions.

Objectives are significant indicators of a participatory process. Objectives of the planning process and its participatory process have to be distinguished clearly. The latter may include knowledge elicitation, problem identification (of the overall planning process), conflict resolution, seeking consensus, finding support for maintenance. In other words, the objectives of the participatory process determine to a large extent the combination and application of participatory methods. Project goals may however, include sustainability, improving the infrastructure, increasing safety, improving biodiversity, improving drinking water quality, changing resource management and many more. Within a project it is crucial to distinguish between the overall project goals and the goals of the related participatory process. Commonly, the goals of a participatory process integrate into the overall project goals.

3 LEVELS OF PARTICIPATION AND CLASSES OF METHODS

From a methodological point of view a participatory process may reach four different levels of participation: (1) *information provision*; (2) *consultation*; (3) *active involvement* and (4) *social learning*. Levels of participation do not indicate a sequence for the application of methods, but the quality of interaction between managers, experts and lay people. For instance, information provision is a one way communication from managers to the public or stakeholders. Whereas consultation already includes a dialogue, and social learning an intensive exchange of opinions, knowledge and views that may result in a change of perspectives among individuals and groups at the end of a process [Arnstein, 1969; Mostert, 2003].

In addition to the levels of participation Hare and Krywkow [2005] summarised the main participatory methods in classes and displayed those in relationship to the levels of participation (figure 1). It became necessary to subsume methods into classes, since many different names exist for similar methods. The classes then enable users to evaluate methods that are not listed in Hare and Krywkow [2005]. Classes and levels of participation are a guideline for participatory managers. However, additionally Hare and Krywkow [2005, pp.21-48] provide potential users with an overview of indicators of methods such as: cost/effort share, expertise, moderator skills, user mode and computer application. Moreover, the effort involved in applying various methods in terms of staff resource, time, tools and miscellaneous costs is estimated in terms of in preparation, execution and analysis phase. This 'catalogue of participatory methods' together with the

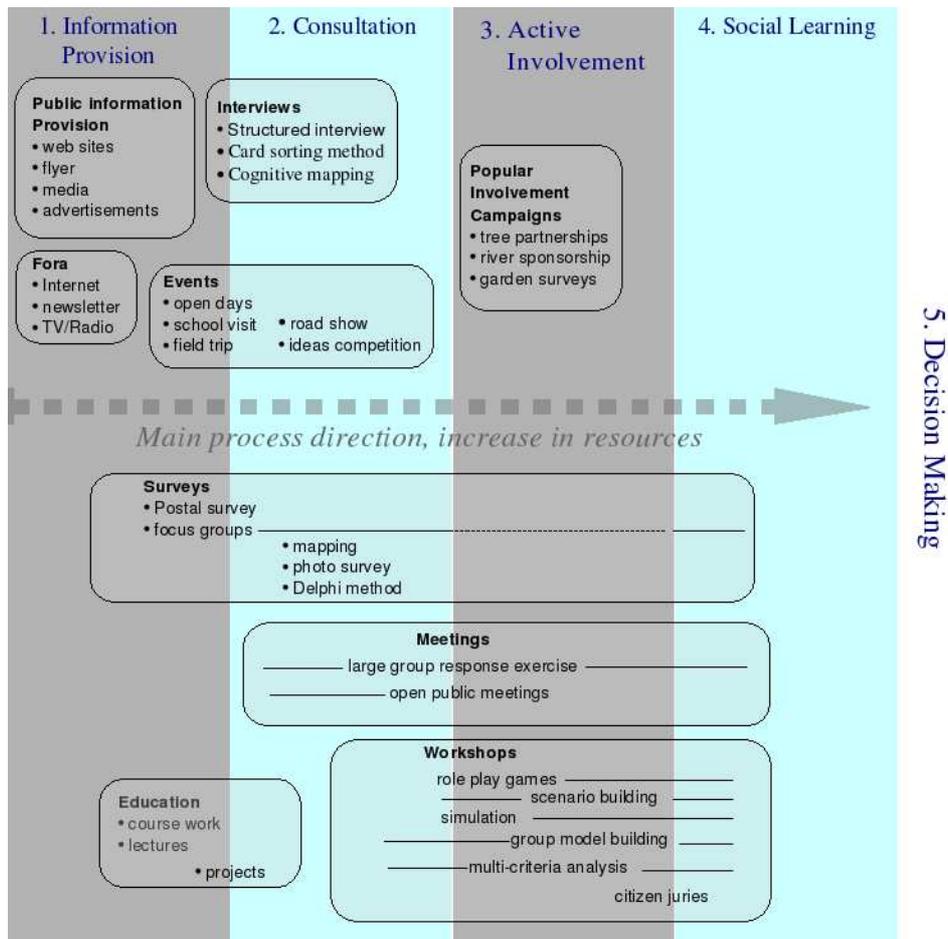


Figure 1: Levels and classes of participatory methods [Hare and Krywkow, 2005, p.19]

levels/classes overview enables the user to determine the applicability of methods within a given project.

4 PHASES OF A PARTICIPATORY PROCESS

Throughout the collaboration phase among water managers, scientists and consultants in the Inter-Reg III project TRUST¹ [Krywkow et al., 2007] it emerged that levels, classes and the catalogue of participatory methods as described above were, in practise, not easy for water managers to comprehend. The link between the process indicators and practical constraints was not strong enough. For this reason Krywkow [2007] developed a first draft of a universal framework based upon *phases* of participatory processes in water management projects. The TRUST project revealed that although the five case studies involved have different planning themes and objectives, the course of each participatory process has a similar pattern. In this way a comparison of the various participatory processes is possible. This enabled scientists and consultants to develop a set of universal, process-oriented guidelines for designing and conducting a participatory process in water management projects.

Independent of its constraints, a participatory process can be partitioned into four phases:

1. *preparation phase*: problem analysis, stakeholder analysis, resources analysis, goals analysis, drafting a participatory plan;

¹<http://www.trustpartners.org/>

2. *publication phase*: introducing the public and stakeholders to the planning objectives and problems, envisaged solutions and measures including possible impacts on the social and physical environment;
3. *dialogue phase*: additional and deeper information provision, knowledge elicitation, education, detecting planning design errors and yet unknown side effects;
4. *response phase*: education, social learning, recruiting volunteers, scenario building, model validation, finding consensus or compromise, adjusting planning goals.

The list above indicates a number of tasks for the water managers as well as participatory methods that are applicable in one or more specific phases of a water management project.

4.1 Preparation phase

Before a participative process can be initiated, a sound preparation is required including the analysis of stakeholders, resources and budget as well as setting of the agenda (participatory plan). The course and, at the end, the success of a participatory process both depend on these factors. When preparing the process, managers must be aware of maintaining the balance between a well organised schedule and sufficient flexibility for applying participatory methods.

Co-planning or expert planning. Expert planning is a planning procedure where a planning draft is designed by experts (planners, engineers, ecologists, etc.) and presented to lay people. Co-planning is a process where a project idea may emerge among lay people, and is (co) designed by experts and lay people together. If an experienced planning authority can propose a planning draft that is open for discussions with the public and stakeholders, it can be as transparent and adaptive as a planning draft that is developed by a group consisting of both experts and lay people. In the case of a co-planning approach planners, however, must maintain control over the participatory process. Co-planning requires stakeholder identification before a planning draft can be designed. Otherwise, there is a risk that some groups and individuals may be excluded.

If the project uses a co-decision approach, the problem analysis must be conducted together with the participating stakeholders. If the project is an expert approach, a problem analysis comes first, and subsequently the relevant stakeholders must be found. In both cases, however, stakeholder as well as problem analyses must be flexible and repetitive, and should reach into the next phases of the participatory process.

Goals and limitations. Similar to a communication plan goals are a significant guideline for designing and implementing a participatory process. First, there are several types of goals:

1. goals of the overall project such as improving safety, environmental protection, sustainability, better access to and functionality of recreational areas, better infrastructure and many more. Within these main goals there may exist subgoals (e.g. safety may consist of risk reduction and increased protection). Note that goals and sub-goals of stakeholders and the public may significantly differ from the planning objectives of the planning organisation or the consortium involved in a particular project. Therefore, it is crucial to identify the goals of all involved stakeholders throughout a participatory process;
2. goals of the participatory process such as developing consensus or a compromise, satisfying stakeholders, increasing the reputation of the responsible organisation, identifying the appropriate measures, detecting undesired side effects, designing a transparent, democratic participatory process.

Goals of the participatory plan usually depend on the overall project goals. At the end the participatory process is supposed to support the project or planning goals. However, project goals may not be confused with the goals of a participatory process. Goals may be defined with reference

to the planning organisation's own goals, the goals of the local, regional, national or European governments and of course the goals of stakeholders and lay people. Limitations that cannot be modified throughout a participatory process may be legal, environmental or budget constraints and limited space. Since budget can be a limitation, it is advantageous to not only include participation as part of a planning process from the beginning, but also to allocate sufficient budget for the participatory process throughout the design phase of the planning process. It is helpful that all involved parties of the participatory process are aware of all the goals and limitations.

Problem identification. As soon as a first planning draft or concrete ideas for a project are available, the main issues as well as potential problems and side effects that are relevant for the planning process from the point of view of the planners should be identified and documented. This helps to avoid surprises at initial stakeholder meetings.

Stakeholder analysis. There are two purposes of stakeholder analysis: to identify the possible stakeholders in a project, and to categorise them according to a framework that can allow you to make decisions about how to involve them, or not, as the case may be. Categorisation of stakeholders also helps water managers to make explicit the assumptions about the nature of the stakeholders so that within the planning organisation the involved parties can discuss the basis of these assumptions. Stakeholder analysis is essentially a three stage, iterative process:

1. Identify stakeholders
2. Categorise stakeholders
3. Select stakeholders.

Communication. Sufficient communication is a crucial requirement for a participatory process. However, participation is more than communication. Indeed, a *communication plan* is helpful for projects that include multiple planning organisations and stakeholders. With a communication plan managers can assign responsibilities, identify tasks, provide stakeholders and the public with key contacts, keep track of what was said and written, and more. A communication plan should have a clear objective. Objectives of the communication plan must be compatible with the goals of both the overall project and the participatory process.

Tasks and resources. Before the actual participatory process starts, resources and tasks have to be allocated. Funding, expertise and man power are limited resources. The participatory process must accompany the planning process. If participation is both a vital part of the entire project, and is initiated at the outset of a planning process, then it should be feasible to allocate resources such as available staff, costs for professional advice, computer capacity, locations for meeting, printing costs etc..

Some methods that involve, for example, the use of complex models and analysis tools are not always easy to apply, and universally understandable. External experts are helpful, and despite primary costs, their recruitment can help to spare financial resources and increase the level of participatory applications. An estimation of costs of and effort required by particular methods is provided in Hare and Krywkow [2005, pp. 21-49].

Monitoring a participatory process. Monitoring and evaluation can support a successful participatory process, and may help to avoid process failure. Therefore, it should be prepared and initiated as early as possible. A planning sheet such as described in Krywkow et al. [2007] is an appropriate means for recording a participatory process. This approach serves two purposes: 1) a planning sheet can be seen as a logbook for a project and its participatory process, that helps planners to keep track of all phases of the project; and 2) regular stakeholder feedback can be planned and incorporated in the process from the outset. When setting the agenda of the participatory process (participatory plan), dates for monitoring activities should be incorporated. Stakeholder feedback on the participatory process may not be confused with feedback on planning options. An

in-depth description of monitoring and evaluation of participatory processes is provided in Rasche et al. [2006].

Designing a participatory plan. Once problem identification, stakeholder identification, goals, resources and a communication plan, are settled, a first draft of a participatory plan can be designed. Planners are in a dilemma, since stakeholders might expect both a well-organised and efficient agenda as well as sufficient flexibility to incorporate new stakeholder perspectives and eventually new criteria and side effects. In other words water managers need an adaptive management agenda both for the entire planning as well as for the participatory process. However, a number of activities can be planned well ahead:

- *Information provision:* managers have to choose the means of informing the public and stakeholders such as websites, announcements in newspapers, face-to-face contacts, flyers, posters, etc.;
- *Surveys and interviews* can help to understand the perspectives and interests of stakeholders and the public;
- *First meeting with stakeholders or the public:* the main purpose should be providing more information in greater depth and knowledge elicitation. This meeting is important, since it can determine the further course of the project;
- *Miscellaneous activities,* depending on the results of the first meeting: space should be given for additional activities such as site visits, training for volunteers, popular involvement campaigns, survey or events ;
- *Response meeting:* This meeting should be used to display the results of knowledge elicitation and consequences of chosen solutions on the physical and social environment, as well as introducing new solutions and discussing them, if necessary;
- *Further activities* such as workshops, voluntary work, educational activities, etc.;
- *A final event* such as an on-site festivity, a final conference etc..

The participatory plan can be seen as a link between theory and practice, between objectives, local constraints and the available methodology. With the participatory process the participatory manager is able to adjust available methods and resources to the given circumstances of a specific location.

4.2 Publication phase - Information provision

The publication phase falls, of course, within the realm of communication. Sufficient information provision requires a well-functioning communication process. Information provision is one-way communication where information about a new project is published. In most cases legally prescribed means of information provision such as an official announcement in the local newspaper or a weekly neighbourhood journal is not sufficient. A comprehensive website is nowadays one of the most suitable ways of providing information, and should be used as a basis for all supplementary information such as brochures and fliers. The website should not be a mere advertisement, but also provide detailed and up-to-date planning documents, maps, calendar of (planned) events and any available information that may be published according to the communication plan. For people without Internet access there must be a well-known location to view and browse the same documents. Depending on the available budget, regular advertisements in conjunction with reference to more detailed information in local media are preferable to flyers and colourful booklets. Individuals and groups must have a chance to react. These reactions have to be documented. The documentation helps to recognise possible design errors at a very early stage of a planning procedure, identify 'difficult stakeholders' and (potential) conflicts. In the recent years planners have started to provide the public not with a first and only draft of a

plan, but with a number of planning alternatives. This is a step forward towards more flexibility and adaptive water management, but it entails two contradictory problems: 1) a part of the public may be confused, and may have problems in comprehending these alternatives; and 2) the public may only choose between the provided alternatives, which introduces a new inflexibility. One solution might be a very explicit explanation of the options and the public should be repeatedly be asked for their level of awareness. Another approach could be to design just one map indicating the variable elements, and have a precise description of the variability of these elements in addition to the map.

Furthermore, the 'information provision' phase can be used to find yet unknown stakeholders and interest groups. As indicated the section 'communication', there should be a central contact address and person to whom interested new individuals and groups can refer. This is especially important for large projects that involve a consortium of planning organisations.

Additionally, individual and personal contact 'in the field' is always useful. On-side work can be efficiently coupled with publicity. Every project employee should be able to communicate with local stakeholders and the public, and be able to point out at least relevant contacts on specific issues. Besides identifying new stakeholders, this will build up trust and consolidate contacts.

4.3 Dialogue phase

Surveys and interviews. Planners have to make a decision how knowledge elicitation can be accomplished in the best way. If most stakeholders as well as current public opinion on relevant issues are known, the next step can be a meeting. However, it may be preferable to interrogate the public and/or stakeholders to find out about their perspectives on the relevant issues, before bringing them together. The results may be used in preparing a meeting and other subsequent participatory methods.

The first public meeting. After all available electronic and print media have been employed to inform people, a public or stakeholder meeting is recommended as a next step for several reasons:

- awareness raising;
- relevant information can be provided to the public or stakeholders in more depth;
- first questions can be answered, misunderstandings can be cleared up;
- yet, unknown stakeholders can be identified;
- stakeholder perspectives and opinions can be identified and categorised;
- side effects, and previously neglected problems or anticipated problems may be identified;
- opinions on the effectiveness of information provision can be collected (monitoring).

However, project managers and planners have to decide in which phase of the participatory process a meeting is advisable. Significant indicators may be:

- Has all collected information been pre-processed and available?
- Is the staff who performs and supervises the meeting appropriately prepared?
- Are all relevant parties able (and willing) to participate in the meeting?
- Ensuring that all individuals and groups will not be excluded from subsequent participatory activities?
- Can eventual mutations such as the transition from public to stakeholder participation be anticipated and handled?

A public meeting must be well prepared, and methods especially for knowledge elicitation, must be thoughtfully selected. When applying knowledge elicitation it is crucial to distinguish between asking stakeholders for their knowledge, preferences, and interests about the (desired) state of their environment and preferred measures to be implemented.

Small groups can be more easily handled than larger groups, and a variety of methods for this management is available. For larger groups a 'large group response exercise' is advisable.

The performance of a (first) meeting can be trend-setting for the course of the subsequent participatory process. For this reason the support of a professional moderator is recommended, if the planning organisation or consortium itself does not have a sufficiently trained or neutral moderator. They should be prepared to collect information about the quality of the meeting and the participatory process thus far (monitoring). The meeting itself must have clear goals and provide every involved person with tangible results. One result must be a programme for the participatory process (a participatory plan).

Analysis of public meetings and related activities. A thorough and well-structured analysis of the meeting and the preceding participatory process is a determining factor for the further participatory process from now on. At this point all relevant stakeholders should be known. All problems, new criteria and new findings must be identified, analysed and categorised. Further steps depend on the results of this analysis. In other words, this analysis helps the water manager decide how to proceed. The combination of the goals of the planning procedure and the participatory process provides the manager with a number of options. Here are some examples:

- Public or stakeholder participation: At this point it should be clear if a participatory process with stakeholders, the public or a combination of both is the dominating process;
- Stakeholder categorisation: After the identification of stakeholders, before or after the initial provision of information a categorisation of stakeholders is highly useful. This provides an overview of relevant stakeholders, and distinguishes them according to their perspectives and interests. Particularly, when a large number of groups and individuals manifest their interest in the participatory process, it is important to have an overview of stakeholders and their representatives;
- Is the involvement of volunteers useful and helpful? If so, this should go into the planning of further participatory activities including course work, workshops, creative activities, etc.;
- Consensus or controversy: this is one of the most sensitive issues in a participatory process. If conflicts are detected, apply 1) social learning methods such as role playing games, scenario building exercises, citizen juries, nominal group technique, group model building or similar methods, and 2) response methods: views and perspectives of particular stakeholders may be tested with models and simulations in order to display the consequences of individual management options on the project;
- Has the meeting revealed (planning) design errors such as missed criteria, side effects, hidden costs, etc.? If so, the original plan or draft should be modified, and introduced to the public and stakeholders in a new meeting or information campaign;
- If stakeholders have a significant knowledge deficit, educational activities or awareness raising activities are recommended.

At this point a definite participatory plan including a planning sheet should be developed.

4.4 Response phase

The design of the response phase within the participatory process depends on the analysis of a first meeting and related activities. The following methods may be applied:

- *educational activities*, if there are still knowledge gaps among stakeholders, but also professionals;
- *events* can help to increase the public awareness and popularity of the project;
- *popular involvement campaigns* can recruit volunteers, and take advantage of the labour and creativity of lay people. Besides idealistic, artistic and monetary benefit, these activities may increase the sense of ownership significantly;
- for a *follow-up meeting*, collected, analysed and processed records and other information must be available, so that this activity does not repeat the effort of a previous meeting.

Stakeholder analysis and categorisation including the various views of the stakeholders should be completed. In this particular meeting stakeholders may already be confronted with scenarios or planning options that include various perspectives, and indicate the consequences of particular options on the individual stakeholder or groups as well as the variety of possible consequences on the affected community. Appropriate methods are (environmental or economic) models, maps with planning alternatives, 3D models, story lines and other. Stakeholders should be able to comprehend the methods, and draw conclusions.

Working with models and scenarios. The use of models and scenarios can be part of a follow-up meeting. Whereas stakeholders and lay people were asked to provide their domain knowledge to planners, experts have to review their own plans and models. In a way this step within both the planning process as well as the participatory process can be seen as a validation and verification of the plans and the available models respectively. If stakeholder perspectives have proven that the plans are not viable, the plans should be modified and employed in a new validation round with stakeholders. All perspectives of stakeholders, however, should be processed with the available methods such as models, simulations, thought experiments or scenarios, and displayed as well as discussed with the stakeholders. Participants must be chosen in a way that those individuals are able to comprehend the methods and all groups are sufficiently represented. In particular, interactive model approaches require a great deal of expertise and moderation skills. In many cases it is advisable to employ an external expert.

Final event. At the very end of the implementation phase of a project it is advisable to run an event that brings together all stakeholders and managers. This may be a final conference, a street party, field trip, etc. The purpose is to create a sense of ownership and community. The latter is important for acceptance, maintenance and sustainability of the overall project.

5 LESSONS LEARNED FROM THE TRUST PROJECT

As mentioned in section four, even after providing the project partners with a document containing guidelines, tips, a systematic overview of participatory methods and the catalogue of methods [Hare and Krywkow, 2005], the water managers still had problems to apply these methods to their local projects. It was simply too abstract for planners, engineers, communication officers and ecologists. At the same time the listing of the various professions indicates that in water management projects, independently from the planning context, most professions are well cast except the position of a 'participatory manager'. At the start of the project the impact of a participatory process was underestimated or misunderstood. One project manager viewed the participatory process as risk management in the beginning of TRUST, but completely changed at the end. The co-development of participatory plans with consultants was a step forward from the point of view of water managers. However, the consultants' support was still required. Afterwards the managers still asked for a 'cookbook' of participation, which resulted in the procedural approach indicating what methods and tasks are most useful at which phase of the project. A cookbook is not possible and would be too inflexible and mechanistic. However, the integration of the guidelines [Hare and Krywkow, 2005] with the procedural framework [Krywkow, 2007] was better comprehensible for most of the partners. Probably, the most significant insight of the TRUST project was the fact that

the same participatory management scheme was applied to five water management projects coping with five completely different project goals (canal restauration; enlargement of a recreation area; building a pumping station in combination with canal broadening; building a freshwater reservoir and building water purification ponds in a park) spread over for different European countries. In other words the impact of local and regional constraints is not the prevailing factor for the design of a participatory process. This fact was underpinned by the effective and successful process of capacity building, the comparability and multi-national exchange of experience in the field of participatory processes. A comprehensive documentation of the TRUST experience is provided in Krywkow et al. [2007].

6 SUMMARY AND CONCLUSION

This paper is an attempt to provide practitioners in the field of water management with tangible advice how to organise a participatory process within a water management project. There is much emphasis on the implementation of methodological knowledge (process) in the specific physical and social circumstances of a local or regional project (constraints). Much effort in research and consultancy work was required to generate this framework for 'participatory process management'. However, it has been the collaboration between water managers, consultants and scientists in the TRUST project that has contributed to this effort, and revealed a number of gaps between available participatory process guide books and the day-to-day work of water managers.

The guidelines such as described here can be seen as sort of 'optimisation' of a participatory process, and is fully consistent with section 14 of the Water Framework Directive [EU, 2000, L327/16]. The novelty of the participatory management framework is the process oriented guidelines with the main criteria: (1) the systematic view of projects including the criteria *objectives*, *constraints* and *process*, (2) the close interrelationship between project planning and the participatory process, (3) monitoring and evaluation of the process with the possibility of stakeholder feedback, and (4) a generic process scheme that is applicable to many cases independent of their constraints.

The literature examples in the introduction of this article as well as the experience of the TRUST project indicate that providing useful guidelines for managers, planners and scientists who are not experts in participatory process management remains a challenge. The virtue of this participatory management scheme is that individuals and organisations who have no experience in participatory processes are enabled to obtain an overview of available methods within a systematic framework, and quickly learn about the required steps and tasks to undertake within a procedural framework. Furthermore, together with evaluation and monitoring efforts managers are encouraged to integrate the participatory process in the other planning and implementing activities. This holds also for scientists who apply models in a human-environment context. The participatory management scheme may help those modellers to better embed their models in a participatory process. The expected benefit is an improved communication and social learning process between modellers and stakeholders, a better understanding of the model as well as an appropriate model design in regard of stakeholder requirements. This article can only give a brief overview of guidelines for water managers. A more comprehensive document will follow this one.

In summary it can be said that an appropriate participatory management process enables managers as well as modellers to improve the results of a planning process and its maintenance, increase the acceptance of results and prevent or at least minimise unwanted side effects. This all assumes an adaptive and transparent governance style that truly accepts the participation of lay people, and allows engineers or planners to adjust their calculations by incorporating domain knowledge.

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