Observations from regional workshops

Spatial Planning

Gauja

- It was admitted that local and district spatial plans have the strongest potential to contribute to implementation of the WFD since the existing Latvian legislation defines the need to consider river basin management and some aspects of water management in the local and district plans.
- However, information and knowledge on practical links between river basin management and spatial plans are lacking. Therefore, there is a need for practical examples on how to integrate both plans.
- Furthermore, the time schedules and scales of both plans are different. While the spatial plans are developed for 12 years, the river basin management plans for 6 year period. The starting year of implementation of these plans do not match.

Mersey

- **Improved knowledge of the links between spatial planning and the WFD:** A questionnaire completed by 24 people at the first regional workshop of the ENMaR project (20-5-05) found that 67% of attendees had little or no knowledge of the relationships between spatial planning and the WFD. A similar questionnaire completed by 40 people at the final regional workshop in the Mersey basin (25-5-07) revealed that this figure had fallen considerably to 40%. Awareness of the WFD more generally was also shown to have risen. The first questionnaire indicated that 38% of stakeholders had 'little' knowledge of the WFD and its key requirements but by the final regional workshop this figure had fallen to 17.5%. It is positive that during the ENMaR project, awareness of the WFD and its relationship to spatial planning has risen considerably.
- **The role of strategic environmental assessment (SEA):** The SEA of spatial plans has the potential to aid the achievement of the WFD's goals. Indeed, when questioned, the majority of stakeholders attending one of the ENMaR seminars believed that the SEA could make a positive contribution in this respect. The capacity of SEA to raise awareness of water/spatial planning relationships and to provide a structured assessment of the impacts of spatial plans on water issues were thought to be crucial benefits that SEA could bring. Greater stakeholder involvement, the provision of more comprehensive baseline data on water issues and the development of guidance were seen as important ways of strengthening the relationship between SEA and the WFD.
- **Flood risk management, spatial planning and the WFD:** Flooding is a high profile issue within the Mersey basin. When questioned at an ENMaR seminar on this topic, 68% of delegates noted that planning could offer 'a great deal' to the achievement of flood risk management goals in the future. This is significant in the context of the WFD which aims to help to mitigate the effects of floods. Also, flooding can create diffuse pollution and can damage aquatic habitats, which must be limited to achieve 'good water status.' The preparation of sensitive planning policies, stakeholder involvement during plan preparation and undertaking flood risk assessments were ways in which ENMaR stakeholders noted that planning could reduce flood risk.
- **Climate change, water and the WFD:** Climate change is set to have a great impact on water resources through, for example, flooding, drought and intensification of pollutants where river flows are lower. These changes will impact on meeting the WFDs goal of

good water status. The ENMaR network in the Mersey basin recognized this problem. A questionnaire at a regional workshop on climate change found that 85% of stakeholders believe that climate change will impact on water resources 'a great deal.' Climate change is clearly a significant challenge for those responsible for meeting the WFD's requirements in the future, and strategies must be developed to address this issue.

- **Barriers to enhancing the role of spatial planning within the WFD:** Throughout the Mersey Basin ENMaR seminars, knowledge of barriers that inhibit the contribution of spatial planning to meeting the WFDs goals has been gathered. The most significant of these barriers include the mismatch in timings between spatial plans and RBMPs, that spatial planning does not encompass all sectors influencing land use (in particular agriculture), and that there is not sufficient guidance concerning spatial planning and the WFD.
- **Strengthening the links between spatial planning and the WFD:** One of the ENMaR seminar looked at the way in which spatial planning in the Mersey basin could be targeted towards meeting the requirements of the WFD. Key messages arising from this seminar included that linkages need to be made between local level spatial plans and other plans influencing the water environment (e.g. RBMPs). Also, during the development of spatial plans, policies must be targeted towards water issues and the WFD. In order to support this effort, stakeholders believed that guidance must be provided to planners and that planning legislation must relate more explicitly to the WFD.

Miño

Objectives

- To identify the planning instruments used in the area
- To discuss the importance of these instruments on the state and water management
- To identify the problems of the component spatial planning
- To make proposals of actions and measures
- To study the drawing up procedure for the Plan of Municipal Planning (PXOM); and its influence on the knowledge concerns the water state and its management.

Key aspects detected

- The farmers are the owners of the major part of the land, occupied by the agricultural and forest areas and, therefore, they constitute a target group, which it must be born in mind in the planning schemes and in those of waste management, due to the activity that they carried out is the main diffuse pollution source and also their water consumption is considerable.
- The Planning plans are not performed upon the municipal level
- A complete inventory does not exist of the masses and water bodies.
- The land planning is limited to the urban development planning
- The majority of water abstractions are illegal or the corresponding grant of the Hydraulic Authority is absent.
- There regulation is not well integrated. Planning is absent in its wide sense which causes a general and integrated regulation, instead of regulations that are applied in a separated form and without any type of coordination.
- Interrelationship is absent among Administrations
- The Councils have very limited resources to exercise the functions that the legislation grants them as regards in land planning.

- The residential use is extremely dispersed; this complicates the supply and purification.
- There is lack of coordination between Land consolidation and the Plans of Municipal planning.

Proposals for planning according with the WFD

- Creation of technical multidisciplinary teams that make up, from the environmental, agrarian, and forest legislation, regulation for the public water, tourism and industry authorities, a few regulations for the plans development.
- Establishment of regulations for slurry handling, manure handling and sludge from waste treatment plant handling.
- To define at municipal level the following topics:
  - Establish minimal distances between captations and pollutant areas
  - Establish protective perimeters around the water captation areas for human consumption
- These regulations should be specific for every council or group of councils in a sub basin.
- Identify flood risk areas and to make up plans of channelling and zones where the urban development is restricted.
- A binding report should be obligatorily issued by the water authority, in all the municipal planning schemes.

Weser

- There are a lot of planning instruments on the municipal level (local authorities and counties), but the time schedules and scales (river basins and administrative units) of the plans are different. The starting year of implementation of these plans do not match.
- Therefore, so far there is no real link between planning and the WFD, but especially the areas along the water courses are important biotope habitat networks, which are crucial for the good ecological status.
- Several planning instruments have been identified as useful tools to assist the implementation of the WFD, such as the ILEK, ‘integrated rural development concept’ and the SEA as one opportunity for the municipalities to develop the required programme of measures.
- Spatial planning has to cover a diversity of interests, sometimes contradicting. Especially in rural areas it is a predominance of economical interests. But space is a limited resource.
- Spatial planning instruments follow regional or national legislation, therefore the scope of acting or interpreting for municipalities is limited.
- It is crucial to represent not only the water authorities or departments of administrative units at the round table meetings to discuss river basin management planning, but the responsible persons of other planning issues as nature conservation, rural development, business development or tourism.
- Municipalities have long time planning experience and should use that as their input for river basin management planning, although local authorities are not responsible for that task and there are many other stakeholders involved as well.
- New “spatial planning instruments” as river basin management plans and development plans for Natura 2000 areas should be considered and integrated. Spatial policies might set the overall aim for getting Natura 2000 and WFD in line.

Water Management

Gauja

- With an expectation for the increasing quality of water supplies in Latvia, the main challenges for the water service providers will be an optimization of the water supply networks by ensuring the cost recovery and setting up of new connections, improving the technical conditions within the supply system and searching for cheaper water treatment technologies.
- Decreasing volume of water consumption at households and commercial sector has resulted in more concentrated waste waters to the treatment plants often causing operational and technological problems as more advanced treatment has to be applied in order to achieve the discharge quality standards and meet the aims of WFD. Thus the challenging tasks for municipalities will be finding of possibilities for upgrading of existing waste water treatment facilities.
- It was admitted that untreated run-offs from large roads and main streets are attributable to the diffuse pollution sources and therefore these aspects are important to include in the strategic planning documents for the regional development.
- In order to prevent the untreated hazardous substance discharge into surface water, the waste water treatment operators and industrial enterprises would need to agree on procedures for adequate information exchange on possible emissions of chemical substances used in production processes.
- Taking into account the economic situation in Latvia, currently the environmental costs would not be directly includable in the water fees, however, there could be carried out an explanatory work on these costs.

Mersey

<u>Flooding</u>

The general perception of flood risk remains quite low within communities. This means that planners may face difficulties in making changes to properties and implementing strategies to address flood risk issues.

Collective responsibility: Communities find it difficult to understand that actions that they take on their property (for example paving over a lawn), can affect flood risk in the area, and may ultimately contribute to flood risk problems in other areas.

Central government position: It was noted that central government is sending out contradictory messages concerning the flood risk issue, and that although flood risk issues may be addressed during the design and implementation of plans for development, that nevertheless, communities are still being placed at risk of flooding impacts. The example of the Thames Gateway development was raised in this context.

Consultation procedures: local authorities should consult local residents as early as possible during the preparation of strategies and documents that relate to flood risk. Commercial/ industry stakeholders should also be involved in flood risk management decision making.

The involvement of United Utilities (UU) and the Environment Agency (EA) in decision making: It was suggested that greater involvement of organisations such as UU and the EA could help to speed up planning decision making procedures, something that developers should be made aware of.

- SUDS were discussed, positively in terms of the impact that they could have on reducing flood risk, but negatively in terms of adoption and liability issues.
- Local initiatives: One planner expressed concern that national planning guidance has no 'teeth', noting that local initiatives could be more effective in dealing with flood risk.
- Approaches to manage flood risk: Section 106 agreements were highlighted as being a potentially useful mechanism to help manage flood risk. For example, it was suggested that SUDS could be required. Further, it was noted that land use could be made more multi functional, an example being the south Manchester golf courses which can also be utilised to take flood water from the Mersey if necessary.
- Development control assessments: Representatives from the EA and UU both supported the requirement for Flood risk Assessments (FRAs) to be submitted with planning applications. However, concern was raised about the current lack of integration concerning assessments undertaken to accompany development control decisions.
- Skills and knowledge base: There was a concern raised by one planner that there may be a lack of skills and knowledge amongst planners concerning issues such as FRA.

An overriding feature of this discussion was the need for better integration between different plans and organisations concerning development control decisions.

Stakeholder engagement issues: A UU representative believed that there is a lack of joined up and strategic thinking at the policy preparation stage, which is constraining the achievement of flood risk issues through local planning.

River corridor based area action plans: It was established that river corridor-based area action plans could be useful, but only if they are prioritised and completed before other LDF plans and can therefore be used to influence their content, for example during the selection of sites for housing.

'soft' flood defence measures?
It was generally agreed that the biggest positive impact was likely to be gained through planting trees on flood plains.

Miño

Observed problems

- Rainfall badly distributed in spite of being very high (1.500 mm)
- The water consumption in Galicia overcomes the provision 250 litres per inhabitant and day
- Slightly efficient water use due to lack of awareness
- Systems and irrigation facilities obsoletes, very slightly efficient and in very badly state of conservation.
- Excessive water consumption
- Bad quality of the purification
- The major part of the utilizations and purification has lack of legal grants.
- In Galicia the main water use is the domestic, although the food and agrarian industry exert pressures superior to its position in the economy, since it consumes 43.4 % of the total volume and spills almost 42 % of the whole industry in Galicia, which perhaps could be explained, for the importance of the canning sector in Galicia.

- A sector with a great weight within the national area is the agriculture of irrigation; also it is important in some regions of Galicia. As for influence in the water quality the cattle occupies a principal position, with a consumption of approximately 12 Hm^3/year.
- As for the cost recovery it is necessary to emphasize that these are scarcely recovered, although the situation is better in the supply items and worse in those of purification.
- In Galicia most of the networks are obsolete and ineffective, much worse than in the rest of Spain. It is necessary to demand efficiency to the water suppliers, for which pipelines are needed with a suitable diameter, and efficiency, in order that they last the time established with a few minimal maintenance costs. It is observed in Galicia, nevertheless, that most of the networks are over dimensioned and, according to the Department of Environment, loses in them reach 60 % of the water.
- In Galicia abounds the presence of iron and manganese in the water, especially in the region of the high Miño River Basin District, which confer to the water a turbidity that takes place as consequence of the iron precipitation, which takes place by oxidation.
- At official level the groundwater do not exist in Galicia. A paradox exists with regard to them and is the following, in spite of the fact that according to the IGME, in Galicia there are not aquifers, it is the Community with major number of wells per inhabitant within Spain. This fact appeals to be almost an insult.
- For Galicia surely it is a better pilot basin one of those of Sweden than one of the river Júcar, which takes as an example of those of Spain.

Proposals for a suitable water management according to the WFD

- Improve the irrigation techniques
- Make aware of the good water use. Teach mechanisms of saving. To increase the price and establish staggered tariffs
- Use of recycled waters
- Utilization of the rain water
- Measurements for saving in the domiciles and reduce the losses
- Diffuse pollution control by means of the improvement of agricultural technologies.
- Waste water treatment in all the urban areas, without forgetting that in these areas there are also cattle farms.
- Study the tariffs in all the Councils
- Inventory of supply and purification facilities
- Study of the real cost of supply and purification

Final ideas

- The availability of waste water treatment technologies is not a problem (hard or soft, more or less technical) overall is a problem of management.
- Even although there are resources to construct facilities the problem would persist if a management structure is not established that will be capable of coordinating farming and a suitable maintenance, and for obtaining, in the certain period of time, self financing from the tariff.
- It is necessary to establish a few principles, a few directives that describe the key solutions most adapted in every context.
- For any strategy of water treatment in rural environment is necessary a clear planning and sludge management

Weser

The WFD affects the component water management most obviously. To achieve a good ecological status in 2015, it requires a change in the recent water management system.

Due to the important role of drinking water supply and waste water treatment in the field of water management, a lot of presentations about new methods or concepts were given during the workshops.

The changes in the water law of Lower Saxony demanded a new development of the water bodies and the sewage disposal.

To enhance the water quality as well projects regarding the renaturation of water bodies, protection of the ground water and also new concepts and techniques of the sewage treatment were shown and explained.

Water treatment plants, small water treatment plants in rural areas and drainage systems in urban and rural areas need to be adapted.

A further big role in the water management belongs to the flood protection. The consequences of the climate change causes huge problems with heavy rain events. In urban areas the drainage systems are completely overloaded during those events. Rainfall over a long period causes flooding in urban and rural areas.

All those aspects addressed a lot participants from local authorities and counties. For the water management component is was remarkable, that all components have a close connection with each others.

The renaturation of a water body affects not only the water quality but also the nature protection and the recreational worth of an area. That means it has also a relevance for tourism, which again requires spatial planning tools, to improve the infrastructure and protect the surrounding areas.

Sewage disposal has a close connection to spatial planning aspects, especially in urban areas.

Agriculture and water management always have a close connection. Agricultural processing's, like e.g. draining, intensive mass animal farming and fertilising influence the condition of ground and surface waters.

Due to this close relation among the different components, which touches various working fields of local authorities, workshops regarding the water management enjoyed a great popularity among the stakeholders within the ENMaR project.

Agriculture

Emån

This is a summary of the observations and conclusions concerning agriculture and forestry vs water quality, during some of the regional ENMaR seminars 2005 to 2007 in the Emån basin.

Seminar December 15th 2005; "WFD and watercourse groups"

The main target group for this seminar was landowners adjacent to river Fuseån, selected as the pilot area for the creation of watercourse groups in the ENMaR project. Of nearly 70 invited, about 20 landowners attended to the seminar, together with 5 stakeholders from regional organisations. Of these 20, only 10 were interested in creating a watercourse group. The knowledge about the WFD is very sparse – nearly non-existent and the knowledge about water quality in the Emån in general is quite low. But the willingness to take part in discussions and measures to achieve better water is quite good although. The main conclusions from the seminar were that we (Emån union, local and regional authorities) must make a greater effort to inform the public about the WFD and its relations to land use vs. water quality. We, Emån union also must find suitable tools for this and try to receive enough funding to be able to work with it not only in certain projects but also as one of the base activities. The watercourse group was created in the beginning of 2006 and today it consists of 20 members.

Seminar may 18th 2006; "to work with water from 4 perspectives"

This seminar had a different approach since the target group was mainly employees from the seven municipalities in the river basin and the focus was on relationships between the WFD and the four themes tourism, spatial planning, water service and land use (agriculture and forestry). The municipalities are very small land owners in the river basin and the forestry is mainly carried out by subcontractors. However, the forests owned by the municipalities are of great social importance since the public use them for "soft" values; i.e. recreation in many different ways. Therefore, there are some important linkages between the management of "public" forests, social values, tourism and water quality that have a great potential and should be developed.

Seminar November 30th 2006 "Natura 2000 in practice"

This Workshop/seminar was about Natura 2000 – Valuable nature in EU in general and the new management plan for river Fuseån in particular. The watercourse group and the municipalities within the Fuseån basin were invited to be informed and to discuss the proposed measures of the management plan. The discussion was good, mainly the members of the watercourse group asked questions about how the N2000 plan might effect their land use (forestry and agriculture), who was expected to finance the plan and what measures they might do. There were also discussions about more practical problems due to flooding, drainage and cleaning stretches of the river. Most of the proposed measures in the Natura 2000 action plan actually will benefit the landowners and the measures are very likely to be identical to the coming action plan for the implementation of the water framework directive. Hence, there is a clear linkage between the ENMaR watercourse group, N2000 and WFD within this issue.

Finally, the watercourse group decided to create an interim board and continue to create a "water management association" during 2007.

Seminar may 16th 2007 “Climate changes – how do they affect the Emån basin?”

This seminar was about climate changes and how they will affect the components agriculture and forestry, water service, spatial planning and tourism in the Emån basin through a 100 year perspective. The seminar draw about 35 persons from the municipalities, Swedish water authority, county board, Swedish forest agency (former regional board of forestry) and stakeholder organisations like Södra (a co-operative of 35 000 forest owners in south Sweden), The Rural Economy and Agricultural Societies and The Federation of Swedish Farmers (LRF) - hence, the best attendance of all ENMaR seminars so far. The probable reason for this is that the water authority and Emån union also had a common consultation about planning for the WFD in the afternoon.

The seminar started with a series of lectures about how the scenarios about increased average temperature, mild winters, heavier rainfalls, dry summers and more storms might affect the water quality, flow regime, infrastructure, agriculture, forestry and fish populations in the Emån basin. We noticed very quickly that climate changes and the expected influences concerns a lot of people and a variety of industries.

Within forestry, the most evident impacts will be changes in tree species composition, increased risks of insect attacks and fungus diseases, increased growth but also worse spruce timber quality and increased damages from storms, droughts and frosts on forest collections at a local perspective.

Gauja

- Historically agriculture is one of the main sectors in Latvia; however, a small scale economy is more typical resulting in a high number of small water users in this sector. It was admitted that organic farming is supported by availability of aids and allowances in Latvia. However, recent trends indicate that small farms will disappear and larger ones will develop further.
- Municipalities has emphasised the current trend to transform the agricultural land either by afforestation or urban development. This is coordinated by the spatial planning on local level. New challenges for municipalities are to ensure proper water services for new developed settlements and ecological planning of landscapes.
- Local municipalities and landowners lack specific and reliable information about impact of agriculture practices on water quality. There are a lot of data compiled during preparatory phase of the river basin management plans, but shortage is delivery of this information in appropriate way to local stakeholders. There are some sectors where are no reliable data (ongoing investigations).

Mersey

Issues

- Soil compaction / erosion leading to sedimentation
- Eutrophication
- Rising nitrate concentration in surface & groundwater
- Toxic pollution from pesticides
- Bacteriological contamination
- Damage to nature conservation
- Clean-up takes decadesGroundwater nitrate concentrations continue to rise unabated

Costs

- EA report (2002) - benefits of tackling DWPA worth £250m / year
- PR04: Total costs of environmental damage from current water abstraction & pollution estimated at £1-1.7b / year
- Water companies spending £313m / year on removing diffuse pollutants, 75% from agricultural sources
- Ofwat budget £292m / year (2006-10) to reduce high nitrate levels caused by DWP

Policy/DriversWater Framework Directive: achieve good ecological & chemical status by 2015

- PSA target: 95% of SSSIs in favourable condition by 2010
- Directives on Bathing Waters, Freshwater Fish, Habitats plus UK BAP
- Government initiatives such as *Sustainable Food & Farming Strategy*, *Making Space for Water*, CAP reform, *Rural Strategy 2004* In place
- CAP reform -> cross compliance -> soil management planning
- Environmental Stewardship schemes
- Sustainable Catchment Mangement Programme (SCaMP) (see inititative)

Future

- No imminent prospect of further regulation
- Catchment Sensitive Farming – Multi Agency

Summary

- Doing nothing is not an option
- Policy package of supportive policy tools and economic instruments would increase envl. effectiveness of both
- Defra's approach mirroring EA / EN - not a coincidence
- Local input critical to successful delivery of package

Miño

Observed problems

It does not seem that the agrarian activity, according to the regional authorities, causes serious damages to the water state in the Miño high river basin. Nevertheless a very widespread conscience exists, in the rural areas, they think that the water state is not good and that it worsens each year. Like this a peculiar paradox arise: THE FARMER OF THE MIÑO HIGH RIVER BASIN THINKS THAT HIS ACTIVITY IS NOT HARMFUL AT ALL, TO THE WATER STATE, NEVERTHELESS HE IS UNWILLING TO DRINK THE WATER OF HIS WELLS, SINCE HE KNOWS THAT IT IS OF BAD QUALITY AND ASSURES THAT THE FISH FAUNA IS DISAPPEARING OF THE RIVERS, WHICH ARE INCREASINGLY DIRTY. This turns out to be really paradoxical, bearing in mind that in this Region exist neither industry nor other potentially pollutant activities that are not agrarian or transformation small industries of nourishing products.

During the last years big surfaces have been reforested, which imply that the arable land has been considerably diminished and, in consequence, the cattle load has increased. Due to

this, the Galician Agrarian Administration wants to recover areas reforested for the agriculture

The abandon in the rural areas by the population is considered to be important

For receiving the community aids it is obligatory that the farmers demonstrate that the slurry tanks are impervious, the manure accumulations are carried out in a proper way, and that they do not produce pollutant spills to the public riverbeds. The manager of monitoring and making fulfil these procedures is the Regional Government of Galicia.

A transformer industry does not exist of the agricultural and cattle products.

Agriculture and municipalities

The Municipalities have important responsibilities in relation with the agriculture, which is summarized of the following way:

In most of Europe the use of the soil is dedicated to agriculture and forestry, therefore, its owners used to be farmers, who are the owners of most of the territory of our hydrographic basins.

The Municipalities play an important role in the land management.

The land consolidation directly concerns the uses of the soil and, therefore, the Spatial Planning and the arable land.

The water consumption by the agriculture and cattle farming each time is bigger, and it will be more in the future as a consequence of the climate change.

In the future, as a consequence of the WFD application additional taxes will be established on the use of the soil, of the fertilizers, etc and, surely it will be responsibility of the municipalities/towns to collaborate and at the same time benefit from it.

The establishment of agricultural farms, cattle farms, and their successive expansions have to be authorized by the Municipalities, but not only this, as well the Municipalities have the obligation of monitoring that these investments are carried out in agreement with the agricultural and environmental laws.

In many cases the Municipalities are the responsible of confirm the situation and characteristics of the farms when it is a question of rural development actions, subsidies, of rural tourism actions, etc.

Proposals

- To spread technologies and measures for saving the water in the farmings
- To promote crafted activities
- To promote markets of proximity
- To establish “neorural areas”
- Fertilization planning in the farmings
- Organic agriculture
- To establish protection areas in zones of water captation
- To promote a rural consultancy service in cooperation between the Municipalities and the Agrarian and Environmental Authorities. It is necessary to bring closer the agrarian

responsibilities to the citizens, especially in neither Spain, where there are neither agrarian regional management authorities nor Chambers of Agriculture, like in many European countries.

Weser

The aim of achieving the requirements of the European WFD depends on whether or not it will be possible to improve agricultural practises and nutrient fluxes of farms. Diffuse pollution is a problem of all European countries caused by agricultural land use. In some countries agriculture is also responsible for pollution of ground- and surface water by point sources.

It was obviously apparent, that ENMaR workshops about agricultural aspects within implementation process of WFD attracted lots of participants, most of them from farmers organisation like Landwirtschaftskammer (chamber of agriculture) and Landvolk (farmer union) in Lower Saxony. The employees in the administration of the communities have not been so numerous attending these seminars, so question rose whether communities really have an influence on agriculture or not ? How is the framework defined, influencing agriculture?

Agricultural production is mostly depending on prices at the world market, pressure by super market chains, EU and national funding possibilities. Influences from world fuel market are getting more and more strong at the same time. This is the reason, why grassland disappeared from sites, which are exclusively suited for grassland and why rape for example is grown now on too light soils, which are exposed to dry and warm climate not suitable at all for rape.

To improve farming practises legislation gives a loose frame only. Good agricultural practise in general can not be defined precisely, because agricultural practise is depending on farm structure, soil, landscape and climate primarily

Communities mostly are supporting farmers, especially if agriculture has reached a certain stage of industrialization and tax income became important for the budget and employment in processing became important as well. Communities are limited in improving behaviour of farmers and farming practises. But the ENMaR workshops showed that communities can for example develop a landscape development plan, showing where the improvements of the water courses are of highest importance. They may ask for public participation of the plan and they can communicate these results to the farmers. Following this way, the farmers will get a feed back, that society also has urgent requirements on quality of landscape and nature and that the resources of their and their families income are public goods at the same time.

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Gauja

- Forestry is admitted as an important sector in Latvia both, from economical and environmental perspective. However, the impact on water quality in the Gauja RBD is still debated.
- Municipalities has emphasised the current trend to transform the agricultural land either by afforestation or urban development. This is coordinated by the spatial planning on local level. New challenges for municipalities are to ensure proper water services for new developed settlements and ecological planning of landscapes.
- Local municipalities and landowners lack specific and reliable information about impact of forestry practices on water quality. There are a lot of data compiled during preparatory phase of the river basin management plans, but shortage is delivery of this information in appropriate way to local stakeholders. There are some sectors (for example, forest management impact) where are no reliable data (ongoing investigations).

Mersey

How can flood risk be addressed through ‘soft’ flood defence measures?

This workshop addressed the potential contribution of ‘soft’ flood defense measures, for example sustainable urban drainage (SUDS), flood water storage ponds, swales, and the use of permeable materials in developments, to the reduce in flood risk and associated impacts. Specific examples of soft defense measures that were discussed during the workshop included:

- Planting trees on floodplains.
- The use of buffer zones between rivers and development to reduce the impact of floods if they do occur.
- The use of wetlands as flood storage areas.
- The use of playing field in urban areas for flood storage.
- Strategies for de-culverting water courses to reduce the speed of flow of flood waters, thereby enabling greater absorption of water.

- The use of permeable paving in car parks. An example of this approach from the Oldham area was discussed.

It was generally agreed that the biggest positive impact was likely to be gained through planting trees on flood plains. The use of green infrastructure (urban parks and gardens, woodlands, wildlife habitats etc) for flood risk management purposes was also discussed. Delegates suggested that the benefits of using green infrastructure in this way is that the land can be designated for a range of uses (recreation, biodiversity conservation, flood risk management etc), and can therefore be multifunctional.

Miño

- A trend is observed to increase the forest activity and therefore the forest area.
- Nevertheless this major interest in the activity is not accompanied by an optimization in the derivative forest practices, existing still problems that concern the environment. For example the regulation of the felling (areas and methods) is a task that we still have for tackling.
- The implementation of the forest certification at the regional modality can contribute firmly to the improvement in the forest management of the Miño River Basin.

Weser

- Municipalities are in some cases owners of forests, but generally have little influence on forest management.
- In 1991 a programme called „long-term ecological forest development“ was started, mentioning as one aspect the water protection function of especially deciduous forest.
- Forest management is regulated by forest and nature conservation legislation and the good technical practise.
- Silvicultural measures to improve the water status are taken, e.g. increasing the percentage of deciduous forest to increase the quantity of ground water.
- Forests provide clean and unpolluted groundwater in the long run.
- Silvicultural measures can improve the quality of the groundwater.
- Silviculture can but does not necessarily have to be geared to the objectives of water supply.
- Especially the choice of tree species and different levels of use can contribute to the achievement of the objectives of the WFD.
- Problem: long periods of effect of silvicultural measures
- Forestry is an important partner in achieving the objectives of the WFD.
- The Lower-Saxonian Forest Agency represents forestal concerns in the sub-basin co-operations through experts for forest ecology und forest nature conservation.
- The Lower Saxonian Forest Agency disposes of experience, experts, information and information systems for the renaturation of water bodies and water-dependant land ecosystems.
- Forestry is, on its territory, capable of performing extensive water services, which improve the quality of water bodies sustainably. As opposed to monitoring on agricultural land, a long-term covering of the measures undertaken is ensured by the forest management planning.
- An appropriate refund of expenses of water services as a consequence of an implementation according to article 9 WFD is of high importance for forestry, too.

- Voluntary co-operations between forestry and water suppliers can further improve the water quality and have a neutral effect on public budgets.
- Additional information and scientific long-term studies on efficiency and evaluation of silvicultural measures on water quality are missing.

Tourism

Emån

There is no natural link between the tourist trade in the Emån basin with its tourist organisations and the local companies and places of interest. The tourism sector in Sweden is not organised or structured according to river basins but is controlled more by municipalities, counties and regions. This makes it difficult to produce data on the number of visitors and the economic value for just Emån's basin. There is not yet a relationship between the Water Framework Directive (WFD) and the tourism sector, and there is very little knowledge about the Directive. Issues such as the possible impact of tourism on water quality and ecological sustainability etc. are relatively new and have not previously been discussed to any appreciable extent within this sector. The ENMaR project has made it possible to highlight and discuss these issues from a river basin perspective.

Views and reflections that have emerged during the ENMaR meetings that have been held include the importance of good water quality and clean nature to tourism in the Emån area. It is very difficult to say whether tourism impacts on the water quality in Emån or to measure it usefully. ENMaR stakeholders together with Emåförbundet have assessed the impact as very small however. There are only about 75,000 inhabitants in the whole of the river basin, which is approx 4500 km^2, and the area is dominated by woodland with more than 900 lakes. The visitors are comparatively few and well spread out over the area, and they are primarily looking for nature experiences in the forests and lakes, tranquillity and clean nature.

Locally there may be an impact, however, particularly in areas with a lot of holiday homes close to watercourses, especially lakes. There are concentrations of houses along the shoreline and on islands that are ill prepared to provide good and functioning sewage treatment installations. Added to that many people have gradually improved their water and sanitation standard over the years. The old sanitation facilities function to clean is not satisfied and nutrients leak into the watercourses leading to local problems of eutrophication. Littering can also be a problem, especially with wilderness camping and canoeing on the watercourses. Increased wear is another factor that can affect the natural environment and attractiveness of the area. The tourism sector feels that it has some responsibility for these issues and that it is valuable to create a wider perspective on tourism and that this should be considered in the municipalities' outline plans. Furthermore, it is believed that the tourism sector will be affected by the introduction of the WFD in the future, though it is not yet clear how.

The development opportunities in the Emån area are considered good, as water and nature and the associated activities are growing in popularity with visitors and local inhabitants. The visiting industry is likely to take on a much greater importance in the future. The number of guests from the rest of Europe will almost certainly increase. It is therefore important not to worsen the current status, and to work actively on these issues.

Network Building – A Good Example From Emån

Emåförbundet already works to link places of interest within the Emån basin into networks: angling entrepreneurs, museums and different kinds of experiences such as gold washing and canoeing. Network building is important – alone is not always strong, together there is a strong power of attraction and the river basin can be marketed well. This strengthens the region and is something that Emåförbundet will continue to work on.

There are currently three established networks in the Emån basin: Ekoturum Emåbygd with 28 places of interest (nature, culture and history), Fiskenätet with 11 angling entrepreneurs offering a variety of angling experiences and 9 municipal tourist offices. The idea is to incorporate them into a larger network. This allows experiences within Emån to be brought

together into one unit and makes it easier to agree on common marketing. The entrepreneurs in the network have the chance to share a platform in the form of information and knowledge of each other's activities and the Emån area as a whole. Also to discus and deal with a sustainable development. The network should guarantee good information, service and reception. Visitors can easily get a menu of experiences served at every visiting object. We believe this will create conditions for a good experience of Emån as well as good quality of service. The visitors may then stay a few days longer and convey the experience to others, which will benefit everyone in the end.

Gauja

- Currently tourism is not evaluated in Latvia as a significant pressure to water quality and it is not expected that it would become such in the nearest future, despite fast development of this sector. However, problems might be expected in some intensively visited tourism destinations, especially in absence of appropriate infrastructure.
- Opportunities for tourism development is very much connected with good water quality, which shall be beard in mind, when carrying out cost-benefit analysis of the sector, since potential loses, in case of deterioration of the water quality, might exclude all the expected benefits.
- The main instruments to regulate the pressure form tourism are different planning documents. So far regional planning documents and tourism strategies mainly are aiming to increase the number of tourists. It is important to incorporate sustainability principles in these documents, as well as to ensure their integrity with river basin management plans.
- The major problem with regard to tourism development and its impacts on environment and water quality is insufficient infrastructure as well as maintenance of the existing infrastructure.
- A perspective tool for visitor's management is a tourism development plan for particular areas, insuring incorporation of sustainability principles and all stakeholders' participation in tourism development.

Mersey

- Key trends influencing tourism in northwest England (and the Mersey Basin) include an increase in leisure time, greater numbers of retired people, a dominance of short breaks, a growth in business and conference tourism, and the primacy of SMEs (small and medium sized enterprises) within the tourist economy. These factors will significantly impact on the development of the tourist market in northwest England.
- A range of stakeholders are involved in the tourism sector in northwest England. Principal stakeholders include the Northwest Development Agency, the Regional Tourism Forum, 5 sub-regional Tourist Boards, spatial planning authorities and tourism businesses. These organisations are responsible for developing tourism activities through activities such as spatial planning strategy, destination marketing and the development of tourism infrastructure and visitor sites. In order to effectively develop the tourism sector, these stakeholders must collaborate closely during the development and implementation of tourism strategies.
- In northwest England, traditional seaside holiday resorts such as Blackpool have suffered as a result of the demand that people now have for foreign holidays. Stakeholders in the tourist sector recognise this fact, and are shifting the focus of tourism strategies to promote more focused 'products' such as short breaks and specialist pursuits like walking (which is one of the most popular leisure pursuits in England) and golf (for which northwest England is internationally recognised).
- Tourism has significant environmental impacts, which are increasingly being accepted by relevant stakeholders and the population at large. A growth in 'environmentally friendly'

tourism can therefore be expected. Moreover, tourism strategies should aim to promote a variety of locations to take pressure off sensitive natural environments where tourist activity is often high. Where tourism activities do take place in vulnerable locations such as sand dune landscapes and mountain environments for example, techniques such as visitor management and education should be applied. These strategies are used successfully in areas of northwest England such as the Sefton coast and the Peak District National Park, and are helping to ensure that the 'carrying capacity' of these tourist destinations is not exceeded.

- Throughout the World, tourism activity is closely linked to climatic variables such as temperature and precipitation. It is important that climate change, which is set to alter these variables in the future, is acknowledged in strategies to develop tourism activities. Stakeholders should consider 'climate proofing' the tourist sector in their regions to ensure that climate change impacts and adaptation measures are factored into decision making processes.

Miño

Description of the current situation

- The Miño basin cannot be considered to be a tourist important area, nevertheless recently these activities have had a significant increase due, principally, to the reopening of thermal activities in Guitiriz and the creation of some Rural Tourism Houses. Besides one of the routes of the "Way to Santiago " is promoted, which crosses this Region
- The catering industry offer of the Region is very limited, there are only two hotels, in Guitiriz and Vilalba, which represent 50 % of the whole catering industry. There are besides 6 hostels, 17 pensions,
- As tourist/recreation activities there would be necessary to mention also the fluvial fishing, there are several rivers in which this sports activity is authorized, existing more than 10 demarcated zones, in approximately 80 km from rivers, near of which there are also several recreation areas and fluvial beaches, with barbecues, areas of parking and places where to practise hiking, viewing-points of birds, etc.
- Finally there would be necessary to emphasize that the whole Region is included in "Terras do Miño ", reserve of the biosphere, a cultural traditional landscape with many natural habitats of high value.
- All these factors, together with the great historical - religious and landscape heritage award to this Region a potential tourist high place, that until now it was not taken into consideration.

The thermal torism

- The importance of the thermal tourism is being like a sustainable tourism, trough the visiting tourist, visiting facilities, and leisure. The thermal tourism has importance across Europe.
- Need to co-ordinate the land management with the tourism development. In Spain there are experiences of everything opposite.
- Analysis SWOT:
  - S: Strengths. Territory, accessibility, historical values associated, the thermal culture
  - W: Weaknesses: Lack of planning, an image has not been constructed
  - O: Opportunities. Natural resources, stone and water, abandon villages
  - T: Threats. Global competition and urban development disorder

Proposals of developments concepts

To establish strategies in which it should be fomented:

- The thermal properties
- Parallel dynamics
- The stone industry and activities derived from it
- Concept of thermal town (Spa + Accommodation + Activity)
- Water culture to assess, the way of using the waters
- Importance of legends and traditions.
- It would not be necessary to consider the visitor like a tourist, offering him services of great quality.
- To facilitate the visit to places, routes and tourist guides must have special importance. An example from Holland has been mentioned, where one pays to see as a craftsman makes clogs of wood, similar to those that are made in Galicia and that have the same use. It would be very interesting to include this type of activities, handcrafted, within the tourist offer of the Miño High River basin zone, because of the great cultural heritage that it possesses
- More territorial planning should be drawn up than urban development planning, since the natural resources which are not infinite and they should be better looked after.
- The mayors of the zone complain about the rivers environment is dirty and they do not have many means to clean them, besides there are many problems since the hydraulic authority prevents them from acting in the rivers zone of public realm.
- To achieve tourist development it is necessary to preserve the water, doing an effort from all the administrations.
- A plan is proposed to increase environmental awareness at the tourist establishments for the sustainable use of the water, actions coordinated also with the craftsmen and farmers must be carried out.
- It is necessary to make the people aware of a good water management can produce benefits for the society of the area.
- It has been proposed to the Public Administrations to spend less in investment, and more in conservation and recovery. The maintenance cost of the supply and purification facilities is not calculated adequately.
- Direct sale across street markets of agrarian products and foodstuffs
- To promote local markets

The government finances, instead of tax the fairs should foment them, in order that they do not disappear

Fairs and markets

Galicia is known as the country of the three F:

- **F**airs (in Spanish "**F**erias")
- **F**easts (Parties) (in Spanish "**F**iestas")
- **F**unerals (in Spanish "**F**unerales")

This has done that Galicia moves itself in the world with playful - social name.

Example of a farmer who came from a burial and he took advantage to take a few glasses of wine in a tavern and to buy some articles that he needed. It has a social and economic function. It allows the distribution of wealth.

Water and quality products

It is necessary to link the quality of the water with the tourist attraction and relate it to the gastronomy, the wine, and the quality products included under the certificate: designation of origin.

We have problems in everything related to the residues and to the water. The handcrafted and quality denominations generate industries of small dimension which allows a suitable residues management.

The training acquired by means of these businessmen and the legal existing requirements currently favour the sustainable development of these activities, compatible with the water state protection.

Weser

The workshops regarding the tourism component were well attended. Participants from various departments of local authorities felt addressed to get information about different aspects in terms of tourism.

Planning's within cities regarding e.g. the rebuilding of a domestic harbour in the city of Emden or the reanimation of a former swimming place at a natural river in Oldenburg reached the same interest as planning's around water bodies or rivers in rural areas.

The most conspicuous aspect during the workshops was the close connection between tourism, nature conservation and water management.

Every impact or measure e.g. along water systems changes the conditions and attributes of the landscape and can have a positive or negative effect on tourism.

Measures, which regard the demands of the WFD and enhance the worth of a water systems, can have an enormous effect on leisure activities and recreation in the nature.

Tourists will visit the location and spend money within the county or municipality, which is a huge advantage for local authorities in times of financial shortages.

Within the Weser area water bodies and river are the most important attractions for tourism.

A well organised infrastructure is needed to make those leisure and recreation areas reachable for visitors and protects the nature from illegal impacts.

A good water quality as demanded by the WFD is the basis of sound water bodies with high diversity of species and a high worth of recreation for residents.

Smooth tourism is only possible and worthwhile, if the different departments of local authorities cooperate.