

Danube Transnational Programme CAMARO-D

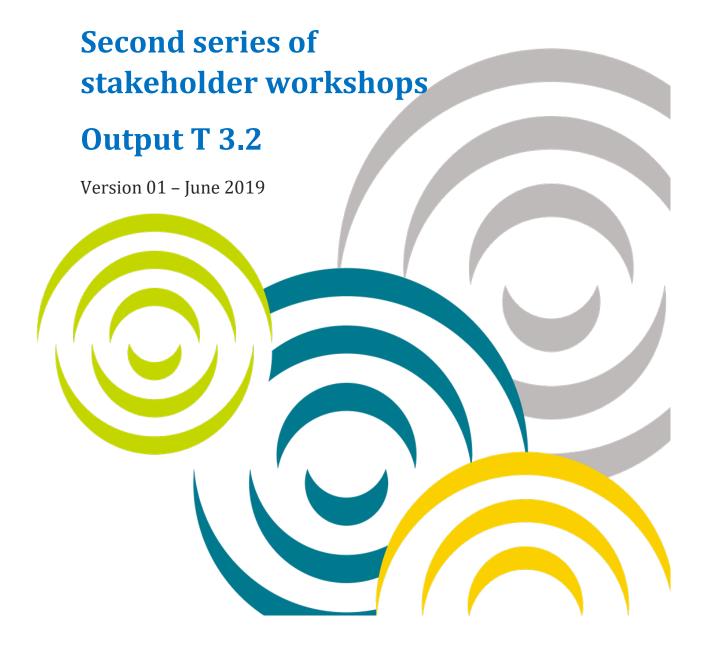


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INTRODUCTION (BACKGROUND AND CONTEXT)

Water related land use planning in <u>transnational</u> context is one of the focus areas of CAMARO-D project. Transnational in this case refers to the Danube River Basin which is mostly on the territory of EU Member states or EU candidate countries. This being the case, EU Policy and regulations are the most important determinants of the planning scene in the area covered by the project. Understanding this scene is therefore of crucial importance.

LAND USE PLANNING

Land use planning refers to the process by which a society, through its institutions, decides where, within its territory, different socioeconomic activities such as agriculture, housing, industry, recreation, and commerce should take place while taking cognizance of the main determinants of the spatial plans in place. This includes protecting well-defined areas (spatial plans) from development due to environmental, cultural, historical, or similar reasons, and establishing provisions that control the nature of development activities.

All of these provisions should be included in the jurisdiction's land use or zoning code. This code becomes the legal guide for landowners, developers, citizens, and authorities. A good system of protected areas, together with strong land use provisions, should result in a less-polluted jurisdiction. While spatial plans tend to be development oriented (pro development) land use plans are more often than not restrictive in nature and protective in character (constraining development).

It is noted that every land-use planning project is different. Objectives and local circumstances vary, but the content and aims are more or less similar. Furthermore, the development of joint standards on transnational level is a challenging and slow process, but it is essential for the development of the reliable LUDP at a basin level.

Making recommendations on the basis of the national practice and experience for the improved coordination of water management and spatial planning is essential for the elaboration of the planning for sustainable land management on transnational level.

The CAMARO D Project has identified the following main problems and weaknesses regarding land use planning in the participating countries:

- Stakeholders are aware of the insufficient monitoring and data to quantify the environmental impacts of their activities.
- Qualified human resources are limited. In most cases the current employees involved in land use planning are fully occupied with their daily obligations.
- Many stakeholders feel that they need to improve the dissemination of their positive environmental actions among the general public. Most of the positive actions are not properly communicated. Most of the stakeholders miss public relation know-how.



- Several countries of middle and lower Danube mention lack of involvement in EU and transboundary environmental projects.
- The most important barrier of the organization development towards better environmental conservation is increased administration.

It is clear that under current circumstances the transnational water related land use planning can most effectively be initiated and implemented if it is a set within existing system wide boundaries and frameworks. CAMARO D aims to integrate water related land use planning into the WFD planning framework as this is seen as the only vehicle for transnational water related land use planning.

The process, content and extent of RBMP is a set by the requirements of the WFD and water related land use plans would fit into this through integration into different stages of the RBMP development and especially within the context of the program of measures which every RBMP must contain.

This will effectively make water related land use planning an integral part of the RBMPs and will be well integrated into the so called "water box" of decision making in the water sector.



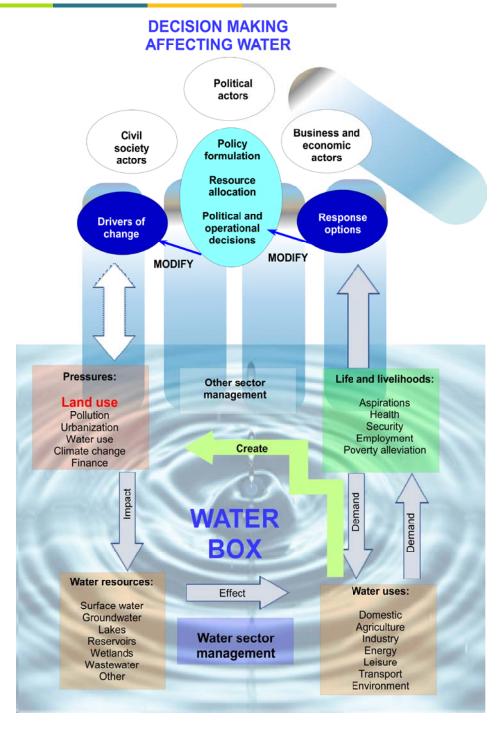


Figure 1. Decision making affecting water (Modified from WWAP 2009). The 'water box', showing issues, decisions, and actions directly within the scope of water managers, and the connection to influencing factors outside the "water box"



INSTITUTIONAL COOPERATION

It is critical to build on existing institutions wherever possible, and avoid unnecessary transfers of authority from one body to another. Requirements for shifts of institutional mandates and responsibilities can take a long time, and eventually cause the failure of well-intended reforms.

A variety of different approaches to engagement with other government institutions is possible. It is important to clarify the type of engagement that is most appropriate at different stages, distinguishing between:

- Review (incorporation): where the basin land use planning process needs to incorporate
 aspects of another sector's plan, that is either already completed or requires relatively little
 input from basin water resources planning; this is appropriate where the inter-relationship
 between the planning processes must be considered but are relatively independent.
- Consultation (alignment): where planners recognize there is a need to exchange views and
 information before acting, while accepting that the two processes remain independent; this
 is appropriate where planning decisions have an impact on each other and should be aligned
 as fares possible, but do not require harmonization as mandates are distinct.
- Coordination (harmonization): where the basin plan (and its implementation) requires harmonization between two planning process; this is appropriate where there are close interfaces or overlapping mandates which require coherence and consistency in application.
- Cooperation (integration): where the basin plan must be integrated in content and process
 with another process, leading to some degree of joint decision making; this is appropriate
 where effective and/or efficient implementation requires common action and/or response.

NON-GOVERNMENTAL STAKEHOLDER ENGAGEMENT

Complex highly developed basins such as the Danube basin tend to have diverse water and land users and interest groups at a range of spatial scales and focused on various basin issues. Increasingly, major business, private sector and civil society organizations are becoming involved in land and water planning exercises. Typically these organizations are in addition to the governmental institutions that need to cooperate, and they may all have some level of influence on the implementation of the water related land use plan. Properly designed, this stakeholder engagement can complement the institutional cooperation discussed above.

Particular complementarities may be found between the public and the private sector, with the potential benefits of an active collaboration and capacity-sharing, although it is important to be



mindful of the possible negative consequences related to perceptions of other stakeholders around institutional capture.

With the focus still being on obtaining diversity, generating ownership and fostering cooperation, in stakeholder engagement it can be useful to distinguish between:

- informing stakeholders, through the provision of information to assist them in understanding the problems, opportunities and response,
- consulting stakeholders to consider perspectives and feedback around issues, priorities,
 objectives and solutions before decisions are made,
- **involving stakeholders** in making decisions throughout the process in order to ensure that their concerns and interests are incorporated,
- collaborating with stakeholders for joint decision making leading to joint action, including the development of objectives and the identification of preferred solutions.

Stakeholder engagement must recognize the differences between these levels, acknowledging that each has a role in the basin planning process for different stakeholder groups. A balance needs to be maintained between informing many groups and people and involving only those that are most relevant. When done effectively, stakeholder engagement becomes the basis for strengthening the institutional and bureaucratic arrangements on which implementation will depend, because stakeholder resources and cooperation may be mobilized through the development of local stakeholder structures (such as committees and forums).

SECOND SERIES OF STAKEHOLDER WORKSHOPS - OBJECTIVES

The application of the GUIDR and stakeholder toolkits is the central part of the "Visionary Danube" work package. The Initiation of the practical implementation of the GUIDR in the pilot areas began during the second series of stakeholder workshops. Water related land use planning processes were presented showing the key planning principles and how to prepare a program of measures tailored to a specific area and its specific needs.

The CAMARO-D project aims to provide the initial steps for transnational catchment-based cooperation in the sector of Land use development planning. The Danube region characterized by various land uses within the catchment basin and taking into consideration the various factors which influence land use development local and regional differences must be taken into account.

The GUIDR document should lead towards a common transferable process for land use planning in **WFD Protected areas** in the context of improved water management in the Danube River Basin.

The **objectives** of the 2nd stakeholder workshops include:



- The introduction and definition of key concepts regarding land use development planning and the planning process itself.
- The initiation of practical implementation of the GUIDR document within the pilot areas where the workshops are being held.
- Definition of gaps and possibilities of improvement within existing national planning systems
- Stakeholder empowerment through a set of recommendations from the aspect of water management related land use planning
- Stakeholder empowerment through the presentation of available BMPs tailored for the specific pilot (protected) area.

SECOND SERIES OF STAKEHOLDER WORKSHOPS – IMPLEMENTATION FRAMEWORK

The national stakeholder workshops were organized within the project framework stipulated in D T3.2.1 Initiation of practical implementation of the pilot areas.

It was foreseen that each national stakeholder workshop would consist od the parts, the training session and thematic group discussions.

Part 1 - Training session (Stakeholder empowerment)

- Key concept definitions
- Implementation lineout (GUIDR presentation) DT 3.2.2
- Land use planning in existing spatial planning system at national level (gaps, possibilities for improvement etc) (your content)
- Recommendations report DT3.1.2
- Pilot area best management practices (your content)

Part 2 – Stakeholder feedback

- Thematic group discussions:
 - Situation current state relative to recommendations
 - Set objectives and priority actions to address gaps in relation to recommendations (Create transnational environment)
 - Selection of appropriate BMP to include in Program of Measures in RBMP for the pilot area (Protected area)
- Conclusions summary stakeholder input

SECOND SERIES OF STAKEHOLDER WORKSHOPS – GENERAL INFO

Total of 9 national workshops were held across the Danube region, details were provided in the Table below.



Country	Workshop Title	Workshop date and place	
Austria	Groundwater protection and protection against floods – interfaces with land use and spatial planning	14.03.2019, Irdning- Donnersbachtal	
Bulgaria	Best management practices and land use planning recommendations in terms of water protection and flood risk prevention on catchment level elaborated in Camaro-D project	21.03.2019, Sofia	
Croatia	Land use planning in relation to water resources management and protection	12.03.2019, Ogulin	
Czech Republic	Land use in relation to the water regime in the Morava and Dyje basin	18.03.2019, Brno	
Germany	Information event about soil protection liming	12.04.2019, Freiburg	
Hungary	2nd national stakeholder workshop of the CAMARO-D project	04.04.2019, Budapest	
Romania	Land uses and water resources	19.03.2019, Bucharest	
Serbia	Land use planning as a critical component of water management	18.03.2019, Belgrade	
Slovenia	The challenges of protecting water resources, flood protection and space management	19.03.2019, lg	

SECOND SERIES OF STAKEHOLDER WORKSHOPS - STAKEHOLDERS

Participatory planning requires the involvement of concerned stakeholders. This includes identifying public concerns and values and developing a broad consensus on planned initiatives. It is also about utilising the vast amount of information and knowledge that stakeholders hold to find workable, efficient and sustainable solutions (CAP-NET 2008).



High involvement in the process by a variety of stakeholders tends to generate better outcomes and a greater sense of ownership.

Key stakeholders to be involved in strategic planning are those having a vested interest in the success of the relevant plan. They include national and regional governments, local authorities, professional organizations and their associations, civil society, each having a particular role within the planning process and a unique perspective about what it will take for the planning process to succeed.

Stakeholder opinions and their insights are especially valuable in the early stages of planning where they add insight when assessing the current state, but equally provide to formulating visions and goals of a certain plan and to understanding the operating environment. They know the strengths and weaknesses of the planning process, often understand what gets in the way of success, and have first-hand knowledge of what it takes to deliver.

The first step in the practical implementation of the any planning process, the GUIDR concept included, is the empowerment and education of all relevant stakeholders. This is a key step which can be achieved through education of stakeholders about the key principles of land use planning and cause and effect relationships of any undertaken activities (pressures and responses).

Stakeholders, who attended the second series of stakeholder workshops organized by the CAMARO-D project partners represented 5 main sectors of concern (environmental protection, water management, spatial planning, agriculture, forestry) for integration of land use planning with water management.

Number of participating institutions and organizations is given in the Table below.

Country/Sector	Environmental protection	Water management	Spatial Planning	Agriculture	Forestry
AUSTRIA	2	3	3	3	4
BULGARIA	3	4	1	1	4
CZECH REPUBLIC	4	3	5	1	/
CROATIA	1	5	/	/	/
GERMANY	1	/	/	/	4
ROMANIA	4	3	/	1	5
SERBIA	4	5	2	1	/
SLOVENIA	13	9	11	2	3
HUNGARY	4	4	3	3	1
TOTAL	36	36	25	12	21



WORKSHOPS FINDINGS – STAKEHOLDER'S CONCLUSIONS AND RECOMMENDATIONS

AUSTRIA

All Best Practice Manuals developed within CAMARO-D pilot areas were presented and more or less met with approval by the audience. Also the existing legislative framework in Austria is seen as adequate, but the problem is the implementation and the corresponding monitoring. Nevertheless, the current EU subsidy system (CAP) should not comply only with the relevant size of cultivated areas, but compensate for additional measures that go beyond the level of the national/regional legal frame (e.g. ecological and prevention measures). In this connection the importance of awareness raising and appropriate training courses and education were mentioned.

Site-adapted *grassland management* (appropriate livestock units per ha, paddock management) is very important in terms of erosion and mudflows as the soil is kept well rooted. In case of intensive grazing this effect is reversed. Also smaller quantities of manure, but therefore more often during the vegetation period is better than at once. As the nitrate balance on mountain pastures is often negative additional amounts of manure taken from valleys could be applied, but this practice should be forbidden within drinking water protection zones (DWPZ). Nevertheless, existing problems are biogas plants and intensive manuring: in these cases, the relevant farmers have to be contacted directly to change their behavior. A general situation in Austria is that grassland and pasture areas are decreasing, mostly due to fewer revenues than in crop farming or forestry.

On *agricultural areas* (pilot area Gnasbach) the amount of eroded soil is the most interesting issue for the farmers. The conducted surveys revealed that cultivation related changes within the most endangered areas lead to a significant decrease of erosion processes. Therefore, the aim in the future will be to select the most critical areas concerning erosion and then to determine appropriate measures. In this context the contact with the farmers, the Agricultural Chambers and the Land Consolidation Authorities should be envisaged. In case of involved settlement areas also water engineering departments and the affected municipalities should work together. In this connection also the importance of pluvial flood hazard maps was mentioned, which exist in most of the Austrian federal states. Furthermore, other land use management possibilities in areas prone to erosion should be considered, e.g. grassland (this was the previous land use in the pilot area Gnasbach). New crops, new crop species and new farming methods including combinations should be tested ecologically and economically.

Within the Enns valley discharge modeling depending on different land use types and vegetation covers was conducted to show potential flood areas. The result of these surveys is that forests in combination with shrubs are the most effective plant cover for flood mitigation.

Also existing *spatial planning* instruments in Styria were evaluated according to their effectiveness concerning flood risk management. The "Programme for Flood-Safe Development in Settlement Areas in Styria" as an example aims at minimizing risks in case of flood events or events occurring in torrent



and avalanche catchment areas by taking appropriate spatial planning measures. It defines rules, legally binding for zoning at municipal level, in terms of restrictions (no zoning of building land in the 100-years flooding area and in red hazard zones related to the hazard maps of the Austrian Service for Torrent- and Avalanche Control) and related exceptions concerning zoning of building land in flood-prone areas. Nevertheless, in some cases this legislation was circumvented by means of adapted building constructions above the identified flood line. In any case planning instruments on regional level are quite rare in Austria. For example, regional water management programmes (as regulated in the Austrian Water Act) are not implemented so far.

Within small torrential watersheds the effect of the relevant land use is higher than in larger catchments. The problem in small valleys in Austria is that many buildings are already located in hazard zones. Therefore, the only possibility is to protect them through technical measures.

A new approach in Austria is the development of so-called "Watercourses development- and risk management concepts", a general planning instrument with improved and efficient cooperation of all involved authorities (e.g. Federal Water Engineering Administration, Austrian Service for Torrent- and Avalanche Control and the Federal Waterway Administration, departments of spatial planning, nature protection, agriculture/forestry) to harmonize the targets of the Water Framework Directive and the Floods Directive towards a coordinated concept of measures. The first project (IRIS) started in January 2019 and can be seen as a best practice example for cross-sector and cross-regional coordination.

Concerning *drinking water protection*, a very comprehensive bundle of measures was presented, which has to be spread also outside of the existing pilot areas. In the future "Water Safety Plans" for risk assessment have to be developed according to the new EU Drinking Water Directive. In this context a new tool (QMRAcatch) for source-targeted simulation of microbial concentrations in rivers was presented by Vienna Water.

BULGARIA

Workshop conclusions:

The cooperation and exchange of experience between local authorities and river basin directorate which was realized during the implementation of pilot actions and 1st stakeholder workshop was extended on national level and the future activities in cross-sector cooperation were proposed. Crucial element of land use planning on watershed level is to guarantee the environmental, social and economic functions of every land use type. This is a very hard process, which requires good planning and effective partnership between all stakeholders and decision makers. Stakeholder engagement is an integral part of good practice in modern policy-making, particularly in initial stages of policy development.

For the successful development of a concept for land use planning a good governance for the effective coordination of policies between different sectors and policy levels is required. Horizontal coordination of sectoral administrations and policies, vertical coordination of different levels of responsibilities and the active involvement of all relevant stakeholders is essential. The 2nd



Stakeholder workshop provided possibility for collaboration between relevant institutions and to exchange experience, ideas and opportunities for future common activities related to land use planning and management on catchment level.

The development of joint standards on transnational level is a challenging and slow process, but is essential for the development of the transnational concept for land use planning. Provision of national inputs and common work with stakeholders is crucial for the process. The assessment of recommendations for land use coordination in terms of transferability to other regions in the Danube River Basin is leading to better comparability and improved coordination at national and respectively on transnational level. GUIDR was found as an innovative and unified know how tool for better understanding of the process and as a guiding document for successful decision making process in terms of land use planning and management.

Workshop recommendations:

Through enhancing the communication between stakeholders and institutions a better planning strategy could be developed. The recommendations on the basis of the national practice and experience for the improved coordination of water management and spatial planning are essential for the elaboration of the planning instrument for sustainable land use management. As the interinstitutional collaboration is a challenging task more workshops and common meetings are needed to exchange experience and ideas. Field trips and terrain work was found essential for better formulation of the problems, risks and vulnerabilities and to extrapolate the results on a large areas. Participation of the relevant stakeholders from different land use sectors in field trips is essential also for collaboration between institutions on local and regional level and for transferability of the lessons learnt. Know-how exchange, discussion and coordination between experts and representatives from different sectors and institutions to improve the efforts and cooperation between authorities dealing with different issues (water management, forestry, agriculture, spatial planning etc.) is an advantage and gives the possibility for better governance.

Once developed, to guarantee the implementation of planning instruments for sustainable land management, mechanisms of enforcement and capacity-building are essential. In practice cross-sectoral system is only partially functioning and improvements are needed. Improvements should be focused on formalization of cross-sectoral cooperation and capacity building in this direction.

CROATIA

Workshop conclusions:

Positive outcomes of the 2nd stakeholder workshop are acquired information about the area's status quo and issues it is coping with i.e. direct identification of present risks (such as wastewater drainage systems, water supply losses etc.), knowledge and experience exchange through relevant stakeholders' engagement.



All of the participating practitioners agreed how the principles of integrated catchment management, which takes into account land use and water resources protection goals, is the fundamental step towards sustainable spatial development. All of the lecturers called attention to a significance of site-adapted approach and measures, which are a prerequisite to sustainable planning and management. However, the joint conclusion is that awareness raising activities and education of general public on existing environmental pressures should be taken to a higher level.

Workshop recommendations:

Although specific stakeholder targeting was carried out prior to the workshop, lesser number of interested persons came, which could have been avoided by selecting more appropriate communication tool for reaching targeted audience (e.g. contact by phone, disseminating promotional materials at the pilot area, more individual meetings etc.).

CZECH REPUBLIC

Workshop conclusions:

The workshop discussed the issue of water management in the landscape, the current state of the landscape in terms of water retention, erosion intensity and nutrient transport during precipitation-runoff and erosion events. The workshop participants were presented with the current possibilities of implementing measures to improve water management in the landscape. Modern tools for obtaining landscape status data have been introduced. Furthermore, the issue of the design and implementation of erosion protect measures and flood protect measures, including funding options, was addressed in detail.

Workshop recommendations:

The workshop participants agreed that the problem of water retention in the landscape and intense erosion, transport of nutrients is significant problem in the Czech Republic. They also agreed, there are many possibilities how to solve the problem. These are classic solutions and also very modern approaches that use new technologies. An important problem is the inadequacy of information flows between the research sphere and entities that actually manage the landscape. There is also insufficient communication between state entities, which can provide funding for the implementation of landscape protection and water management facilities, and companies managing the landscape. Improvement in this communication paths would significantly contribute to greater efficiency and more successful implementation of protect erosion measures and flood protection measures, and then to the improvement of the current state of the regions in terms of water protection of soil.



GERMANY

Workshop conclusions:

Soil protection liming will be implemented in intervals within the next three years in the region. planning and sampling in 2019, liming in the state forest in 2019 and 2020, liming in the municipal and private forests in 2020 and 2021.

Workshop recommendations:

A recommendation derived from the workshop is a more intensive investigation of the impact of liming on ants.

HUNGARY

Workshop conclusions:

Participants have generally found that the GUIDR would be a useful reference for their future work, and many have requested to be informed once the final outputs of the project are published.

Workshop recommendations:

Continued coordination between stakeholder groups is a key element in successful implementation of any GUIDR guidelines. Hungarian case studies should be carried out to better showcase the applicability of some proposed measures.

ROMANIA

Workshop conclusions:

The need of measures to maintain or increase water availability at the source. These measures aim at the permanence of non-permanent accumulation lakes so as to meet the water requirements of the use, the safety of the a of hydrotechnical works by their physical rehabilitation, modernization and the extension of some capture facilities, the continuation of some works, reactivation of underground water sources in conservation, etc. Details of these works as well as the main parameters their performance is presented in each one's Plans river basin district.

Water Framework Directive, as well as Floods Directive are curently implemented in Romania at the level of river basins;

In the last years the DPSIR conceptual model regardind soil and water conservation in a river basin has been applied at a national level, as it was presented to the stakeholders in terms of soil erosion in a torrential watershed;.

Adoption of low environmental impact care or exploitation works in water protection areas;

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Project co-funded by European Union funds (ERDF, IPA)



Adoption of a unitary set of organizational measures and biological, agrotechnical and hydrological works for the main purpose of water control and soil protection.

With regard to urban planning, stakeholders informed that there are 4 types of urban planning: General Urban Plan (PUG), Detailed Urban Plan (PUD), Zonal Urban Plan (PUZ) and County Land-use Plan (PAJT), and all key stakeholders are involved for approvals and for CSC (storing and capturing of carbon) for which the Agency for Environment Protection is in charge. In some cases of protected area, the Zonal Urban Plan could be suspended.

In the case of logging forestry, Rosmilva has invited the Forestry Association of Romania, which represents all the active economic operators, to offer financial and economic facilities in order to purchase these funiculars, and Romsilva to provide guarantees for the economic agents that will have these installations and to allow them field for logging.

In case of the forest exploitation, besides the funicular way, there are ways of exploiting the wood, with a reduced ecological impact, one of the technologies used being "FORWARDING" (the forwarder tractor which is specialized for the short wood approaching - under 6m length, by wearing) A study has been made to measure the environmental impact, but until such an attitude is taken, a study is needed to ensure that there is no mistaking in promoting such equipment. In the case of this technology, there are still chemical substances resulting from exploitation, but there must be a way in which, at EU level, the results of such research are transmitted to other countries.

There is a need for a more dynamic legislation, e.g. the alignment of the legislation for NATURA2000 sites with agricultural/economical/water management issues.

Workshop recommendations:

Identify and implement at national level models of good practice (on use and water management) developed in European projects;

The stakeholders should be more and more involved in land use and spatial planning activities at different levels within a river basin. Planning decisions regarding water quality and quantity have to be mandatory taken at the river basin level; Changes at the micro / individual level, through own measures, which have no impact or are limited by legislation. The power of the example, e.g. to take over the technological part that is useful, which is not restricted and can be used, and which can be applied individually, locally, and not to expect only proposals from the central level.

Dissemination of GUIDR and LUDP to stakeholders in order to analyze and submit their amendments and comments.



SERBIA

Workshop conclusions and recommendations:

Given that water provision and governance of water systems are of a complex nature, involving many different stakeholders at different levels and shaped by the political and institutional context of a country, it was emphasized that in order to ensure effective water management it is necessary to establish its close connection to spatial planning.

The workshop participants concluded that water protection should be an obligatory segment of all planning documents, its treatment differing depending on the level and type of the planning document. In the context of water protection and water management, spatial plans are developed for specially intended areas being sources of water supply.

A comparative analysis of examples of existing practices for specially intended areas for the water supply point to inherent deficiencies in the current water and nature planning and protection frameworks and identify some of the areas where policy and regulatory frameworks need to be improved.

It is evident that the importance of spatial planning and its links to objectives of resource protection should be significantly improved and that such improvement should promote quantifiable and functional links between the desired water protection targets and protection measures that are at disposal of planers and other responsible professionals.

One possible improvement consists of undertaking certain activities to more efficiently protect and plant water supply resources. In relation to this, the role of the River Basin Management Plans and Water Pollution Protection Plans should gain prominence in the future as these are the plans within which resolution of inherent conflicts of resource use and protection should be resolved and in which full public participation and review are expected to occur and ensure that all interests at a broader then local scale are considered and articulated.

With respect to the Sanitary zones, it is evident that significant changes are needed to bring the regulations in line with the intended objectives and make them much easier to implement in practice. In this context, it is of special importance that due consideration is given to uniqueness of each situation in the field and the need to avoid conflicting and confusing situation in practice. Here it is critical that delineation of protected zones and protection measures that will be put in place do not defy common sense and result in unimplementable situations in practice (e.g. fencing of the lake along all of its perimeter) and prevention of activities which are not compromising the use of the resources for the intended purpose. Of special importance is also the setting of targets for allowable loading of the reservoirs on case by case at the level that will ensure long term maintenance of water quality at the desired level.

Greater cooperation and better communication between institutions in the field of water resources and spatial planning is a must. Be it in the form of developing studies of sanitary protection zones or



spatial plans for specially intended areas of water supply sources. The spatial plans take an integrated view of the area and this should make it possible to protect water supply sources in accordance with the development interest of the given area in general and the country as whole.

Participants evaluated the workshop as very successful and emphasized the significance this kind of cooperation has for the professional development and improvement of relevant skill set, which will lead to more efficient protection of water resources, especially by applying innovative land use management measures.

SLOVENIA

Workshop conclusions:

1. DRINKING WATER RESOURCES PROTECTION CONCLUSIONS

The problem with pollution of water resources lies in the lack of comprehensive spatial planning. During the planning, there is not enough emphasis on the impact on the environment and water. All stakeholders, especially the land owners, should be involved in decision-making processes. Professionals often feel irrelevant because they are repeatedly overlooked or disregarded in the land use and development planning processes. On the other hand, some powerful, influential individuals and their private interests are often dominated over the common public interest.

2. MODELLING CONCLUSIONS

There is a need for integrated models (hydrological, hydraulic, hydrogeological, etc.) in decision-making processes. Due to time constraints and resource limitations, models either do not take into account a sufficient number of scenarios, or they are based on outdated data. Analysing a large number of scenarios is particularly crucial when planning future state. In modelling, there is a great need to integrate climate change, green infrastructure and ecosystem services. After the model has been established, policy interest and support are needed to implement the solution.

3. COMMUNICATION AND NOISE CONCLUSIONS

Experts' opinion is sometimes ignored. Sometimes, the professionals are forced (either by decision makers or investors) to adapt solutions which are not in line with the law. The professionals have good experiences with interconnection; some problems can arise due to inter-institutional blockades and hierarchy (e.g. between two ministries). The biggest problems are the relationship between the land owners and the managers of private property, and the lack of project integration.

Workshop recommendations:

1. DRINKING WATER RESOURCES PROTECTION RECOMMENDATIONS



In spatial planning, it would be necessary to ensure better integration among institutions in the fields of agriculture, forestry, environmental protection, municipal engineering and others. This would improve the sense of unity in the profession, strengthen it and make it more effective.

- Expansion of drinking water protected areas and more consistent implementation of measures and compliance with prohibitions in these areas should be required.
- Better control over the execution of the connection and operation of small wastewater treatment plants.
- Each parcel of land should have green areas and be embedded in the flood safety program.
- The public should be involved in the spatial planning process from the very beginning. It would also be necessary to provide simultaneous education and awareness rising of the general public.

2. MODELLING RECOMMENDATIONS

- When modelling future conditions and other precarious situations, it would be necessary to include a number of different scenarios. The latter also applies to the integration of climate change.
- Solving spatial problems, covering a wider area (e.g. the flooding), would require the cooperation of several municipalities and joint procurement of models. These problems could be resolved comprehensively at the level of river basin. Joint procurement of models would be more economical and less time consuming.
- In solving spatial problems, it is desirable to integrate different disciplines and to improve cooperation between the strategic and operational levels.
- Designed models need to be supported by the politics.

3. COMMUNICATION AND NOISE RECOMMENDATIONS

- Institutionalization of follow-up projects with the purposes of mutual communication and connectedness between projects. Projects PROLINE-CE and CAMARO-D were outlined as cases of good practice in the area of mutual connectedness.
- Need for institutionalized coordination group, which would connect and synchronize projects for synergistic results.

CONCLUSIONS

Towards the end of project-implementation, another series of national workshops was held in each participating country in order to present the GUIDR and recommendations provided within the document.

Given that water provision and governance of water systems are of a complex nature, involving many different stakeholders at different levels and shaped by the political and institutional context of a



country, it was emphasized that in order to ensure effective water management it is necessary to establish its close connection to spatial planning.

The GUIDR was found as an innovative and unified know-how tool for better understanding of the process and as a guiding document for successful decision-making processes in terms of land use planning and management. Participating practitioners agreed on the implementation of the principles of integrated catchment management, which take land use and water resources protection goals into account. This is a fundamental step towards sustainable spatial development that will ensure the environmental, social and economic functions of every land use type.

The development of joint standards on transnational level was perceived as a challenging and rather slow process, but essential for the development of the transnational concept for land use planning. Provision of national inputs and common work with stakeholders is crucial for the process. The joint conclusion was that awareness raising activities and education of the general public on existing environmental pressures should be taken to a higher level since the stakeholder engagement is an integral part of good practice in modern policy-making, particularly in initial stages of policy development. Continued coordination between all stakeholder groups is a key element in the successful implementation of any of the GUIDR guidelines.