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ROOM FOR RIVERS, ROOM FOR PEOPLE: THE 'FREUDE AM FLUSS' PROJECT AND THE JOINT PLANNING APPROACH

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Abstract

Flood protection is on the agenda of many European countries. In the European project 'Freude am Fluss' (FaF), Dutch, German and French partners co-operate on land and water management along the Rivers Rhine and Loire. Point of departure of the project is more room for the rivers. This means, for instance, that dykes may have to be relocated and side channels have to be dug. Generally, such measures encounter local resistance. According to the Freude am Fluss concept, the often opposed interests of flood protection, nature management, economy and local communities can be reconciled. Room for the river measures also offer opportunities for ecological, rural and urban development that may enhance local identity, quality of life and economy. This, in turn, may form the basis for involvement of local communities that is much stronger than just the standard participation in centralized planning. One of the objectives of the Freude am Fluss project is to develop a Joint Planning Approach (JPA), a methodology that can be used in realising projects that combine room-for-river with local development measures. In this paper we describe the principles of the FaF project and the JPA method, and the way the JPA will be developed. The paper illustrates all this with a number of cases from different countries, planning situations and envisaged solutions. They intend to show that already today, communities and authorities work in a perspective of local benefits of room-for-river policies and collaborative planning.

1. Joint action in the Overdiepse Polder

Under the local chestnut tree, two farmers of the Overdiepse Polder, situated along the Meuse River in The Netherlands, invented the idea to relocate their farm houses on artificial mounds ('terpen'). The objectives of their *terpen* are to meet the national policy goal of creating more room for the river and to safeguard the long-term perspective for their farms.

The Overdiepse polder was settled only some 25 years ago. The community is still closely bonded, although only one family of the original settlers remains. Everybody helps each other. When the farmers received the first messages of the new national policy plan 'Room for the rivers', they took the initiative. In stead of a reflex to oppose national planning they discussed on how to redefine their their polder as a retention area and yet continue their farm. In the new plan, the polder will have an inundation frequency of once in 25 years but damage to farming operations will then only be slight. The farmers founded a residents association to carry out their '*terp plan*'. This way, they hope to accelerate the decision-making process. "If something has to be done", they told the river managers, "then quickly and on our conditions".

The Overdiepse Polder is one of the projects in the framework of the Dutch national policy plan Room

for the Rivers. This plan aims at creating room for the rivers needed for discharge of the high peak flows expected because of climate change. The polder was one of the first options for a water retention area because of the former function of the land as flood-prone area. The Overdiepse Polder, situated along the Meuse, was flooded regularly until the end of 1960s, when the Haringvliet estuary was closed, and the farmers are still familiar with river dynamics.

The case of the farmers of the Overdiepse Polder shows that the dreaded not-in-my-backyard (NIMBY) reaction of local communities is not as pervasive as policy-makers are inclined to think. The case of the Overdiepse polder is a good example of what the European *Freude am Fluss* project intends to generalize.

2. Principles of 'Freude am Fluss'

'*Freude am Fluss*' (FaF) is an EU-sponsored project with partners in The Netherlands, France and Germany, with the major aim to explore and demonstrate new approaches for embedding 'room-for-river' policies in society. Room-for-rivers is the catchword of the policy idea, now dominant over all Western Europe, that rivers should be given more horizontal space to drain their peak flows, instead of squeezing them between ever-higher dyke. In the past, natural floodplains have been dyke in order to keep the rivers out, and industries and build-up areas have sometimes sprawled into the narrow floodplains left. As said, climate change is expected to give rise to higher peak flows, and continuing to raise the dyke to confine these waters is a dangerous dead-end street. Flood levels will rise more and more and dyke breaches will increase in frequency and risk to human lives and goods. Another disadvantage of this measure is that people behind the dykes feel that they are safe but in practice this can be questioned.

Room-for-rivers can partially be realized by means that do not arouse great resistance in society. Groins and floodplains may be lowered, for instance, and approach dams to bridges that cut through floodplains may be opened up, so that water may pass underneath. After picking this low-hanging fruit, however, making room for rivers may imply the moving of dyke, infrastructure, farms, residences or industries, the designation of emergency flooding areas that expose communities to increased flooding probability or ugly dykes around the village, and suchlike measures that are not likely to be spontaneously embraced locally. How can authorities deal with the resistance they will encounter? How to prevent the high cost, long delays, policy failures, missed opportunities and miscommunication that usually accompany conflict?

The example of the Overdiepse Polder shows that other ways are possible, too. The point of departure of the '*Freude am Fluss*' approach is that living along a river does not only bring risks and other disadvantages to the local community, but also *Freude*, that is, benefits in terms of cultural identity, landscape beauty, quality of life and - if these qualities can be marketed to outsiders - economic benefits too. What river managers may do, therefore, is to design and discuss 'planning packages' that do not only include the difficult sides of making room for the river, but also include measures that enhance the local river benefits. They may then link up with many ongoing initiatives of villages, towns and cities that have recently rediscovered their river as a source of identity and quality; see the cases in section 4. That way, river management can become a two-way affair between the ideas and interests of local communities and the larger-scale rationalities of river basins as a whole.

The *Freude am Fluss* project is designed to strengthen this inclusive approach. The project does so working by working on two levels. The first of those is the level of room-for-river plans and projects. One of the activities of FaF is to enhance the exchange and learning from present-day inspirations, plans, experiences and achievements in the three countries, illustrating the approach of meeting the interests of various actors in room-for-river projects. This is already clearly a good in itself, but it also

serves to generate knowledge that feeds up into the second level of the project. That second level concerns the methodology for optimal planning of room-for-river plans and projects as a two-way process. 'Joint Planning Approach' (JPA) is the name given to this methodology in *Freude am Fluss*. The project is designed such that the results of the JPA effort will be fed back into the level of plans and projects, by way of an informal application of the JPA principles on a number of selected regional and local planning situations. This in turn will help improve the JPA itself.¹

In this paper, we address two basic questions concerning FaF and its JPA. The first question concerns what may be called the 'FaF-ability' of the world. To which extent is the optimistic FaF vision also a realistic vision? We will address this question in the next two sections. In Section 3, we will give an overview of the goods that rivers bring to local communities and the 'economic drivers' that these goods may be turned into. In Section 4, we will present a number of present-day examples of plans that already express much of the FaF vision. The second question we address is what this "two-way affair", this JPA, is more exactly and how its construction will be organized in the FaF project. Thus, Section 5 focuses on the principles of the Joint Planning Approach and Section 6 on the envisaged JPA development process.

3. The FaF-ability of the world: An overview

Let us assume a situation, rural or urban, where making room for the rivers may not only involve small-scale removal of hydraulic constructions but interventions with real spatial impact, such as the relocation of winter dykes, the removal of infrastructure or industry from the floodplain, the construction of a flood bypass at the 'backside' of a riverside town or the re-establishment of natural spill-overs where water may flow into lower-lying areas. In such situations, the local community will be involved in the planning process one way or another. How to avoid that this will end up in only superficial negotiations over marginal mitigation, bickering over financial compensation and the loss of cultural-historical aspects of the landscape? In other words, what can be the additional elements that may be brought into the planning process so that local communities may come to view the planning problem as an opportunity in which there are also local benefits to discuss and optimise? We will first give the general picture, and then focus on the economic aspects.

In the first place, room-for-the-river often presents opportunities for new room for nature, too. These new ecosystems, logically, will usually be floodplain ecosystems, which in most circumstances will be of a relatively nutrient-rich, dynamic and versatile type. The new ecosystems offer opportunities for biodiversity as such, but their dynamic versatility also allows for a wide array of recreational activities, that include not only the 'distanced' enjoyment of footpaths and bicycle lanes but also the free-roaming experiences of harvesting, play and solitude.

'New nature' is not the universal prescription of what to make of room-for-river space, as if nothing else would be feasible. We do not envision all grand châteaux of the Loire surrounded by wild forest or the best examples of the classic Dutch floodplain grasslands lost to new meanders and beavers. Rather, these areas should be protected, managed and revitalized as what they are: European heritage of great aesthetical and cultural value, able to become economic drivers of their own, and taken up in room-for-river planning packages.

¹ A second methodology developed in FaF is much more specific, focusing on solving the dilemma between flood prevention that usually requires hydraulically floodplains on the one hand, and floodplain nature development on the other hand, that usually results in forested, hydraulically rough floodplains.

Next, rivers are part and parcel of local and wider cultural identities, sometimes quite explicitly and shared by the whole community, sometimes almost forgotten or shared by only a minority. Most Dutchmen know the poem of “Thinking of Holland I see great rivers”, and rivers play prominent roles, as friend or enemy, in local stories and art. State planning in general tends to be insensible to local identities because these are hard to grasp and do not fit easily in the rationalising frame of mind requested by mainstream planning procedures. This is not necessarily so, however. If local identities and place attachment are given a voice, room-for-river planning can build on them, and measures can include their strengthening

Finally, rivers bring structure, beauty and a special dynamic to villages, towns and cities. In many places, these functions have largely vanished, e.g. because the rivers lost their importance for the local economy and the once bustling harbour was replaced by speedways, derelict buildings and haphazard developments cutting off the community from its river. Other, more fortunate towns still have much of their physical and social bonding with the river left. Room-for-river planning, tending as it does to include the removal of constructions in floodplains, will often be an opportunity to reconnect communities with their river, changing a ‘neighbourhood behind the dyke’ back to a ‘village by the river’, changing a forgotten no-one’s land into new recreational areas for urban communities, or restoring a neglected urban river front (or making a whole new one).

All these elements, we would wish to stress here, will be of growing importance in the century to come. Three long-term processes work in favour of strengthening the value of nature, identity and heritage. First, population growth and urbanisation are likely to continue. This implies that natural areas will become rarer. Assuming moreover that agriculture in the urbanizing areas will remain as intensive as it is now or intensify further, not only nature in the sense of green areas will be reduced but also nature in the deeper sense of wildness. Vague ‘left-over land’ in the cities, the peri-urban and rural areas will become ‘organised land’ for recreation, golf courses, suburbs or whatever. Natural areas will receive more visitors and will have to be more planned and have more amenities. Places where nature just goes about doing as it pleases, i.e. places where natural processes rule in stead of human agency, will be progressively lost. Except the rivers. The rivers cannot really be tamed. They will continue to deliver wildness right to our increasingly over-organized doorsteps. Second, cultural globalisation will continue and in its wake, the desire for local identity (‘localisation’) will be increasingly felt. Sense of place, bioregional narrative and spiritual landscape value will become increasingly articulated and valued. Third, economic globalisation will force the old European nations to put more emphasis on the (few) comparative advantages they truly have. Attractive cities in harmony with their deep history and embedded in their characteristic landscapes will be economic assets of increasing importance.

River authorities, caught in the practicalities of day-to-day issues and a generally engineering worldview, tend to have a hard time to incorporate such issues in their work. Moreover, they usually encounter local communities in a context of conflict, which is not a context where people feel at ease to express themselves in terms of love of nature, spiritual value of the river, local identity and suchlike vulnerable subjects.

Nevertheless, these subjects are real. Real in local quality of life and real, too, for visitors and new inhabitants that may be attracted to river places. To the extent that these outsiders actually pay for the enjoyment of local qualities, local qualities turn into drivers of local economic development.

For the *Freude am Fluss* project, economic drivers that may be enhanced in comprehensive room-for-river policy packages are of special importance. Many of those may be thought of, such as recreation incomes from entrance fees and amenities, types of new agriculture producing local brands, special farms offering protected farm and nature work to the burned out and handicapped, new housing development with floating and other flood-proof dwellings, river parks, river festivals and so on. The FaF study on these potentials will start soon.

4. The FaF-ability of the world: Studies and cases

In this section, we aim to substantiate various aspects of the preceding section with studies and cases from the desks of *Freude am Fluss* partners. The latter is a limitation in the sense that possibly not the most general studies or the most illustrative cases are taken up. The advantage, however, is that most of this material has not been widely published before.

4.1 Visions of relationship with nature: to be a Participant

Since the creation of new nature in the floodplains is one of the major opportunities that may be included in room-for-river policy packages, it is important to know if these new natural areas are appreciated by the citizens. Many studies have indicated that in The Netherlands this support has grown over the last decade and is especially strong among the urban population. Urban people tend to value wild and spontaneous nature above agricultural areas. Nature is primarily perceived as self-organising patterns and process, e.g. as areas where anything can grow and occurs without interference of human deliberation. Having this wild vision of nature in their minds, the Dutch find recreation the most important function of nature. This means that a shift is taking place from the vision of nature as a resource for human primal needs like food and air towards nature as a countervailing power and medicine for our busy and fully human-focused lives. Recreational and personal experiences in nature are therefore about to acquire a more important role in future river projects.

Besides this general cultural phenomenon, people in riverine areas also feel attached to nature and the river. It co-constitutes their identity. This became clear, for instance, in a pilot study carried out near Nijmegen, The Netherlands. This study, based on 12 qualitative interviews, was carried out among citizens of Beuningen, a municipality of approximately 25,000 citizens situated next to a floodplain where, over a length of 8 kilometres, a natural nature area has been developed during the last 15 years. The objective of the study was to elicit the vision of inhabitants on the appropriate relationship between humans and nature. (note that this objective de-emphasises how this relationship actually takes shape in concrete behaviours in everyday life).

Most striking result in this study was that almost all respondents rejected the utilitarian attitudes like the Mastership over Nature or Stewardship of Nature that connect so well to the centuries-old battle against the water. Instead they considered themselves to be Participants in nature, fully part of nature and even regarded this unity between nature and themselves as important for their identity. Any change in their surroundings, for instance initiated by room for river projects, would affect their lives (though not necessarily negatively, as shown by their appreciation of the only recently developed natural area; see below).

4.2 Appreciation of wild nature

Another clear shift, taking place among the respondents in Beuningen - and in broader Dutch society as well, as several studies have shown - is the appreciation of spontaneous, wild and untouched nature, contrasting with well-organised typical Dutch meadows with cows. This desire for wild nature seems to be in sharp contrast with the utilitarian, work-oriented identity of the Dutch that was partly shaped by the struggle against the water. On a deeper level, however, we may note that rejection of the master and steward attitude could only develop thanks to the utilitarian culture. The Dutch succeeded to control the water successfully enough for the citizens to feel safe. This safety gave space for secondary needs to develop, such as the desire to contemplate in a natural area and to experience the challenges of wildness.

Most likely, the rediscovery of wild nature and the popularity for the participant image is taking place within many western cultures, but in The Netherlands the heritage of strong utilitarianism may have resulted in a fiercer rejection of the strictly designed cultural landscape than elsewhere. It is exactly the

addiction to planning of the Dutch that evoked their deep fascination for chaos and wildness. Present-day attitudes towards rivers may well be interpreted within this general pattern. The river should get its wild floodplains back, its curves and it is dynamic natural system, but all within the safety norms and the safe winter dykes of the utilitarian manager. The Dutch seem perfectly at ease to let these two extremes - the participant in wild nature and the manager-engineer - coexist in river management, nicely in line with traditional Dutch ideals of pluralism and consensus building.

4.3 Living with the Loire river

Along the Loire in France, dykes were built more than a century ago in order to protect the inhabitants against flooding. These dykes are not prepared for their task today because they do not meet the security standards to withstand actual floods. The last serious flood was in 1929 but in the last decades the river has overflowed its banks various times, albeit without disastrous consequences. During the same time the flood risk increased because of heavy rainfall and the condition of the dykes. Dyke breaches are not imaginary when certain floods occur in future. According to the inhabitants of the villages of Marseilles-lès-Aubiany and Bec d'Allier, the best way to deal with this flood risk is to live with the river, as they have practiced for years and years. State authorities inform people living near the river about the flood risk and possible measures they can take themselves. Examples are to install household equipment on the first floor as well as all relevant papers and valuable objects. But many inhabitants along the Loire already knew: they learned to live with the river. They warn each other when the water is rising and help each other to bring furniture to the first floor. During the flood they live on the first floor or stay in a house of a relative or neighbour. Asking inhabitants why they will not move to a safer place, they replied: "Who can say that he lives in such a beautiful place and so nearby the river?"

4.4 Economic drivers: Recreation activities in Neuenburg am Rhein and Karlsruhe

In Germany, various initiatives to involve the inhabitants to the weal and woe of the river. The creativity is great. The German city Neuenburg am Rhein, for example, intends to restore an old harbour, develop an adventure playground, Rhine-gardens and a visitors centre along the river with terraces and a restaurant. At the same time the city creates room for the river by lowering the embankment. The city of Karlsruhe aims to establish stronger links with its nearby Black Forest on the one side and the Rhine river on the other. On the Rhine side, the accessibility of the river will be improved and the recreational value of the floodplain will be greatly enlarged. The city's plan includes a canopy walkway between the trees in the floodplain, a boat for educational activities, a forest classroom and organic floodplain farms. Local citizen groups participate in the design.

4.5 Institutional co-operation: Shared responsibility in Region Starkenburg

In the region of Starkenburg, Germany, the Rivers Rhine, Main and Neckar and several smaller streams are located and implicate a specific flood risk. Because of the dense population the damage potential in the dyke protected area is considerable. Region Starkenburg - a voluntary association of municipalities - declared this situation as a focus topic and initiated the project "Shared Responsibility for Flood Prevention. The overall aim of this project is to bring to all regional actors and stakeholders involved in flood risk management together, coming to an agreement in acting for flood prevention and supporting a shared responsibility. All contributing or concerned actors shall have the opportunity to clarify their conflicts and demands on flood risk management and to work on a common concept. Actors are municipalities, water management, civil protection and nature conservation agents, water associations and professional associations, representatives from the economic, agricultural and forestry sectors and also citizens. "Shared Responsibility" is designed as a joint planning approach in three main phases. The preparation phase contains an analysis of actors and a systematic analysis of experiences in other

regions concerning co-operation and current measures. In a second, the structuring phase, the initiation of co-operative structures will take place. In the establishment phase the implementation of co-operation will be translated into action by working on focus themes. Building a long-term network of regional actors for exchange of information and experience presupposes a strong co-operation form of regional and local actors in a continuation phase. "Shared Responsibility" started in the end of 2003. Key interests in the project are information e.g. for awareness rising, measures at small streams and handling with settlements in flood risk areas. Beneath the exchange of knowledge and experience a more genuine involvement of local and regional actors and stakeholders, the fostering of mutual understanding of each others problems, keeping flood awareness alive and the enhancement of local and regional benefits are expected results of this institutional initiative.

4.6 Overdiepse Polder: Local community continues in key role

While choosing projects in the framework of the Dutch national policy plan Room for the Rivers, one of the problems was that the *terpenplan* of the Overdiepse Polder (see Introduction) became part of the national spatial planning procedure (PKB). This is a national decision-making process end with deliberations in the national parliament. That was not what the farmers of the Overdiepse Polder had in mind. They did not like to be confronted with long-drawn and opaque procedures with an insecure outcome. They wanted quick decision-making and implementation in a short term and above all: no uncertainty during the process if the plan would be realised or not. In order to solve this, the Overdiepse Polder received the special status of 'front runner project'. This meant that the *terpenplan* could be elaborated before the PKB. Another new phenomenon was that not the national authority for water management became project leader but the province of Noord-Brabant. In the working group for the project the inhabitants participate from the beginning to the end.

4.7 Arnhem: Many opportunities and economic drivers

The Dutch city of Arnhem is situated on the Nederrijn and IJssel rivers, both delta branches of the Rhine. Arnhem has taken the opportunity of the national policy Room for the Rivers to modify the city in such a way that it creates more room for the river and at the same time a new city waterfront and reconstructed floodplain area. The plan includes a strengthening of the relationship between the city and the river. There are many ideas to fill in the area along the river: to create an island by making a side channel on the south side, to use the area of the old bricks plant for public events, to build houses fixed or floating, restaurants and a shopping mall in the bridge and improve nature by creating a natural zone along the river.

In 2004, workshops with the main actors were held. Through this working method a rough direction for the river zone was developed. The first session aimed at informing the own organisation (the various departments of Urban Development, Urban Management, Social Development) on the working method and the actual situation, to formulate the conditions, to make a problem analysis, to inventory the opportunities and to answer the question if a vision for that area is needed. For the second session representatives of governmental bodies were invited, like regional government, national and regional authority responsible for water management, ministry of housing, the national authority for nature, water boards, nature organisations and the municipal board members. The objective of this session was to get clear what the relevant policy of various departments is, like housing, nature, water management, administrative, and legislature and to brainstorm about room for developments and directions for these developments. They made an inventory of their policy ambitions, defined the conditions, and formulated the chances and directions for development.

The third session was especially organised for enterprises and initiators in that area. They presented their plans and discussed them. The fourth session was directed at landscape architects, ecologists and urban planning of various governmental bodies. They discussed the goals for spatial planning, the

ambitions and gaps to be narrowed, under the guidance of an invited chair. They searched for a framework in which all these objectives can be realised. The last session was organised for the inhabitants and politicians.

According to the administrators this working method was very effective aiming at defining the problem and making an outline of the directions for development of the riverine zone. This result have been widely communicated and will now be elaborated in separate projects.

4.8 Druten: A private initiative meeting different interests

Druten is a rural area and village located on the south bank of the river Waal. Going from the river to the village, we first find a sandy levee on which industries are situated, some of which are river-dependent and some not. The follows the lower floodplain with clay soils, then the dyke and the village behind it. In 2002, the industries started an initiative to meet the objective for creating room for the river, combined with urban, economic and nature development. This means an extension of the area allocated for enterprises with river related activities, replacement of the dock yard, construction of a new harbour, an opportunity to build floating houses and a village-front towards the river, nature development and excavation of the floodplain, sand extraction, nature development and realising a side channel. The consortium developed three models for the floodplain. The first model is directed at accentuating the linear zone of the river by the construction of a long side channel connected to the river downstream. The second model is a continuation of the fan of channels, emphasizing the natural processes of the river. The third model is starting from a large area for river-related activities. In order to create more room for the river a dyke relocation is necessary. Through sand extraction a side channel is created. In the second half of 2005 these models will be communicated to the stakeholders and the inhabitants of Druten. In first phase informal discussions will be held with directly involved stakeholders. Points for discussion are the different models as described above and the point of view of each stakeholder. The objective of these discussions is to exchange information and to take stock of the stakeholders' views. At the same time the hydraulic effects of the models will be calculated. In the second phase various meetings will be organised to inform the stakeholders and inhabitants of Druten. The consortium will present the three models and will ask for reactions of those present.

4.9 Lent: Inhabitants want to set aside land for dike relocation in the future

Lent is a village on the north side of the river Waal in the eastern part of The Netherlands. Until 1998 Lent had about 3,200 inhabitants. In that year the village was annexed by Nijmegen, the city on the southern bank of the river that needed the Lent space to 'jump the Waal' and build a new suburb for 12,000 inhabitants. A few years later, a state-made plan was parachuted on Nijmegen and Lent to relocate the northern river dyke in order to make room for the river. Nijmegen/Lent happen to be located on the narrowest part of the river, and widening this bottleneck is a first priority to prevent the near-disasters of the 1993 and 1995 peak flows.

The plan of the dyke relocation was initiated by a commission set up by the State Secretary of the Ministry of Transport, Public Works and Water Management. The plan includes a dyke relocation of 350 m for which 55 houses have to be demolished. After initial rejection, the Nijmegen municipality helped to improve the plan, that now includes a quality waterfront on the new dyke, natural areas between the new dyke and the old, and improvements of recreation and habitation on the old dyke area that is fortunate enough to be spared. The village structure is completely lost, however, and 55 houses and farms have to be demolished.

During the process in which the plan was elaborated and the procedures for public participation were followed, the project organization was confronted with opposition. The inhabitants of the village were represented by diverse groups like the village council, the newly built suburb, the centre of the village, enterprises and historical clubs. The main arguments of the inhabitants were that they didn't see the

necessity of the proposed measure of dike relocation (“If that 18,000 cubic meter per second is expected to only occur 100 years from now, why take such far-reaching measures at this moment?”) and the demolition of a characteristic part of the village. During the process the representatives of the inhabitants developed an alternative plan that includes a land reservation for a possible dyke relocation in future and to make a side channel and a green river in order to create room for the river. In March 2005 the State Secretary stated that she preferred the dyke relocation but that the alternative plan of the inhabitants needed to be studied closely. Until now she did not take a final decision.

4.10 Blois: From authoritarian to participatory planning?

The city of Blois on the Loire River, famous for its castle, has one of the oldest spillways built on the levees of the Loire. The maximum river discharge under the old bridge linking the two parts of the city is only 5,000 cubic metres per second and the spillway is necessary to avoid that a major river flood inundates the city. The spillways was built upstream of the city in the 16th century, diverting peak flows towards an open and low-lying area between the city and a cliff. Unfortunately, a few decades after the major floods of the 19th century (1846, 1856, 1866), a land owner obtained the area to plant poplars there and later on, people started to settle there as well. Even the 1907 flood, the last one to activate the spillway, did not deter people. By the end of the 20th century, one could count no less than 150 houses and shops. There was even a velodrome and many gardening lots. Some gypsy families used to park their caravans on a permanent or occasional basis. Obviously, the place is very nice, close to the city centre and rather green. Nevertheless, a survey conducted in 2001 showed that the income of the dwellers was not very high and the market value of their houses was low, taking into account the nearby amenities. Somehow there was still some awareness of flood risk present, preventing a more capitalized land development.

Implementing the Loire River strategy, the authorities decided to remove all the buildings since they were at risk and constrained a free discharge of water. For this second reason, even gardens could not remain. A land development plan called ZAD (*Zone d’Aménagement Différé*) is now implemented by the municipality which gives it a pre-emptive right to buy any estate that comes up for sale. At the same time, people are encouraged to leave their place and sell to the municipality. Some 32 lots have already been acquired and 12 are in the process. Some residents, however, have voiced opposition and have started to demonstrate against the project. Furthermore, there is not yet a scheme to develop alternative land use in this area compatible with the spillway function, which could make the project more popular with the city population. Such a plan could possibly also an opportunity to involve the unwilling inhabitants of the area and find creative solutions with them.

The case of Lent shows that not all situations of room-for-river planning can be easily be turned into win-win situations. In Blois, options for more locally based planning still have to be explored. Overall, the studies and cases show, however, that much of the world is FaF-able. The parachuting of state-based problem definitions, detailed plans and fixed concepts on local communities does not help bring these potentials much forward. The incorporation in room-for-river packages of measures that enhance local quality of life and local development is one important boost for collaboration with local communities, but communities cannot simply be bought that way. They also need to be involved in the planning process as true partners. That is why the *Freude am Fluss* project aims to develop the Joint Planning Approach.

5. Principles of the Joint Planning Approach

The Joint Planning Approach (JPA) is an approach to joint planning. The term ‘approach’ is meant to express that the JPA is action-oriented, focused on how authorities, local communities or private actors

can organize the planning process and act in the various planning steps. The term 'planning' denotes the whole process from the earliest stage of problem identification up to the agreement on what measures to implement. Most characteristic of the JPA is the term 'joint', that expresses that all morally considerable actors that are involved in causes, effects or solutions of the problem are also involved, directly or by representation, in the planning process. In this abstract definition, 'morally considerable entities' include individual people but also future generations, and the elements of nature that are recognized, e.g. in policy documents, as carrying intrinsic value. Representation may be of the direct kind, e.g. as a farmers group representing involved floodplain farmers or as an NGO representing the interests of nature, but will typically also include governmental organisations that are democratically vested to represent all kinds of values the protection of which individual people cannot easily organize (the 'common good' or 'system-level rationality') or tend to forget in the midst of the affairs of daily life. Thus, the JPA aims to enable inclusive planning, involving all stakeholders as defined above. The definition implies that the identification of who is stakeholder depends on the perception of the problem, its causes, effects and solutions. Since these perceptions may shift over time, the group of stakeholders may change over time, too. This, obviously, is something the JPA should incorporate. The JPA will not only have content but also a form, a 'packaging' that makes the content available to society. Such packaging may include, for instance, a booklet on principles; a toolbox with practical aids for the various planning steps; a CD with various lively examples of physical and social elements e.g. on housing, recreation, river transport, nature development, planning styles or innovative institutions; an interactive DVD; an internet platform; a teaching course and so on. We will not go deeply into these matters here. Let us say only that in practice, no planner or community is likely to simply adopt the JPA (or any other planning approach) as a whole and apply it from the beginning to the end. For that reason, we will have to distinguish between generally applicable JPA principles and more specific planning tools. Especially these planning tools should be 'packaged' separate from each other, so that the practitioner may easily make his own choices, depending on his own problem situation and context. The content of the Joint Planning Approach is based on a number of principles emerging from various scientific disciplines.

In environmental science and management, a shift has taken place from merely problem-driven analysis and planning to more opportunity-driven approaches, that conceptualize the world not only as a sum-total of problem situations but also aim to include the many instances in which ecosystems, environment and future generations are not only potential victims that should be protected, but also bring opportunities that could be developed and enhanced. In that new atmosphere, recent planning literature emphasizes the role of uncertainty and surprise, visioning of the future and collaboration between stakeholders.

In ecological science, new concepts of non-equilibrium ecosystem behaviour have triggered notions of 'adaptive management', that do not aim to fix ecosystems in states of presumed climax, but aim to maintain ecosystem quality, for the benefit of people and nature alike, by way of intensive monitoring and flexible responses to change. Adaptive management should be guided by a long term vision in order to prevent that the sum of many small adaptive steps could end up in a undesired overall result. In adaptive management, adaptability should itself be part of such long term vision. (In that sense obviously, room-for-rivers is a much better, because more adaptive, long term vision than the traditional vision of confine-the-rivers.)

In the social sciences, resistance against the seemingly irrevocable logic of the Tragedy of the Commons (the idea that communality of property can only lead to destruction of that property) has led to increased insight that local communities can be quite successful in the management of their common resources, and the conditions under which this is possible. This, together with the fact that local communities cannot easily be entrusted with monitoring and management of systems far beyond their spatial scale (sea-wide fisheries, river basins, etc.), has led to the rise of 'co-management' as a central

concept for empirical study and theory-making. In co-management, local actors and supra-local agencies share visions and divide roles in the management of a given resource, in styles and balances depending on the resource itself, its local and supra-local functions, and the local and supra-local management capacities.

Concurrently in policy and political science, approaches have emerged that rather than viewing policies as mechanistic models of inputs and outputs and viewing politics as a mere competition between opposing programmes, work in a broad system perspective. Seeing the world as a complex system, in which learning, feedback and adaptations take place through highly linked, self-organizing networks, it is easier to understand how collaborative dialogues function and produce innovative actions.

Research has shown that social capital and high-quality, trusted information are being produced during collaborative dialogues.

In these terms, the JPA can be characterized as an approach towards the adaptive, vision-guided collaborative planning of river sections, in a framework of room-for-river policies.

With that, we do not claim that the JPA is applicable for each and every river management problem.

In international pollution issues, for instance, quite different mechanisms may be at stake. And even within the room-for-rivers segment, situations may turn out to be so locked in conflict that other roads need to be taken, even though a joint approach may have been tried at the beginning.

The term 'joint planning' is sometimes interpreted as the creation of a 'horizontal' grouping of actors. For instance, farmers coming together to discuss their problems, or state agencies within a district joining hands to find common solutions. In river management, one may think about municipalities along a river exchanging their problems, experiences and solutions with room-for-river policies. This obviously is as joint as is the Joint Planning Approach, and the usefulness of such exchanges is beyond doubt, too. In fact, the *Freude am Fluss* project contains many of such exchanges, as we will see in the next section. The example of 'shared responsibility' in the previous section illustrates a 'horizontal' action. As it stands at present, however, the Joint Planning Approach is designed for work along the 'vertical' dimension, that is to say, the interactions between state agents, local authorities and local citizens (or, as others say, 'state and community', or 'local and supra-local actors'). We may see this vertical axis as composed, for instance, of four rungs:

- Supra-local political and river management authorities;
- Local authorities (e.g. municipalities);
- Local representatives (actors representing more than a given number (e.g. 50) of stakeholders, such as citizen associations or larger firms);
- Individual stakeholders (e.g. citizens or small firms).

In any specific JPA process, this listing will be discussed and specified locally.

The JPA will be composed of a number of planning steps. They will vary much in weight and content in each actual planning situation, but the steps give the JPA its basic structure. At present, the steps are formulated as:

1. Mutual learning
2. Shared visioning
3. Rules and institutions
4. Joint options exploration
5. Revisiting the process
6. Joint design and decision-making
7. Towards implementation.

In somewhat more detail, the steps may be described as follows.

- (1) The term 'mutual learning' expresses that as a point of departure, we assume that both river authorities and local communities have important things to say to each other concerning the river.

Moreover, we assume that people are usually much more willing to listen if they also have an opportunity to speak.

In some cases, river authorities may feel that local people are in fact quite un-aware of the river and the risk it brings; people may not even know that they live in a floodplain! In such cases, elements of traditional top-down communication will be highly present in step 1, but care should be taken that even then, a two-way process is organized, so that local knowledge, stories, grudges, etc. can also be get a voice.

Research may also be part of step 1, e.g. authority-driven on local awareness and perceptions, or people-driven on river risk or legal aspects. All research results should be shared and discussed between all parties.

Important results of step 1 are shared elements of problem perception, mutual respect for non-shared elements for problem perception, and a shared idea on who will be participants (stakeholders) in step 2.

A mediating party in step 1 may help, for instance, with a systematic enumeration of river functions and the stakeholders attached to these functions. A mediating party may also be important to guarantee balance in the stakeholder grouping (no exclusion, no overrepresentation).

- (2) 'Shared visioning' is a process in which stakeholders, not bothered too much by the present and by all kinds of constraints, form an image of an ideal future and an ideal process to arrive there. The constraints that lie between this vision and reality then may become the very objects of the planning process.

As with the problem perception, 'blank' (i.e. non-shared) elements may remain within the joint vision. They should be minimized as much as possible, however, for instance by following the procedures of contextual ethics that emphasize that the stories of a problem situation may be retold and reinterpreted, "until the solution arises out of the compelling representation" of that situation. If this does not succeed and neither do more trivial methods such as compromising on a more abstract level, it may be considered to leave the JPA and revert to other approaches such as mediation and other ways of conflict resolution.

- (3) 'Rules and institutions' denotes a step in the JPA that focuses on joint discussion and decision on the procedures to follow, the ways to define who is stakeholder, the rights and obligations of planning participants, the status of promises of authorities, and so on. This step sometimes tends to be shied away from, because it is something abstract compared to the 'real thing' of the planning itself, and a kind of break in the atmosphere of jointness. Yet, experiences and research show that the success of planning processes depends quite heavily on clear and equitable rules and adequate organisational structure. If participants have a veto right, for instance, decision-making is officially more difficult, but it is much easier for participants to enter the process and it forces everybody to be maximally creative. And the worst thing that could happen is that some kind of veto right is first vaguely suggested and then vaguely withdrawn later. Such things happen easily if an explicit step of 'rules and institutions' is not taken up.

Step 3 also includes a reflection on the adequacy of present institutions and the possible need to create new ones. Co-management is often led by a mixed board of local and supra-local representatives, for instance, and collaborative planning may also be in need of such an umbrella, albeit temporarily. Sometimes, the creation of new permanent institutions may be indicated, for instance if the scale of the river ecosystem and the scale of the administrative jurisdictions are too different to allow efficient planning and management. In such cases, the design of a 'floodplainship' or whatever the name may be becomes part of the overall design effort in the JPA.

- (4) 'Joint options exploration' is a step that comes about because in the JPA, we have separated the design process in three parts. First comes the visioning. Visioning is not seriously 'for real' yet and has a wide scope. It forms an image of what the whole of the solution could be. At the end of the JPA process (steps 6 and 7), planning comes back to the whole of the solution but now focused serious, real implementation. This 'whole of the solution' is built up of plan elements. Generally put, this design is a system of plan elements. The plan elements each do their separate work but they also interact, forming the 'system characteristics' of the solution as a whole. Flood safety, biodiversity and recreational attractiveness are examples of such system characteristics. The final design (step 6) is formed by way of the combination of selected plan elements. The selected plan elements, in their turn, come from a longer list of potential plan elements, and these are called 'options' in the JPA. Step 4 focuses on the identification of all these options, that may be physical or social. Examples of the latter may concern institutions, communication, insurance, rules for the distribution of benefits generated by economic drivers, and so on. Step 4 is still a relatively free exercise where all good ideas (physical and social) can enter without bothering too much as yet if they satisfy all formal criteria that will be applied to the end result of the planning process (step 6). Houses on mounds, for instance, can be one of such options. Such houses, obviously, reduce the discharge capacity of a floodplain and therefore score negatively on a flood safety criterion. It does not make sense yet, however, to reject such houses for that reason, because the safety criterion applies to the solution as a whole, and combination with the option of digging a side channel may more than offset the safety loss. Houses on mounds should only be rejected in step 4 if there is a legal prohibition, or no housing demand at all, or suchlike reasons that will certainly outrule them also in the end solution.
- (5) 'Revisiting the process' is taken up in our list of steps because of the crucial importance to keep the planning process in order so that all participants know where they are and what is expected of them. In any planning process, elements constantly intermingle with each other. As said already, one example is that the set of stakeholders shifts along with shifting insights in problems, causes, options and solutions. Another important element is that the rules of the game (step 3) may have to be revised when the game evolves. Another aspect is cyclicity. A vision (step 2) may have to be revised when a surprising option may have been identified in step 4. An option (step 4) may have to be redesigned to better fit in the overall solution (early in step 6) or to improve its contribution to satisfy decision-making criteria (later in step 6). And so on. In fact, cyclicity cannot be stopped and 'linear planning', i.e. forbidding anything belonging to step X because "we are now doing step Y" would anyhow be plain inefficient. Likewise, this step of 'revisiting the process' is not really a step in the sense that it could or should be done only after step 4. In fact, revisiting the process is a constant activity of the process mediator and the actors themselves, taken up in the steps list only because of the necessity to keep this revisiting explicit and transparent. This then may lead to organised cyclicity during the process, e.g. "vision revisited", "rules revisited", "stakeholders revisited" and so on.
- (6) 'Joint design and decision-making' denotes the step in which options, physical and social, are selected and combined to form the system of the solution as a whole. Sometimes, it may be found necessary to select and combine options in more than one way, so as to form different alternatives. The design of all alternatives should be guided by the whole set of criteria for the end result (e.g. safety, quality of life, biodiversity, economic development). The alternatives may differ, however, in the weight given to these criteria. One may be safety first, the next may be quality of life and biodiversity first, and so on. They should never be guided by dominance of any technical criterion, however (e.g. a dyke relocation alternative or a recreation alternative), as is too often done in

physical planning.

Making alternatives in stead of a single end result is not the great thing that joint planning is after. The whole idea of doing it together is based, after all, on the idea that differences between stakeholders should be resolved during the planning process, starting out already during the joint learning and visioning stages. A unified end result also improves the political position of the end result vis-à-vis decision-makers higher up.

Decision-making in JPA refers to the final approval of the plan by the participants in the process. The joint process having been carried out in order to reach consensus, the JPA de-emphasizes the need for formal decision-making tools such as multi-criteria analysis or cost-benefit analysis. Elements out of such tools may however be necessary in this step, such as a hydraulic calculation of the flood safety or the total cost of the plan.

- (7) 'Towards implementation' is a step that looks both internally and externally. Internally, many details of who-does-what may need to be settled, memoranda drawn up and signed, and so on. Externally, the result of the planning process will have to be communicated and, more importantly, prepared to survive the decision-making in higher circles, that may sometimes run up to the national parliament. 'Towards implementation' may therefore be a long-drawn phase, in which it is quite important that the groups and capitals built up during the planning stage stay alive. Arrangements to be made at the beginning of this stage should therefore also pay attention to conditions of re-activation of the planning process depending on external events. See as an example the story of the Overdiepse Polder in the preceding section.

6. Building the JPA in the Freude am Fluss project

The lack of literature references in the present paper is not only indicative of the great hurry of its preparation, but also of the fact that although a good amount of inspirations and examples have been gathered, the scientifically grounded construction of the JPA is only in its earliest phase, mainly due to slow financing. We still need to start a study to overview allied current planning methods in the three FaF countries, for instance.

Overall, building the JPA will run along two parallel tracks. The first is called the 'practical track'. This amounts to the gathering of data from projects executed by FaF partners and exchanges within the FaF project, such as the 'mayor conferences' of which two have now been organized and a third of which will take place in June, 2006 in Karlsruhe. Moreover, the JPA will be applied in several municipalities and regions in the three countries, within the bounds of what is practically possible in the planning stage and planning contexts that these municipalities and regions happen to be in. These bounds are quite strict because these municipalities and regions need to have their spatial plans officially revised by 2008. We will, therefore, also do a few smaller exercises specifically designed for JPA building, such as a number of focus groups on joint visioning.

The second track for building the JPA is called the 'scientific track'. The central element here is a small tri-national team that takes care of the (growing) central JPA document. This document, laying down the principles, steps, tools, application examples etc. of the JPA, will later be transferred into more accessible forms such as brochures, handbooks, DVD, courses and so on. The central team will also supervise a number of studies such as the analysis of existing planning methods. Also within the scientific track are a number of more fundamental studies that will feed into the JPA at a later stage. They concern the visions of local people on nature and the river, the role of rivers in local identity, past policy successes and failures and the causes thereof, and the economic drivers for room-for-rivers.