Feasibility Study

Strengthening Regional Cooperation / Networking in the Forestry and Water Management Sector and Sustainable Development in the River Basins of the South-Eastern European Countries

Final Report

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

On behalf of BMZ Federal Ministry for Economic Cooperation and Development

South Eastern Europe SWG RRD Regional Rural Development Standing Working Group

Feasibility study

Strengthening Regional Cooperation / Networking in the Forestry and Water Management Sector and Sustainable Development in the River Basins of the South-Eastern European Countries

Cooperation between the water sector and forest sector at national and at regional level is a prerequisite for tackling the challenges of integrated water resources management and sustainable rural development. The current lack of cooperation between the forest sector and the water sector in the South Eastern European Region is hampering sustainable development and approximation to the European Union. The following study presents information about why cooperation is needed, assesses the current status of cooperation, identifies the impediments to enhance cooperation and presents a proposal for the establishment of a functional network or Commission to improve the cooperation between the two sectors in the region.

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The feasibility study was prepared in close cooperation with the Regional Rural Development Standing Working Group in South Eastern Europe (SWG RRD. The SWG RRD is an International Intergovernmental Organisation, consisting of members from governmental institutions in South Eastern Europe responsible for agriculture and rural development in respective member countries and territories. The SWG vision is to promote innovative and sustainable agriculture and rural development through regional cooperation, to improve rural livelihoods in the SEE countries.

Wageningen UR Centre for Development Innovation (CDI) works on processes of innovation and change in the areas of secure and healthy food, adaptive agriculture, sustainable markets and ecosystem governance. It is an interdisciplinary and internationally focused unit of Wageningen University & Research centre within the Social Sciences Group.

Through facilitating innovation, brokering knowledge and supporting capacity development, our group of 60 staff help to link Wageningen UR's expertise to the global challenges of sustainable and equitable development. CDI works to inspire new forms of learning and collaboration between citizens, governments, businesses, NGOs and the scientific community.

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Preface

In April 2010 the project "Strengthening of the regional cooperation/networking in the forestry and water management sector and sustainable development in the river basins of the South-Eastern Europe countries" started as cooperation between the Regional Rural Development Standing Working Group in SEE and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ GmbH). In December 2010 two international experts have been contracted to perform a feasibility study aimed to assess the options for increased cross sector and cross border cooperation in the field of water management and forest management. According to the Terms of Reference the goals of the feasibility study are:

- Assess the feasibility and potentials for creating an enabling environment for promoting integrated water, forestry and land management;
- Define the necessary steps for the development of a functional network (within SWG or outside of SWG) or Commission on sustainable forestry and water management.

The overall aim of the project is to help the countries in South Eastern Europe to enter the European Union; Bulgaria, Romania and Slovenia are for that reason not included in the project. The participating countries, Albania, Bosnia and Herzegovina, Croatia, Kosovo[i] (UNSCR 1244) Macedonia, Montenegro and Serbia, are at various stages of approximation.

The feasibility study was conducted from December 2010 to February 2012 and the results were presented at an international conference for the seven SEE countries in March 2012.

The international experts were supported by national experts, one on water management and one on forestry, from each of the seven SEE countries. The national experts have prepared the country baseline reports, which are incorporated into this feasibility study. The national experts also assisted in organising the national workshops. We would like to thank the following national experts for their commitment and excellent work in helping to carry out this feasibility study:

- Albania: Dr. Miriam Bogdani and Mr. Genti Kromidha
- Bosnia-Herzegovina: Ms. Sabina Hadziahmetovic and Mr. Vladimir Stupar
- Croatia: Ms. Olga Jovanovic and Ms. Jela Bilandzija
- Kosovo[i]: Mr. Avdullah Nishori and Mr. Qazim Kukalaj
- Macedonia: Dr. Ordan Cukaliev and Dr. Ivan Blinkov
- Montenegro: Mr. Velibor Spalevic and Mr. Zarko Vucinic
- Serbia: Ms. Dusica Trnavac and Mr. Alexandar Damnjanovic

The authors of this study would like to thank the secretariat of the SWG for their support in communicating with the responsible ministries in the participating countries and for organising the international workshops. Special appreciation goes to Ms Katerina Dzartovska for her support and guidance and Dr. Joerg Lohmann for staying committed to the project and being the reliable portal to GIZ.

Finally, also a very special thanks to the workshop participants and country representatives from the seven SEE countries. Their participation and strong commitments have identified the needs and priorities expressed in this study report.

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Summary and Main Recommendations

The aim of the feasibility study is to assess the current situation and responsibilities of different institutions in the water and forestry sector and to assess the feasible opportunities for the development of a functional network or committee/working group on sustainable forestry and water management in the South Eastern European region.

The identified problem is the lack of cooperation between the forest sector and the water sector in the SEE region. Close cooperation between the water sector and forest sector at national and at regional level is a prerequisite for tackling the challenges of integrated water resources management. The establishment of a functional network or Commission should address the lack of cooperation between the two sectors in the region.

The study revealed a strong interest for enhancing the cooperation between the two sectors at regional level especially in view of the approximation process towards the EU. The needs and priorities for strengthening the cooperation were clearly defined in the national workshops that were organised in the seven SEE countries and during three international workshops and include increasing knowledge and capacities about relevant EU Directives, exchange of information on best practices, data and knowledge exchange, harmonisation of methodologies and stimulating cross border projects.

The study concluded that the best solution for strengthening the cooperation between the water sector and the forest sector is the **establishment of a Working Group on Integrated Forest and Water Management within the SWG**. The SWG is considered to be the competent platform to initiate and coordinate the necessary steps to strengthen the cooperation between the sectors. To further promote an integrated approach to water and forest management, it is recommended to also involve the nature protection sector in the cooperation.

To enhance sustainable development in the SEE region on the long term, the signing of an intergovernmental convention for sustainable development to be ratified by the parliaments of the respective countries is recommended. The preparation and signing of such an agreement is however a time consuming endeavour and will possibly involve lengthy negotiations between representatives of the countries but to our understanding the SWG is well placed to initiate and coordinate this process.

Main priorities for cooperation between the two sectors

During the study, a number of topics requiring cross sector cooperation between the water and forest sector at a regional level was identified including:

- Harmonising policies and legislation on water management, forestry, spatial planning and nature protection;
- Stimulating cooperation on integrated water and forest management planning with incorporation of forest management measures such as the protective functions of forests to prevent erosion and flooding and to secure water quality;
- Developing policies and strategies for forest and water management that contribute to mitigating and adapting to the impacts of climate change, including design of joint research projects;
- Elaborating joint strategies on erosion control and minimising erosion risks by setting erosion control measures and identifying key problems causing erosion risks;
- Counteracting loss of biodiversity; managing and setting protective measures for forests in e.g. mountain areas and/or border areas for soil, water and biodiversity;

- Exploring possibilities and sharing experiences on payment for ecosystem services;
- Exchanging experience and best practices from EU Member States on integrated management and harmonisation with EU legislation;
- Increasing human and institutional capacities through training programmes, exchange of expertise, studies etc.;
- Improving participatory management planning, including capacity building in stakeholder analyses, participatory planning and conflict management.

Enhanced cooperation between the two sectors is also supported by a number of EU Directives and international agreements.

- The Ministerial Conference on Protection of Forests in Europe (MCPFE)/Forest Europe; Warsaw Resolution 2 on Forests and Water calls upon member states to sustainably manage forests in relation to water and to coordinate policies on forests and water;
- The EU Forest Action Plan adopted on 15 June 2006 sets four main objectives to be implemented in order to optimise the sustainable management and multifunctional role of the EU's forests. One of the four objectives is that forest management should contribute to protecting the environment;
- EU Forestry Strategy adopted in 1998 and reviewed in 2005 promotes the role of forest in biodiversity protection, protection against fires and pollution, climate change and rural development;
- The EU Floods Directive and EU Water Framework Directive require assessment of water bodies at risk from flooding; mapping flood risks and take adequate and coordinated measures to reduce the risk, including protective measures for forestry;
- The EU Habitats Directive requires to designate Natura 2000 sites for protection of important water and forest habitat types and species;
- The EU calls upon governments to develop policies and strategies for forest and water management to mitigate and adapt to impacts of climate change;
- The EU Common Agricultural Policy calls for comprehensive rural development plans involving relevant sectors.

Increase awareness on the relation between forest and water management

The study revealed that the issue of the cooperation between the forest and water sector is important in the region. However, awareness on the need to improve this cooperation is generally low. Therefore it is believed that the organisation of a High Level Conference on this issue can help to raise the awareness and can help to provide a base for the establishment of the working group within the SWG. This High Level Conference could have a scientific part and a political part. The political part could end with a Ministerial Declaration to endorse continued work and to provide the mandate to the SWG to continue. Next to science organisations, NGO's and government representatives from the region representatives of multinational organisations could be invited including the EU, World Bank, UNEP, etc. The involvement and contribution of river basin organisations is crucial for the success of the Conference and for creating awareness and support for the fact that the forest sector need to be more involved in the planning of water management measures.

Establishing and sustaining the network will require that the SWG member countries increase their financial contribution in order to allow the secretariat to organise and facilitate the working group Finally, it is concluded that the maintenance of the network need additional funds which should be raised through the development of programmes and projects like the development and implementation of an awareness raising or capacity building initiative.

The role of the SWG

The role of SWG in strengthening the cooperation between the forest and water sectors is recommended to include:

- Establishing a formalised cooperation on Ministerial level on strengthening cooperation on integrated water and forest management for instance through a memorandum of understanding;
- Assisting in reaching new cross border agreements and/or improving and implementing existing international/cross border agreements;
- Developing and offering a capacity building programme with trainings on integrated river basin management, rural development and other relevant EU policies and directives. Introducing the EU WFD to the forest sector to learn how to influence the planning of IRBMs. Introduce the principles of sustainable forest management to the water sector so they learn how forest management can contribute to sustainable water resources management. Engaging external experts to secure exchange of experiences, expertise and information from EU Member States on EU requirements;
- Facilitating and establishing a regional platform for experts and institutions, as a technical platform for cooperation, exchange of information and data and the organisation of thematic meetings, seminars, workshops and study tours;
- Establishing communication platform with technical expert working group/monitoring groups at local and regional level to stimulate cooperation between institutions responsible for national monitoring systems;
- Supporting the harmonisation and implementation of EU legislation and directives;
- Designing and assisting implementation of concrete cross border projects and initiatives and assisting in fund raising for pilot projects on best management practices on river basins.

The added value of having the working group within the SWG

The challenges of strengthening the SEE regional cooperation between the forest and water sectors go beyond one river basin project. While these basin related initiatives are needed and help to improve the cooperation between the two sectors, a platform to address regional issues on harmonising policies, developing strategies and build capacity is also needed.

The conclusion from the national and international workshops is that the SWG receives general support to establish the "Working Group on Integrated water and Forest Management" within its organisation because the SWG has a broad mission, has the mandate of the ministries from the SEE member countries and is trusted in the region. The added value of such an SEE region-wide platform for cooperation between forest and water management is that it will focus on important cross-sector topics of common SEE interest, which go beyond the integration of forest management into the IRBM of a single river basin. Activities that are important to be coordinated at regional level include:

- Guidance to governments on the harmonisation of legislation in the field of water management and forest management through policy dialogue;
- Develop and execute joint research proposals for instance on how forest management can help to mitigate the impacts of climate change on water resources management;
- Develop joint guidelines for the designation and management of protective forests;
- Develop methods for the payment of ecosystem services provided by forests in relation to water resources management;
- Facilitate information exchange of experiences gained and lessons learned in and coordinate and function as a platform for the various sub-regional initiatives;
- Build capacity to secure sufficient capacity is available at regional level to elaborate IRBM plans, especially in the forest sector.

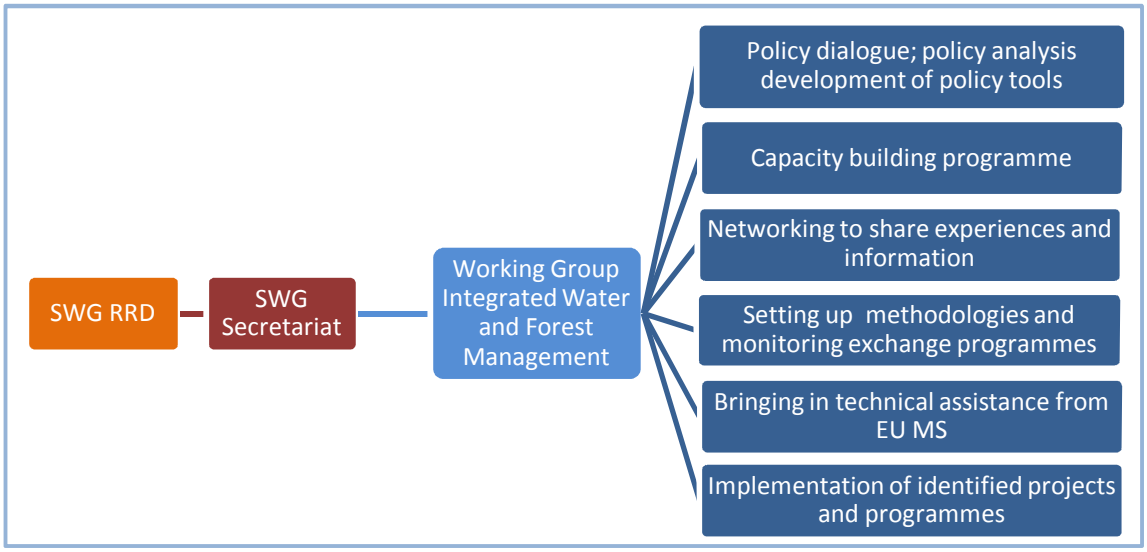
– Facilitate establishment of various prioritised types of monitoring programmes for the two sectors and to secure regional cooperation on e.g. inter-calibration, reference conditions etc.

The SWG can facilitate to bring parties responsible for water management, forest management and nature protection together and help the forest sector to be engaged in the implementation of the WFD and the elaboration IRBM plans for the shared river basins and sub-basins and help the water sector to understand the importance of sustainable forest management for sustainable management of river basins.
Although formally the forest sector is involved in the elaboration of IRMB Plans through stakeholder meetings and providing feedback on draft plans, in practice this involvement is limited because of the lack of knowledge in the forest sector about the EU WFD and the lack of knowledge of the water sector about forest management, leading to undervaluing the importance of the cooperation and involvement of the other sector.

It is recommended that the SWG should build on its existing network, knowledge and experiences from working with rural development and agriculture in expanding its functions and activities by establishing a functional working group on integrated water and forest management.

The proposed structure of working group within the SWG

Organisationally, the organisational structure is recommended to look like this:



The Working Group on Integrated Forest and Water Management (or the "Water and Forest Committee") is recommended to be facilitated by the SWG secretariat but to have its own working group structure. The "Water and Forest Committee" will supervise and guide the work of the technical working groups and meets once or twice a year. It is recommended that the members should be representatives from the Ministries responsible for water management and forestry, implying that from each country two members are represented in the Working Group no matter whether the two sectors are combined in one ministry or separated in two ministries.

It is recommended to establish the following technical working groups under the new "Water and Forest Committee":

– Policy group responsible for the policy dialogue;
– Capacity building group responsible for the capacity building programme and for bringing in technical assistance;

- Networking group responsible for securing sharing experiences and information relevant for the two sectors including bringing experiences from EU member states;
- Technical group responsible for defining relevant activities for setting up methodologies and monitoring exchange programmes including developing research projects on e.g. the impact of climate change;
- Facilitation and implementation of cross-border and/or regional projects;

Proposed activities to stimulate regional cooperation

The concrete actions to be addressed and undertaken by the technical working groups under the guidance and facilitation of the secretariat of the SWG are recommended to be:

Policy dialogue

- Provide guidance on harmonising national forest and water legislation (with spatial planning and nature protection legislation) to secure an integrated approach and to secure harmonisation with EU requirements;
- Develop policies and strategies for forest and water management to mitigate and adapt to the impacts of climate change;
- Develop policies and measures for forest and water management to counteract erosion, floods, droughts and sedimentation;
- Develop policies and measures for combating illegal logging to meet the EU Timber Regulation prohibiting placing illegal timber and timber products on the EU market by 2013;
- Promote inclusion of forest management in rural development plans;
- Initiate and coordinate joint actions and strategies in the frame of EU approximation.

Capacity Building

- Build expert networking in the forest and water sectors to implement the EU WFD (e.g. cost benefit analyses, programme of measures, WB typology, reference conditions, ecological status);
- Harmonise Sustainable Forest Management and Biodiversity Management;
- Build capacity on the implications of Natura 2000;
- Build capacity in the water sector on the contribution of sustainable forest management to secure sustainable water resources management;
- Build capacity on climate change adaptation and mitigation measures;
- Improve capacities for participatory management including stakeholder analysis;
- Build awareness and capacity in the water sector on the provision and financing of ecosystem services provided by forests;
- Build capacity in GIS application tools in integrated water management planning;
- Build capacity on the implications of the new EU common agricultural policy.

Harmonising methodologies and monitoring programmes

- Establish harmonised methods and monitoring systems; flood control, flood or drought prevention, water pollution or water exploitation, fire and pest control and erosion risk control and monitoring;
- Establish harmonised WFD typology for identifying a) surface WBs, b) artificial or heavily modified WBs, and c) groundwater bodies.;
- Develop harmonised WFD methods for assessing a) ecological/ chemical status of surface WBs, b) ecological potential for heavily modified/artificial WBs, and c) chemical/quantitative status for groundwater bodies;

- Establish WFD intercalibration: To ensure that national assessment methods deliver comparable results, intercalibration exercise is required between countries and the EU.

Exchanging information and knowhow

- Exchange expertise, experiences, knowledge and/or best practices on the WFD and integration of water management and sustainable forest management;
- Improve communication and exchange of knowledge and information, achievements and innovations through technical discussions;
- Share knowledge, methodologies and techniques on technical aspect and implications of implementing EU directives and policies;
- Transfer knowhow and best practices from EU Member States.

Initiating, facilitating and implementing projects

- Initiate IRBM Plans of shared rivers and river basins or sub-basins and integrating forest management measures into the plans;
- Initiate joint actions across borders to counteract erosion, forest fires, flooding risks, surface and ground water pollution or overexploitation;
- Protect forests in border areas including controlling forest logging and preventing illegal forest logging in cross-border forest areas;
- Facilitate the designation and management of cross border protected areas including important Natura 2000 forest and water habitat types and species;
- Develop integrated (rural development) plans including tourism development, water management, nature protection and forestry (in accordance with EU RDPs/CAP);
- Promote cross sector cooperation in on-going projects (including IRBM plans);
- Steps to be taken to establish the working group.
- Design and implement research activities on for instance the impact of climate change and potential adaptation measures and the introduction of payments for ecosystem services.

The establishment of the working group under the SWG is recommended to include the following actions, where the secretariat of the SWG will be the key actor until the working group has been established and is operating:

The Preparation Phase

- Analyses of other networks including study trips and establish solid cooperation with on-going initiatives and projects in the region to secure the platform;
- Consider and decide on involvement of the nature protection sector;
- Decision by the General Assembly to create the functional working group(s);
- Elaboration of TOR (concrete proposal including vision, mission and objectives) and work plan for the working group(s) and the role of the SWG secretariat;
- Elaboration of budget and securing donor and/or member state contributions.

The Establishment Phase

- Organisation of a Ministerial Conference to highlight and raise awareness of the importance of integrated water and forest management and strengthening cooperation in the SEE region;
- Endorsement of the Ministerial Conference for the establishment of a working group including allocation of start-up budget;
- Identification of the working group ways of working and operational modes to prepare further decision making including ways of working for and financing of the working group;

- Agreement on the tasks and mandate of the working group(s);
- Selection of the members of the working group(s);
- Arrangements and preparations for the first meeting(s) of the working group(s).

The Working Group(s) Phase

- Carrying out the first working group meeting with review of work plan, appointment of a chair of each topic to be undertaken and agreement on ways-of-working;
- Policy analysis, development of policy tools and policy dialogue;
- Elaboration of capacity building programme;
- Organisation of thematic meetings;
- Networking to share experience and information;
- Bringing in technical assistance from EU Member States;
- Setting up exchange programmes;
- Design of project proposals that focus on integrating forest management and water management in a cross border setting;
- Continuous cooperation with on-going initiatives and projects in the region to secure the working group as a network/platform for the SEE region.

Implementation Phase of programmes and projects

- Capacity building programme;
- Exchange of information programme;
- Methodologies and monitoring programmes;
- Regional and cross-border projects;
- Awareness raising programme.

With this feasibility study the first activities of the preparation phase have been completed and the first task now is to elaborate the TOR and start up budget for the "Water and Forest Committee". It is important to provide insight in the costs related to the establishment of the working group and the options to cover these costs. Besides the possible required increase of the contributions of the member states additional resources will need to be sought to be able to carry out the proposed tasks of the working group and the technical working groups. It is further recommended to discuss the establishment of the working group on Integrated Forest and Water Management in a Ministerial meeting to ensure commitment and support from the members of the SWG.

Given the impressive amount of ideas and proposals that have emerged during the study, it is recommended to agree on a limited number of activities to start with. Continuation of the policy dialogue is one of the most important activities and at the same time the easiest to organise without requiring a lot of additional money. Next to this, also the capacity building and networking activities should be given high priority.

Finally, monitoring and evaluation of the functioning of the working group will have to be performed to secure long-term sustainability, including:

- Evaluation of the functionality of the working group;
- Review of work plans and achieved outputs;
- Report back to the SWG General Assembly.

List of Abbreviations and Acronyms

ANFI	Albania National Forest Inventory
ARDP	Agriculture and Rural Development Plan
BIH	Bosnia-Herzegovina
BMZ	Federal Ministry of Economic Cooperation and Development in Germany
CBD	Convention of Biological Diversity
CDI	Wageningen UR Centre for Development Innovation
CITES	Convention on International Trade in Endangered Species (of Wild Fauna and Flora)
EU	European Union
FAO	Food and Agriculture Organization (of the United Nations)
FBIH	Federation of Bosnia and Herzegovina
FLEGT	Forest Law Enforcement, Governance and Trade
FMU	Forest Management Unit
FODEMO	Forestry Development in Montenegro (project)
FSC	Forest Stewardship Council
GIZ	(Deutsche) Gesellschaft für Internationale Zusammenarbeit
GOA	Government of Albania
HD	(EU) Habitats Directive
ICPDR	International Commission for the Protection of the Danube River
INTERREG	(EU Community Initiative) Inter-regional (Programmes)
IRBM	Integrated River Basin Management
ITTO	International Tropical Timber Organization
IUCN	International Union for Conservation of Nature
MCPFE	Ministerial Conference on Protection of Forests in Europe
MoE	Ministry of Environment
MP	Management Plan
Mt.	Mountain
NAP	National Action Plan
NES	National Environmental Strategy
NFP	National Forest Programme
NFPS	National Forest Policy and Strategy
NGO	Non-Governmental Organisation
NP	National Park
PA	Protected Area
RD	Rural Development
RM	Republic of Macedonia
RP	Regional Park
RS	Republic of Srpska
SAC	Special Area of Conservation

SEE	South Eastern Europe
SEEFOR	South-East European Forestry
SFM	Sustainable Forest Management
SIDA	Swedish International Development Cooperation Agency
SPA	Special Protection Area
SWG RRD	Standing Working Group for Regional Rural Development
TOR	Terms of Reference
UN	United Nations
UNCCD	United Nations Convention to Combat Desertification
UNDP	United Nations Development Programme
UNECE	United Nations Economic Commission for Europe
UNFF	United Nations Forum on Forests
USAID	United States Agency for International Development
UWWT	Urban Waste Water Treatment
Wageningen UR	Wageningen University & Research centre
WB	World Bank
WFD	Water Framework Directive

1 Introduction

1.1 The Feasibility Study

The following report presents the results of a feasibility study carried out within the project "Strengthening of the regional cooperation/networking in the forestry and water management sector and sustainable development in the river basins of the South-Eastern Europe countries" jointly implemented by the SWG and the GIZ. The aim of the feasibility study is to assess the current situation and responsibilities of different institutions in the water and forestry sector and to assess the feasible opportunities for the development of a functional network or Commission on sustainable forestry and water management in the South Eastern European region.

There are major concerns in South Eastern Europe about deforestation along and close to the water courses and drinking reservoirs, causing soil erosion, deposition of pollutants, clogging of water discharge channels, disturbances in agricultural production and decrease of economic lifetime of hydro power plants. In the meantime each country in the region is faced with the challenge of harmonising legislation and practices with EU regulations, such as the EU Water Framework Directive. The main objective of the EU Water framework is to maintain or restore the ecological status of water bodies and rivers. Several other directives, such as the Integrated Pollution Prevention and Control, the EU Birds and Habitats Directives and the Urban Waste Water Directive, as well as the Common Agricultural Policy (CAP) are closely linked with integrated management of water resources. The majority of river basins in the region are not confined to national borders. They rather form cross-border areas managed under the responsibility of separate national governments. It goes without saying that the problems mentioned above and the challenges of EU approximation can only be tackled through an improved process of regional cooperation and coordination between sectors, policy makers and related stakeholders.

The SWG project aims to strengthen regional cooperation in water and forestry management and support harmonisation of national agriculture, forestry and water policies including the integration of the protective aspects of forests in water management. In addition it aims to raise the awareness on protection of natural resources and ecosystems. The specific project aims are:

- To strengthen regional cooperation and networks in South Eastern European countries on all levels (political, technical, etc.) in the forestry and water management sector and raise awareness for water, soil, nature and biodiversity;
- To create a potential for encompassing integrated forestry and water management, supported by the national governments, institutions and international community in the South Eastern European countries where cross-border river basin areas exist;
- To promote stakeholder participation in development of a joint action and coordinative efforts for effective implementation and enforcement of agriculture, forestry and water policies, and improving current levels of enforcement of existing agriculture, forestry and water legislations.

The beneficiary countries of the feasibility study are Albania, Bosnia and Herzegovina, Croatia, Macedonia, Montenegro, Kosovo[i] and Serbia.

In chapter 1 of this report, background information about the feasibility study is provided including the Terms of Reference and the methodology applied. Chapter 2 provides general background information about the linkage between forestry and water management and about why cooperation between these two sectors is important. Chapter 3 describes the situation per country with respect to the organisational aspects, policy goals, current state of cooperation and priorities. Chapter 4 presents an analysis of current cooperation, while chapter 5 presents an overview of the identified issues and priorities, which

need to be addressed through strengthened cross-sector cooperation in the region. Chapter 6 reflects on the feasibility and presents proposals on how regional cross sector cooperation can be promoted looking into the pros and cons and comparative advantages of establishing a network within the SWG or a new commission outside the SWG. In chapter 7, the final recommendations are expressed.

1.2 The Regional Rural Development Standing Working Group

The Regional Rural Development Standing Working Group in South Eastern Europe "SWG RRD" is an International Intergovernmental Organisation, consisting of members from governmental institutions in South Eastern Europe (SEE) responsible for agriculture and rural development in respective member countries and territories. The SWG is a platform for networking and regional cooperation in SEE in the field of agriculture and rural development and was established during the Agricultural Policy Forum 2005 ("Rural Development Opportunities for Co-operation in the SEE") held jointly in the Republic of Macedonia and the Republic of Serbia in June 2005. The formalization and shift from informal network of institutions/Ministries of Agriculture from South Eastern Europe was initiated by the Declaration of the Ministers in 2007 and further strengthened within the Conclusions of the Ministers' Meetings held in Montenegro 2008 and Bosnia and Herzegovina 2009.

The SWG provides a platform for exchange of experiences and mutual assistance in the field of agriculture and rural development by providing services ranging from direct support to member organisations, networking, awareness raising, project identification and implementation, etc.

The agreement on the status and activities of the SWG between the Government of the Republic of Macedonia as the SWG host country and the SWG Presidency was signed on 28th of March 2009. The Agreement was then ratified in the Parliament of the Republic of Macedonia on September 7th, 2009 and published in the Official Gazette no. 113 dated 11th September 2009. This agreement provides the legal background for the functioning of the SWG as an International Intergovernmental Organisation. The SWG managing and coordinating body is the SWG Head Office/Secretariat, based in Skopje, Macedonia.

SWG Strategic Framework and Core Functions

As of 2009, when the Agreement on the Status and Activities of the SWG was signed between the Government of the Republic of Macedonia and the SWG Presidency, making it a fully-fletched organisation, the SWG became an independent body responsible for its own financial resources. At present, the financial resources come from two main sources: the membership fee paid annually by all SWG member institutions and the project management/implementation. Part of this project implementation funding is provided by the Federal Ministry of Economic Cooperation and Development in Germany (BMZ) and implemented through GIZ.

The SWG *vision* is to promote innovative and sustainable agriculture and rural development through regional cooperation, to improve rural livelihoods in the SEE countries.

Its *Mission* is to increase horizontal cooperation among respective countries and territories of South Eastern Europe, by coordinating regional initiatives related to agriculture and rural development and supporting the process of social and economic development of rural areas in SEE region.

The general objective of the SWG is to facilitate close cooperation between the Ministries of Agriculture and other stakeholders in the field of agriculture and rural development and to support EU integration in SEE. The SWG has four specific objectives on which to focus its work:

1. To improve the common understanding on agriculture and rural development policies;
2. To assist in the improvement of implementing structures and systems for agriculture and rural development, with specific emphasis on cross border cooperation;
3. To improve the understanding and the use of implementation tools for agriculture and rural development;
4. To identify and share information and application of good practice in agriculture and rural development in order to broaden the rural agenda.

To achieve the above objectives, SWG uses both **technical/policy** and **political** types of functions. The **core functions of SWG,** in line with the specific objectives, are:

1. Conducting and facilitating policy analysis and presentations;
2. Capacity building of Member Institutions and other stakeholders;
3. Identifying and developing policy tools for development of agriculture and rural development sector;
4. Networking to share experiences and information among Member Institutions;
5. Identifying and implementing regional projects (an operational function).

Funded by the BMZ, the SWG is implementing the regional project on strengthening the regional cooperation/networking in the forestry and water management sector and sustainable development in the river basins of South Eastern European countries.

1.3 The Terms of Reference

During a meeting at the SWG in July 2010 arrangements for the project "Strengthening of the regional cooperation/networking in the forestry and water management sector and sustainable development in the river basins of the South-Eastern Europe countries" including the specific aims of the feasibility study:

To create a potential for encompassing integrated water, forestry and land management, supported by the national governments, institutions and international community in the South Eastern European countries where cross-border river basin areas exist.

To promote stakeholder participation in development of a joint action and coordinative efforts for effective implementation and enforcement of agriculture, forestry and water policies, and improving the current level of enforcement of existing agriculture, forestry and water legislations.

During the project, the main outcome of the study was further defined to include:

Assessment of the feasibility and potentials for creating an enabling environment for promoting integrated water, forestry and land management.

Definition of the necessary steps for the development of a functional network within the SWG or a new Commission outside of SWG on sustainable forestry and water management[1]*.*

According to the TOR, the International Consultants have carried out the following tasks:

- Preparation of methodology and action plan and time schedule for the feasibility study;
- Gathering and analysis of information and documentation from the seven SEE countries;

[1] See work plan for national experts and technical workshop on the EU Water Directive in Herceg Novi in March 2011.

- Meetings with relevant stakeholders and discussions on establishing a formal/institutional cooperation modus, for instance: 1) a functional network within the SWG or 2) a new commission outside the SWG;
- Execution and preparation of the feasibility study including preparation of the final report;
- Participation at workshops with stakeholders and local experts and presentation of results;
- Presentation and promotion of the results and recommendations of the study.

1.4 What is a Feasibility Study?

The Feasibility study is an analysis of possible solutions to a problem and a recommendation on the best alternative. It can decide whether a process can be carried out by a new system or structure more efficiently than the existing one.

In the case of this feasibility study, the problem identified is the lack of cross border and cross sector cooperation between the forest sector and the water sector in the SEE region. The proposed solutions are the establishment of a commission or network and the creation of an enabling environment to strengthen the regional cooperation between the water sector and the forest sector.

The needs analysis is the first activity of a feasibility study as it defines the project outline and the clients' needs and priorities. In the needs analysis, questions are asked to identify the needs and priorities for solving the problems and the expectations for the proposed solutions. In this study, the identified problems, needs, priorities, expectations and proposed solutions have been questioned and discussed at national workshops and international technical meetings.

Based on the needs analysis, the feasibility of the proposed solutions is then assessed on four levels:

Legal feasibility: Determines whether the proposed solutions conflict with legal requirements, e.g. a water quality monitoring system must comply with the national water regulations as well as be in line with EU legislation. The existing national regulations were identified in the country baseline reports, while the requirements on EU level were outlined in chapter 2 of this report.

Operational feasibility: is a measure of how well a proposed solution solves the identified problems, takes advantage of the identified opportunities and satisfies the identified needs and priorities in the performed analysis.

Schedule feasibility: means estimating how long it will take before the proposals become effective. This will depend highly on the funds available and the willingness of donors to invest in the proposals presented in this study.

Economic feasibility: More commonly known as cost-benefit analyses; determines the benefits and savings expected from a proposed system and compare them with costs. This is particularly important in the case of investments planned to change an undertaking in a more cost effective manner and increase the benefits. This is however not relevant in this feasibility study as it is not directly aimed at increasing the financial benefit. The economic feasibility is only briefly looked at also because the SWG plans to discuss the likelihood of funding of the proposed solutions with donors after the finalization of the feasibility study.

1.5 Methodology Applied

The methodology for carrying out the feasibility study is laid down in a) the work plan for the local experts, b) the TORs for the international and national experts and 3) an adjusted work and time plan. The means applied have been:

- Outline of EU requirements and legislation in the frame of water and forest management;
- Country Baseline Reports on water and forest issues prepared by national experts (Spring 2011);
- Workshops with representatives of the water and forest sectors hosted by the appropriate ministry in each country (May to Sept 2011);
- Questionnaire for interviewing relevant ministries, agencies and stakeholders (Summer 2011);
- Two technical discussion workshops organised by SWG (Nov 2010 in Andrevlje and March 2011 in Herceg Novi);
- One International Workshop organised by SWG to present draft findings of the feasibility study and discuss opportunities (Nov 2011 in Ohrid);
- Preparation of the feasibility study report (Oct 2011 – Feb 2012);
- Presentation of the results at the final conference organised by SWG (March 2012).

A short outline of the implemented activities is given beneath.

Outline of EU legislation for European water management and forestry

Based on the knowledge and experiences of the two international experts, an outline of existing EU legislation and regulations related to water management and forestry was prepared and included as chapter 2 in this report. This work was done in order to give proper background information on the EU requirements, which are imposed on EU Candidate Countries and EU neighbouring countries and in order to be able to evaluate the legal and feasibility of the proposed solutions to the needs and priorities of technical character identified by the countries.

Country baseline reports

The national experts in each country have collected data and information and prepared country baseline reports on water management and forestry. The international experts have incorporated the information from the baseline reports into this report. The country baseline reports are included as Annex A on the CD-rom attached to this report.

Country workshops

To promote cross sector cooperation in the region and to identify the needs and priorities of the two sectors, a workshop in each of the seven SEE countries were organised. The SWG sent official letters to the contracting ministry in each country asking them to host the workshop. The international experts prepared the workshop agendas and topics for discussion, while the national experts organised the events together with the representatives of the hosting ministries. The country workshops were all successfully carried out with participation of representatives from relevant ministries, agencies and organisations on water management and forestry, the two national experts and the two international experts.

At each workshop, the main findings from the country baseline report were discussed by representatives from both sectors and common conclusions were drawn on needs, priority issues and opportunities for enhancing the regional cooperation between the two sectors. The main findings from the country workshops are incorporated into chapter 3 to 5 of this report. Workshop summaries and participants lists are included as Annex B on the CD-rom attached to this report.

Questionnaires

In addition to the country baseline reports and the country workshops, a short questionnaire with clarifying questions was prepared. The questionnaire was used by the national experts for interviewing selected ministries, agencies and stakeholders. The results of the interviews were reported by the national experts to the international experts, who incorporated also these findings into this report. A total of 45 respondents provided answers.

Technical Discussion Workshop on Forest Management in Andrevlje, Serbia

The first international meeting within the project was a technical discussion on "Implementing a concept for Sustainable Forest Management in protective forests in South Eastern Europe". The workshop was held during 9-12 November 2010 in Andrevlje, Serbia, with 32 participants from relevant authorities, public enterprises, academic institutions, National Parks, NGOs and national and international experts. Five of the seven countries were represented at the workshop: Albania, Bosnia-Herzegovina, Macedonia, Montenegro and Serbia.

The aim of the technical discussion was:

- To address the needs and concerns in the context of forestry and sustainable forest management (SFM) in protective forests across the SEE countries;
- To identify common challenges for achieving sustainable forest management faced by the SEE countries, particularly in the process of EU integration, where sustainable practices and proper implementation of new legislations are prerequisite;
- To strengthen the regional networking and cooperation through linking different forestry actors in exchange of experiences, learning and joint development.

The event was organised by the SWG in cooperation with the Ministry of Agriculture, Forestry and Water Management of Serbia and forest association FORNET-Serbia. Further details on the workshop can be found on the CD-rom attached to this report as Annex C.

Technical Discussion Workshop on EU WFD in Herceg Novi, Montenegro

The second international meeting within the project was a technical discussion on "Implementation of the EU Water Framework Directive in South Eastern Europe". The workshop was held during 14-17 March 2011 in Herceg Novi, Montenegro, with 25 participants from relevant water authorities, institutions, NGOs and national and international experts. Representatives participated from all seven SEE countries. The aim of the technical discussion was:

- To identify common challenges across the countries in the SEE region in their process of implementing the EU Water Framework Directive and of the EU approximation;
- To support cross-sectorial cooperation among the water, environment and forestry sectors for the (potential) EU candidate countries in the SEE region;

– To support and strengthen the regional networking and cooperation through linking different water management actors and other stakeholders in exchange of experiences, learning and joint development in the field of integrated river basin management.

The event was organised by SWG in cooperation with the Ministry of Agriculture and Rural Development of Montenegro. The workshop report can be found on the CD-rom attached to this report as Annex C.

International Water and Forest Conference in Ohrid, Macedonia

On 22-24 November 2011, an international workshop was conducted titled "Integrated management of water and forests in river basin areas across the South Eastern European countries", where the draft findings of the feasibility study were presented and discussed with participants from the SEE countries and of international experts. The event was organised by SWG and took place in Ohrid, Macedonia. The workshop report is included on the CD-rom attached to this report as Annex C.

Analyses and Preparation of the Feasibility Study Report

In the period September-November 2011, the needs analyses including analyses of the baseline reports, national workshops, technical discussions reports and questionnaires were conducted and a draft report with the draft findings prepared and circulated to the national experts, the GIZ and the SWG. In the period December 2011 to February 2012, the in depth analysis and feasibility of the analyses and findings were performed by the international experts and the final feasibility study report prepared.

Final International Conference in Dubrovnik, Croatia

On 14-16 March 2012, the final conference in the frame of the project was conducted in Dubrovnik, Croatia, with participation of relevant authorities and institutions from both sectors. The findings of the feasibility study were presented and the next steps for strengthening the cooperation between the water sector and the forest sector in the SEE region were discussed and concluded. The participants' conference statement is included as Annex D on the CD-rom attached to this report.

2 Why Cooperation between the Water and Forest Sector?

2.1 Background on EU Accession

The majority of river basins in the South Eastern Europe are crossing national borders while management of these river basins is under the legal responsibility of separate national policies and institutions. In the meantime each country of the region is faced with the challenge of meeting EU regulations on water management, natural resources management and rural development. Problems in the rural areas of South Eastern Europe including deteriorating water resources, floods, drought, illegal trade of forest products, ecological degradation and abandonment of rural areas combined with a poor economic situation can be tackled through an improved process of regional cooperation and coordination between policy makers, stakeholders and institutions of different sectors.

One of the most demanding directives of the European Union related to rural development and natural resource management is the EU Water Framework Directive. In the frame of this study, this is also the most relevant one to be taken into account as this Directive requires the cooperation between sectors as well as cooperation on a river basin level to achieve the main goals of the Directive.

Quote from the technical discussion on the EU WFD in Herceg Novi, March 2011

> *The implementation process of WFD has recently started in the EU candidate and potential candidate countries from South Eastern Europe. The process raises a number of shared technical challenges in most of the SEE countries. The lack of cross-sectorial cooperation and exchange of information causes overlapping of legislations or restrains in the development endeavours. In addition, lack of regional cooperation and communication posing threat for the sustainable management of water resources and environment protection strategies. As a result, cross-sectorial and regional cooperation is a mutually*

enriching experience that allows utilising the best coming from each involved sector and country.

Regarding the implementation of WFD and the adaptation of water related EU directives, countries from SEE region have made an effort to establish new legislations.

Quote from the technical discussion on forestry in Andrevlje, December 2010

Intersectorial relations between forestry and water management are characterized by the absence of dialog, obligation of forestry sector for paying drainage tax, inappropriate management of protective forests by water sector, forests delimitation problem between forestry and water sector, disturbance of natural regimes of underground water by hydromeliorative activities and barrage construction with harmful impacts on forest ecosystems. Lack of understanding water sector for mutual planning of infrastructural facilities (roads and bridges) of interests for forestry and water sector, disrespect of needs and interests of forest in water regime regulation and protection of water course and water accumulations, incompatibilities of Law on Forests and Law on Waters, as well as legal right of water sector for incompetent reviewing of forest management plans.

Related to previous, we believe that it is unsustainable for forestry sector to pay, so called drainage tax due to fact that forest is the most important natural regulator of water regimes. In addition, of crucial importance is to improve cooperation of forestry and water sector.

Section 2.2 is dedicated to providing an overview of the main requirements of the EU WFD followed by a short section 2.3 on other relevant directives, while section 2.4 provide an overview of the most relevant forest policies and initiatives. Section 2.5 explains the main links between water and forest.

2.2 The EU Water Framework Directive

(Sources of information: http://ec.europa.eu/environment/water/water-framework/; http://ec.europa.eu/environment/water/participation/notes_en.htm; http://water.europa.eu/ and http://ec.europa.eu/environment/nature/natura2000/index_en.htm)

The Water Framework Directive (WFD) establishes a legal framework to protect and restore clean water across Europe and ensure its long-term sustainable use. Its official title is Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy.

The WFD sets the goal of achieving “good status” for all of Europe's surface waters and groundwater by 2015. This is a major challenge, as recent assessments estimate that at least 40% of the EU's surface water bodies are at risk of not meeting the 2015 objective.

The WFD establishes an innovative approach for water management based on river basins, the natural geographical and hydrological units and sets strict deadlines and thresholds for Member States to restore water quality and protect aquatic ecosystems. The directive addresses inland surface waters, transitional waters, coastal waters and groundwater. It establishes several innovative principles for water management, including public participation in planning and the integration of economic approaches.

One of the innovations of the WFD is that it provides a framework for integrated management of groundwater and surface water for the first time at European level.

Coordination in international river basin districts

About 60% of EU's surface area lies in river basins that cross at least one national border. In Article 3, the WFD calls for the creation of international river basin districts that cover the territory of more than one Member State and for coordination of work in these districts.

Each Member State is responsible for implementing the actions required under the WFD for the portion of an International River Basin District lying within its territory and for coordinating these actions with the other Member States in the district.

International river basins link EU Member States with neighbouring non-EU countries. In these cases too, the WFD calls for cooperation (Art. 3.5). Some EU neighbours, like Norway, are implementing the WFD, where Norway then cooperates with Sweden and Finland on shared basins.

The Danube River Basin District. The Danube River Basin District is the largest in the European Union and covers ten Member States and nine neighbouring countries. In 1994, the 14 countries signed the Danube River Protection Convention, for the protection and sustainable management of the river basin. In 2000, the countries agreed to coordinate their implementation of the WFD under the Commission created by this Convention. In 2005, the Danube countries prepared a common analysis of the basin under WFD Article 5 and agreed in 2009 on a shared river basin district management plan. Due to the size and the complexity of the basin, the International Commission for the Protection of the Danube River and the Danube countries decided to work at different geographic scales and in particular via sub-basins.

The concept of River Basins as base for water management

Under the WFD, the EU Member States need to identify international river basins and set up appropriate administrative structures for them (Art. 3.4). Member States designate the competent authorities that are directly responsible for applying the directive in their portion of each river basin.

The best model for a single system of water management is found to be management by river basin level - the natural geographical and hydrological unit - instead of according to administrative or political boundaries. In international river basins, preparing and implementing effective Integrated River Basin Management plans and programmes depends highly on coordination.

Identifying and assessing surface water bodies

A surface water body is a section of a river, a lake, transitional waters or coastal waters. Transitional waters connect freshwaters such as rivers and marine waters. Each surface water body has distinguishing features – in particular, its geology and the pollution and other pressures it faces - that set it apart from other sections of the same river, lake, transitional or coastal water. Member States identify separate water bodies at the scale needed to manage the objectives of the WFD.

Identifying and designating surface water bodies. Many rivers start as mountain streams and then become slowly running, broad waterways when they flow through plains. Moreover, a river changes as it is used by humans for discharging waste water from industry, households and agriculture. Civil works for shipping or flood control also transform the river. In designating individual water bodies, Member States consider all these factors, from the physical differences – including altitude, geology and size – to the levels of pollution, extraction and other pressures. By designating separate water bodies along the course of a river, Member States can focus monitoring activities on problems affecting specific water bodies. They can then tailor measures to improve conditions in the water bodies at risk. Several factors contribute to

identifying surface water bodies at risk. These include point sources - for example pollution from industrial plants - as well as diffuse sources such as agriculture.

Good status means low pollution levels and ecosystem health. The directive defines “good ecological and chemical status” in terms of low levels of chemical pollution as well as a healthy ecosystem. The second criterion - good ecological status - is an innovative step for EU water legislation. To achieve good ecological status, Member States have to address the factors harming water eco-systems. Pollution is one, so are morphological changes such as dams built on rivers. The extraction of water for irrigation or industrial uses can also harm ecosystems if it reduces water levels in rivers or lakes below a critical point.

Good Ecological Status of Surface water bodies. A general requirement for ecological protection, and a general minimum chemical standard, was introduced to cover all surface waters. These are the two elements "good ecological status" and "good chemical status". Good ecological status is defined in Annex V of the WFD, in terms of the biological quality, the hydrological characteristics and the chemical characteristics. As no absolute standards for biological quality can be set, which apply across the EU, because of ecological variability, the controls are specified as allowing only a slight departure from the biological community, which would be expected in conditions of minimal anthropogenic impact. A set of procedures for identifying that quality for a given body of water, and establishing particular chemical or hydro-morphological standards to achieve it, is provided, together with a system for ensuring that each Member State interprets the procedure in a consistent way (to ensure comparability). The system is somewhat complicated, but this is inevitable given the extent of ecological variability, and the large number of parameters, which must be dealt with.

Establishing a typology for identifying water bodies and developing methodologies for assessing the ecological status of water bodes including setting reference conditions is new to the SEE region. These issues have to be established on national level but due to limited capacities and experiences in this, they are highly recommendable to be harmonised in a regional perspective. See also under the sections “monitoring programmes” and “intercalibration” beneath.

Good chemical status. Good chemical status is defined in terms of compliance with all the quality standards established for chemical substances at European level. The Directive provides a mechanism for renewing these standards and establishing new ones by means of a prioritisation mechanism for hazardous chemicals. This will ensure at least a minimum chemical quality, particularly in relation to very toxic substances, everywhere in the Community.

Identifying and assessing Groundwater bodies

Groundwater provides the steady, base flow of rivers and wetlands. Maintaining this flow and keeping it free from pollution is vital for surface water ecosystems. Groundwater is also a crucial source of drinking water, supplying the water systems used by three out of four EU citizens. In a few countries, such as Denmark, groundwater extraction provides almost all drinking water, so its protection is vital. European economies also tap groundwater for industrial cooling and for agricultural irrigation. The WFD highlights the importance of groundwater bodies: Member States must designate separate bodies and ensure that each one achieves “good status” by 2015.

Designating groundwater bodies. Each groundwater body is a distinct volume of water in an aquifer where there are significant water flows or significant extraction of water. In order to delineate individual groundwater bodies, Member States use monitoring data and scientific knowledge to analyse underground geology. They also consider other key factors, such as human pressures on groundwater. Designating separate water bodies is an important step in managing and protecting groundwater. On this basis,

Member States can focus their monitoring and measures on the groundwater bodies facing significant pressures and at risk of not reaching good status by 2015.

Good chemical status. For general protection of groundwater, the approach is a precautionary one. It comprises a prohibition on direct discharges to groundwater, and (to cover indirect discharges) a requirement to monitor groundwater bodies so as to detect changes in chemical composition and to reverse any anthropogenically induced upward pollution trend. Taken together, these should ensure the protection of groundwater from all contamination, according to the principle of minimum anthropogenic impact. Member States set the quality standards - or threshold values - nationally for chemicals in groundwater. They do so following the approach and methods laid out in the 2006 directive on groundwater, which takes into account the widespread differences in geology and other factors across Europe. To achieve good chemical status also means complying with EU-wide quality standards for nitrates and pesticides. This includes the Nitrates Directive, which requires measures to protect surface and groundwater from pollution due to nitrogen-based fertilisers used in agriculture.

Quantitative status. Quantity is also a major issue for groundwater. For good management, only that portion of the overall recharge not needed by the ecology can be abstracted - this is the sustainable resource, and the Directive limits abstraction to that quantity.

The Water Framework specifies that good status - in both quantity and chemical terms - of a groundwater body also means protecting the surface water bodies and terrestrial ecosystems that depend on its waters.

Identifying and testing artificial and heavily modified water bodies

Across Europe, economic development has physically altered rivers and other waters for navigation, flood control and other purposes. Canals, dams and hydroelectric reservoirs have been created where no water bodies previously existed.

One of the aims of the WFD is to ensure that by 2015 all of Europe's water bodies are of good ecological quality. But aquatic ecosystems which are part of modified water bodies may not be able to meet this standard. This is why the WFD allows Member States to designate some of their surface waters as heavily modified water bodies or artificial water bodies whereby they will not need to meet the same quality criteria required of other surface waters. They will need to meet the “good ecological potential” criterion for these ecosystems rather than “good ecological status”. Artificial and heavily modified bodies will still need to achieve the same low level of chemical contamination as other water bodies.

An artificial water body is defined as a body of water created by human activity while a heavily modified body is one that has undergone man-made alterations that have substantially changed its character. There are a number of key test, EU Member States have to meet before designating surface waters as artificial or heavily modified (Art 4.3). One of these tests is whether the body of water in question will be able to meet the objective of good ecological status by 2015. If it can meet this objective, there is no need to classify it separately from other surface waters.

Monitoring programmes

Monitoring is the main tool used by Member States to classify the status of each identified water body. The WFD sets a five-class scale: high, good, moderate, poor and bad status for surface water bodies and 2 classes: good and poor for groundwater bodies. The WFD requires Member States to achieve good status in all waters by 2015. Once Member States have determined the current status of their water

bodies, monitoring then helps Member States to track the effectiveness of measures needed to clean up water bodies and achieve good status.

The WFD sets a common approach for monitoring water quality across all Member States but does not specify the methods to be used. It is up to Member States to decide the best method based on local conditions and existing national approaches. The WFD specifies the types of monitoring:

- Long-term surveillance monitoring provides a broad understanding of the health of water bodies and tracks slow changes in trends such as those resulting from climate change;
- Operational monitoring focuses on water bodies which do not meet good status and on the main pressures they face – pollution where this is the main problem, water flow where extraction creates risks. Operational monitoring thus tracks the effectiveness of investments and other measures taken to improve the status of water bodies;
- Investigative monitoring to gain further information about surface water bodies that cannot be obtained via operational monitoring, including information on accidents;
- In addition, Member States need to carry out more detailed analysis in areas protected for drinking water or for natural habitats and species.

The monitoring of surface waters has to cover the chemical composition of water, a number of key biological elements, and the hydrological and morphological characteristics of water bodies in order to provide a comprehensive overview of the health of the water bodies. The WFD sets the basic requirements for measuring and monitoring the health of surface water bodies by use of four common "quality elements" to be used in determining ecological status: phytoplankton; other aquatic flora; benthic invertebrate fauna; and fish fauna. Groundwater monitoring programmes cover water quality and water quantity. Member States have made good progress in establishing monitoring programmes for aquatic ecosystems. One of the major gaps assessed is that many Member States have not yet fully developed their ecological assessment methods.

Monitoring programmes are established on national levels and is not confined to a specific river basin level. Harmonisation and coordination in a regional perspective are the way forward to build capacities and exchange expertise available in the region.

Intercalibration

While Member States have experience in monitoring the chemical status of their waters, measuring good ecological status brings new challenges. Given the wide range of ecosystems found across Europe, using one method to assess all water bodies does not make sense.

The WFD establishes a common definition of good ecological status, which Member States must use when developing their national assessment methods. To ensure that national assessment methods to measure good ecological status deliver comparable results and are consistent with the directive, an intercalibration exercise is required between Member States with the assistance of European Commission. The goal of intercalibration is not to establish common assessment systems. Each Member State chooses its own methods according to the provisions of the directive. Intercalibration ensures that the different national systems achieve comparable results.

The work focuses on defining the upper and lower boundaries of good status. The line between "good" and "moderate" status is particularly important. Member States use the results of the intercalibration work to elaborate their monitoring programmes, to undertake basis analysis and to refine and implement their river basin management plans.

The requirement of intercalibration secures comparable results between different national assessment systems and methods used to measure good ecological status. Intercalibration in a regional perspective is an absolute must.

Analysis of water economics

One of the key innovations of the directive is its call for water services – such as supplying clean drinking water, irrigation for agriculture, reservoirs for hydropower and wastewater treatment facilities – to be charged at a price which fully reflects the services provided. The WFD introduces two key economic principles. First, it calls on water users – such as industries, farmers and households – to pay for the full costs of the water services they receive. Second, the directive calls on Member States to use economic analysis in the management of their water resources and to assess both the cost-effectiveness and overall costs of alternatives when making key decisions.

Member States are required to ensure that the price charged to water consumers - such as for the abstraction and distribution of fresh water and the collection and treatment of waste water - reflects the true costs. A key step towards implementing the economic principle is that polluters and users should pay for the natural resources they use and the damage they create. Environmental costs include damage to ecosystems such as pollution that harms fish and wildlife in rivers.

Member States can use several economic methods and tools. For example Cost-effectiveness analysis costs looks at the costs of alternative actions to reach a specific objective, which provides ways to choose the least-cost solution, while Cost-benefit analysis compares the overall costs and benefits of an initiative. For the river basin plans, Member States will need to estimate the costs of implementing different possible measures. They will use these estimates to identify the most cost-effective set of measures that can improve the health of their water bodies so that they will at least reach “good status”.

This concept of analysing water economics is new for most countries. Learning from other countries and sharing experiences on how to do this in a proper way is needed.

Integrated River Basin Management Plans

A challenging stage of implementation includes the development of river basin management plans (Art. 13). Each plan has to include a “programme of measures” to meet the WFDs environmental and other objectives (Art. 11). The management plans for river basins require specifying measures to achieve “good status” in all water bodies. The IRBM plan is a detailed account of how the objectives set for the river basin (ecological status, quantitative status, chemical status and protected area objectives) are to be reached within the timescale required.

The IRBM plan must include the results of the obligatory basis analysis: river basin's characteristics, review of impact of human activity on the status of waters, estimation of the effect of existing legislation and the remaining "gap" to meeting these objectives; and a set of measures designed to fill the gap, as well as the economic analysis of water use within the river basin. The plans must also include a register with protected areas incl. nationally protected areas, Natura 2000 sites, Ramsar sites and other sensitive nature areas. The plans must take account of the objectives for the areas.

The WFD is also linked to the other water sector directives as similar measures are found in the various instruments. These include the Bathing and Nitrates Directives’ requiring to draw up management plans and to provide the public with extensive information and opportunities to participate in drawing up the plans. The river basin management plans themselves must provide summaries of the measures needed to implement each of the other directives.

Public participation

European citizens have a key role to play in the implementation of the WFD. The WFD calls for the public to be informed and involved in the preparation of river basin management plans, which identify measures to improve water quality. Public input will help Member States balance environmental, economic and social priorities in these plans.

Public participation means giving the public and stakeholders the opportunity to influence the outcome of the plans and working processes. It is one of the rights laid down in the "Aarhus Convention" that all EU citizens enjoy. Public participation depends on another Aarhus right, public information. The WFD calls for providing information to the public on river basin management plans.

Participation occurs via consultation mechanisms that authorities use to consult stakeholders to gain from their knowledge and experience and to jointly develop solutions to problems.

2012 Blueprint to Safeguard EU waters

The general objective of the WFD is to achieve good ecological status for all water bodies by 2015. But achieving the EU water policy goals is threatened by a number of old and emerging challenges, including water pollution, water abstraction for agriculture and energy production, land use and the impacts of climate change.

The EU's policy response to these challenges is the 2012 Blueprint to safeguard Europe's water resources. The overall objective of the Blueprint is to improve EU water policy to ensure good quality water, in adequate quantities, for all authorised uses. The Blueprint's policy recommendations will be based on the results of the following on-going and continues assessments.

1. Analysis of WFD river basin management plans: giving information on how Member States have improved their water management;
2. Review of policy on water scarcity and drought: including water efficiency measures;
3. Analysis of water's vulnerability to climate change and man-made pressures such as urbanisation and land use;
4. Outcome of the fitness check of EU freshwater policy: a gap analysis to identify any uncovered areas and assess the adequacy of the current framework.

The results of these four reviews, together with other EU studies, will provide knowledge to help better implementation of EU water policy.

2.3 Other EU Directives

Two other important EU Directives impacting both water management and forest management are the EU Birds and Habitats Directives. The two Directives require the identification and designation of protected areas indicated as SPAs (Special Protection Areas for birds) and SACs (Special Areas of Conservation for habitat types and species) together forming the Natura 2000 Network.

The Birds Directive and the Habitats Directive (HD) lay down the requirements for Member States to establish the Natura 2000 network of SPAs and pSCIs/SACs and for securing favourable conservation status for the HD Annex I habitat types and Annex II species. As part of the Integrated River Basin Management Plans, the Members States must establish a register of protected areas and take their management objectives into account. Protected areas include nationally protected areas, potential and designated Natura 2000 sites and Ramsar sites etc., located within the given river basin. For each

protected area, information should be provided on protection status, objectives and e.g. presence of Natura 2000 species and habitat types for which the site has been designated.

Tuning of the management goals of the habitat types of the Habitats Directive with the management goals for the water bodies of the WFD is a challenging and demanding task. This counts in particular for the delineation and management of the lake, river and wetland habitat types in relation to the delineation of the water bodies. Achieving favourable conservation status for the Natura 2000 habitat types will have to be taken into consideration when designing measures for achieving good ecological status for the WFD surface water bodies. It is recommendable to evaluate potential synergies between the WFD and the Habitats Directive as a potential correlation between the two directives in relation to achieving Favourable Conservation Status for Habitat Directive species and habitat types and Good Ecological Status for surface water bodies.

The EU Habitats and Birds Directives also have an impact on forest management in case a forest is designated as part of a SAC and becomes part of the Natura 2000 network. National governments are obliged to include these SACs in their national legislation and the appropriate management measures have to be taken to achieve so called Favourable Conservation Status of the Natura 2000 Habitat types and Species for which the area has been designated. In that case forest management needs to be adapted to achieving favourable conservation status. In the terminology of the Habitats Directive, management includes both legal measures to avoid deterioration of habitats and species, through among others the introduction of a permit system for works and activities, and active management including imposing measures like mowing, grazing etc.

The aim of the **Bathing Water Directive** (2006) is to ensure that Europeans have clean and safe water to swim or play in. It replaces the 1976 directive with a more sophisticated system of monitoring and classification of bathing water for protection of human health.

The **Drinking Water Directive** (98/8/EC) is also aimed at protecting human health. It sets standards aimed to ensure the water EU citizens consume is clean and healthy and abides by WHO guidelines.

The **Nitrates Directive (91/676/EEC)** is aimed at preventing nitrates from agricultural sources from affecting ground and surface waters. It requires Member States to (1) detect waters that are already affected or likely to be affected by nitrate pollution, (2) designate all those areas that drain into waters that are polluted as “vulnerable zones”, (3) develop action programmes within the vulnerable zones, and (4) monitor and assess the action programmes and revise them as needed to achieve the directive’s goals.

The **UWWT Directive** is one of the most costly EU legislation to implement. It sets requirements for pre-treatment of industrial waste water entering collecting systems and disposal of sewage sludge.

The **Directive 2007/60/EC on the assessment and management of flood risks** entered into force on 26 November 2007. This directive requires Member States to assess if water courses and coast lines are at risk from flooding, then to map flood risks and finally to take adequate and coordinated measures to reduce the risk. The flood directive prescribes a series of common steps across the EU to reduce the adverse consequences of flooding. For many Member States, the directive introduces a new approach that shifts the focus of policy from defensive works against floods to integrated risk management.

Member States need to work together on flood protection since 60% of Europe’s river basins cross borders. Member States must prepare a single plan for these international river basin districts and involve non-EU countries when necessary.

The Floods Directive calls on Member States to take into account natural floodplains and to use spatial planning in addressing flood risks. Indeed, sustainable approaches can be the most cost effective methods for flood protection. Public awareness of flood risk and management measures is crucial for their success. Under the Floods Directive, Member States must consult the public when drafting flood risk management plans and all the main tools (maps, plans and flood assessments) must be made available to the public.

The European Commission has put in place a European Flood Alert System at its Joint Research Centre to provide forecasts of the impact of floods.

The aim of the **Marine Strategy Framework Directive** (adopted in June 2008) is to protect more effectively the marine environment across Europe. It aims to achieve good environmental status of the EU's marine waters by 2020 and to protect the resource base upon which marine-related economic and social activities depend. The Marine Strategy Framework Directive establishes European Marine Regions on the basis of geographical and environmental criteria. Each Member State - cooperating with other Member States and non-EU countries within a marine region - are required to develop strategies for their marine waters.

In the coming years, Member States and their neighbours will need to extend cooperation into new areas of water management. Under the new Marine Strategy Directive, Member States should work together to ensure good environmental status for shared marine waters, following an approach similar to that of the Water Framework Directive.

Three "pillars" of the Aarhus Convention were adopted by the European Union in 2003 through **Directive 2003/4/EC on public access to environmental information** and **Directive 2003/35/EC providing for public participation in environmental plans and programmes**, which gives a number of rights to the public: The right to have access to information on the environment held by government authorities, The right to participate in decisions taken by authorities that affect the environment, and The right to review and legally challenge such decisions.

2.4 European Forest Policies and Initiatives

(Sources of information: http://ec.europa.eu/environment/forests/home_en.htm; http://ec.europa.eu/agriculture/fore/, http://foresteurope.org/ and www.fsc.org)

Forests cover 37.8% of European territory and provide a living for 3.4 million people (forestry and forest-based industries). The EU is the second-largest producer of industrial round timber after the United States. In the context of climate change, forests play an important role in trapping carbon and producing biomass, and their potential as renewable forms of energy.

The EU and its Member States have played an active role in the UN Forum on Forests (UNFF), which was established in 2000, committing themselves to implementing provisions of other international agreements, conventions and protocols, such as Kyoto, CBD, UNCCD, ITTO, and CITES.

The EU Forest Action Plan

The EU Forest Action Plan was adopted on 15 June 2006. The European Commission set four main objectives to be implemented in order to optimise the sustainable management and multifunctional role of the EU's forests: 1) **Improving long-term competitiveness**: The sector has potential to develop new products and services of high quality in response to growing demand as a source of renewable raw material. 2) **Improving and protecting the environment**: The overall objective is to maintain and

appropriately enhance biodiversity, carbon sequestration, integrity, health and resilience of forest ecosystems at various geographical scales. 3) **Contributing to a better quality of life**: The Commission considers it important to preserve and support the cultural and social dimension of forests. 4) **Fostering communication and coordination** in order to increase consistency and cooperation: While forest policy is a matter for the Member States, many initiatives with an impact on forest management are carried out at European level. This requires improved coherence and cross-sectorial cooperation in order to balance economic, environmental and socio-cultural objectives at different organisational and institutional levels.

The four objectives translate into 18 key actions, which the European Commission and the Member States will implement jointly. The action plan provides a coherent framework for forest-related initiatives at Community level. It also serves as an instrument for coordinating Community initiatives with the Member States' forest policies.

The Commission does not have a financial instrument specifically for forests. Its action plan sets out possible sources of financial support from 2007 onwards through various Community instruments such as the rural development programme, the regional development programme, the Life+ financial instrument for the environment and the 7th Research Framework Programme.

The EU Forestry Strategy

The EU Forestry Strategy adopted in 1998 puts forward the application of sustainable forest management and the multifunctional role of forests. The Strategy was reviewed in 2005. Forest policy falls within the competence of each EU Member State, but the EU can contribute to the implementation of forest management through common policies based on subsidiarity and shared responsibility. Sustainable forest management is therefore based on coordinating the forest policies of the Member States and Community policies and initiatives. Community action in support of forest management covers several areas of activity, in particular:

- Rural development policy: this has been the main instrument for the implementation of EU forestry strategy at Community level;
- Protection against fires and air pollution: Community measures have resulted in a considerable amount of information and operational developments;
- Biodiversity conservation: The network of Natura 2000 sites is being set up. The need to map, study and monitor forest biodiversity both inside and outside protected areas remains;
- Climate change: forests can make a major contribution to reducing emissions caused by fossil fuels. The use of biomass for energy purposes has not yet been fully developed in the EU;
- Competitiveness of the forest-based and related industries: There is a need to create an enabling environment for forest-based industries to enhance their competitiveness and to better inform consumers about advantages of using wood from sustainably managed forests;
- Research: the Community research framework programmes and European cooperation in the field of scientific and technical research further develop the competitiveness of the forest sector.

National Forest Programmes in the EU

European forestry policy is implemented through national forest programmes (NFPs). The NFPs address issues such as the productive function of forests and their contribution to rural development, their role in the protection and enhancement of biodiversity, and the related social, recreational and cultural aspects. With a view to improving cross-sectorial cooperation, the NFPs need to be fully embedded in the national sustainable development strategies.

A common approach to NFPs has been developed in the context of the MCPFE, with the aim of establishing a social and political framework for Sustainable Forest Management (SFM), based on participatory and transparent governance, and in line with international forest-related commitments.

The EU Natura 2000 and forests

An important EU achievement in the area of biodiversity conservation is the implementation of the Natura 2000 network and designation of Natura 2000 sites under the EU Birds and Habitats Directives. Many Member States have adapted guidelines for the management of forests to favour biodiversity conservation and protection of Natura 2000 forest habitat types and species and to promote the provision of environmental services through forest management.

Illegal logging / FLEGT Action Plan

The European Commission has taken up the challenge of tackling illegal logging through the adoption of the Action Plan on Forest Law Enforcement, Governance and Trade (FLEGT).

Illegal logging is the harvesting of timber in contravention of the laws and regulations on harvest of a country. Illegal logging is a global problem with significant negative economic, environmental and social impact. In economic terms illegal logging results in lost revenues and other foregone benefits. In environmental terms illegal logging is associated with deforestation, climate change and a loss of biodiversity. In social terms illegal logging can be linked to conflicts over land and resources, the disempowerment of local and indigenous communities, corruption and armed conflicts.

The FLEGT Action Plan has led to two key pieces of EU legislation:

1. FLEGT Regulation adopted in 2005, allowing for the control of the entry of timber to the EU from countries entering into bilateral FLEGT Voluntary Partnership Agreements (VPA) with the EU;
2. EU Timber Regulation adopted in 2010, as an overarching measure to prohibit placing of illegal timber and timber products on the EU market by 2013.

The EU has also sought to increase demand for legal and sustainable timber and timber products by encouraging both private and public sector procurement policies that give preference to legally harvested timber and timber products.

In the public sector, an increasing number of EU Member States are adopting green public procurement policies requiring timber and timber products to be from legal and sustainable sources. Countries implementing such policies include Belgium, Denmark, France, Germany, Netherlands and the UK.

FOREST EUROPE (formerly the Ministerial Conference on the Protection of Forests in Europe)

The Ministerial Conference on Protection of Forests in Europe (MCPFE)/Forest Europe is a political forum set up in 1990 for dialogue on European forestry issues. At Pan-European level, the MCPFE has become a well-established process, through which European countries and the EU have developed comprehensive guidelines for forest policy, and strengthened co-ordination and co-operation.

The MCPFE is the pan-European policy process for the sustainable management of the continent's forests. The forum adopts common strategies for its 46 member countries and the European Union on how to protect and sustainably manage forests. The collaboration of the ministers responsible for forests in Europe has been of great economic, environmental and social importance on the national and international level. High-priority topics are to strengthen the role of forests in mitigating climate change, secure the supply of good-quality fresh water, enhance and preserve forest biodiversity and provide forest products. Other important tasks are to develop a framework for future forest collaboration and to explore the possibilities for a legally binding agreement on forests in Europe.

The Ministerial conferences represent the most important events of the work on sustainable forest management. At ministerial conferences the ministers responsible for forests in Europe take decisions on issues of highest political and social relevance regarding forests and forestry. Ministerial Conferences on the Protection of Forests in Europe took place in 1990 in Strasbourg, in 1993 in Helsinki, in 1998 in Lisbon, in 2003 in Vienna, in 2007 in Warsaw and in 2011 in Oslo.

Collaboration between Europe´s forest ministers has resulted in a common understanding of sustainable forest management and agreed on a joint definition: "*the stewardship and use of forests and forest lands in a way, and at a rate, that maintains their biodiversity, productivity, regeneration capacity, vitality and their potential to fulfil, now and in the future, relevant ecological, economic and social functions, at local, national, and global levels, and that does not cause damage to other ecosystems"*, as well as adopted six leading criteria for sustainable forest management.

In addition, the two important decision documents "Oslo Ministerial Decision: European Forests 2020" and "Oslo Ministerial Mandate for Negotiating a Legally Binding Agreement on Forests in Europe" were signed by the Ministers and Heads of Delegations of the FOREST EUROPE Signatories on the 6th Conference held in June 2011 in Oslo, Norway. By signing these documents, the European countries agreed on a common vision, strategic goals, measurable targets and priority actions at national and international level to enhance sustainable forest management and a mission for FOREST EUROPE. By launching negotiations for a Legally Binding Agreement on Forests in Europe, ministers responsible for forests confirmed that

sustainable management of Europe's forests require a stable and efficient platform for coherent policy development and implementation.

FSC certification as a means to achieve responsible forestry

The Forest Stewardship Council (FSC) FSC is an independent, non-governmental, not-for-profit organisation established to promote responsible management of the world's forests. Established in 1993 as a response to concerns over global deforestation, FSC is a pioneer forum where the global consensus on responsible forest management convenes and through democratic process effects solutions to the pressures facing the world's forests and forest-dependent communities.

The FSC has developed a standard of 10 principles and 56 criteria for environmentally appropriate, socially beneficial and economically viable forest management. This standard is then adapted to national or regional situations. FSC certification provides a credible link between responsible production and consumption of forest products, enabling consumers and businesses to make purchasing decisions that benefit people and the environment.

2.5 Forests and Water

Forest management and water resources management are closely related. Sustainable forest management can assist in supplying good-quality fresh water, securing protection from natural hazards like floods or soil erosion, and combating desertification. Through the Warsaw Resolution on Forests and Water, adopted at the Ministerial Conference in 2007, the ministers emphasised the vital role of sustainable forest management in protecting water quality and promoting overall watershed management and the protective functions of forests for water and soil. The ministers stressed the importance of improving and coordinating policies for forest and water resource management.

One of the most important aspects of forests in relation to water resources management is their capability to reduce erosion. Through soil stabilisation, forests minimise erosion and reduce the impairment of water quality caused by sedimentation. Forests protect the storage capacities of water bodies and the discharge capacities of watercourses by trapping sediments and pollutants from up-slope land use activities. In Europe, 96.3 million ha of forests are designated for protection of soil and water. This corresponds to 10 pct. of the total forest area.

Forests also play a critical role in water availability. They influence the amount of water available and discharged by intercepting precipitation, evaporating water, transpiring water from soils, capturing fog water and maintaining soil infiltration and groundwater discharge. Forests may influence the timing of water discharge by maintaining and manipulating soil infiltration, groundwater discharge and the soil's water-storage capacity.

Climate change is believed to increase the frequency of extreme weather events in the future. Natural hazards such as floods, debris flow and droughts will have severe impact on forest and water resources and their management. Research has shown that proper management of forests and restoration of damaged and degraded forest ecosystems can play a protective role in counteracting the effects of climate change. Restoration of degraded forests, particularly in floodplains and upper watershed areas will improve the water environment, reduce floods, and protect biodiversity and soils. Developing appropriate policies and strategies for forest and water resources management can contribute to mitigate and adapt to the impacts of climate change.

The following international agreements and EU Directives call for integrated water and forest management:

- The Ministerial Conference on Protection of Forests in Europe (MCPFE)/Forest Europe; Warsaw Resolution 2 on Forests and Water calls upon member states to sustainably manage forests in relation to water and to coordinate policies on forests and water;
- The EU Forest Action Plan was adopted on 15 June 2006. The European Commission set four main objectives to be implemented in order to optimise the sustainable management and multifunctional role of the EU's forests. One of the four objectives is that forest management should contribute to protecting the environment;
- EU Forestry Strategy adopted in 1998 and reviewed in 2005 promotes the role of forest in biodiversity protection, protection against fires and pollution, climate change and rural development;
- The EU Floods Directive and EU Water Framework Directive require **a**ssessment of water bodies at risk from flooding; mapping flood risks and take adequate and coordinated measures to reduce the risk, including protective measures for forestry;
- The EU Habitats Directive requires to designate Natura 2000 sites for protection of important water and forest habitat types and species;
- The EU calls upon governments to develop policies and strategies for forest and water management to mitigate and adapt to impacts of climate change;
- The EU Common Agricultural Policy calls for comprehensive rural development plans involving relevant sectors.

During the workshops and questionnaires conducted during this feasibility study, the question why cooperation between the two sectors is important was raised. This resulted in a wide range of issues, which underpin the strong relevance for strengthening the cooperation between the two sectors:

- To harmonise national water and forest acts and policies;
- To improve development and implementation of legislation and regulations in accordance with EU directives and policies;
- To coordinate management and protection of water basins including reservoirs for hydropower plants, irrigation and rehabilitation of degraded areas around water basins;
- To coordinate efforts for erosion control and flood prevention, including joint development of measures for management of steep slopes to prevent erosion and counteracting clear-cutting and/or illegal logging along water resources and areas functioning as protective forests for soil and water;
- To improve forest management to serve demands of integrated water management;

- To improve water management to serve the demands of sustainable forest management;
- To coordinate monitoring programmes, particularly on assessment of ecological status and classification of water quality, use of natural resources and protection of biodiversity, including cooperation related to the use of forest springs and other water sources;
- To create better possibilities for access to information provided by the two sectors;
- To explore the idea of "Payment for Ecosystem Services" as a tool for supporting the forestry sector, as well creating awareness of financial benefits of good forest practice for sustainable water resources management, including funding of multi-functionality of forests;
- To design joint (research) projects;
- To create better ecotourism opportunities by integrating relevant sectors in forest management planning.

Spatial planning is seen as an instrument to support collaborative natural resources planning and management, incl. water and forests, designation nature protection areas, harvesting of non-timber forest products, erosion and flood protection.

3 Baseline Situation per Country

In the following, a summary of the baseline situation on water management and forestry is presented using the information provided in the country baseline reports and the reports from the two technical discussion workshops. The country baseline reports are included in the CD-rom attached to this report as Annex A, where also maps of the forest cover and river basins can be found. The summary reports from the technical workshops are found in Annex C on the CD-rom.

3.1 Albania

Water Management in Albania

Albania is rich in water resources, including rivers, groundwater, lakes, lagoons and seas. Overall its resources exceed by far its consumption, although locally water shortage and conflicts among users may occur in the dry season. The hydrographical basin of Albania covers 43,305 km2, of which 28,748 km2 lie within its boundaries. Albania shares upstream and downstream water resources with Greece, the Former Yugoslav Republic of Macedonia, Kosovo[i] and Montenegro. The quality of water resources is not well monitored since 1990.

The main strategic goal of the Albanian government is the adoption of the EU accession. The plans, strategies and laws being reviewed or developed reflect this trend. In this regard the strategic documents governing sustainable development and environmental issues in Albania are the National Strategy for Development and Integration (2008) and the National Environmental Strategy (2008). Huge efforts are needed to integrate sustainable water management in the mainstream of economic and development policies.

Albania has no an official national water strategy and no master plan for water management. The national water strategy was drafted in 1997 under the EU PHARE Programme and updated in 2004. In its final stage, the strategy met opposition from a few ministries and local authorities and has therefore never been adopted. The draft national water strategy promotes water resource conservation and the sustainable use of water resources in harmony with the environment and other natural resources. It defines the appropriate institutional structures for implementing the strategy. It also indicates the legal, regulatory and technical framework to be developed, as well as the coordination among the different partners. It indicates how to fulfil the requirements of each different use in agreement with national and regional development and individual sectorial policies. It identifies specific programmes and priority projects for the short, medium and long terms.

The Law on Water Resources (No. 8093/1996) is the main legislation on water resource management. It established the National Water Council (NWC) and its Technical Secretariat as well as other water institutions in place today. The Law provides for the protection, development and sustainable use of water resources, and it organises water resource management and administration by river basin according to its use and purpose. In 2010 for the first time a management plan had been elaborated for one of the six river basins, Mati River Basin.

National and regional policy documents related to water management: National Water Strategy (1997, updated in 2004 but still pending approval), Strategy and Action Plan for Sewage Treatment in Urban Areas (2003), Strategy and Action Plan for Water Supply, Sewerage and Waste Management in Rural Areas (2003), Water Supply and Wastewater Sector Strategy (2007), Strategic Action Plan for Sustainable Development of the Skadar Lake area (2007), National Environmental Strategy (2008), National

Environmental Action Plan (1993, updated in 2002), Strategy and Action Plan for Sewage Treatment in Urban Areas (2003), Strategy and Action Plan for Water Supply, Sewerage and Waste Management in Rural Areas (2003), Water Supply and Wastewater Sector Strategy (2007).

Main challenges and Priorities for water management

According to the National Strategy for Development and Integration 2007-2013:

- Establishment of a clear command and control legal framework for water resources management;
- Groundwater is being overexploited leading to a drop in groundwater levels and, saltwater intrusion;
- Surface water is being polluted through discharge of untreated wastewater from urban settlements, as well as from industries and by the extensive use of chemical fertilisers and pesticides in agriculture;
- Riverbeds are being eroded through unauthorised sand mining leading to unstable morphological conditions, affecting irrigation and flood protection infrastructure;
- Flooding in rainy season leads to large areas being flooded and extensive destruction of property. This could partly be mitigated through appropriate operation of dams.

On-going cross border projects

- Identification and implementation of measures for adaptations in the deltas of Drini-Mati rivers (UNDP);
- Integrated Management of South Costal Area (WB, Albanian Government);
- Development of Natural Resources (WB, Italian Government, SIDA)
- Integrated Management of the Ecosystem in Prespa Lake Basin in Albania, FYROM and Greece;
- Creation of a Biosphere Reserve of the cross border area of Prespa;
- Integrated Management of Shkodra Lake Ecosystem;
- Large Marine Ecosystem Project (UNEP);
- Institutional Support to the Albanian Ministry of Environment for Sustainable Biodiversity Conservation and Use in Protected Areas and the Management of Hazardous Waste;
- Drin Basin Management.

Forestry in Albania

Forests cover about 36% of the Albanian territory and together with other wooded lands the coverage is about 52% (ANFI, 2004). Forests have degraded significantly as a consequence of the country's transition to democracy and market economy. Degradation is mainly caused by human pressure on forest resources (i.e. uncontrolled wood cutting and overgrazing). Lack of control that followed the transition has led to increased exploitation of firewood resources.

The forest sector's policy framework consists of the "Government Strategy for Agricultural Development in Albania" (1999), and the "Strategy for the Development of the Forestry and Pasture Sector in Albania" (2004). The specific policy goals are: 1) Maintaining territorial and ecological integrity of forests and pasture and their biodiversity; 2) Encouragement and maintenance of sustainable management of forest and pasture resources; 3) Improvement and strengthening developments within forest and pasture sector related with market economy; 4) Involvement of local stakeholders and users for development and maintenance of forestry; and 5) Institutional and Legal Reform in Forestry Service at National and Local Level.

The policy of forestry, according to the National Plan for Implementation of the Stabilization and Association Agreement (2007-2012), aims at sustainable and multi-functional development of forests. This

policy supports the extension of new forest areas, rehabilitation of burnt and degraded surfaces, construction and maintenance of water systems in pastures, erosion control by constructing water works, and improved management of timber and non-timber forestry products.

According to the integrated working plan of the Ministry of Environment, Forests and Water Administration (2009-2013), the main priorities and objectives of the ministry regarding forest management include: 1) Organisation of a modern cadastral system for conservation of the forest and pasture fund; 2) Rehabilitation of degraded forest and pasture areas to optimal site conditions; and 3) Sustainable management of forest and pasture resources.

The **legal framework** that regulates the forest sector:

- Constitution of the RA, among others, asks for wise use of forests, waters, pastures, based on sustainable development principle;
- Law on Forests and Forestry Service Police (No. 9385, 4 May 2005) is the main law on forests. The law states that forest resources in Albania should be managed in a sustainable way to fulfil multiple purposes.

Challenges for forestry in Albania

- Illegal logging became common in the years prior to the social economic reform and reached a peak in 1997, where more than 500.000 m^3 of illegal logging was recorded (Institute for National Statistics 2008). The official statistics on illegal logging show a decreasing trend but the actual volume of illegal (or unrecorded) logging probably exceeds legal harvest by a factor ten;
- Erosion is one of the main factors of land degradation almost all over the country. Almost all riverine forests have been destroyed. The natural riparian vegetation with irreplaceable functions on river banks protection is at present very degraded because of continuous over cutting and overgrazing. Erosion risk evaluation, conducted in the frame of Albanian National Forest Inventory 2003, showed that Albania's territory is at high potential of erosion risk. About 70% of Albania forest area is classified as highly and extremely highly susceptible to erosion;
- Forest fires are still a serious problem. The main causes are either the human negligence or the personal ownership conflicts and have a great impact on human health and economy. The Forest Service has taken legal action against 140 cases but even these actions have not played the preventive role. Although a strategy is prepared for protection of forests and pastures from fire, the effectiveness is very low. There is not a well-organised programme yet to prevent the fires;
- According to the monitoring activities conducted by the Forest Service, about 135.000 ha of forests are each year affected by insects and diseases;
- Loss of biodiversity, including flora and fauna resources, is a consequence of above-mentioned problems, with long term negative impacts and possibly irreparable in some areas.

Recommendations

- All forests in Albania, more or less, fulfill the multi-function role. Protective forests additionally protect watersheds, ameliorate local climate, maintain populations of important species of plants and animals, provide living laboratories for scientific research and education, improve environmental conditions in surrounding areas and maintain cultural values. In this regard it will be important to start introducing the ideas of Payment for Environmental Services, as a tool for sharing benefits and responsibilities for the preservation and sustainable management of forest in general and protective forest in particular.; Networking and regional cooperation should be focused on identifying the most appropriate model and best practices for sustainable forest management and dissemination of these practices within the region. The cooperation and networking should not be based only on government institutions, but should also include other interest groups, that work towards supporting and promoting sustainable forest management;

– Environmental and natural resources management planning, including forests, should be based on watersheds, as it is the case in the forestry sector. Coordination and balance should be maintained in watersheds for the development of agricultural and forestry activities, in order to have a greater effectiveness.

Recommendations for the region

– Collaboration between the countries in the region has to be more intensive at institutional level and in fields as education, training and research;
– Regional development projects must keep in mind sustainable use of natural resources especially those linked with forestry;
– Co-operation through conjoint projects on trans-boundary problems or items of common interest will be helpful as well as sharing information and experience gained in dealing with the new challenges of the forestry sector;
– International community must continue to support the development projects in the countries of South Eastern Europe even with technical assistance or financial support.

3.2 Bosnia-Herzegovina

The organisational state of affairs in the area of water and forestry management in Bosnia and Herzegovina (BiH) reflects the constitutional character of the country, consisting of the Federation of Bosnia and Herzegovina (FBiH), the Republic of Srpska (RS), and Brčko Distric. This makes the organisational and institutional aspects different from national systems in neighbouring countries.

Based on the Constitution of BiH, FBiH and RS and pursuant to Brčko District Arbitration Award, competences over water and forest management rest with the entities. BiH authorities have no competences over regulation of inter-entity relations. In addition, there is no reliable institutional and procedural system for resolution of any possible controversies and disputes regarding management of shared water and forest resources. At the same time, BiH foreign policy falls under the competence of BiH institutions. The entities are entitled to establish special relations with the neighbouring countries in compliance with the sovereignty and territorial integrity of BiH and, upon approval granted by the Parliamentary Assembly of BiH, the entities may enter into agreements with other countries and international organisations.

The Natural Resources, Energy and Environment Department within the Ministry Foreign Trade and Economic Relations of BiH (MOFTER) is competent for pursuing legal and standardization-related activities, studies and research, as well as information and documentation-related activities, that, inter alia, are related to:

– Drafting of laws and regulations in the area of waters and forests;
– Determination of the strategy and development policies in the area of water and forest;
– Cooperation with similar international and national institutions in various forms, should this be in the best interest of BiH.

One of the main problems of water and forest sector at all levels in BiH relates to inadequate staffing of the competent authorities. Although almost all previous technical assistance projects to the water sector in BiH has underlined the need to increase staff numbers on environmental issues in general and water and forest sector in particular, nothing has changed for last 3-4 years.

Water Management in Bosnia-Herzegovina

Republic of Srpska

The most important legislation in the Republic of Srpska is the "Law on Waters". (Official Gazette of RS, 50/06). This Law regulates the way of integral water management within the territory of the Republic of Srpska. Water management includes integral approach: protection of water, water usage, protection from adverse water impacts, arrangement of water flow and other water bodies and public property. The Law regulates financing of performed activity, administrative bodies, public service and institutions in water sector, water facilities and plants and other problems related to integral water management in the Republic of Srpska.

Policy of integral water management is defined by water management strategy that should be developed and adopted in the future.

Aimed at filling in the time gap between the Law on Waters and the foreseen Water Management Strategy, the Republic of Srpska has developed and adopted "Framework for the Development of RS Water Management". This framework defines criteria, conditions and restrictions for further development of water infrastructure and water sector management. According to this document, RS adopted the Action Plan for implementation of the Framework for the Development of RS Water Management for the period of 2007-2016.

Main priorities

Priorities are defined through strategic documents for FBiH and RS entities (See table page 16 of the country report for BiH in Annex A on the CD-rom attached). RS water management priorities are:

- Integral water management;
- Protection from floods;
- Protection from erosion and torrents;
- Contemporary water supply development trends;
- Hydro-energy development;
- Use of waters for recreation and tourism;
- Agricultural land irrigation;
- Exploitation of hydro-energy potentials on larger water courses and basins;
- Implementation of small hydro plant designs;
- Navigation infrastructure development;
- Use of waters for recreation and tourism;
- Fishery and fishing development;
- Definition of priorities for resolution of concentrated polluters;
- Water management information system integration;
- Cooperation with FBiH water management;
- Cooperation with the states within the water management surrounding;
- Cooperation with international institutions.

Federation Bosnia and Herzegovina

Like in the Republic of Srpska, major basis for water management is the Law on Waters. FBiH Law on Waters (Official Gazette of FBiH, No. 70/60), adopted in 2006, represents the key legislation for definition of methods and provisions for water management, management of water facilities and public water goods for water use purposes, protection of water from pollution, regulation of water courses and protection from adverse water effects, as well as responsibilities and liabilities of respective authorities. Implementation of the new Water Law has started in January 2008 with the establishment of two Water Agencies on the territory of FBiH, or Sava River Basin District Agency and the Adriatic Sea River Basin District Agency.

Based on the Law on Waters, all surface waters are classified into 1st category waters (with the Federation of BiH as the owner of public water goods) and 2nd category waters (with the town or municipality as the owner of public water goods unless otherwise defined by the Cantonal regulations). The Law defines a number of issues which, in Bosnia and Herzegovina, are traditionally defined by the water right provisions, such as freedom to the use of waters, water purposes, water facilities, certain prohibitions and restrictions, and similar.

Based on the Law on Waters, Water Management Strategy defines the policy for water management. Federal Ministry of Agriculture, Water Management and Forestry is responsible for the development of the Federal Water Management Strategy for the period of 12 years, which, based on the Law, should have been completed in 2009 (it was finalised in February 2010.

One of the shortcomings is that the Federal Law on Waters does not define the notion of water services, or water utilisation. Concerning deadlines for completion of individual tasks within the Law, only the deadlines for preparation of the Water Management Strategy (2009) and River Basin Management Plans (2012) have been defined. However, it has already become clear that such deadlines are not going to be fulfilled.

FBIH water management priorities

- Legal framework: Legal reform of the water sector, arising from the need to adapt to new social circumstances, along with the EU alignment in the water management sector as part of the process of BiH stabilization and association with the EU;
- Economic framework: Adequate integration of water management sector in economic system as a whole, with larger representation of the economic tools in the process of water resources management;
- Institutional framework: Efficient institutional organisation and administration capable of implementing the accession process and implementation of EU requirements in the water sector;
- Water Use: Increase in coverage and improvement of public water supply systems;
- Protection of water: Achieving and maintaining good status of surface water and groundwater for the purpose of protection of aquatic flora and fauna and needs of water users;
- Protection against water: Reducing the risk at extreme hydrological phenomena.

Cross sectorial coordination

Fundamental laws in the field of forests and waters in both the RS and FBIH suggest harmonisation and cooperation between such two sectors. Below listed articles of the Law on Waters binds water management with forest management:

- Article 96, which prescribes prohibitions within the flooding area; it is prohibited to cut protective forests or other trees within the inundation area or perform other activities which may lead to erosion processes;
- Based on Article 97, regulates the prohibition of deforestation within the erosion sensitive area prevents landslides and snow deposits, balance flows or in another manner protect downstream areas from adverse erosion impacts;
- As prescribed by Article 109, water documents are always required for "construction of roads (road and rail) including forest roads.

On-going cross-border projects and initiatives

Delegation of the European Commission to Bosnia and Herzegovina is planning to provide technical assistance to BiH as further support to the overall objective, to ensure the protection and rational use of water resources in BiH:

- Cross-border programme Serbia – Bosnia and Herzegovina, 2007-13;
- Cross-border programme Bosnia and Herzegovina-Montenegro, 2007-13;
- Cross-border programme Croatia – Bosnia and Herzegovina, 2007-13;
- IPA Adriatic CBC Programme 2007-2013;
- South East Europe Transnational Cooperation Programme (SEE) Europe in the Mediterranean (MED) WB and GEF.

Forestry in Bosnia-Herzegovina

National policies and plans regarding water/forestry sector are divided between the two entities and cantonal governments. Inter-sectorial cooperation is not good, although both sectors are under jurisdiction of one joint Ministry of Agriculture, Forestry and Water Management in both entities.

The second national inventory of forests and forest lands in Bosnia-Herzegovina showed significant increase in forest and forest land areas over 40-year period with a total of 3.231.500 ha forests and forest lands in 2009 equal to 63% of the total surface area of Bosnia-Herzegovina. Of this area, 31% is private forests and 69% is state forests.

In terms of forest resource management, only BiH has competence to enter into relevant international agreements (both multilateral and bilateral), while the entities and Brčko District are competent for execution of the agreements. This constitutional arrangement has enabled establishment of the competence of the Ministry of Foreign Trade and Economic Relations of BiH (MOFTER) for pursuing certain activities and tasks.

The Natural Resources, Energy and Environment Department within this Ministry, is accordingly competent for pursuing legal and standardisation-related activities, studies and research, as well as information and documentation-related activities.

Federation of Bosnia-Herzegovina

The development of the Forestry Programme of the Federation of BiH (Forestry Strategy) is currently underway in the Federation of Bosnia and Herzegovina.

Based on the FBiH Constitution Court verdict, the Law on Forests, which was almost fully implemented from the aspect of forestry, funding and other on the Federation territory, was adopted in 2002 but abolished on November 27, 2009. Providing abolishment of the Law on Forests, the Provision on Forests No. 1041/09 was enacted on December 23 and was valid until the promulgation of the new Law on

Forests. New proposal of the Law on Forests is now in draft. Federal Ministry of Agriculture, Water Management and Forestry is authorised to monitor the implementation of the Law and all related bylaws.

The FBiH forestry programme is a planning forestry-related document which defines the general policy of forestry, forests and forest land management, as well as deer management policy on the Federation territory. It consists of a General Part, issued on a long-term basis, and Executive Part, issued on the period of five years. Preparation of the FBiH Forestry Programme is currently in progress.

Concerning forest management in FBiH, management of forests within the defined area is based on the provisions of: Forest Management Plan, Annual Management Plan, and Implementation Design.

Republic of Srpska

Top legal provision for forest management in the Republic of Srpska is the "Law on Forests" (Official Gazette of RS, 75/08). This law regulates adoption of national and regional plans and policies, management of forest ecosystems, forest protection, forest financing and forest value, cadastre of forests, information system in forestry, ownership, as well as other issues related to forests and forest land in terms of improvement and sustainable use of forests and forest land and forestry sector development.

National assembly of the Republic of Srpska adopts the Strategy of Forestry Development which is the basis for preparation of the RS Forestry Programme.

The Strategy is the document which stimulates the development of the forestry sector as part of economy and rural development, aimed at stimulation of the employment rate, protection of environment, enhancement of ecological, economic and social functions of forests, stimulation of ecological values of wood and other non-timber products, ensuring competitiveness of forest industry, etc. Draft document of the Strategy is currently under the process of adoption in the National Assembly of Republic of Srpska for the period of 2010-2020.

The RS Forestry Programme is the basic document that anticipates integral, intersectorial and continuous process of planning, implementation, monitoring and evaluation of the forestry policy with the aim of accomplishment of sustainable forestry management, along with the Action Plan for its implementation. RS Forestry Programme is being adopted by the National Assembly of the Republic of Srpska for the period of 20 years. Implementation of the Forestry Programme is ensured through plans, programs, projects and regulations enacted by the Government and relevant Ministries.

According to the Law on Forests, forest management is based on the planning documents: Forest Management Plan (Šumskoprivredna osnova) developed for the period of ten years and adopted by the Government; and 2) Annual Operational Plan (Izvodjački projekat) which consists of detailed prescriptions for all forest management measures to be applied in a particular location.

Priorities

For the Republic of Srpska, the priorities for forestry in are:

- Harmonisation of national legislation and policies with the requirements of the international standards;
- Harmonisation of management of forest ecosystems with its multifunctional nature;
- More efficient use of the potentials of forest ecosystems;
- Sustainable utilisation in terms of environmental protection;
- Utilisation of the global monitoring system in forest ecosystems;

- Harmonisation of the system of education and scientific research in forestry with the needs of sustainable development in the forestry sector;
- Adjust system of financing in forestry according to the needs of sustainable development of the forestry sector.

For the FBIH, the priorities for the forestry sector include:

- Issuing the Law on Forests (currently applicable Regulation on Forests);
- Implementation of FBiH Forestry Programme/Strategy following its adoption;
- Forestry staff training for resolving forestry issues;
- Certification of FBiH forests based on FSC standard.

Main challenges relevant to forestry issues in a cross border context are:

- Protection of forests against fires in transboundary forest management areas;
- Control of hunting in transboundary forest areas;
- Protection against insects and diseases of forest ecosystems in transboundary forest areas;
- Illegal logging in forests in transboundary areas;
- Problems concerning lack of harmonisation of forest management plans for transboundary forest management areas.

Recommendations for regional cooperation

- Continue cooperation at state and regional level by networking workshop participants and by inclusion of other interested parties in the process of declaration of protective forests;
- To enhance regional cooperation, greater focus should be put on international agreements;
- Cross-sector cooperation should be promoted (water management and forestry sectors) to raise awareness on the importance of forest resources for water supply with special emphasis on cost – benefit analysis of special forest management within protective forests for the purpose of securing drinking water supply.

3.3 Croatia

Water Management in Croatia

Croatia is well underway to work in accordance with the EU-WFD through the Water Act and the Water Management Strategy. Croatian Waters, now part of the Ministry of the Ministry of Regional Development, Forestry and Water Management has a long standing tradition in water management and possesses qualified technical expertise. Under the headquarters of Croatian Waters are 5 regional offices and several local offices.

Priorities

- Protection of Croatian water resources by improvement of water supply systems and integrated waste water system management;
- Achievement of integrated and harmonised water regime on state territory. This includes: ensuring substantial quality of drinking water; providing necessary quantities of water of corresponding quality for different economical uses; protecting people and goods from floods and other harmful occasions; and conserving good water status for protection of water and water dependant ecosystems.

Cross border issues

- Undefined border with Serbia on Danube – sensitive political issue Nature Park Kopački rit;
- Undefined border with Serbia and BiH. Gornji Horizonti on Neretva and Trebišnjica basin in BiH (on hydro power);
- Oil refinery in Bosanski Brod;
- Drainage of Livanjsko polje for the usage in Buško blato reservoir in BiH as a part of hydropower system in Croatia. HPP Unac on river Unac Improvement of navigation on the Sava River;
- HPP Ombla near Dubrovnik: EIA of very low quality; cross-border influence on Bosnia and Herzegovina was not assessed in the EIA.

Forestry in Croatia

Forests and forest land encompass almost half of the land territory, 2 688 687 ha or 47,5% (Source: Forest Management Plan of the Republic of Croatia, 2006 - 2015). State forests are managed by in a "close to nature" practice with a goal of natural regeneration and in accordance with the sustainable management principles.

The State owns and manages 80% of this area and the rest is owned by private owners or other legal entities (i.e. national park authorities, scientific institutions). State owned forests are managed by Hrvatske Šume, the national forest company. Country-wide, 64% of the forest area is high forest and 36% coppice and maquis. Predominant species are beech, oaks and silver fir. Privately owned forests are characterized by their small size of plots (the average size is less than 0.7 ha) and a big number of forest owners (ca. 600.000).

Most of recent Croatian plans and strategies are the direct response of Croatia accession process to the European Union. As in case with other countries aspiring to join the EU, Croatia must align its national laws, institutions and procedures in order to give effect to the entire body of EU community acquis. In the last ten years there was a series of policies, strategies and plans with direct impact on the sector, including:

- Law on Forests; amended in 2008 and 2010 (OG 140/05, 129/08, 80/2010);
- National Forest Policy and Strategy (NFPS). The Government of the Republic of Croatia adopted the NFPS in 2003. This document provides a platform for a shift from the traditional concept of sustainable timber production to sustainable development of forests and gives equal importance to the environmental and social values of forests;
- Forest Management Plan for the Period 2006 – 2015. The Plan is developed on the basis of three key principles: environmentally friendly and economically and socially viable. It provides management guidance for all forests in Croatia, state and private owned. State owned forests are certified under Forest Stewardship Council (FSC).

Due to high biodiversity of forests (260 of estimated 312 endemic plant species occur in forests; important bird areas, abundant wildlife) the following documents also play role for forestry: a) National Strategy and Action Plan for the protection of Biological and Landscape Diversity (NBSAP) adopted by the Government of Croatia in 2008; and b) National Environment Strategy and Action Plan adopted by the Croatian Parliament in 2002.

The Ministry of Regional Development, Forestry and Water Management has the overall responsibility for forestry related legislation and international conventions, forest policy and strategy and representation of forestry sector in international forestry fora (e.g. Ministerial Conference on Protection of Forests in Europe, UNFF, etc.) and inspection.

Forestry activities are carried out within the Directorate for Forestry headed by a manger that enjoys the status of civil servant and therefore is not subject to political changes.

The Hrvatske šume is state owned company responsible for the management of state owned forests. It operates as a Limited Liability Company.

National priorities for forests are:

- Land mines clearance;
- Restructuring of wood industry and strengthening of export;
- Use of non-timber products.

3.4 Kosovo[i]

Water Management in Kosovo[i]

Water Management is under the responsibility of the Ministry of Environment and Spatial Planning. Priorities are laid down in the Kosovo[i] Environmental Action Plan while the elaboration of a Water Strategic Plan is underway.

The Water Council of Kosovo[i] is an independent body, established by the Kosovo[i] Assembly based on Water Law. The Council is an advisory body, which reviews systematic issues of Water Management, harmonises needs and diverse interests and proposes measures for the development, use and protection of resources and water system in Kosovo[i].

A Water Task Force (WTF) has been established and is responsible for improving the situation in the water sector through development of sector policies and action plans based on good practice. The WTF includes relevant ministries of the Government of Kosovo[i], led by the Prime Minister or Deputy Prime Minister.

Average rainfall across the country ranges from 650 mm to 1515 mm. Average flow rates for each of the four rivers has been calculated, but there are no reliable/consistent data collected regarding surface or groundwater inventories. The annual average of water flow from Kosovo[i] is approximately 3.8×10^9 or 121.2 m^3 / sec. The ground water reserves are limited and are mostly located in the western part of the country.

About 44% of the population, mainly in urban areas, have access to public water supplies. In rural areas, the percentage of people connected to the water supply systems is lower and their main water supply is from wells and village water supplies. Only 28% of the population are connected to sewage networks, mainly in urban areas. As noted above, there are no wastewater treatment facilities in rural areas, although some areas have septic tanks without leach fields. Kosovo[i] is a region with limited water supplies.

The Kosovo[i] is part of four river basins: the Drini i Bardhe, Ibri, Morava e Binçës and Lepenci River Basins and three River Basin Districts; Black Sea, Adriatic Sea and Aegean Sea.

The Environmental Strategy is an important document of the long-term development of Kosovo[i]. The development of the strategy is implemented through inter-ministerial cooperation and assistance of other institutions. The strategy has the following Strategic orientations for the water sector:

a) Development of plans for water resources management in the principles of water basins, sharing responsibilities at all levels and among all participants;
b) Ensuring the right to drinking water for all residents;

c) Long-term protection and conservation of water resources as national assets and their use by the principles of sustainable development.

Priorities according to the Kosovo[i] Environmental Action Plan: Compile cadastre data on water polluters. Establishment and institutionalization of the network for water quality monitoring; Improve the management of water resources by regulating the consumption, price and collection of the fees. A Water Strategic Plan is in development and aims to set policies which ensure:

- Water sustainable management by filling the needs of all users qualitatively and quantitatively;
- Water protection from pollution;
- Protection and enhancement of ecosystems, and
- Protection from harmful consequences of water. In the framework of the Kosovo[i].

Strategic priorities for water sector set out in the Kosovo[i] Environmental Action Plan

- Adoption of laws and regulations for water users and suppliers in harmonisation with EU laws and regulations;
- Monitoring of water quality and quantity;
- Development of river basin management plans for water (integrated water management);
- Protection of surface and ground waters from pollution;
- Approval of strategic plans for emergency actions;
- The extension of water supply and improvement of water supply to citizens;
- Extension of sewerage network in urban and rural areas;
- Development of national plan for construction of urban and industrial wastewater treatment plants and creation of suitable models for treatment of wastewaters;
- Awareness raising and education of population on rational use of water resources.

Forestry in Kosovo[i]

During 2003-2004, a national forest inventory was conducted, where 476.800ha were classified as forestlands. Another 85,600.00ha was classified as forestlands through photo interpretation, but could not be surveyed in the field because of mines and other logistic constraints. Out of the total area made up of surveyed and not surveyed forestlands, 278,880.00ha is classified as public forestlands and 198.000 ha as private forests.

The Ministry of Agriculture, Forestry and Rural Development of Kosovo[i] has developed activities to improve organisational structure of forest and forest land also wildlife management, through the adoption of several laws and regulations, adoption of strategies, programs and projects and its implementation. The main priorities have been concentrated on afforestation of bare land and degraded forests.

The main policy and strategy in the forestry sector are: Kosovo[i] Green book; a Strategy for Sustainable Agricultural and Rural Development, May 2003; Agriculture and Rural Development Plan (ARDP) for Kosovo[i] 2007-2013; ARDP for Kosovo[i] 2010-2013; Policy and Strategy Paper on Forest Sector Development in the Republic of Kosovo[i] 2010-2020; Cross-border Program 2010 – 2013 IPA CBC, Republic of Albania – Kosovo[i], June 2010.

The overall objective for forestry is to increase the contribution of the forest sector to the national economy through sustainable use of forest resources, taking into consideration as well as multi-functional role forestry.

Main challenges for forestry in Kosovo[i]

- Illegal logging and other forest damages. Approx. 40% of public forestlands and 29% of private forestlands have been subject to uncontrolled or illegal harvesting activities. By all standards these figures are very high. The situation is most critical in coniferous forest where the entire existence of large forest areas is put at risk if no strong and immediate actions are taken;
- There are considerable areas of barren forestlands (20,000.00–30,000.00 ha). Some of these areas are eroded and have thin top layer soil;
- Weak implementation of adopted legislation, programs and strategies;
- The organisational structure of responsible bodies for forest and forest land management is unclear, with a lot of confusion and overlapping between ministries and ministries and local governments;
- Lack of competent and experienced forest experts during decades is another very important factor of today's forest situation. Forest and forest resources importance for long time and until now have been neglected by governments and society in general.

National priorities for forestry in Kosovo[i]

The policy is to establish the sustainable forest management through following identified actions:

- Supporting efficient management planning, updated stand-and map data base. To realize this priority is to produce and up-date the forest management plans all over Kosovo[i];
- Adoption of the operational annual plans for forest utilisation, silviculture, forest protection for both public and private forests;
- The improvement of licensing system for harvesting, marking of trees to be cut, procedures for sales of wood assortments;
- Improving the harvesting system through certification system, using of appropriate technology and developing of education and training for contractors and entrepreneurs;
- Establishment of a Secondary Forestry education School at national level;
- Ensure the role of forest as in the environmental protection, biodiversity, reduction of greenhouse gasses and reducing the risks of natural catastrophes;
- Support the development of a cost-competitive wood industry capable of benefiting from both primary processing and finally wood processing;
- Supporting the private forest sector development;
- Improvement of use of non-wood forest products (Forest fruits, medical and aromatic plants, mushrooms, ecotourism etc. In Kosovo[i] this use of non-wood products is not well-organised. One of reasons is the lack of adequate legislation;
- Clarification of mandates and responsibilities between different bodies for forest management;
- Increasing the legal harvesting through pre- commercial and commercial thinning;
- Improve the forest infrastructure- opening new forest roads and maintenance existing roads;
- Develop the cross border cooperation.

Priorities of cross-border cooperation

- The existence of high quality forest resources an rich biodiversity; In border areas, mostly forests are of high quality including coniferous forests, except for some exceptions in the south-western border with Albania;
- There is large pastures area of very rich biodiversity. It should be noted that still has not been done enough researches study of the pastures biodiversity;
- The existence of very attractive landscapes, including, canyons, rivers, caves, waterfalls and numerous other natural monuments, which lies near or in the border between Kosovo[i] and neighbouring countries.

3.5 Macedonia

Water Management in Macedonia

Macedonia is part of three different basins: the Aegean, the Adriatic and that Black Sea basin. The Aegean basin is the largest. It covers 87% of the territory of RM, which is 22,075 km^2. Vardar is the largest river in this basin and drains 80% of the territory or 20,459 km. The river Black Drimi is part of the Adriatic basin, which covers an area of about 3,320 km^2, i.e. 13% of the territory. It receives water from Lakes Prespa and Ohrid. The Black Sea basin is the smallest with only 44 km^2. It covers the northern side of Mount Skopska Crna Gora. This is the source of the river Binachka Morava, which joins the Morava, and later, the Danube which flows into the Black Sea. Even though it is a landlocked country, Macedonia has three lakes and around fifty ponds. Lake Ohrid, Lake Prespa and Lake Dojran are the three natural lakes of the country.

The annual resources potential per capita is of about 3.000 m^3, which is on the low side but more than the European average of approx. 1.900 m^3/capita. The main problem arising in the field of availability of water resources is the uneven spatial and timely distribution over the country, showing altogether more favourable conditions in the western part. The country suffers from long drought spells and high intensity rainfalls which constitute a threat for crops and contribute to erosion. In dry seasons, which duration is longer and longer each year, the available quantity is only 950 m^3/s.

The uneven distribution and availability of the surface water in space and time hampers the provision of drinking water. Therefore, the construction of dams and the creation of reservoirs would improve the provision of water is an imperative to full and efficient provision and utilisation of water both for the needs of industry, households and natural resources.

Water management is the responsibility of the Ministry of Environment and Physical Planning. Macedonia has no operational water management strategy, despite Water Master plan (from the 80'ties) and the Spatial Plan of Republic of Macedonia.

The Ministry of Environment and Physical Planning has set a number of operational priorities in the field of water management:

- Establishing of Bodies for Water Management (National Body is already established);
- Waters can be used only with issued permits;
- Establishing of System for Planning of Water management trough: Development of Strategy, plans and programmes for water management with participatory approach (public should participate in decision making);
- Water protection from pollution – issuing of permits for discharge of waste waters, establishing of maximal emissions according the discharged substances;
- Establishing protected zones;
- Protection from harmful effects of waters – floods;
- Establishing of Body for Watershed Management as a major change in water management.

Other priorities are indicated in the National Environmental Action Plan.

Cross border areas

- Management of Lake Prespa; shared between Albania, Macedonia and Greece;
- Management of Lake Ohrid; shared between Republic of Macedonia and Albania;
- The Crn Drim shared between Macedonia and Albania;

- Pchinja river shared among Serbia and Macedonia;
- Lepenec River is shared between Kosovo[1] and Macedonia.

Forestry in Macedonia

According to the newest data from forestry sector (Strategy for sustainable development of forestry in the Republic of Macedonia, SSDF, 2006) the total forest land in the Republic of Macedonia is covering area of 1.159.600 ha, of which forests cover 947.653 ha. According to ownership, 90,14% of the total forest area in Macedonia is state owned forest and 9,86% is private owned forests.

Legislation on forestry include: Law on forest (2009). Also the Law on water (2008) contain articles (134-141) aimed for erosion and torrent control, where is defined procedure for designation erosive zones and proposed activities for erosion and torrent control. When an area is proclaimed as erosive zone, it means that forest within this area should be proclaimed as protective

The main document related to forestry in the RM is the Strategy for Sustainable development (SDSF) of Forestry in the Republic of Macedonia (2007-2026) and the Action Plan 2007-2009. The Strategy was approved by the Government on 19 June 2006.

At the moment few enterprises manage forests in the RM. PE "Macedonian forests" (PEMF) manage the greatest part of state owned forests in the country. Forests within national parks are managed by separate institution for managing of the territory of the national park. Small part of the forests is managed by other subject: public communal enterprise or water management enterprise.

The forests in RM are distributed in 190 forest management units (FMU). According to the forest legislation, 10-year forest management plans for each FMU must be prepared and approved. Each entity that manages forest must work according to the approved measures in the plan. The State Inspectorate for Forestry and Game Management controls the implementation of these plans.

The main challenges in forest management are:

- Human capacities related to SFM including planning are not satisfied;
- Cross-sectional cooperation between forestry and other sectors is not satisfied;
- Illegal logging that takes huge proportions and other illegal activities;
- Forest fires which have affected nearly 100.000 ha for the last 10 years;
- Climate changes through the process of drying of the forests;
- Insect attacks and diseases;
- Unfavourable terrain condition;
- Actual and potential erosion risks.

Because of natural conditions, erosion processes on the hilly and hilly–mountain regions are significant. The protective role of forest is very important for soil and water conservation in the Republic of Macedonia.

National priorities

The national priorities for forestry include: Increasing the areas of forests and improvement of their structure and quality based on sustainable forest management, through:

- Encouraging the activities and providing assistance for the increase of the reforestation and afforestation with adapted tree species in accordance with the global regionalization and local

conditions, including regeneration of degraded forests, planting forests on uncultivated and poor-quality soils as well as other non-used land areas;
- Enforcing tending activities and thinning especially in young forests, as well as regeneration of degraded forests, speeding up of the conversion of coppice forest into high forests and reconstruction of degraded forests;
- Increasing access of forests through road construction using environmental acceptable methods;
- Taking measures for protection and conservation of the natural forest genetic resources trough: Identification and evaluation of the natural forest gene-fund; Selection of seed orchards and "plus trees" from economically valuable forest tree species;
- Taking measures to enhance the forest health condition trough removal or decrease of negative impact factors, and ensuring stable forest ecosystem: a) Strengthening the capacities of the State Forestry and Hunting Inspectorate and the Forestry Police in the Ministry of Agriculture, Forestry and Water Economy and the Centre for Diagnostic-Prognostic-Reporting-Service of Republic of Macedonia; b) Renewal and maintenance of the network for monitoring and control of the health condition of forests; c) Support for the research in the area of forest protection, especially those with applied usage in forestry;
- Introduction of guidelines to address operational, silvicultural, environmental and safety issues;
- Promoting sound use of wood and wood products from sustainably managed forests, forest law enforcement to combat illegal activities in forests that have negative impact on the forest resources and the economy;
- Increase the use of modern scientific achievements in forest technologies.

Potentials for regional cooperation

- Networking, scientific projects could be realized through various EU programmes;
- Cross-border cooperation (regional) could be realized through INTERREG and other programmes;
- Cross-sectorial cooperation (water and forest sectors) within EU Rural development programmes.

3.6 Montenegro

Water Management in Montenegro

Montenegro is part of two main river basin districts; the Black Sea and Adriatic Sea. Adriatic Sea basin covers about 47,5 % area of Montenegro and the Black Sea about 52,5 %. In general, both catchment areas are rich in water, even by world standards. But a significant portion of the territory of Montenegro belongs to the continental karst, which has no permanent streams, with numerous sinks with water flowing underground. Major rivers entering the Black Sea are: Piva, Tara, Ćehotina, which flow westward while the Lim and the Ibar flow eastward to merge with the Drina and next to the Sava River. The most important waterways of the Adriatic basin are: Morača, Zeta, River of Crnojevića and Cijevna who all gravitate to Skadar Lake from which spill over into the river Bojana and further flows into Adriatic Sea.

Analysis made for the Water Management Master Plan of Montenegro, indicate that in Montenegro on average there is 30.000 m^3 of water per capita per year which makes the country extremely rich in water resources. However; about 35 % of the territory of Montenegro is suffering from a chronic lack of water, which was only solved though expensive hydro-technical projects. At the same time about 10% of the territory is faced with the problem of seasonal excess water.

Erosion and torrential flows are a pressing phenomenon in Montenegro with specific aspects of erosion typical of karst regions.

The quality of surface, ground and sea water is constantly deteriorating. Water quality of the upper streams of the river Tara, Piva, Ćehotina, Lim, Ibar, Morača, Zeta and Bojana are in however still in a good condition. Water quality of river Lim downstream from town Berane, is getting worse. River Zeta downstream from Nikšić is in the second to the third class. River Tara requires a first class, because it belongs to the National Park, but the quality of water is a first class only in the most upstream profile, the profiles downstream of Kolašin is second to the third class.

Water management and protection regulated by the Water Act (for 62% consistent with the WFD).

The planning document which is especially important for long-term and sustainable water management is Water Management Master Plan from 2001. It contains the current state of the water regime and water facilities in a particular area, the conditions for the maintenance and development of water regime, to ensure the cheapest technical, economic and ecological solutions for controlled waters. Decisions established in Water Management Master Plan are reviewed after 10 years from the date and is planned for 2011.

National Policies

The national policies are laid down in: Water management plan; River basin management plans; Master plan for disposal wastewater of Montenegrin coast and Municipality of Cetinje; and Strategic master Plan for sewage and wastewater in central and northern part of Montenegro.

Strategic Priorities for water management

- Adoption of laws and regulations for water users and suppliers in harmonisation with EU laws and regulations;
- Monitoring of water quality and quantity;
- Development of river basin management plans for water (integrated water management);
- Protection of surface and ground waters from pollution;
- Approval of strategic plans for emergency actions;
- The extension of water supply and improvement of water supplies of citizens;
- Extension of sewerage network in urban and rural areas;
- Development of national plan for the construction of urban and industrial waste water treatment plants, and create suitable models for the treatment of waste waters in urban and rural settlements;
- Development of plans for water resources management in the principles of water basins, sharing responsibilities at all levels and among all participants;
- Long-term protection and conservation of water resources as national assets and their use by the principles of sustainable development.

Cross border issues

Skadar Lake – transboundary water body between Montenegro and Albania. Protected as a National Park in Montenegro 1983. Tara river basin - was protected in 1979 as a UNESCO Biosphere Reserve, under the project “Man and Biosphere”. National park Durmitor was declared UNESCO World Heritage. Trebišnjica,(BiH) and in that the equitable distribution of its hydropower potential. Probable pollution from the upstream watersheds of Montenegro could cause dispute between Montenegro and Serbia / Bosnia & Herzegovina.

Prevention works in relation to the Flood control is needed in upstream watersheds of Montenegro of River Lim, Tara, Piva and Cehotina.

Forestry in Montenegro

In Montenegro, forests and forest land covers 743.609 ha equal to 54% of the territory. Of the total area, forests cover 620.872 ha and forest lands a further 122.737 ha. State owned forests cover 500.041 ha (67,25%), whereas private forests cover 243.568 ha (32,75%). In respect of the structure of state owned forests, economic forests cover 347.581 ha or 81,43%, (of which 212.261 ha are covered by high economy forests, 39.721 ha coppice forests, 46.082 ha brush woods and maquis, and 49.517 ha are bare forest land) protective forests 66.283 ha or 15,53% and National Parks 12.975 ha or 3,04%.

In the context of its aspiration to become an EU Member State, effective management of its forests and forestry sector is of strategic importance to Montenegro for the following reasons:

- Fulfilling the political criteria: the reform of state administration and good governance in the forestry sector should establish effective rule of law on more than half of the territory;
- Rural Development perspective: forests and forest products offer one of the strongest potentials for endogenous development of rural areas in the north of Montenegro, and represent a significant element of the attractiveness in terms of tourism, a priority economic sector;
- Application of EU standards: Natura 2000 and forestry related Acquis: numerous EU regulations and policies should be transposed and implemented before becoming a member state.

Legal framework: National level goals of the Montenegrin forestry sector are defined in the National Forest and Forest Land Administration Policy (National Forest Policy) which was adopted by the Government of Montenegro (Ref No:03-3982) on 24th April 2008 after broad consultative process. The NAP for Combating Illegal Activities in Forestry in Montenegro was adopted for the period 2009-2013). The new Forest Law was adopted in 2010, which, together with previously adopted Law on Reproductive Material of Forest Trees and the Law on Hunting and Game encompasses the legislative framework in forestry.

The overall goals of the National Forest Policy are to:

- Ensure and improve long-term resistance and productivity of forests and other eco-systems, and maintenance of plant and animal species;
- Administrate forests and forest resources to ensure sustainable implementation of social, economic and environmental forest functions;
- Forests contribute to sustainable social and economic development of rural areas;
- The Strategy for Wood Industry Development ensures long-term development and competitiveness of wood industry;
- Long-term development of forestry profession and forestry-related operations.

The National Forest Programme Process in Montenegro involves: development of National Forest Policy (done), development of forestry and hunting laws, development of Forestry Sector Development Programme (strategies and budgets), frequent participatory monitoring of the programme implementation, the reform of Government institutions and forestry services, building human resources capacities at all levels, and the support to establishment of sustainable private sector in forestry.

Organisational structures

The Ministry of Agriculture and Rural Development is in charge of the overall control of the forest sector and has the leading role in the process of forest resource management, and in development of economic and other sectorial policies, and in implementation of these policies. The sector is supervised by the Deputy Minister for Forestry and has at present three units: Strategic Planning Unit, Central Management and Monitoring Unit, and Forest Inspectorate.

The main challenges for forestry in Montenegro

- National Forest Inventory: it is the final phase of implementation of the National Forest Inventory, which is for the first time being carried out in Montenegro. Work started two years ago when the Methodology is defined; field training of forestry experts was carried out and the field work was completed in 2010;
- Institutional set up - As a response to numerous challenges, Montenegro in the process of defining a new, more efficient institutional framework which will harmonise the functions and responsibilities of Governmental institutions in the forestry sector, in order to ensure adequate enforcement of policy within the sector;
- New forest management planning concept: with the support of international projects, state forest institutions are in a process to improve the methodology for forest management planning, which will create the necessary prerequisites for managing this sensitive resource according to the most advanced standards;
- Forest fires: Due to their geographic position in the Mediterranean region as well as to climatic changes, Montenegrin forests are especially threatened by fire. For the past 15 years, there have been 1007 recorded major forest fires in Montenegro. The Forest fire affected area totals 15.300 ha, and approximately 500.000 m^3 of timber mass has been damaged or destroyed. Especially critical were 2000 and 2003, when large forest areas were affected by an extremely high number of forest fires in the South-East Europe (in 2003 alone more than 300 forest fires broke out in Montenegro, and approximately 2.500 ha of forest areas were fire-affected);
- Illegal logging: The percentage of officially recorded illegal logging compared to the total logging per year (around 400.000 m^3) in state forest is approximately 1%, but according to the information from private forest associations, the volume of illegal logging is higher. The Government has adopted the National Action Plan for Combatting Illegal Activities in Forestry in 2009. This has resulted in reduction of illegal harvesting.

All of the above mentioned, together with work on setting up a Forest Information System that will improve planning and monitoring at national and local level and the support provided to establish a sustainable private forestry sector, will contribute to reaching the vision of forestry in Montenegro, which reads: Improve the existing condition of all the forests so that the protection, environmental, social and economic forest functions are balanced, and sustainability ensured.

Recommendations for national, regional and international level

- Implementation of National Forest Policy and new Forest Law;
- Establishment of the National Forest Programme Coordination Committee;
- Improve implementation of National Action Plan for combating illegal activities in forestry;
- Further work on the new institutional framework;
- Building human resources in forestry;
- Support to establishment of sustainable private sector in forestry;
- Improvement of informational basis of the National Forest inventory;
- Development of a monitoring plan as an 'integral part' or as an accompanying document to the National Forest Strategy;

- Launch a Sustainable Modern Wood Energy Market in Montenegro, which should be significantly focused on environmental protection;
- Raising awareness of forestry sector importance.

3.7 Serbia

Water Management in Serbia

Water management is the responsibility of the Ministry of Agriculture, Trade, Forestry and Water. Water Management Master Plan of the Republic of Serbia has been adopted in 2002 and stays valid until 2012. The National Environmental Strategy (NES) (2007) highlights water pollution as a major problem National Sustainable Development Strategy (NSDS) from 2008. Serbia has made significant progress in aligning legislation and practices with the EU-WFD. According to the Master Plan, the normative water consumption per household has been set at 230 litres per capita per day.

The National Environmental Strategy (NES) (2007) is the fundamental strategic document for environmental protection in Serbia, implemented through environmental action plans and revised every three years. It outlines the fundamental principles for environmental protection and sustainable development and defines the priorities for the institutional framework of the country.

The National Sustainable Development Strategy is based on the globally accepted principles identified in the Declaration on Sustainable Development from Johannesburg, the MDGs and the EU Sustainable Development Strategy. The strategy identifies water supply as the priority activity in the water sector, and investments in this segment have been highest. It explicitly highlights the importance of achieving the right to water for enhancing environment and natural resources, reducing poverty and achieving sustainable development. Sectorial policy objectives for sustainable use of water resources include, amongst others:

- Harmonise national water legislation with EU legislation;
- Increase access to quality water by connecting the population to public water supply systems;
- Reduce water losses in water supply systems;
- Increase water quality in reservoirs intended for water supply;
- Improve water quality in watercourses, primarily by building new wastewater treatment plants and ensuring more efficient operation of existing wastewater treatment plants;
- Rehabilitation and clean-up of polluted water courses;
- Introduce full cost-recovery prices for water and services through the “polluter pays principle”;
- Adequate institutional and territorial organisation of the water sector;
- Introducing the regulatory function; and
- Provide for public participation and participation of users in all stages of decision-making in the water sector.

The National Water Sector Strategy (NWSS) identifies the key issues and objectives for the water sector and proposals for planning, development and management of water resources and their use in all water sub-sectors (water resources development, urban water supply and sanitation, rural water supply and sanitation, industrial water supply and pollution control, irrigation and drainage, hydropower, the environment and flood protection).

NWSS is based on the national water sector profile, i.e. all aspects of the water availability and utilisation. NWSS has a major role in the investment plan, which should identifies the key programmes and projects which should be undertaken in the coming years. Priorities in the NWSS are:

- Water supply;
- Sewerage and wastewater treatment;
- Flood protection; and
- Irrigation.

The new Water Law (entered into force on 1st January 2011) requires that a large body of secondary legislation has to be prepared over the coming period (to end 2012).

In general the following assessment for water management issues in Serbia is made:

- Large efforts have to be made to cope with aforementioned water sector problems;;
- Some problems are not connected with financial investment;
- There is a need for ambitious water sector strategy at the state level;
- National water strategy should be done in compliance with EU regulations;
- All targets cannot be reached with current GDP growing!

Executive responsibilities for water management lay in the hands of Vode Vojvodina and Srbija Vode. Both organisations possess extensive expertise in technical issues in water management. The Jaroslav Černi Institute is an institute for research, development, design and consulting services in the fields of hydraulic engineering and integral water resource management, including water master planning, feasibility studies and design.

Cross border issues

- There are unresolved border issues between Serbia and Croatia, Montenegro and Bosnia and Herzegovina while the border situation between Kosovo[i] and Serbia is a political issue;
- Basin of river Drina, which is border between Serbia and Bosnia-Herzegovina, and where NP Tara (Mt. Tara) is placed. Together with rivers Tara and Piva in Montenegro this river creates basin very rich with unique forests and comprise national parks in all three countries NP Durmitor in Montenegro and NP Sutjeska in Bosnia and Herzegovina.

Forestry in Serbia

The forest area of Serbia covers a total of 2.252.400 ha (29.1%). The share of State owned forests is 1,194.000 ha (53.0%) and the privately owned is 1,058.400 ha (47.0%).The first National Forestry Inventory was carried out in 2004-2008, thanks to the donation of Norway, the Norwegian Forestry Group and the Faculty of Forestry, University of Belgrade, who started a pilot project "The National Forest Inventory of the Republic of Serbia".

The legal framework includes: The Law on Forests; The Law on Waters; The Law on Agricultural Land; The Law on Environmental Protection; The Law on Nature Protection; and The Law on Integrated Pollution Protection and Pollution Control of Environment. The strategy framework includes the Agriculture Strategy of the Republic of Serbia, the Forestry Development Strategy of the Republic of Serbia and the National Forest Action Programme in draft.

The Forest Development Strategy for Serbia (2006) has been defined by legal regulations and individual strategic documents, as the base of the forest sector development. The Strategy coordinates general development goals of the forest sector of Serbia and defines the measures for achieving the goals. As the response to the need for changes, through the Strategy of Sustainable Development, the Government has initiated a broad initiative for the reform of all sectors, including the forest sector, through the definition of a new policy, laws and institutional changes.

Next step after the Strategy has been adopted is drawing up of the National Forest Programme as the Action Plan, which is under the preparation for adoption in the Parliament and a new project for NFP implementation is under preparation phase.

Organisational structures

1. State level: Ministry of Agriculture, Forestry and Water Management, incl. Directorate of Forests; Ministry of Environment and Spatial Planning, and the Council for Sustainable Development;
2. Provincial level: Provincial Secretariat for Agriculture, Water Management and Forestry; and Provincial Secretariat for Environmental Protection and Sustainable Development;
3. Operational level (regional and local): State Forest Enterprises "Srbijašume" and "Vojvodinašume", State, Provincial and Regional Waterworks Enterprises, Private Forest Owners Associations, and private households.

All forests, both state owned and private, are administered by the Directorate of Forests, headed by a Director who is also the Deputy Minister, operating under the Ministry of Agriculture, Trade, Forestry and Water Management.

The state forests are managed by the two state enterprises, Srbija sume managing the state forests of Central Serbia, and Vojvodina sume managing Vojvodina's state forests. The enterprises operate through a system consisting of forest estates, with forest sub-estates as the basic operational unit in the field. Srbija sume operates through 17 forest estates and 69 forest administration units while Vojvodina sume with 4 forest estates and 21 forest administration units.

National priorities for forestry in Serbia include:

- Increased contribution of forestry sector to economic and social development of country;
- Achievement of sustainable forest management in state forests trough protection and improvement of forests;
- Management of private forests and forest lands performed by forest owners in a sustainable way;
- Conditions provided for game management using appropriate measures of forest management in order to maintain the genetic potential of game, their number and quality as well as to enable control of game population;
- Education of adequate forestry professionals for the sector;
- Efficient exchange of information internally in forestry sector and externally between forestry and other sectors, and rising public awareness on importance of forestry and forests for society;
- Strengthening international and regional cooperation in forestry and related fields;
- Protection of forest areas, biodiversity and gene pool of tree species, using protected areas for education, recreation, tourism and other ecologically acceptable means of management;
- Mitigation of negative effects and impacts in forest areas;
- Active participation of stakeholders in implementation of national forest policy and framework.

Recommendations for improve cooperation at national and regional level

- Requirements for cross-sectorial cooperation;
- More attention on protective forests;
- Potentially can caused serious problems;
- Change ignorant attitude at protective forests;
- Sustainable Forest Management in protective forests;
- Exchange of knowledge, achievements and innovations.

In chapter 4, the identified priorities and current cooperation common for the seven SEE countries are analysed further.

4 Analysis of Priorities and Current Cooperation

In the following analysis of the current state of affairs on cooperation between the forest and water sectors, three levels of cooperation are distinguished:

- Cooperation between the water and forest sector per country;
- Cooperation across borders where the water and forest sectors are both involved; and
- Cooperation at regional (South-Eastern European) level on issues relevant for both sectors.

4.1 Overview of Responsibilities

As part of the study, we came across the challenge that the signatory ministry to the SWG for each of the seven countries is not always responsible for water management and/or forestry. The SWG is established based on an agreement between the Ministries of Agriculture in the participating countries. In the countries where water management is not the responsibility of the Ministry of Agriculture the organisation of the country workshop appeared to be sometimes rather problematic since the Ministry responsible for water management did not feel committed to the SWG and therefore did not feel obliged to organise the workshop. Beneath, the table presents the ministries and agencies responsible for water management and forestry respectively. The table shows that in Albania the responsibilities for water management and for forestry are not in the Ministry responsible for agriculture, while in Kosovo[i] and Macedonia the responsibility for water management is not in the Ministry responsible for agriculture and forestry.

This issue needs to be addressed if the SWG aims to embark on the process to support improved cooperation between the two sectors. For strengthening the regional cooperation between the water and the forest sectors, it will be important to secure the participation of the responsible ministries and their implementing agencies.

Table 4.1 Responsibilities per country

Sector / Country	Water management	Forestry	Agriculture
Albania	Ministry of Environment, Forests and Water Administration	Ministry of Environment, Forests and Water Administration	Ministry of Agriculture and Food
Bosnia and Herzegovina	**RS:** Ministry of Agriculture, forestry and Water Management (2 Water Agencies) **Federation:** Federal Ministry of Agriculture, Water Management and Forestry (2 Water Agencies)	**RS**: Ministry of Agriculture, Forestry and Water Management (Forest agency) **Federation**: Federal Ministry of Agriculture, Water Management and Forestry (Federal Forestry Agency)	**RS:** Ministry of Agriculture, Forestry and Water Management **Federation:** Federal Ministry of Agriculture, Water Management and Forestry

Croatia	Ministry of Regional Development, Forestry and Water Management Croatian Waters is the executing organisation	Ministry of Regional Development, Forestry and Water Management Croatian Forests is the executing organisation	Ministry of Agriculture
Kosovo[i]	Ministry of Environment and Spatial Planning is responsible for water resources Public Water Companies are under Ministry of Finance, while Ministry of Agriculture, Forestry and Rural Development is responsible for irrigation	Ministry of Agriculture, Forestry and Rural Development Kosovo[i] Forest Agency and Department of Forestry	Ministry of Agriculture, Forestry and Rural Development
Macedonia	Ministry of Environment and Physical Planning (MOEPP). Directorate for Environment Water Sector	Ministry of Agriculture, Forestry and Water Economy	Ministry of Agriculture, Forestry and Water Economy
Montenegro	Ministry of Agriculture and Rural Development Water Administration responsible for Water Resources Management.	Ministry of Agriculture and Rural Development Forest State administration body responsible for forest management	Ministry of Agriculture and Rural Development
Serbia	Ministry of Agriculture, Trade, Forestry and Water Management Water management is the responsibility of Srbijavode, Beograd vode and Vode Vojvodine	Ministry of Agriculture, Trade, Forestry and Water Management Forest management is the responsibility of Srbijasume and Vojvodinasume	Ministry of Agriculture, Trade, Forestry and Water Management

4.2 Water Management

When it comes to both cross-border cooperation and cross-sector cooperation, the EU Water Framework Directive is the most demanding Directive and (after accession to the EU) obligatory. The WFD poses enormous challenges to member states in terms of capacities and organisational and institutional demands. An integrated planning of land use, including agriculture and forestry, nature conservation and water management based on cost benefit analyses and agreed upon in a participatory manner under strict time lines is, extremely demanding.

The SEE countries are facing overwhelming challenges of having sufficient human and institutional capacities to meeting and implementing the EU requirements. It is difficult for each of the individual countries to have all the required expertise available. This counts for instance for the economic expertise required to value environmental costs and benefits for supporting the implementation of the EU WFD. This also counts for expertise in developing monitoring programmes and methodologies for classifying and assessing ecological status of water bodies and to undertake the obligatory inter-calibration exercises between the countries in the region.

River Basins in South Eastern Europe

The South Eastern European region is part of three river basin districts; the Danube River Basin District, the Adriatic Sea Basin District and the smaller Aegean River Basin District. Within these river basin districts, a variety of river basins and sub basins are shared by the countries for which IRBM plans have to be elaborated. While the overall planning has to be done at the level of river basin districts (e.g. the Danube River Basin District Management Plan), more detailed integrated management planning is needed for each of the river basins and sub basins to analyse the river basin characteristics and design detailed programmes of measures for meeting the WFD objectives.

Table 4.2 Overview of shared River Basins by the South-Eastern European Countries

Country / Shared River Basins and sub-basins	Albania	BiH	Croatia	Kosovo[i]	Macedonia	Montenegro	Serbia
Danube River Basin District							
Danube River Sub-Basin			X				X
Sava River Basin		X	X				X
Una River Basin		X	X				
Drina River Basin incl. Piva, Tara and Lim Rivers	(X)	X				X	X
Morava River Basin incl. Velika-M, Zapadna-M, Juzna-M, Ibar, Nisava				X		X	X
Adriatic River Basin District							
Adriatic Sea	X		X			X	
Neretva River Basin incl. Trebisnjica		X	X				
Krka and Cetina River Basin		X	X				
Drin/Drini River, incl. Drin, White-D, Black-D, Ohrid, Prespa lakes	X			X	X	X	
Buna/Bojana River - Skadar Lake - Moraca River	X					X	
Aegean River Basin District							
Vardar/Axios River Sub-Basin, incl. the Lepenac/Lepenci, Pchinja rivers				X	X		X

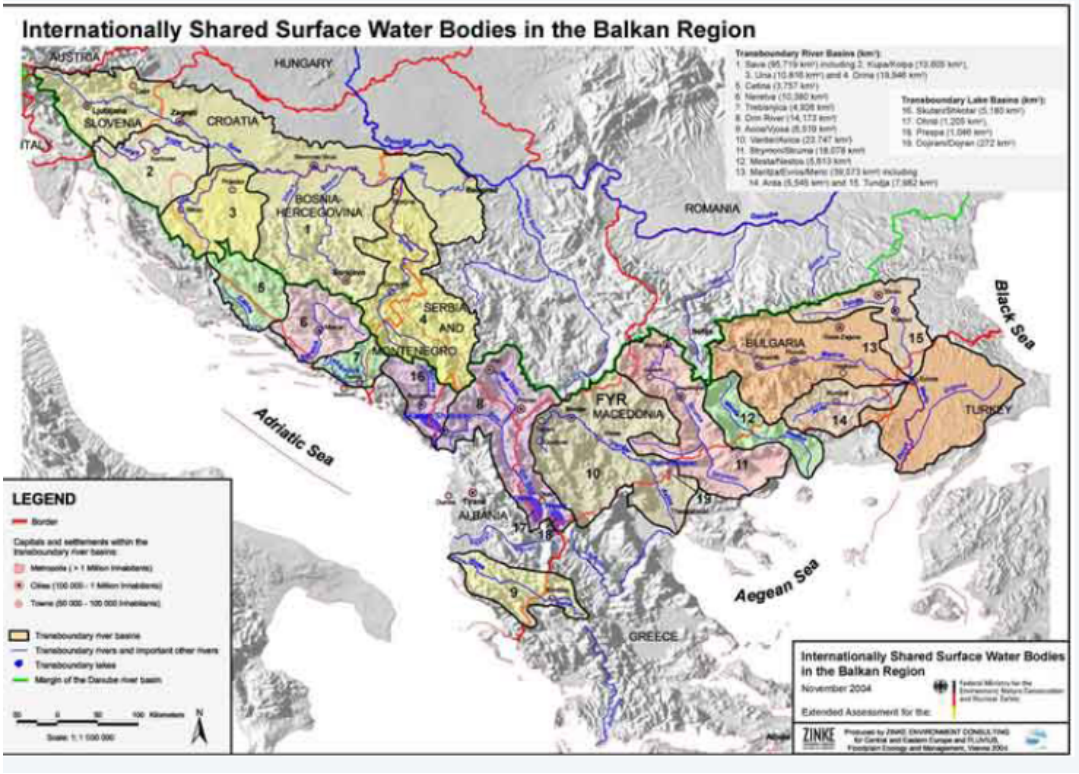


Figure 4.1: Internationally shared surface water bodies in the Balkan Region (ref. www.watersee.net.)

As demonstrated by the table and map above, the South Eastern European region is characterised by a big amount of cross border river basins and sub-basins where countries will have to cooperate on the IRBM planning. In some cases initiatives are under way or cooperation has already started through funding by the World Bank and the EU. Examples of on-going projects and initiatives are:

- The Tara Lim project (Montenegro and Serbia);
- The Sava River (Slovenia, Bosnia and Herzegovina, Croatia and Serbia);
- The ICPDR – the Danube River Basin District (all countries except Macedonia and Albania);
- The Neretva-Trebisnjica sub-river basin; on-going Wold Bank project;
- The Lake Ohrid and the Lake Prespa (various initiatives and projects);
- The Drin Dialogue – on-going initiative (Albania, Kosovo[i], Macedonia and Montenegro).

To what extent these projects have led to improved cooperation between the two sectors falls beyond the scope of this project but the country representatives from Albania and Macedonia reported good experiences form the projects on Lake Prespa and Lake Ohrid. Also the Drin Dialogue is a promising initiative for the four countries sharing this River Basin. Information on e.g. the elaboration of the Sava Basin Management Plan reveals that involvement of nature protection and forestry in this process has been limited, while especially forestry and nature conservation are important sectors in the flood plains of the Sava River and in the Sava Basin.

Below a map of the Danube River Basin is shown. Within the International Commission for the Protection of the Danube River (ICPDR) the countries in the Danube River Basin have already agreed on an International River Basin District Management Plan, which was approved in December 2009 (http://www.icpdr.org/icpdr-pages/danube_rbm_plan_ready.htm). For the Sava River Basin the management plan is ready in draft and feedback from stakeholders is being collected.

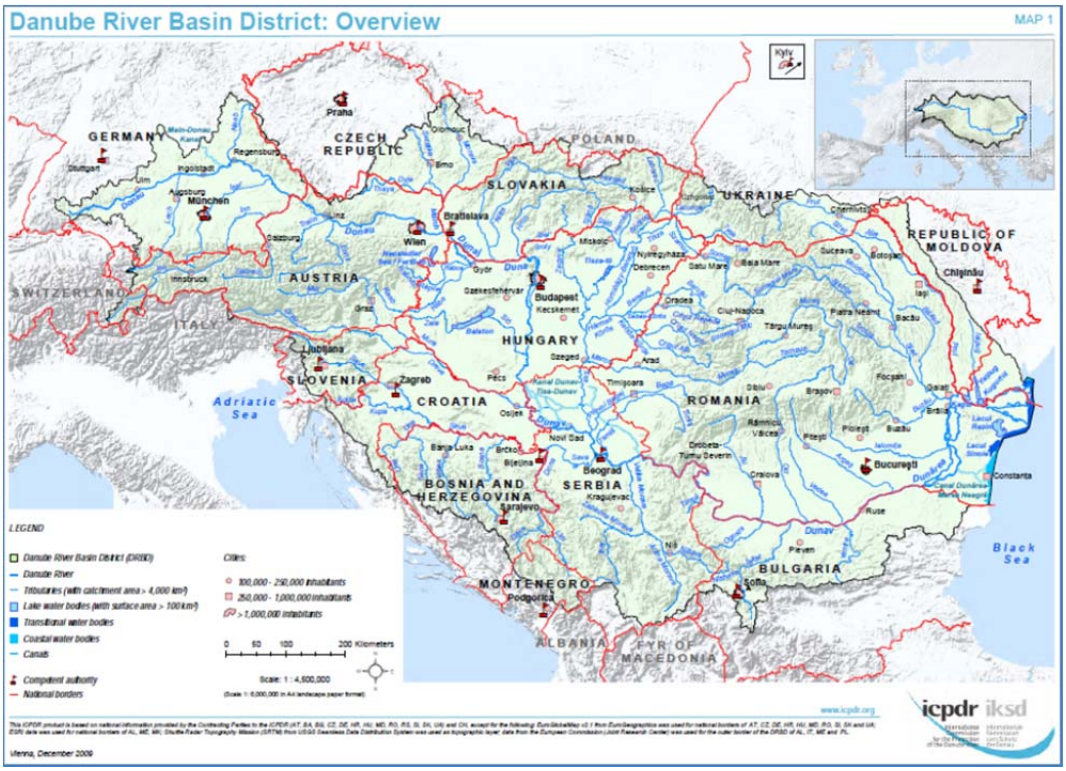


Figure 4.2: Overview map of the Danube River Basin District (ref. www.icpdr.org)

Each of the above mentioned initiatives focuses on the elaboration of an integrated river basin management plan for a specific river basin or sub-basin or a specific water body, while many of the challenging aspects of implementing the WFD in an integrated manner require national coverage where harmonising methodologies and sharing knowledge and expertise in the SEE region will be the way forward in order to secure sufficient capacities and capabilities available for proper implementation.

Status of implementing the EU WFD and priorities expressed by the water sector

During the technical discussion on the implementation of the EU WFD conducted in March 2011 in Herceg Novi, the status of the implementation of the EU WFD was discussed with the participants based on country reports prepared by national experts from the relevant Ministries. During the workshop the challenges and priorities for regional cooperation were discussed. Below an overview of the current status of implementing the EU WFD is presented.

Table 4.3 Overview of current status of implementing the EU-WFD

	Albania	BiH	Croatia	Kosovo[i]	Macedonia	Monte-negro	Serbia
Strategy for implementing WFD		X	X		X	X	X
Transposition of the WFD	Draft	X	X	Beginning	X	On-going	On-going
River Basins defined	X	X	X	X	X	X	X
Ground WB Identification			X	On-going			
Ground WB Chemical status			X	On-going			
Ground WB Quantity	X		X	Estimate		X	
Surface WB Typology		Rivers	Rivers/lakes	X (some)		Beginning	
Surface WB Identification		Some	Some				
Surface WB Reference Conditions *(good ecological status)*							
Assessing Ecological Status for WBs *(biological, hydro-morphological, physico-chemical quality elements)*		On-going	X		(X)	X (some)	
Assessing Ecological Potential for artificial/heavily modified WBs			X				
Programme of measures		On-going	X				
Monitoring programme			X			Beginning	
Intercalibration							
Register of Protected Areas		On-going	X	X		X (some)	
Pressures and Impacts analysis	X		X			X	
Economic, cost-benefit analysis							
River Basin Management Plans		On-going	On-going				
Stakeholder/public consultation			X				
Bathing water			X				
Drinking water		On-going	X			X	X
Waste water	X					X	X
Flood regulation		On-going				X	X

Abbreviation WB: Water Body

During the workshop, the participants discussed specific questions, which gave a clearer picture of the level of cooperation between the two sectors and of the needs and priorities for improving the cooperation. Summarising the workshop discussions and also the information on priorities given in the country baseline reports gives the following main challenges and priorities.

Priorities for water management

Not surprisingly there is a lot of communality in the priorities expressed by the various countries. All countries have as a common objective to implement the EU WFD. Common priorities further include:

- Introduction of the principles of Integrated Water Resource Management;
- Controlling and combating pollution by improving waste water collection and treatment;
- Safeguarding the provision of drinking water;
- Groundwater protection;
- Flood protection;
- Improved organisational and institutional set up of the water management sector including the establishment of water management bodies.

Specific priorities mentioned by one or more countries include:

- Addressing the use of fertilisers and pesticides (Albania);
- Development of hydro-power (BiH);
- Protection from erosion (BiH);
- Agricultural land irrigation (BiH);
- Improved cross border cooperation (BiH);
- Protection of Riverbeds against unauthorised sand mining leading to unstable morphological conditions, affecting irrigation and flood protection infrastructure (BiH);
- Promotion of the use of waters for recreation and tourism (BiH);
- Improved organisational and institutional frameworks (BiH, Albania, Serbia);
- Development of IRBM plans (and integrated water management) (Kosovo[i]);
- Improved monitoring of water quality and quantity (Kosovo[i], Montenegro);
- Awareness raising and education of population on rational use of water resources (Kosovo[i]);
- Introducing public participation (Macedonia, Serbia);
- Approval of strategic plans for emergency actions (Montenegro);
- Long-term protection and conservation of water resources as national assets and their use by the principles of sustainable development (Montenegro);
- Rehabilitation and clean-up of polluted water courses (Serbia);
- Introducing a permit system for water use and extraction (Macedonia);
- Introducing full cost-recovery prices for water and services through the “polluter pays principle” (Serbia).

Main priorities for regional cooperation expressed by the water sector

- Cooperation on ministerial level; commitment to implement policies, e.g. by establishing water councils including all ministries as members;
- Legislation; support to harmonisation with EU legislation; harmonising policies on water management, forestry and land use including harmonising forest and water legislation with spatial planning and nature protection legislation;
- IRBM planning; concepts, definitions and methodologies, including integrating forest management measures into IRBM planning;
- Methodologies; sharing of knowledge and techniques; establishing WB typology, reference conditions; WB ecological status assessment methods and intercalibration processes;

- Monitoring; sharing of data and databases, assessment and evaluation methodologies;
- Flooding and pollution; Early-warning alarm system and flood protection solutions; including prevention of floods/establishment of flood retention areas (flood control and storage);
- Erosion control and minimising erosion risks by setting erosion control measures and identifying key problems causing erosion risks;
- Counteracting of climate change impacts on water resources and securing of water supplies and water quality;
- Explore possibilities of payment for ecosystem services;
- Improve communication and exchange of information, expertise, experiences and knowledge;
- Improve participatory management planning, including multi-stakeholder involvement.
- Capacity building of human and institutional capacities and competences in EU WFD requirements and IRBMP; incl. identifying best practises and exchange knowhow with EU.

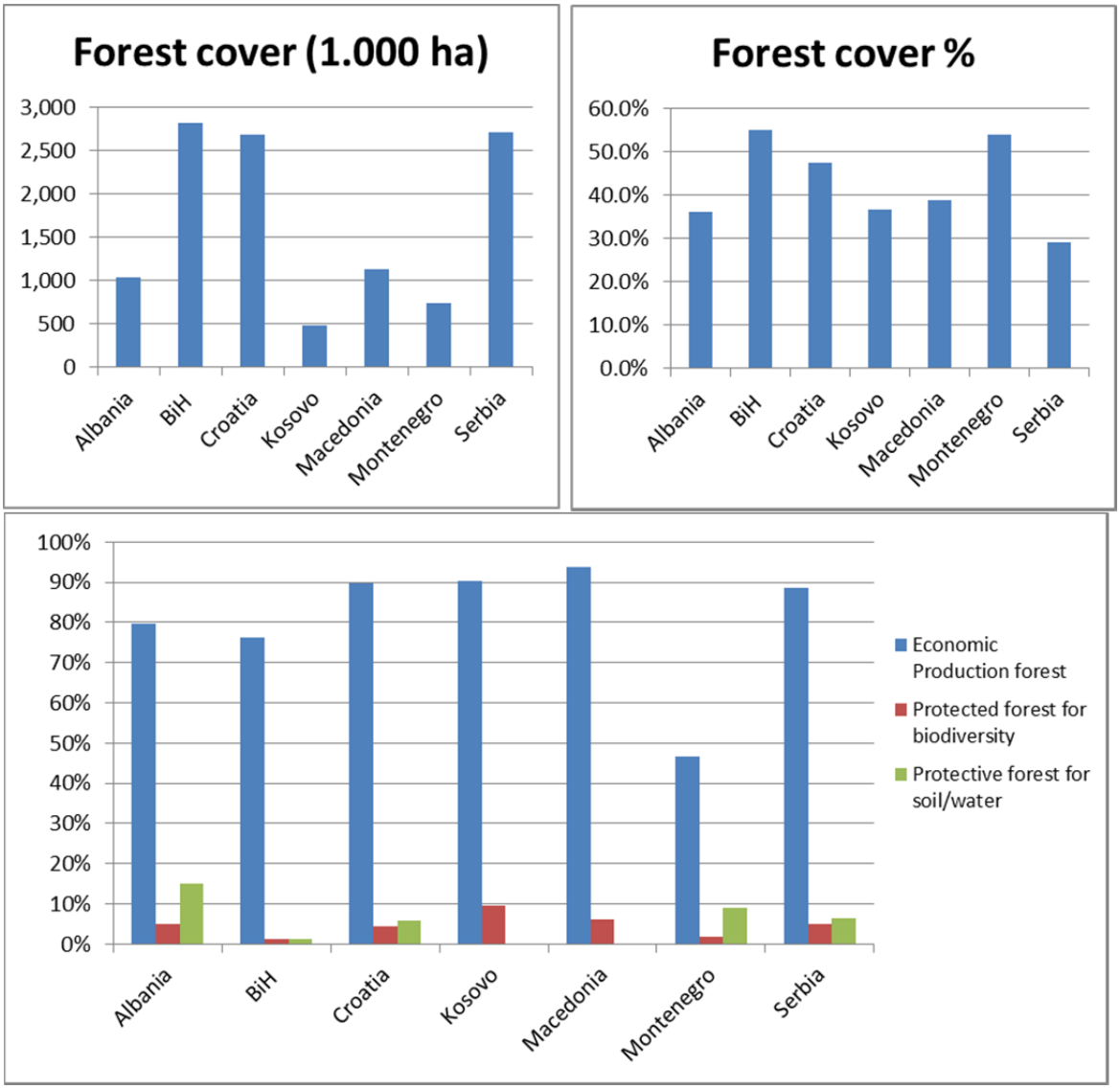
These priorities for strengthening the regional cooperation expressed by the water sector are very much in line with where the WFD requirements also call for regional cooperation. The main priorities for cross-border and regional cooperation between the two sectors are further analysed in chapter 5 of this report.

4.3 Forest Management

Laws, policies and strategies for forestry, in draft or adopted by national authorities, mostly mention the application of Sustainable Forest Management principles as an important goal. Tradition of forest management is high in the region. Forest organisations, structures and responsibilities are clear. Forest Management Plans are elaborated and used as the base for implementation. Forest inventory databases exist or projects are being implemented to develop this. Beneath, overview data on forest cover provided by the country baseline reports are presented.

Table 4.4	Overview of forest and forest land coverage per country									
	Forest cover		Production forest		Protection for biodiversity etc.		Protective for soil/water		Other forest cover	
	%	Ha	%	ha	%	ha	%	Ha	%	ha
Albania	36	1,031.500	79,7	822.400	5,1	52.400	15,2	156.700	0,0	0
BiH	55	2,820.958	76,4	2,154.982	1,3	35.500	1,3	37.000	21,0	593.476
Croatia	47,5	2,688.687	89,9	2,416.109	4,4	118.041	5,7	154.537	0,0	0
Kosovo[i]	37	476.800	90,3	430.553	9,7	46.247	0,0	0	0,0	0
Macedonia	38,8	1,131.000	93,8	1,061.000	6,2	70.000	0,0	0	0,0	0
Montenegro[2]	54	743.609	46,7	347.581	1,7	12.975	8,9	66.283	42,	316.770
Serbia	29,1	2,713.000	88,5	2,402.000	4,9	134.000	6,5	177.000	0,0	0
Total SEE		***11,605.554***		***9,634.625***		***469.163***		***591.520***		***910.246***

Figure 4.2: Distribution of forest covers in the SEE countries based on information from the country baseline reports



[2] For Montenegro, figures for production, protection and protective forest is for the State owned forest area only, while the column with other forest cover includes the privately owned forest area.

The role of forests in relation to water management

The forest cover is high in the region and the important of forestry as a very important land use is clear. The role of forest management in relation to integrated water and land use management planning is thereby underlined. Not all the countries in the region operate with the term "protective forests" but the countries all of them recognise the important functions of forests as for instance protective for soil and water resources.

At the meeting in Andrevlje (Serbia) in November 2010, the participants debated the issue of protective forests in relation to water management. The conclusions from the discussions were:

1. General/common definition on protective forests cannot be provided. A definition of protective forests is an individual case in each country and needs to be understood based on the national laws. Definition on the functions of protective forests is provided on behalf of MCPFE, Criteria No. 5, sections 5.1 (protective forests – soil, water and other ecosystem functions) and 5.2 (infrastructure and managed natural resources);
2. Standards for Sustainable Forest Management applicable for use are FSC and ISO Standards, as well as MCPFE criteria for sustainable forest management. However, these standards are not mandatory for sustainable management of protective forests. Possible solutions could be sought in the creation of national or regional standards;
3. Lack of communication and exchange of information exists between the forestry and water sectors. It is necessary to establish mechanisms of cooperation and dialogue for resolving competing interests of forestry and water management and finding a common ground for reconciling problems concerning both sectors;
4. A more active exchange of expertise and increased coordination of communication efforts is necessary between the forestry sector and also other sectors (environment and agriculture). Integrated management and education on forestry, environment and agriculture among the involved actors would contribute to the capacity of implementing coordinative actions;
5. The opportunities offered by closer collaboration between the public and private sectors to promote sustainable forest management have not been sufficiently addressed. Means for communication, exchange of information and knowledge, such as trainings, workshops and meetings, need to be created for the use of the public and private sector. The participation of the private forestry sector is crucial for the utilisation and additional mobilization of wood resources, whilst respecting principles of sustainable forest management.

The following information is based on the country baseline reports and the reports from the technical discussion workshop on forestry.

Forest strategies, programmes and policies

Albania: The forest sector's policy framework consists of the "Government Strategy for Agricultural Development in Albania", and the "Strategy for the Development of the Forestry and Pasture Sector in Albania" approved by GOA Decision No 247, 23 April 2004.

Bosnia-Herzegovina: FBIH: New proposal of the Law on Forests (Draft) must be adopted before the end of 2011.r. Forest Regulation exists since 2009. Development of the FBiH forestry programme is on-going and expected to be ready for adoption by the end of next year.

RS: Top legal provision for forest management in the Republic of Srpska is the "Law on Forests" (Official Gazette of RS, 75/08). Draft "Strategy of Forestry Development in the Republic of Srpska (2010-2020)".

Croatia: Law on Forests, amended in 2008 and 2010 (OG 140/05, 129/08, 80/2010); and National Forest Policy and Strategy (NFPS). The Government of the Republic of Croatia adopted the NFPS in 2003. This document provides a platform for a shift from the traditional concept of sustainable timber production to sustainable development of forests and gives equal importance to the environmental and social values of forests.

Kosovo[i]: Low on forests adopted in 2003. Policy and Strategy on Forest Sector Development in the Republic of Kosovo[i] adopted for 2010-2020. Also, Kosovo[i] Green book is a Strategy for Sustainable Agricultural and Rural Development adopted in May 2003; Agriculture and Rural Development Plan (ARDP) for Kosovo[i] 2007-2013; Agriculture and ARDP for Kosovo[i] 2010-2013.

Macedonia: National Strategy for sustainable development of Forestry in the Republic of Macedonia was adopted in 2006. Law on Forest was proclaimed in 2009 (Official Gazette of RM nr. 67/09).

Montenegro: National Forest Policy adopted in April 2008 after broad consultative process, which is the first step towards the implementation of a National Forest Programme. The new Forest Law was adopted in 2010. NAP for Combating Illegal Activities in Forestry in Montenegro for 2009-2013.

Serbia: Forestry Development Strategy of the Republic of Serbia adopted 2006. National Forest Action Programme in draft. New project for the implementation of the National Forest Action Programme is under preparation phase. Law on Forests adopted 2010. Also, the Regional Development Strategy exists since 2006.

Forest certification

Albania: No initiatives on forest certification are on-going.

Bosnia-Herzegovina: FBIH: Certification of three FM areas within the Federation of BiH based on FSC system: 1) Cantonal Forest Management Company responsible for management of state-owned forests, „Sarajevo – šume“ d.o.o. Sarajevo, 2) Forest Management Company „Unsko-Sanske šume“, and 3) Public Company JP „Šume TK“ d.d. Kladanj on the territory of ŠG „Konjuh“ management unit „Srednja Drinjača“ and ŠG "Majevičko".

RS: In 2009, the Forest Management of the Public Forest Enterprise "Forests of the Republic of Srpska" is FSC certified.

Croatia: The Croatian state forests are FSC certified since 2007. Hrvatske šume is stated owned company responsible for the management of state owned forests.

Kosovo[i]: Forest certification training and activities started two years ago, supported by USAID-KPEP project, but until now there is no certified forest in Kosovo[i].

Macedonia: No on-going forest certification.

Montenegro: Some work started several years ago regarding FSC certification within the FODEMO project through the activity “Support FSC Working Group to adapt national standard”, but no significant progress has been made.

Serbia: Certification is now recognized for public enterprises, and some 500.000 ha forests are FSC certified, with tendency to complete process in all state owned forests (1.2 mill. ha). State forests have adopted the FSC certification scheme. The Norwegian government is supporting private certification by

assisting with the development of national certification standards for PEFC (Programme for the Endorsement of Forest Certification) scheme.

Illegal logging

Currently, illegal logging represents a threat to sustainable forest management in the region. Implementation of future forest management plans will largely depend on the efficiency of the Forest Administrations and forest inspection services, which would have to make key contributions to the prevention of illegal activities.

Albania: Illegal activities became common already in the years prior to the social economic reform; and reached the peak in 1997 and continue to date. The official statistics on illegal logging show a decreasing trend. The peak was reached in 1997 when more than 500.000 m^3 of illegal logging was recorded (Institute for National Statistics 2008). The actual volume of illegal (or unrecorded) logging, however, probably exceeds legal harvest by a factor of ten. Illegal cutting is heavily impacting particularly coniferous and beech forests situated close to roads, including young forests, where the natural regeneration is almost impossible. A great problem is the fuel wood provision. Their annual consumption is estimated to be more than 2.5 million m^3.

Bosnia-Herzegovina: Volumes of illegal logging in the Federation of BiH varied in the period of 2005-2009. In 2009 illegal logging volumes were more than doubled to 27.000 m^3. Volume of illegal logging in RS for 2010 was 16.500 m^3 and this trend is steady over the past five years.

Croatia: According to available data, there is no significant illegal logging in the state forests. Some illegal felling has been observed in private forests but the quantities are small, and are mainly used by the owners as building material or firewood.

Kosovo[i]: 40% of public forestlands and 29% of private forestlands have been subject to uncontrolled or illegal harvesting activities. The situation is most critical in coniferous forest where the entire existence of large forest areas is put at risk if no strong and immediate actions are taken.

Macedonia: The illegal logging issue is a problem for years for forestry in Macedonia. Total annual sum of illegal logging is suggested up to 300.000 m^3.

Montenegro: Average Recorded Illegal Logging in State Forests from 2002-2009 was 4.128 m^3. According to the data presented, the percentage of officially recorded illegal logging compared the total logging per year in state forest is approximately 1%, but according to the information from private forest associations, the volume of illegal logging in Montenegro is higher.

Serbia: No information.

Forest fires and pest attacks

Albania: Despite the measures taken, fires in forests and pastures are still a very serious problem. Although a strategy is prepared for protection of forests and pastures from fire, the effectiveness of very low. There is not a well-organised programme yet to prevent the fires. According to monitoring activities conducted by the Forest Service, each year about 135.000 ha of forests, or 13% of the total forest area, is affected by diseases and insects.

Bosnia-Herzegovina: As for forest fires, the worst devastations happened in 2007 as persistent droughts were raging during the vegetation season and 932 registered forest fires affecting an area of

13.742 ha were registered. In 2009, 190 forest fires were registered for an area of 1.396 ha. During the last five years, forest fires in RS have affected 19.128 ha with 101.597 m^3 of mainly broadleaved forests. Pests and diseases affected about 20.000 ha where over 300.000 m^3 of timber had to be cut. Over 95% of damage was pursued by bark-beetles on coniferous species. Unfavourable weather conditions (wind, rain, hail, snow and frost) caused damage on more than 9.000 ha in last five years causing the felling of 393.000 m^3 of timber.

Croatia: Forest fires are one of the biggest threats to forests in Croatia, in particular in the coastal area. Area burnt annually varies substantially reaching the figure of 129.883 ha in 2000, 2.850 ha in 2004 or in 2011 in one fire only on the island of Brac 4.000 ha of pine forest was burned. Fires are mainly caused by people. Natural factors are almost negligible. Fires directly affect the tourism industry in Coastal Croatia.

Kosovo[i]: No information.

Macedonia: Forest fires have affected nearly 100.000 ha for the last 10 years (extremely years were 2000 and 2007). Climate changes seem to be part of the process of drying of the forests, causing forest fires, insect calamities and diseases.

Montenegro: For the past 15 years -1007 major forest fires in Montenegro. Forest fire affected area totals 15.300 ha, and approximately 500.000 m^3 of timber mass has been damaged or destroyed.

Serbia: No information.

Erosion risk

Albania: Erosion is one of the main factors of land degradation, occurring almost all over the country. Almost all riverine forests have been destroyed. Poplar plantations on river banks have been illegally cut. Along the Shkumbini River from Elbasan to Rrogozhina about 1.800 ha of poplar plantations have disappeared during the last 12 years. In addition, the natural riparian vegetation with irreplaceable functions for river bank protection is degraded because of continuous over cutting and overgrazing. Erosion risk evaluation showed that Albania's territory is at high potential of erosion risk. About 70% of Albania forest area is highly and extremely highly susceptible to erosion (ANFI 2003).

Bosnia-Herzegovina: It is prohibited to cut protective forest or other trees within the inundation area or perform other activities which may lead to erosion. Deforestation is forbidden within erosion prone areas to prevent landslides and avalanches, to balance water flows and to protect downstream areas from adverse erosion impacts. Along the borders with neighbouring countries, all forested areas near rivers, are inaccessible canyon forests on steep slopes and of very low economic value, so exploitation of these forests was never pursued. These forests are important in terms of protection from erosion and as forests regulating water retention in the river basins, especially forests in the upper stream of Drina (shared with Serbia and Montenegro), Tara canyon (shared with Montenegro), and upper stream of Una River shared with Croatia.

Croatia: 6% of the forests in Croatia are regarded as protective and their main purpose is protection of soil from erosion.

Kosovo[i]: Cooperation between the forest and water sector is regarded necessary in order to develop measures for management of steep slopes and prevent erosion.

Macedonia: The main threats and problems in forest management and governance are unfavourable terrain conditions and actual and potential erosion risks. Because of natural conditions, erosion processes in the hilly and mountain regions are significant. The protective roll of forest is very important for soil and

water conservation in the Republic of Macedonia. The main problem arising in the field of availability of water resources is uneven spatial and temporal distribution all over the national territory caused by long droughts and high intensity rainfalls.

Montenegro: Erosion and torrential flows are a very present phenomenon in Montenegro. The natural and agricultural ecosystems and local livelihoods are under increasing threat from several sources, including soil erosion and degradation of the riverbed causing increased intensity and impact of flooding. Depending on the geology and morphology there are specific aspects of erosion typical of karst regions. Inclination is a decisive factor in the development of erosion processes. Combined with improper land use erosion processes have intensified. This is occurring especially in the coastal area that has always been more densely populated and intensively used. The geo- morphology of Montenegro is formed by tectonic folding calcareous sediments, followed by subsequent action of water and wind erosion.

This has created the base for specific forms of erosion in the high mountains. Anti-erosion and flood prevention activities were implemented in a small number of water courses.

Serbia: No information.

Main priorities for regional cooperation expressed by the forest sector

Based on the country baseline reports, national workshops and questionnaires, the main priorities expressed for implementing and securing Sustainable Forest Management are:

- Cooperation across borders and in the region on integrated water and forest management including IRBM planning with incorporation of forest management measures such as the protective functions of forests to prevent erosion and flooding and to secure water quality;
- Improved system for controlling forestry and logging operations and combating illegal logging in the region;
- Controlling forest fires and pest attacks and establishing early-warning alarm and/or monitoring systems for the region;
- Counteracting erosion; setting erosion control measures and identifying the key problems causing the erosion risk;
- Managing and setting measures for (protective) forests in relation to flood retention, water supply and erosion;

- Counteracting loss of forest biodiversity and managing and setting measures for forests in protected areas, including protection of forests in mountain/border areas in their role as protective forests for soil, water and biodiversity;
- Exchange of experience and best practices from EU Member States on integrated management and harmonisation with EU legislation;
- Increasing human and institutional capacities in sustainable forest management;
- Improving stakeholder consultation and involvement.

4.4 Current Cooperation between Water and Forest sectors in each Country

From the information gathered and shown in the previous paragraphs it is concluded that there is consensus about the fact that cooperation between the forest and water sector is required, underpinned with a long list of reasons why (see paragraph 2.7). At the same time the overall opinion is that the cooperation is at a very low level and that there is an urgent need to improve the current situation. The reasons vary; cooperation is obligatory to implement the EU-WFD properly, but also because of the challenges that sustainable economic development bring and the challenges to adapt and mitigate climate change impacts. In addition to the general information about why cooperation between the two sectors is needed the table below shows which specific issues are mentioned in the country workshops as priority issue for strengthening cooperation between the water sector and the forest sector.

Table 4.5 Issues where cooperation between water and forest sectors is deemed necessary

Issues of cooperation between sectors / Country	Albania	BiH	Croatia	Kosovo[i]	Macedonia	Montenegro	Serbia
Integrate forest management measures into IRBM plans	X	X	X	X		X	X
Prepare and implement IRBMPs	X		X	X	X	X	
Improve communication and sharing of information	X	X		X	X	X	
Increase capacities in IRBMP	X	X	X	X			
Harmonise forest and water legislation with spatial planning and nature protection legislation		X		X	X	X	
Improve participatory approach to management planning	X	X		X	X		
Explore possibilities of payment for ecosystem services	X	X		X	X		
Develop multi-stakeholder involvement	X			X	X		
Cooperate on common issues such as protected areas	X	X	X				
Improve harmonisation to EU legislation				X	X	X	
Identify best practises and exchange knowhow with EU	X	X			X		
Erosion control, flood control, flood retention and storage	X					X	X
Develop measures for water quality and quantity and methodologies for assessing good ecological status of WBs				X		X	X

In addition to asking why cooperation is needed and on which issues cooperation is needed we have also asked how the current state of cooperation is. This issue was discussed during the country workshops and through the interviews with representatives of both sectors. A summary of the information from the workshops and questionnaires is presented in the table below.

Table 4.6 Summary of current cooperation between forest and water management sector

	Workshop	**Questionnaire**
Albania	Low to no cooperation between structures and institutions. Some cooperation on policy level. Insufficient cooperation on harmonisation to EU policies due to lack of capacities in EU approximation	Very little cooperation between sectors Lack of clear and well defined structures, duties and responsibilities make it difficult in the field or local level
Bosnia and Herzegovina	Low to no cooperation between the two sectors but improvement noticed. Some cooperation on policy level. No harmonisation of plans for same territory. Insufficient cooperation on harmonisation to EU policies due to lack of capacities in EU approximation (only for forestry sector)	Cooperation exists between forest and water sectors but insufficient
Croatia	Good cooperation between the water and forest sector. Water management and forestry under the same ministry. Some cooperation on harmonisation to EU policies but lack of capacities in EU approximation	Cooperation exists but is not effective. Better at national level than at regional level. Management decisions mostly taken without interaction with other sectors
Kosovo[i]	Low to no cooperation between sectors. No harmonisation of plans and legal acts for same territory. Insufficient cooperation on harmonisation to EU policies due to lack of capacities in EU approximation	Lack of cooperation between water and forest sector in all levels. Some legal acts which regulate such coordination, but implementation is very week
Macedonia	Good to some cooperation between sectors on regional and national level. Lack of capacities in EU approximation	Not sufficient cooperation
Montenegro	Low to no cooperation between sectors. Some cooperation on regional and national level. Lack of capacities in EU approximation	Some modest cooperation exists but in order to cope with numerous challenges affecting both sectors should be improved. Good cooperation
Serbia	Some cooperation between sectors on regional and national level. Insufficient cooperation on harmonisation to EU policies due to lack of capacities in EU approximation	Cooperation exist but is still on very low level, on very beginning Huge space for improvement of cooperation

The conclusion from the information shown in Table 4.6 is that the cooperation at local level is often better than at national level but that the cooperation is overall insufficient.

Because the TOR also refers to the fact that protection and management of ecosystems is important the questionnaire included a question on the level of cooperation between the forest and nature protection sectors. The results are shown in the table below. The conclusion is that the cooperation between these two sectors is rather good, however with the exception of Albania.

Table 4.7	Summary of cooperation between nature protection and forest management
	Questionnaire
Albania	7 out of 11 respondents say that cooperation between two sectors is satisfactory or good. However: Large numbers of illegal activities and damages to protected forest areas, including fires, show complete lack of cooperation and communication between the two sectors
Bosnia and Herzegovina	Low level of cooperation
Croatia	Improving due to Natura 2000 process
Kosovo[i]	cooperation is at a very low level(mixed answers)
Macedonia	Low to No cooperation.
Montenegro	Fairly OK, but space for improvement
Serbia	Cooperation between sectors is excellent but also mentioned that should be improved

Conclusions on current cooperation between the two sectors

The overall conclusion is that cooperation between the water sector and forest sector at national level is insufficient for tackling the challenges of integrated water resources management. Cooperation at local level is sometimes evaluated as good. The fact that water management and forest management are in the same Ministry does not seem to be decisive on the level of cooperation. Serbia reports that there is cooperation, however insufficient, while the responsibilities are in the same Ministry. In Macedonia the cooperation is rather good despite the fact that the responsibilities are divided over two Ministries. This might however still be a reflection of the past situation where the two sectors were in one Ministry. The same counts for Croatia where the cooperation is also relatively good according to the information gathered. Both Albania and Kosovo[i] report low cooperation and the responsibilities are also in two different Ministries. One obstacle for the practical cooperation between the two sectors as mentioned by some countries is that there is no harmonisation between plans for same territory when it comes to physical planning. Another important obstacle is the lack of capacities. This counts in particular for the cooperation on harmonisation to EU policies.

The needs and priorities for strengthening the cooperation are clearly defined and all of the seven SEE countries strongly support to increase the cooperation between the two sectors.

4.5 Current Cross border Cooperation

The assessment of the current state and intensity of cross border cooperation is assessed differently by the participating countries. From the meeting in Fruska Gora in November 2010, some general observations emerged:

- The collaboration at institutional level between the countries in the region has to be more intensive in the fields of education, training and research.
- Regional development projects (infrastructures, tourism facilities, etc.) should always keep the sustainable use of natural resources in mind, especially those linked with forestry.

– The international community should continue to support projects in the seven South Eastern Europe with technical assistance or financial support, emphasising the latter.

With regard to the future of cross border cooperation the meeting concluded that "Co-operation through joint projects on trans-boundary problems or items of common interest will be helpful as well as sharing information and experience gained in dealing with the new challenges".

Below a summary of the main conclusions with regards to cross border cooperation is given. The information is based on both the questionnaires, which included a specific question on the cross border cooperation, and on information from the country reports.

Albania

Albania has gained extensive experiences with cross border projects on Lake Shkodra (Montenegro) and Lake Prespa (Macedonia). Albania refers to an interesting project called "Private and community forestry - developing livelihoods on the basis of secure property rights in selected countries of South East Europe (SEE)" The project is targeting three countries in SEE - Albania, FYR Macedonia and Serbia. It was developed by CEPF and its project partners and is executed with the financial support of the WB PROFOR Programme. The project's general aim is to further forest policy activities on non-state forestry in the target countries within the relevant major forest policy process, like the National Forest Programme or National Forest Strategy (http://www.cepf-eu.org/profor.cfm?ID_kanal=121).

From the nature protection perspective there are important protected areas planned to be established in a trans-boundary context. Recently the Shebenik Jablanica National Park at the border with Macedonia has been established. Proposed protected areas include the Alps/Prokletije National Park at the border with Montenegro and Kosovo[i] and the Korabi Mountain protected area at the border with Macedonia and Kosovo[i]. These protected areas include significant portions of forests.

Most of the respondents to the questionnaire indicate protected areas and water management as areas where there already is good cross border cooperation with almost all neighbouring countries. Examples of transboundary cooperation are Prespa National Park, Ohrid Lake integrated management project and Shkodra Lake. Other areas of good cross border cooperation include commerce, police, and customs. There is no effective cross border cooperation in forest management on issues dealing with information exchange on fire control or illegal forest activities.

Bosnia and Herzegovina

The questionnaires received from the Republic of Srpska indicated that there is good cooperation in terms exchange of experiences related to forest management (esp. with Serbia). Also the water sector indicates that there is good cross-border cooperation. There are however areas where there is space for improvement: Flood control with Croatia, Serbia and Montenegro; Fire control with Montenegro and Croatia; Nature protection with Serbia, Montenegro and Croatia; and Game migrations control with Serbia, Croatia and Montenegro. Also cooperation on control of the timber trade, illegal logging, fire control, game migrations and nature protection should be improved. Further the respondents indicate that there is also a need for better cooperation on the implementation of international standards related to forestry sector.

There are no on-going or planned trans-border projects in the forestry sector per se, but in the wider perspective there are a number of initiatives mainly in the field of nature protection and water management related to forest management, including the transboundary Protected Area Durmitor-Tara Canyon- Sutjeska and the Biosphere reserve Drina.

There are few more projects of this kind foreseen in the future as for instance the transnational protected area of Orjen Mountains, shared between BIH, Croatia and Montenegro. These projects relate to issues of integral management of forests and water resources, bringing involved countries in closer connection with EU standards in sustainable management of Water and Forest resources.

Croatia

Croatia indicates that cross border cooperation in the forest sector is good although cooperation on management planning is seen as an issue where cooperation can be improved. With regard to cooperation on water management Croatia intends to comply with the EU WFD requirements which include cooperation on management planning of shared river basins with neighbouring countries. Good work has already been done on the Sava River and the Trebišnjica River.

Kosovo[i]

Kosovo[i] refers to a special situation on the border with Serbia due to unresolved political issues but which have an impact on control on trade of illegal forest products. Also Kosovo[i] refers to the problem of illegal hunting in the border area. Another problem as far as Kosovo[i] is concerned is the lack of harmonisation of fiscal legislation which are disturbing local markets in the border area.

Macedonia

The country report indicates that the forest sector is not involved in cross border activities. This is different for the water sector where there is intensive cooperation, however not with Serbia. Extensive cooperation is on-going with Albania on Ohrid Lake and Prespa Lake. However more cooperation is needed on data exchange, e.g. monitoring data, water quality data (pollution prevention – water treatment, primary nutrients and other pollutants), as well as on water use data (irrigation, water supply), illegal fishing. This counts in particular for the Crn Drim/Drin River, Ohrid Lake and Prespa Lake. In general, there is a positive attitude towards regional cooperation but it is also stated that bi-lateral cooperation seems more important due to specific issues and complex overall relations between neighbouring countries in the SEE region and the Balkans.

Montenegro

There are agreements with Croatia and Albania on cross-border cooperation. The activities to sign agreements with Bosnia and Herzegovina on cross border cooperation are in the final phase, and there is good cooperation in the region with the support of the Danube Commission. Important areas where there is a need for improved cooperation include: Skadar Lake, Lake Bojana and River Drin with the Republic of Albania; Trilateral arrangement on the use and protection of the river basin Trebišnjica with Bosnia and Herzegovina and Croatia; and the use and protection of the rivers from the Black Sea watershed with Serbia.

Serbia

The interviewed stakeholders from water sector indicated that in general there is good cooperation on flood protection and accidental pollution while also the cross border cooperation in the field of nature protection is good. Improvement is needed for both Water and Forestry on management of Podunavlje (Danube River) with Croatia and on management of Podrinje (Drina River) with Bosnia and Herzegovina.

Conclusion on current cross border cooperation

Form the above information it is concluded that international projects have a positive effect on the cooperation across the border and between the sectors. It seems however that the cooperation is mainly between similar sectors; forest sector with forest sector across the border and water sector with the water sector across the border. To what extent true cross sector and cross border cooperation exists leading to integrated planning has not become clear. This requires a more in depth analyses of the design, organisation and implementation of the projects and the results achieved. True integration of sectors requires significant process facilitation support and a sound analysis of the relations, powers and influences between the various stakeholders.

The identified issues and proposals for strengthening cross border cooperation are further analysed in chapter 5 and their feasibility concluded in chapter 6.

4.6 Current Cooperation at Regional (South-Eastern European) level

Existing Regional Cooperation

There are a number of initiatives and organisations besides the SWG, which are active in the South East European region that deal with regional cooperation on either forest management or water management but none of the organisations identified focus on strengthening the cooperation between the forest sector and water management sector at regional level in particular. Organisations and networks identified include:

SEEFOR focuses on the exchange of forest research and management for South Eastern Europe and issues a scientific paper on forest management (http://www.sumins.hr:8080/seefor/#).

ICPDR includes nearly all counties except for Macedonia and Albania.

Dinaric Arc Initiative: Montenegro, Croatia, Albania. This initiative focuses on joint actions for the protection and management of the biodiversity of the Dinaric Arc.

Sava Basin Commission: Bosnia and Herzegovina, Croatia, Montenegro and Serbia. The main goal of the Sava Basin Commission is to develop and implement an integrated river basin management plan for the Sava Basin.

Adriatic Sea Partnership: Montenegro (Ministry of Tourism and Environment), Albania, Bosnia and Herzegovina.

IUCN Office for South Eastern Europe: The mission is to enhance cooperation between relevant organisations (government as well as non-government) in the field of nature protection issues. IUCN both works at the policy level as well as on the ground projects that support nature protection.

DRIN Dialogue Initiative: Ministerial declaration of 4 SEE countries on integrated water management for the Drin.

Conclusions on current regional cooperation

The above mentioned initiatives are some of the major players in the region focusing on topics related to either water or forestry. From the inventory, it can preliminarily be concluded that there is significant

space for an initiative which will focus on strengthening the cooperation between the two sectors at regional level.

The magnitude and complexity of problems the region is facing at political, environmental and social level can only be solved through strong and effective regional cooperation. The SWG has the mandate to stimulate sustainable rural development at regional level. Rural development is a broad term and embraces environmental, social and economic issues relevant for rural areas. Next to agriculture, water management and forestry are important sectors influencing the quality of life in rural areas. Up till now the SWG has predominately focused on stimulating cooperation in various aspects of agriculture in the region.

There is no other single organisation, initiative or programme that stimulates or coordinates cooperation at regional level between water sector organisations, the same counts for the forest sector organisations, let alone that there is no organisation that works across the region to coordinate cooperation between these two sectors in order to tackle the identified needs and priorities for strengthened regional cooperation. Currently the cooperation between the two sectors at regional level is low to non-existing.

But the analysis has shown that there is strong interest and need for cooperation at regional level especially in view of the approximation process towards the EU. Important elements of regional cooperation mentioned during the study are increasing knowledge and capacities about relevant EU Directives, exchange of information on best practices, data and knowledge exchange, harmonisation of methodologies and stimulating cross border projects.

In chapter 5, the identified priorities and the proposed solutions for strengthening the cross-border and regional cooperation between the water sector and the forest sector as well as the possible role of the SWG are further analysed.

In chapter 6, the added value of a commission or network on top of the above mentioned existing initiatives is assessed.

5 Needs Analysis for Cross Border and Cross Sector Cooperation

The analysis of the current state of affairs on cooperation between the forest and water sector in the previous chapters has distinguished three levels of cooperation:

- Cooperation between the water and forest sector in each country;
- Cooperation across borders where the water and forest sectors are both involved; and
- Cooperation at regional SEE level on issues relevant for both the forest and water sector.

The need to improve cooperation between the forest and water sector is expressed and supported in all country baseline reports and also emerged during the various workshops and technical meetings. In accordance with the subsidiarity principle the mandate and responsibility to improve cooperation between the sectors at national level is primarily in the hands of national governments and is laid down in national legislation and organisational structures. Therefore this feasibility study will focus on improving cross border and regional cross sector cooperation. It goes without saying however that improved cross border or regional cross sector cooperation will have a positive impact on the cooperation at national level.

The countries' main priorities on strengthening cooperation between the water sector and forest sector have emerged during the country workshops and the international technical discussion meetings. It should be noted here that the countries are in different stages of approximation to the EU and therefore their needs differ also; e.g. Croatia is further advanced in the process of EU membership and has more knowledge on implementing EU regulations and practices than other countries in the region. Also the main priorities differ per country, e.g. Macedonia, Montenegro and Albania puts a lot of emphasis on combating erosion risks while other countries have a different view on this. Yet there are a lot of common priorities expressed, as presented beneath.

5.1 Needs for Strengthened Cooperation Stemming from EU Approximation

Cooperation between sectors is the only way forward to find solutions to the pressing environmental, economic and social problems of the region is facing, requiring a shift in attitude and ways of working. Many EU directives and policies bear proof of this approach notably the EU water Framework Directive and the Rural Development Policies. Summarised the following arguments for strengthening the cooperation between the forest and water management based on relevant EU policies are presented:

- The EU Common Agricultural Policy calls for comprehensive rural development plans involving relevant sectors;
- The EU WFD calls for Integrated Water Management; including coordinated planning with all relevant sectors;
- The Forest Europe (MCPFE): the ministers responsible for forests in the pan-European region have agreed on guidelines for SFM and are committed to maintain, conserve and enhance the protective functions of forests (for soil and water) and the multi-functional role of forests;
- The EU Natura 2000 requires maintaining and protecting terrestrial and aquatic habitat types and species;
- The EU calls for coordinated planning of climate adaptation and mitigation policies and plans;
- The new EU FLEGT and EU Timber Regulation require actions against illegal timber.

5.2 Priorities for Regional Cooperation

Main priorities for the water sector

The main priorities for regional cooperation expressed by the representatives of the **water sector** in the course of the feasibility study include (see also chapter 3 and 4):

Cross-sectorial cooperation in the region on integrated water and forest management

- Cooperating at ministerial level; establishing water councils, and harmonising policies and legislation on water management and forestry (and spatial planning and nature protection);
- Developing early-warning and flood protection solutions, preventing floods/establishing flood retention areas (flood control and storage);
- Controlling erosion and minimising erosion risks by setting and implementing measures and identifying key problems causing erosion risks;
- Counteracting climate change impacts and securing water supplies and water quality.

Cooperation in the region within the water sector

- IRBM planning and harmonising methods and concepts, including integrating forest management measures into IRBM planning;
- Developing WFD methodologies; WB typology, reference conditions; ecological status assessment, intercalibration processes and monitoring.

Building capacities on integrated water and forest management

- Exchange of experience and best practices from EU Member States on integrated management and harmonisation with EU legislation;
- Increasing human and institutional capacities;
- Improving participatory stakeholder consultation and involvement.

When it comes to the requirements related to meeting the EU Water Framework Directive we learned in Chapter 2 that the following challenges will require harmonisation and coordination between of experts and policy makers from the water sector which go beyond the elaboration of IRBM plans. These challenges include:

- **WFD typology and establishment of reference conditions** for identifying and designating a) surface WBs, b) artificial or heavily modified WBs, and c) groundwater bodies;
- **WFD methodologies** for assessing a) ecological/ chemical status of surface WBs, b) ecological potential for heavily modified/artificial WBs, and c) chemical/quantitative status for groundwater bodies;
- **WFD monitoring programmes** to classify the status (high, good, moderate, poor and bad status) of surface water bodies and (good and poor) of groundwater bodies;
- **WFD intercalibration:** To ensure that national assessment methods deliver comparable results, an intercalibration exercise is required between countries and the EU;
- **WFD economic analysis and tools.** To estimate the costs and to identify the most cost-effective set of measures to reach good status for water bodies;
- **WDF and the Floods Directive**: Addressing floods and droughts by developing policy framework, working together and managing flood risks and other disasters.

Prior to the elaboration of Integrated River Basin Management Plans cooperation between the countries is needed to develop capacities and knowledge in the above mentioned fields. Capacity building programmes can help the countries to acquire the needed expertise and knowledge to deal with the above

mentioned complicated issues. Given the size of the countries and the number of experts working in the responsible departments it is hardly possible that each individual country is able to have sufficient experts and expertise available on specific topics of the EU WFD including expertise on water body typology and economic analyses to measure cost effectiveness of proposed measures. Also inter-calibration between the countries to develop assessment methods for water body typology and identification of reference conditions is needed and requires regional cooperation. Whether the SWG should play a role in promoting this cooperation is a matter of further discussion in chapter 6.

Main priorities for the forest sector

The main priorities for regional cooperation expressed by the **forest sector** are:

Cross-sectorial cooperation in the region on integrated water and forest management

- Incorporating forest management measures into IRBM planning; such as for the protective functions of forests to prevent erosion and flooding and to secure water quality;
- Exploring and sharing experiences in payment for ecosystem services;
- Setting and implementing erosion control measures and identifying the key problems causing the erosion risk;
- Setting and implementing measures for (protective) forests in relation to flooding risks and water supply;
- Counteracting loss of biodiversity; managing and setting protective measures for forests in e.g. mountain areas and/or border areas for soil, water and biodiversity.

Cooperation in the region within the forest sector

- Controlling forest fires and pest attacks and establishing early-warning and/or monitoring systems for the region;
- Improving systems for controlling logging and combating illegal logging in the region.

Building capacities on integrated water and forest management

- Exchange of experience and best practices from EU Member States on integrated management and harmonisation with EU legislation;
- Increasing human and institutional capacities;
- Improving participatory stakeholder consultation and involvement.

Regional cooperation within the forest sector is also needed to address key issues that stem from EU forest policies. These issues mentioned below partly overlap with the above mentioned priorities:

- **Protection against fires and air pollution**: The EU has produced a considerable amount of information and guidance documents. Regional cooperation is required to design a common position on how to improve the protection against fires, diseases and air pollution;
- **Combating illegal logging:** EU Timber Regulation to prohibit placing of illegal timber and timber products on the EU market by 2013. Illegal logging is not the biggest problem in the region but there are still border areas including those on the border between Kosovo[i] and Montenegro and Kosovo[i] and Serbia where illegal logging is a problem;
- **Commitment to Sustainable Forest Management**: Forest Europe (MCPFE), the ministers responsible for forests in the pan-European region have agreed on guidelines for SFM and for conservation of biodiversity;
- **Commitment to the multi-functional role of forests:** Forest Europe (MCPFE), the ministers responsible for forests in the pan-European region are committed to maintain, conserve and enhance the protective functions of forests (for soil and water).

Main priorities for cross sector cooperation at a regional level

Summarising, the main priorities requiring **cross sector cooperation between the water and forest sector at a regional level** include:

- Harmonising policies and legislation on water management, forestry, spatial planning and nature protection;
- Stimulating cooperation on integrated water and forest management planning with incorporation of forest management measures such as the protective functions of forests to prevent erosion and flooding and to secure water quality;
- Developing policies and strategies for forest and water management that contribute to mitigating and adapting to the impacts of climate change and to securing water supplies and water quality, including design of joint research projects;
- Elaborating joint strategies on erosion control and minimising erosion risks by setting erosion control measures and identifying key problems causing erosion risks;
- Counteracting loss of biodiversity; managing and setting protective measures for forests in e.g. mountain areas and/or border areas for soil, water and biodiversity;
- Exploring possibilities and sharing experiences on payment for ecosystem services.

Building capacities in the region on integrated water and forest management including:

- Exchange of experience and best practices from EU Member States on integrated management and harmonisation with EU legislation;
- Increasing human and institutional capacities through training programmes, exchange of expertise, studies etc.;
- Improving participatory management planning, including capacity building in stakeholder analyses, participatory planning and conflict management.

These priorities are in line with the requirements related to meeting the EU water and forest related directives and policies including as indicated in chapter 2.5.

In the following, the identified needs and priorities and the proposed solutions for improved cross border and regional cooperation are assessed in order to answer whether the proposed solutions will meet the expected deliverables and purposes and will be in line with the requirement for the countries to transpose EU legislation and methodologies related to water management and forestry.

5.3 Priorities for Cross Border Cooperation

The analysis has identified a number of cross-border areas, where cooperation with the neighbouring country is in need of being strengthened. The table below indicates per country the geographical area concerned in relation to the neighbouring country. The table was reviewed at the workshop in Ohrid to achieve consensus on important project opportunities between neighbouring countries as a mean to improve cross-border cooperation in the region. In this way, the table gives an overview of identified proposals promoting cross border cooperation in the fields of water and forest management, which best is solved through implementation of a concrete project.

Table 5.1 Overview of cross-border forestry and water management cooperation opportunities

	Albania	**Bosnia and Herzegovina**	**Croatia**	**Kosovo**[i]	**Macedonia**	**Montenegro**	**Serbia**
Albania				Drin/Drini RB (Crn Drim/Drin, White-D., Black-D., Ohrid & Prespa) Possible MP/RP of Alps/ Prokletije Mt. MP/RP for Korabi Mt., sharr Mt., Mavrovo NP (RM MoE)	Drin/Drini RB (Crn Drim/Drin, White-D., Black-D., Ohrid & Prespa) MP/PA for Lake Prespa MP for Lake Ohrid and Crn Drim River Monitoring & early warning system for Erosion and flood control MP/RP for Korabi Mt., sharr Mt., Mavrovo NP (RM MoE)	Drin/Drini RB (Crn Drim/Drin, White-D., Black-D., Ohrid & Prespa) RP Alps/ Prokletije Mt. NP/RP Skadar Lake (part of Moraca-Skadar-Buna/Bojana) Monitoring & early warning system for Erosion and flood control	
Bosnia and Herze-govina			Integrated RD/MP for karst forests Integrated MP and protection of drinking water for Bihac Neretva RB Management (On-going) Watershed afforestation in cross border forest areas			*IRBMP for Drina RB* *Possible NP/RP for Durmitor* *Possible MP/NP Sutjeska* Integrated RD/MP for karst forests Watershed afforestation in cross border forest areas	*IRBMP for Drina RB, incl. Tara & Piva* *Possible MP/NP Sutjeska* *Possible MP/NP for Tara Mt.* Watershed afforestation in cross border forest areas

	Albania	Bosnia and Herzegovina	Croatia	Kosovo[i]	Macedonia	Montenegro	Serbia
Croatia		Integrated RD/MP for karst forests Integrated MP and protection of drinking water for Bihac Watershed afforestation in cross border forest areas Neretva RB Management (On-going)				Integrated RD/MP for karst forests	MP of Spacva and Bosutsko-Morovićke forests MP of Kopacki Rit forests
Kosovo[i]	Drin/Drini RB (Crn Drim/Drin, White-D., Black-D., Ohrid & Prespa) Possible MP/RP of Alps/ Prokletije Mt. MP/RP for Korabi Mt., sharr Mt., Mavrovo Park (RM MoE)				Drin/Drini RB (Crn Drim/Drin, White-D., Black-D., Ohrid & Prespa) Lepenac River (Vardar/Axios River sub-basin) MP/RP for Korabi Mt., sharr Mt., Mavrovo NP (RM MoE)	Drin/Drini RB (Crn Drim/Drin, White-D., Black-D., Ohrid & Prespa)	
Mace-donia	Drin/Drini RB (Crn Drim/Drin, White-D., Black-D., Ohrid & Prespa) MP/PA for Prespa MP for Lake Ohrid & Crn Drim River MP/RP for Korabi Mt., sharr Mt., Mavrovo NP (RM MoE) Monitoring & early warning system for Erosion and flood control			Drin/Drini RB (Crn Drim/Drin, White-D., Black-D., Ohrid & Prespa) Lepenac River (Vardar /Axios River sub-basin) MP/RP for Korabi Mt., sharr Mt., Mavrovo NP (RM MoE)		Drin/Drini RB (Crn Drim/Drin, White-D., Black-D., Ohrid & Prespa) Integrated RD/MP for karst forests Monitoring & early warning system for Erosion and flood control	Pchinja River (Vardar/Axios River sub-basin) Management of Danube River

	Albania	Bosnia and Herzegovina	Croatia	Kosovo[i]	Macedonia	Montenegro	Serbia
Monte-negro	Drin/Drini RB (Crn Drim/Drin, White-D., Black-D., Ohrid and Prespa) RP Alps/ Prokletije Mt. NP/RP Skadar Lake (part of Moraca-Skadar-Buna/Bojana) Monitoring & early warning system for Erosion and flood control	*Possible NP/RP for Durmitor* *Possible MP/NP Sutjeska* Integrated RD/MP for karst forests Watershed afforestation in cross border forested areas	Integrated RD/MPs for karst forests	MP/RP Alps/ Prokletije Mt.	Drin/Drini RB (Crn Drim/Drin, White-D., Black-D., Ohrid and Prespa) Integrated RD/MP for karst forests Monitoring & early warning system for Erosion and flood control		*Drina RB incl. Lim River*
Serbia		*IRBMP for Drina RB, incl. Tara & Piva* *Possible MP/NP for Sutjeska* *Possible for MP/NP Tara Mt.* Watershed afforestation in cross border forested areas	MP of Spacva & Bosutsko-Morovićke forests MP of Kopacki Rit forests		Pchinja River (part of Vardar /Axios River sub-basin)	*IRBMP for Drina RB incl. Lim River*	

Abbreviations: NP: National Park. MP: Management Plan. PA: Protected Area. RB: River Basin. RD: Rural Development. RP: Regional Park.

The focus of the identified priorities and proposals for improving cross-border cooperation differ from area to area and include topics like water management, flood prevention, prevention of erosion, protected areas management and sustainable rural development.

Common for the identified cross-border project opportunities is that they will require an integrated approach including close cooperation between the forest and water sector. The expected outputs or deliverables for each proposal also vary depending on the topic, and can be an Integrated River Basin Management Plan for a specific river basin, a Cross Border Rural Development Plan for a specific area or a Cross Border Plan for the Designation and Management of Protected Areas. Each of the proposals includes a great deal of capacity building and exchange of knowhow in applying methods and approaches in line with EU requirements laid down in among others the EU WFD and the EU HD.

The identified proposals for cross-border cooperation in the table above are not equally relevant in view of the objectives of this feasibility study to strengthen regional cooperation between the water sector and the forest sector. From the list presented in the table above the participants of the workshop in Ohrid selected three priority projects. For these three projects a simplified logical framework approach was applied to further describe the problems, the proposed outcomes and the activities.

The selected cross border areas are:

- Integrated Rural Development for the Konavle-Orjen Region with Karst forest habitats in Bosnia and Herzegovina, Croatia and Montenegro as a tool to counteract erosion and degradation;
- Integrated River Basin Management of the Drini/Drim River Basin as a cross border region shared by Albania, Kosovo[i], Macedonia and Montenegro;
- Integrated River Basin Management of the Drina River Basin as a cross border region shared by Albania, Bosnia-Herzegovina, Montenegro and Serbia.

The three specific proposals are included in the report from the international workshop on integrated management of water and forests in river basin areas, which is included in the CD attached to this report.

Next to proposals for geographical areas, also common issues not necessarily attached to a specific area can be a possible scope for the intervention and support of the SWG. The most frequently mentioned issues and priorities for cross border cooperation by the countries were:

- Developing IRBM Plans of shared rivers and river basins or sub-basins (in accordance with WFD);
- Cooperation across borders to counteract important topics such as erosion, forest fires, flooding risks, surface and ground water pollution or overexploitation, for neighbouring countries where the problem will require mutual understanding and united actions;
- Harmonising forest management plans for cross border forest areas and incorporating forest management measures into water management (In accordance with guidelines and principles of Sustainable Forest Management);
- Protecting forests in border areas including controlling forest logging and preventing illegal forest logging in cross border forest areas (in accordance with the EU FLEGT and Timber Regulation);
- Designation and management of cross border protected areas including important forest and/or water habitat types and species (in accordance with the EU HD and BD);
- Integrated (rural development) plans including tourism development, nature protection and forestry (in accordance with EU RDPs/CAP).

The approach to strengthen cross border cooperation of the water and forest sectors through the implementation of concrete cross border projects on practical implementation of plans and measures is strongly supported by the participants of the various workshops.

5.4 How Can SWG Assist in Improving Cross Sector and Cross Border Cooperation

The question about the possible role of the SWG was explicitly discussed during the country workshops while the question was also included in the questionnaires that were filled in by representatives of the forest and water management sector in the participating countries. From the issues mentioned in the country baseline reports, the questionnaires and the national workshops a gross list of ideas was compiled.

During the workshop in Herceg Novi the role of the SWG in improving international cooperation in the region resulted in the following recommendations:

- Formalise the cooperation between the two sectors at regional level through a Ministerial agreement;
- Promote cooperation between institutions responsible for national monitoring programme;
- Establish technical expert groups to stimulate cooperation at local and regional level;
- Support improvement of existing cross border agreements; memorandum of understanding;

- Initiate and develop cross border projects/programmes;
- Facilitate communication and information exchange.

From the inventory we learn that the SWG is proposed to play a role in exchanging information by providing a forum for information. Another important role of the SWG is to support the countries in building capacity in rural development and related aspects like sustainable forestry and integrated river basin management. During the workshops, it was often mentioned that the SWG should support the countries by helping them to design project proposals, to jointly implement projects and to communicate with donors to source funding. Making use of existing platforms to improve cross border cooperation is also often mentioned; quite often the participants in the workshops were doubtful about establishing a new platform or network.

There is common understanding between the countries about the need to assist the countries in increasing the capacities and knowledge about the implementation of the EU WFD.

Exchange of information with EU countries was mentioned in the national baseline reports together with the need for support in the harmonisation of national legislation and practices with EU legislation and practices. These ideas have been combined under the wish to learn how EU Directives are implemented by most SEE countries. Croatia however indicated to have no need for support in the implementation of EU Directives, but is willing to support the other countries with lessons learned from the approximation process.

Serbia provided the following additional thoughts about the role of the SWG implying that the SWG should address the following challenges:

- Lack of integration of biodiversity issues into sectorial laws and policies-forestry, water management, and agriculture;
- Lack of (weak, insufficient) information, knowledge base, and capacities related to sustainable conservation and management of natural resources (lack of cooperation and imbalance of competencies);
- Inadequate legal mechanisms and financing for sustainable use of natural resources; Weak enforcement and implementation of existing mechanisms.

During the international workshop in Ohrid, the role of SWG in strengthening the cooperation between the forest and water sectors was further discussed and resulted in the following list:

- Establishing a formalised cooperation on Ministerial level on strengthening cooperation on integrated water and forest management for instance through a memorandum of understanding;
- Assisting in reaching new cross border agreements and/or improving and implementing existing international/cross border agreements;
- Developing and offering a capacity building programme with trainings on integrated river basin management, rural development and other relevant EU policies and directives. Introducing the EU WFD to the forest sector to teach them how to influence the planning of IRBM's. Introduce the principle of sustainable forest management to the water sector so they learn how forest management can contribute to sustainable water resources management. Engaging external experts to secure exchange of experiences, expertise and information from EU Member States on EU requirements;
- Facilitating and establishing a regional platform or network of experts and institutions, as a technical platform for cooperation, practical implementation and exchange of information and data with organisation of thematic meetings, seminars, workshops and study tours;

- Establishing communication platform with technical expert working group/monitoring groups for local and regional level to stimulate cooperation between institutions responsible for national monitoring systems;
- Supporting the harmonisation to EU legislation; supporting the implementation EU directives;
- Designing and assisting implementation of concrete cross border projects and initiatives and assisting in fund raising for pilot projects on best management practices on river basins.

The participants at the workshops consider the SWG as a competent and important platform to initiate and coordinate the necessary steps to strengthen the cooperation between the sectors. Tangible steps that could be taken by the SWG include the establishment of a policy dialogue and communication platform, the elaboration of proposals to extent the current ministerial agreement on rural development or establishing new networks in line with the EU-WFD.

In chapter 6, the feasibility of a regional cooperation on strengthening the regional cooperation between the water sector and the forest sector is assessed, including whether a network or commission should be established within or outside of the SWG.

6 The Feasibility of Improved Regional Cross-sectorial Cooperation

6.1 Feasibility of the Proposed Solutions

The need for stronger regional cooperation between the forest sector and the water sector is unambiguously and consistently supported by the study presented in the previous chapters. Also why this cooperation is needed and which challenges and priorities have to be tackled through this cooperation are clearly pointed by the two sectors in the seven SEE countries as presented in chapters 2-5. The country workshops supported strongly the necessity for the two sectors to work closely together in achieving the goals of sustainable rural development and integrated water management and in harmonising national approaches to European requirements.

In this chapter, the feasibility of a regional cooperation within or outside the SWG is presented, including a) assessing the feasibility of creating an enabling environment for promoting integrated water, forest and land management, and b) proposing the necessary steps for developing a functional network on strengthening the cooperation on forestry and water management.

The feasibility is assessed on the following criteria:

- Legal feasibility: determines whether the proposals conflict with legal requirements;
- Operational feasibility: Do the proposed solutions solve the problems, and takes advantage of the priorities identified in the needs analysis;
- Schedule feasibility: looks at the estimated time needed to complete the proposed solutions;
- Economic feasibility: This focus on the question whether the proposal is financially feasible. Because the SWG plans to negotiate with donors the likelihood of funding the proposals after the finalisation of the feasibility study, this issue will not be analysed in depth.

The necessary steps on how the cooperation can be established and to what extent these will be feasible and in compliance with the objectives of the SWG is presented in section 6.2.

The question to answer is which framework fits best to enhance the cooperation between the two sectors. The two proposed solutions given in the TOR are: a workgroup or network within the SWG or a new Commission outside of the SWG. Whichever solution is chosen we propose to establish technical working groups under the new “Workgroup” or Commission

As part of the assessment we also looked into a more rigorous form of cooperation by briefly looking at the possibility of entering into a new agreement between the countries in the form of a Convention on Sustainable Development for the SEE Region.

Below, the feasibility of each of the two options is assessed and their pros and cons outlined.

Feasibility of creating a working group or network within the SWG

The first proposed solution is to create a workgroup or network within the SWG. The advantages and disadvantages of establishing a new network or working group(s) within the SWG are depicted in the table below.

Table 6.1 Pros and Cons of a functional working group within SWG	
Pros	**Cons**
The theme and tasks fits within the mandate of the SWG as an integral part of rural development	The SWG secretariat will potentially overstretch its capacities
The establishment of a network will involve an easy procedure; decision of the SWG GA will be needed	There is limited knowledge and expertise within the secretariat with the identified issues
To establish a working group under an existing platform is cost effective	Financial means to support the working group are limited
The SWG is well known and accepted in the region as an organisation dedicated to capacity building, networking etc.	The mandate of the members of the SWG does not always cover water management
To establish a working group under an existing platform will builds on existing expertise on regional cooperation	
The establishment of a network or working group under the SWG is supported by the countries	

Organisationally, this option would look like this:

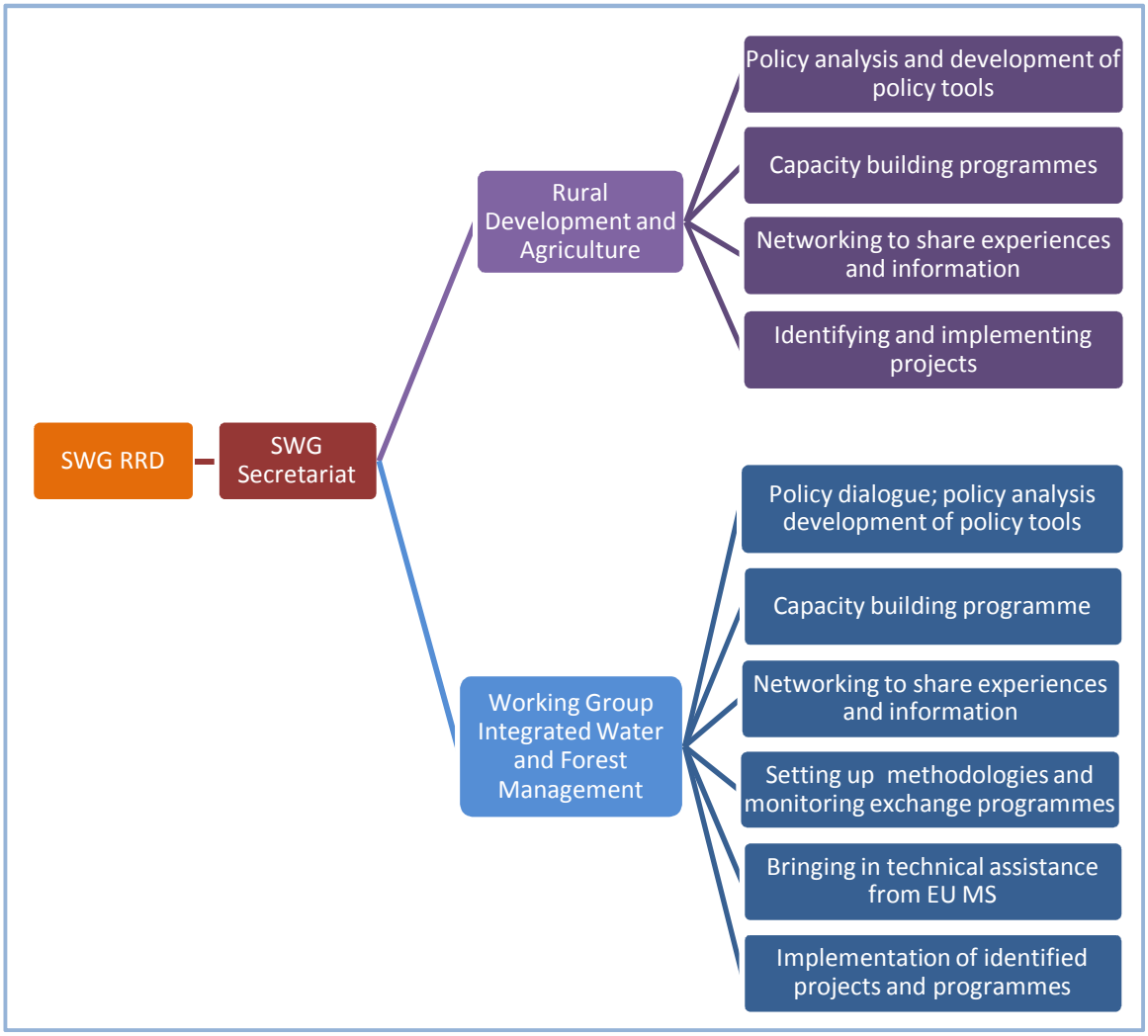


Figure 6.2: Proposed structure and main functions of a regional working group on integrated water and forest management within the SWG.

Looking at the feasibility criteria, we see the following:

Table 6.2	Feasibility of a functional network or working group within the SWG
Feasibility assessment	**Criteria**
Legal feasibility	Legally there is not any problem foreseen. The regional cooperation will in addition have the support of the EU in relation to the EU approximation process
Operational feasibility	The proposal is operatically feasible as it addresses the problems and needs identified and takes advantage of existing structures. As shown in the study the idea that the SWG takes up a leading role is broadly supported
Schedule feasibility	Getting the mandate from the members and setting up a working group within SWG is not a time consuming activity and is therefore evaluated feasible. A concrete work and time plan will have to be developed
Economic feasibility	Setting up a working group within the SWG and organising workgroup meetings as such does not require large investments. However; in order to promote cross border and cross sector cooperation investments are needed. A budget for the running costs of the SWG will have to be secured

Establishing a network or working group under the SWG fits within the mandate of the SWG and the participants of the workshops strongly support this option. The option of creating a network or working group within SWG has lots of advantages and the feasibility is high. The biggest advantages are that SWG has already acquired strong support from the countries and the SWG can easily build on their existing network in the region. However, all relevant Ministries would have to be committed to this option and not only the Ministries of Agriculture. This problem is assessed not to be insurmountable and needs to be tackled by the SWG when setting up the working group.

Another issue that needs to be solved is the capacity in the SWG secretariat. A new working group will increase the pressure on the already limited capacities of the secretariat and if the new working group is going to be established, increase of the staff at the secretariat seems inevitable. Increased capacities in the secretariat in integrated and participatory approaches would be an asset if having to deal with and understand the ins and outs of adopting European approaches and methodologies on forest management and integrated water resources management.

Feasibility of a new commission or platform outside the SWG

The second proposed solution of a network outside of the SWG implies that a new Commission or platform would need to be established based on a new agreement between the countries. The advantages and disadvantages of establishing a new network outside of the SWG are depicted in the table below.

Table 6.3	Pros and Cons of a new Commission or platform outside the SWG
Pros	**Cons**
All ministries responsible for water management and forestry sign a new agreement with clear mandate	The establishment of a new network will involve a long-lasting and time-consuming procedure with the difficulties of gaining support and commitment
A new network would potentially give a broader support (more governmental and non-governmental organisations involved)	To establish a new Commission will require extra start-up costs, and costs for hiring and housing a secretariat
Avoidance of giving extra tasks or challenges for the SWG secretariat	New platform has to start all over with gaining support, acceptance and trust, which is quite a task when involving seven countries

A new network could be initiated by learning from the existing initiatives such as the ICPDR or Sava Commission	To establish a new platform will not have the advance of building on existing expertise and experiences
	The establishment of a new platform may not have the support from the countries, which already lacks sufficient capacities and gets overloaded by new projects and initiatives
	This again causes doubts about the long term sustainability of a platform dealing only with water and forest management as the only theme. There is possible not sufficient topics for a new platform

Establishing a new network would organisaional wise look as follows:

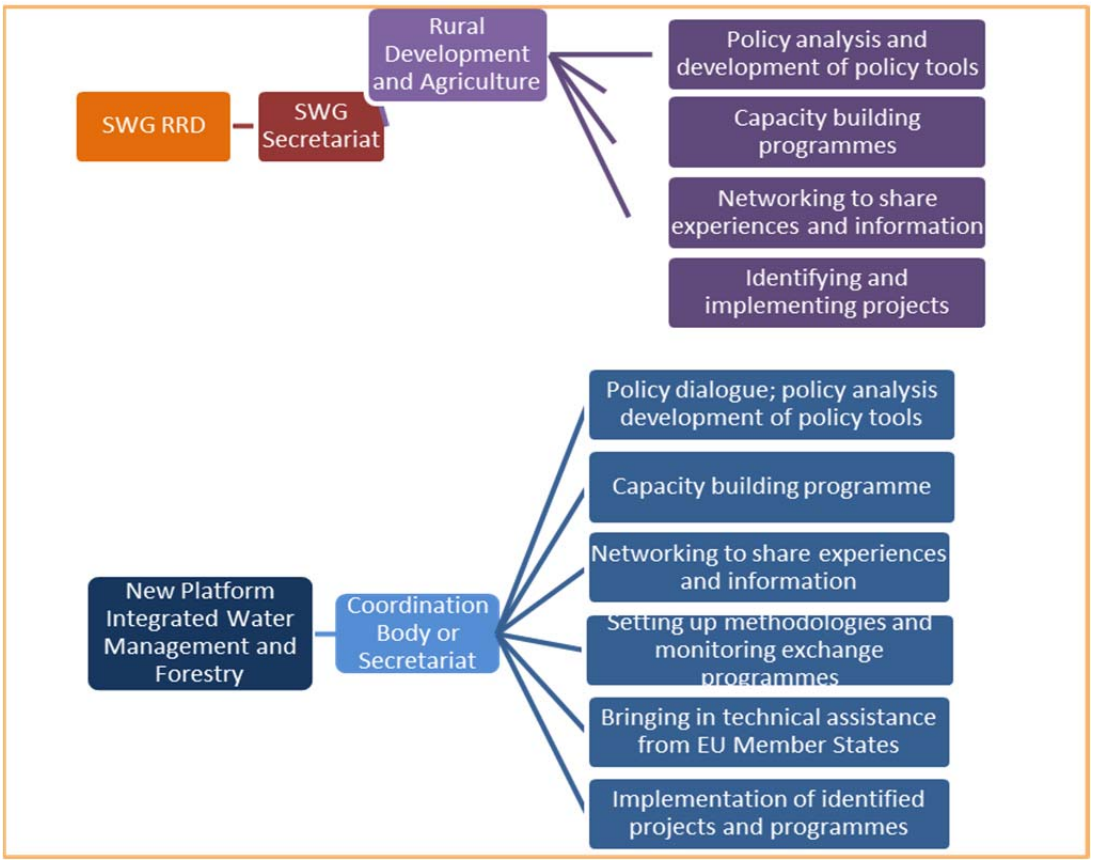


Figure 6.3: Proposed structure and main functions of new regional network or platform on integrated water and forest management.

Looking at the feasibility, we see the following:

Table 6.4	Feasibility of a new Commission or platform outside the SWG
Feasibility criteria	**Assessment**
Legal feasibility	All ministries responsible for water management and forestry sign a new agreement with clear mandate
Operational feasibility	A new network would potentially give a broader support (more governmental and non-governmental organisations involved)
Schedule feasibility	Avoidance of giving extra tasks or challenges for the SWG secretariat
Economic feasibility	A new network could be initiated by learning from the existing initiatives such as the ICPDR or Sava Commission

Establishing a new Commission is more complex, time consuming and costly than setting up a Commission within the SWG. The biggest disadvantage is to start up negotiations with new organisations involving both the Ministries responsible for water management and the Ministries responsible for agriculture. However, the new Commission would potentially have a clearer mandate and all relevant Ministries would be committed.

Feasibility of a new Intergovernmental Convention

Because of the complexity of the problems the region is facing in terms of economic development, social and environmental problems and for a part the common historical and cultural background, one could argue that the best way to promote the cooperation in the region would be to enter into a convention for sustainable development between the countries. Similar to for instance the Carpathian Convention that aims to promote sustainable development in the Carpathian region, the SEE countries could commit themselves under a Convention that aims to promote sustainable development in the SEE region. Such an agreement would go beyond the current form of cooperation and would require that national parliaments would ratify the agreement. This would lead to much stronger political commitment. The advantages and disadvantages of a new intergovernmental convention are depicted in the table below.

Table 6.5	Pros and cons of a new Intergovernmental Agreement or Convention
Pros	**Cons**
Strengthens regional cooperation at all levels	Long lasting and difficult negotiations
Positive signal to the international community; enhances financial support	Differences between the countries are insurmountable
Contributes to stability in the region	Could lead to increased animosity between the countries
Enhances trade and information exchange	Potential lack of willingness to start the process
Contributes to economic development	

Table 6.6	Feasibility of a new Intergovernmental Agreement or Convention
Feasibility criteria	**Assessment**
Legal feasibility	Reaching a new intergovernmental agreement or convention implies significant legal problems or challenges
Operational feasibility	The proposal is not operational in the short term but on the long term it addresses the problems and needs identified
Schedule feasibility	Agreeing on such a new Convention is rather time consuming but the process as such already contributes to improved cooperation and communication
Economic feasibility	The costs of designing an agreement or Convention are oversee-able. Implementing the agreement requires big investments but the cost benefit analysis could show that it is worthwhile investing the money to secure long-term sustainability of the cooperation.

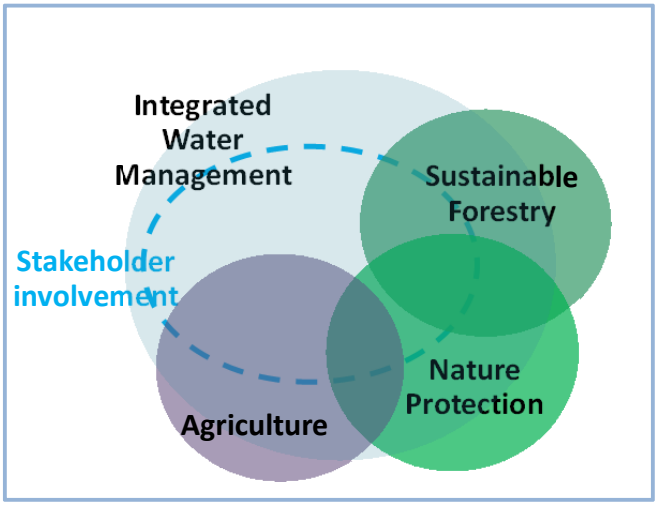
The process of agreeing on a Convention can learn from likewise processes between countries already involved in other European conventions for instance the Carpathian Convention or the Framework Convention for the Sava River. In the SEE region for such a Framework Convention, the implementation could be mandated to the working group within the SWG. Examples of other regional initiatives based on an intergovernmental agreement include various Nordic and Baltic Sea Initiatives established under a parliament agreement between the countries:

- The Nordic Council / Nordic Ministerial Council established 1962 (www.norden.org);
- The Baltic Sea Parliamentary Conference (www.bspc.net);
- The Council of the Baltic States (www.cbss.org);
- The Baltic Development Forum (www.bdforum.org).

6.2 Conclusions on the Feasibility

From the feasibility assessment it is concluded that a working group within the SWG is the best proposed solution for strengthening the cooperation between the sectors, and that the cooperation has the best chances of being successful when it is established under the auspices of the SWG.

The emphasis of the activities of the SWG has logically up to now been on agriculture and rural development sector. Rural development is however a broad concept and embraces also forestry and water management. Although forestry and water management are new subjects for the SWG, they are important issues with respect to rural development in the region in the efforts to harmonise to EU legislation. Forestry is the second most important land use form in the SEE region (forest cover between 29-55% of the national territories). Sound water management is critically important to forestry while the other way around forestry impacts water management, both in quantitative and qualitative terms.



The relation between rural development and water management is underpinned by the fact that in five

out of the seven participating countries rural development and water management are under the same Ministry

The interaction between rural land uses like forestry, agriculture and nature conservation and water management is intense as is illustrated in the figure 6.4. Cooperation between the sectors is therefore a prerequisite in order to meet EU requirements of the EU WFD, as also described in Chapters 2 and 5.

There are in fact only few aspects of forest management that do not have an impact on water resources, be it through controlling erosion, influencing retention capacities and influencing discharge patterns of rivers and streams, ground water discharge or water quality. The same counts for agriculture; water quality and water quantity of surface water bodies are for a big part depending on the use of the agricultural lands.

When it comes to strengthening the regional cooperation on integrated water and forest management, it is our recommendation to involve also the nature protection sector. Rural development policies do not restrict the role of rural areas anymore to producing food. In the EU, farmers and foresters have adopted a much wider role as managers of the countryside including bearing responsibility for producing ecosystem services like clean water, landscape and biodiversity. EU's rural development policies stimulate the agricultural sector to take up this role through requiring from member states to produce Rural Development Plans and to allocate a significant share of the budget for rural development policies for agri-environment measures including management of Natura 2000 sites and subsidy schemes for promoting sustainable forestry.

Looking at the core functions of the SWG, there is compliance with the priorities identified by the countries to be addressed by regional cooperation, including capacity building, networking, developing policy tools, facilitating development of harmonised methodologies and monitoring programmes and implementing regional projects.

When it comes to the position of the SWG in promoting regional cooperation and networking between the water sector and forest sector, the following should be taken into consideration:

- Organising cooperation between sectors dealing with rural development (water management, forestry, nature conservation and tourism) at national level is the prime responsibility of national governments;
- International and inter-ministerial organisations can support and facilitate this cooperation by helping to create an enabling environment through policy dialogue, capacity building, information exchange, facilitating development of methodologies and monitoring programmes, study visits and joint project development.

Although the issues of water management and forestry fit well within the objectives and functions of the SWG, the SWG will still need a clear mandate from the participating SEE countries to establish the working group or network. Next to giving the mandate to SWG, the SWG members will need to contribute to the financial means to perform this role.

One option to formalise the cooperation at Ministerial level is to sign an additional Ministerial Agreement or memorandum of understanding. This will have the advantage that the ministries responsible for water management, forestry and nature protection in the SEE countries commit to the new working group and allocate staff for the purpose.

When it comes to setting up a new working group to facilitate the exchange of information and enhance the cooperation between the forest sector and water sector in the region the feedback during this study has been very positive. Serbia provided some useful thoughts to the idea:

Most stakeholders support establishment of a commission if it is an operational one, with clear road map and action plan. Also, experience of participating in several other international committees and working groups revealed that there is belief that this kind of cooperation contributes to solving problems of common interest.

Exchanging information through organising thematic meetings, seminars and workshops received a lot of support. Croatia recommended organising *thematic meetings that would have as a goal to defining frameworks through exchange of experience, in order to avoid possible conflicts between forestry and water management.*

The establishment of any new structure on top of existing ones should be addressed with care and prudence especially in the situation of SEE where human and financial capacities are limited. However it is believed that the establishment of a working group that promotes the cooperation between the forest and water sector has a clear added value to existing initiatives. Common for most of the existing initiatives mentioned in chapter 4 is that they are focused on a specific topic, such as IRBM planning for a selected river basin or sub-basin. None of the initiatives encompasses the whole SEE region and none of them functions as a facilitating platform when it comes to integrating and strengthening the cooperation between the forest and the water sectors. Most of the initiatives are confined to activities specified in a project TOR and do neither promote nor represent a holistic approach.

The added value of having the working group within the SWG

The challenges of strengthening the SEE regional cooperation between the forest and water sectors go beyond one river basin project or initiative. These challenges need a regional platform where other initiatives on concrete projects in the region can link up to.

The various initiatives on elaborating integrated river basin management plans (IRBM plan) in accordance with the requirements of the EU WFD do require cross sector cooperation and ideally includes the involvement of the forest sector in the elaboration process. And the matter of the fact is that the forest sector is mostly involved in these processes although not always to its full satisfaction (see Sava Basin Initiative). But no matter how good the cooperation is, in addition to the work being done in the frame of these IRBM plans, a regional initiative to improve the cooperation between the two sectors will have a significant added value to what is being done in the above mentioned initiatives. The added value of such an initiative is that it would focus on issues which go beyond the integration of forest management into the management of a selected river basin but would focus on issues of common SEE interest as indicated in this study.

Activities that are important to be coordinated at regional level include:

- Guidance on the harmonisation of legislation in the field of water management and forest management through policy dialogue;
- Develop joint research proposals for instance on how forest management can help to mitigate the impacts of climate change on water resources management;
- Develop joint guidelines for the designation and management of protective forests;
- Develop methods for the payment of ecosystem services provided by forests in relation to water resources management;
- Facilitate information exchange of experiences gained and lessons learned in and coordinate and function as a platform for the various sub-regional initiatives;
- Build capacity to secure that sufficient capacity is available to elaborate IRBM plans;
- Facilitate establishment of various prioritized types of monitoring programmes for the two sectors and to secure regional cooperation on e.g. intercalibration, reference conditions etc.

Although formally the forest sector is involved in the elaboration of IRMB Plans through stakeholder meetings and providing feedback on draft plans, in practice this involvement is limited because of the lack of knowledge in the forest sector about the EU WFD, the lack of knowledge of the water sector about forest management and vice versa, leading to undervaluing the importance of the cooperation and involvement of the other sector.

The conclusion from the national and international workshops is that the SWG has the support to establish the "Working Group on Integrated water and Forest Management" within its organisation because the SWG has a broader perspective, has the mandate of the ministries from the SEE member countries and is trusted in the region. The SWG can facilitate to bring parties responsible for water management, forest management and nature protection together and help the forest sector to be engaged in the implementation of the WFD and the elaboration IRBM plans for the shared river basins and sub-basins and help the water sector to understand the importance of sustainable forest management for sustainable management of river basins.

It is recommended that the SWG should build on its existing network, knowledge and experiences from working with rural development and agriculture in expanding its functions and activities by establishing a functional working group on integrated water and forest management.

As described in chapter 5, there are more areas of common interest, which can be addressed at a SEE regional level and which none of the other sub-regional initiatives are covering. And the outcomes would greatly enhance achieving integrated water and forest management as well as improve the elaboration of IRBM plans. As stressed before, strengthened cooperation between the two sectors on SEE regional level will support the countries' EU approximation efforts.

The role of the SWG

The role of SWG in strengthening the cooperation between the forest and water sectors is recommended to include:

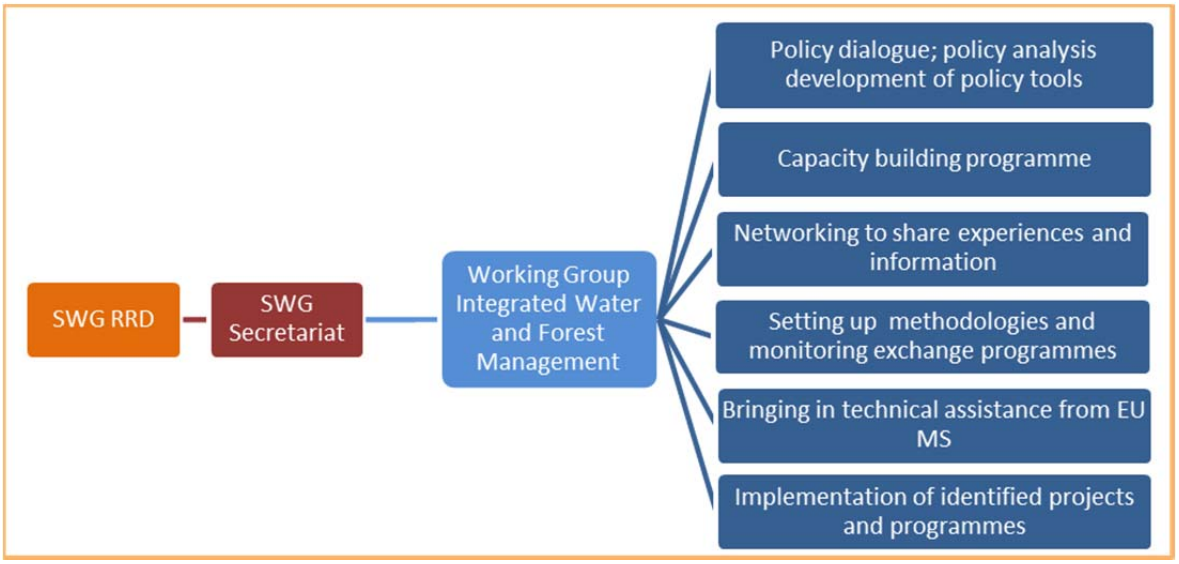
- Establishing a formalised cooperation on Ministerial level on strengthening cooperation on integrated water and forest management for instance through a memorandum of understanding;
- Assisting in reaching new cross border agreements and/or improving and implementing existing international/cross border agreements;
- Developing and offering a capacity building programme with trainings on integrated river basin management, rural development and other relevant EU policies and directives. Introducing the EU WFD to the forest sector to learn how to influence the planning of IRBMs. Introduce the principle of sustainable forest management to the water sector so they learn how forest management can contribute to sustainable water resources management. Engaging external experts to secure exchange of experiences, expertise and information from EU Member States on EU requirements;
- Facilitating and establishing a regional platform for experts and institutions, as a technical platform for cooperation, practical implementation and exchange of information and data with organisation of thematic meetings, seminars, workshops and study tours;
- Establishing communication platform with technical expert working group/monitoring groups for local and regional level to stimulate cooperation between institutions responsible for national monitoring systems;
- Supporting the harmonisation to EU legislation; supporting the implementation EU directives;
- Designing and assisting implementation of concrete cross border projects and initiatives and assisting in fund raising for pilot projects on best management practices on river basins.

The proposed structure of the working group within the SWG

The Working Group on Integrated Forest and Water Management (or the "Water and Forest Committee") is recommended to be facilitated by the SWG secretariat but to have its own working group structure. The "Water and Forest Committee" will supervise and guide the work of the technical working groups.

It is recommended that the Working Group on Integrated Forest and Water Management acts as a sort of Steering Committee that oversees and coordinates the activities of the technical working groups. The Steering Group should meet once or twice a year and consists of representatives from the Ministries responsible for water management and forestry, implying that from each country two members are represented in the Steering Committee no matter whether the two sectors are combined in one ministry or separated in two ministries.

Organisationally, the organisational structure is recommended to look like this:



It is recommended to establish a number of technical working groups under the newly established "Water and Forest Committee". These working groups should be facilitated by the secretariat and need to be working based on clearly defined Terms of Reference, budgets and time schedules. It is proposed to establish the following technical working groups under the new "Working group on Integrated Water and Forest Management":

- Policy group responsible for the policy dialogue;
- Capacity building group responsible for the capacity building programme and for bringing in technical assistance;
- Technical group responsible for defining relevant activities for setting up methodologies and monitoring exchange programmes;
- Networking group responsible for securing sharing experiences and information relevant for the two sectors;
- Facilitation and implementation of cross-border and/or regional projects;
- Focus on adaptation to the impacts of climate change.

The working group structure, tasks and mandate should be further defined before establishing the technical working groups.

The proposed activities to stimulate regional cooperation

Nearly all countries indicated that they would like assistance to design concrete projects and help to find funding for the execution of these projects and initiatives, which can provide:

- *Good advice on and insight in best practices;*
- *Practical implementation of joint actions across borders;*
- *Improved technical capacities on technical topics and on operational level;*
- *Concrete and good ideas to be implemented.*

The concrete actions to be addressed and undertaken by the technical working groups under the guidance and facilitation of the secretariat of the SWG are recommended to include:

Policy dialogue

- Provide guidance on harmonising national forest and water legislation (with spatial planning and nature protection legislation) to secure an integrated approach and to secure harmonisation with EU requirements;
- Develop policies and strategies for forest and water management to mitigate and adapt to the impacts of climate change;
- Develop policies and measures for forest and water management to counteract erosion, floods, droughts and sedimentation;
- Develop policies and measures for combating illegal logging to meet the EU Timber Regulation prohibiting placing illegal timber and timber products on the EU market by 2013;
- Promote inclusion of forest management in rural development plans;
- Initiate and coordinate joint actions and strategies in the frame of EU approximation.

Capacity building

- Build expert networking in the forest and water sectors to implement the EU WFD (e.g. cost benefit analyses, programme of measures, WB typology, reference conditions, ecological status);
- Harmonise Sustainable Forest Management and Biodiversity Management;
- Build capacity on the implications of Natura 2000;
- Build capacity in the water sector on the contribution of sustainable forest management to secure sustainable water resources management;
- Build capacity on climate change adaptation and mitigation measures;
- Improve capacities for participatory management including stakeholder analysis;
- Build awareness and capacity in the water sector on the provision and financing of ecosystem services provided by forests;
- Build capacity in GIS application tools in integrated water management planning;
- Build capacity on the implications of the new EU common agricultural policy.

Harmonising methodologies and monitoring programmes

- Establish harmonised methods and monitoring systems; flood control, flood or drought prevention, water pollution or water exploitation, fire and pest control and erosion risk control and monitoring;
- Establish harmonised WFD typology for identifying a) surface WBs, b) artificial or heavily modified WBs, and c) groundwater bodies;
- Develop harmonised WFD methods for assessing a) ecological/ chemical status of surface WBs, b) ecological potential for heavily modified/artificial WBs, and c) chemical/quantitative status for groundwater bodies;
- Establish WFD intercalibration: To ensure that national assessment methods deliver comparable results, intercalibration exercise is required between countries and the EU.

Exchanging information and knowhow

- Exchange expertise, experiences, knowledge and/or best practices on the WFD and integration of water management and sustainable forest management;
- Improve communication and exchange of knowledge and information, achievements and innovations through technical discussions;
- Share knowledge, methodologies and techniques on technical aspect and implications of implementing EU directives and policies;
- Transfer knowhow and best practices from EU Member States.

Initiating, facilitating and implementing projects

- Initiate IRBM Plans of shared rivers and river basins or sub-basins and integrating forest management measures into the plans;
- Initiate joint actions across borders to counteract erosion, forest fires, flooding risks, surface and ground water pollution or overexploitation;
- Protect forests in border areas including controlling forest logging and preventing illegal forest logging in cross-border forest areas;
- Facilitate the designation and management of cross border protected areas including important Natura 2000 forest and water habitat types and species;
- Develop integrated (rural development) plans including tourism development, water management, nature protection and forestry (in accordance with EU RDPs/CAP);
- Promote cross sector cooperation in on-going projects (including IRBM plans).

The question remains whether all seven countries will be interested and choose to participate and invest in regional initiatives/cooperation at the same level. Croatia is already at a stage where they have been working with these issues in their efforts to prepare for EU accession. On the other hand, Croatia has also expressed its willingness to transfer lessons learned from the approximation process to other countries in the region.

Another challenge is whether a regional cooperation will manage to bring in the relevant experiences, technical knowledge and expertise to strengthen and build capacities in the countries. This does however not constitute a big problem and it is thought to be addressed partly by TAIEX events and experts from Croatia, Slovenia and Bulgaria.

Increase awareness on the relation between forest and water management

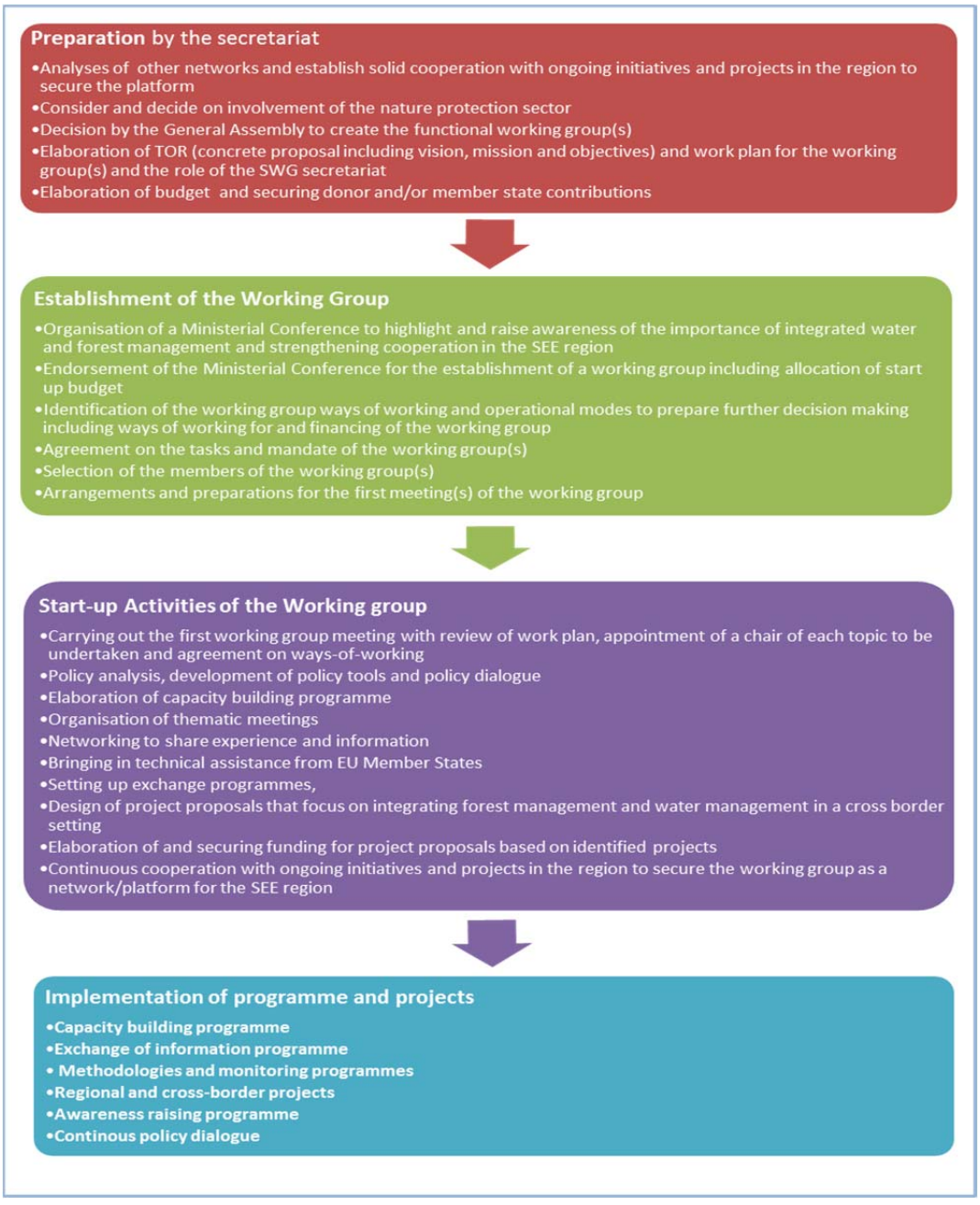
The study revealed that the issue of the cooperation between the forest and water sector is important in the region. However, awareness on the need to improve this cooperation is generally low. Therefore it is believed that the organisation of a High Level Conference on this issue can help to create the necessary attention and help to provide a base for the establishment of a the working group within the SWG. This High Level Conference could have a scientific part and a political part. The political part could end with a Ministerial Declaration to endorse continued work and to provide the mandate to the SWG to continue. Next to science organisations, NGO's and government representatives, representatives of multinational organisations could be invited including the EU, World Bank, UNEP, etc. The involvement and contribution of river basin organisations is crucial for the success of the Conference and for creating awareness and support for the fact that the forest sector need to be more involved in the planning of water management measures.

Finally, it is the assessment that the funding of the maintenance of the network can best be guaranteed when coupled with the development and implementation of an awareness raising or capacity building

initiative. An alternative approach would be to ask the member countries to contribute additional funds to the SWG membership fee in order to allow the secretariat to organise and facilitate the working group.

6.3 Necessary Steps for Establishing the Working group

The establishment of the working group under the SWG is recommended to include the following actions, where the secretariat of the SWG will be the key actor until the working group is operating:



6.4 Concluding Recommendations

It is concluded that the best proposed solution for strengthening the cooperation between the water sector and the forest sector is the establishment of a Working Group on Integrated Forest and Water Management within the SWG. The SWG is considered a competent and important platform to initiate and coordinate the necessary steps to strengthen the cooperation between the sectors.

With this feasibility study the first activities of the preparation phase have been completed and the first task now is to elaborate the TOR and start up budget for the Working Group. It is important to provide insight in the costs related to the establishment of the working group and the options to cover these costs. Besides the possible required increase of the contributions of the member states additional resources will need to be sought to be able to carry out the proposed tasks of the working group and the technical working groups. It is further recommended to discuss the establishment of the working group on Integrated Forest and Water Management in a Ministerial meeting to ensure commitment and support from the members of the SWG.

It is recommended that the Working Group on Integrated Forest and Water Management acts as a sort of Steering Committee that oversees and coordinates the activities of the technical working groups. The Steering Group should meet once or twice a year and consists of representatives from the Ministries responsible for water management and forestry, implying that from each country two members are represented in the Steering Committee no matter whether the two sectors are combined in one ministry or separated in two ministries.

It is also recommended to discuss the establishment of a working group on Integrated Forest and Water Management in a Ministerial meeting to ensure commitment and support from the members of the SWG. It is recommended to discuss in this meeting a proposal for the activities of the workgroup presented in the draft TOR as well as the proposed working group structure. Besides the possible required increase of the contributions of the member states additional financial resources will need to be sought to be able to carry out the proposed tasks of the working group and the technical working groups.

Given the impressive amount of ideas and proposals that have merged during the study it is recommended to agree on a limited number of activities to start with. Continuation of the policy dialogue is one of the most important activities and at the same time easiest to organise without requiring a lot of additional money. Next to this, also the capacity building and networking activities should be given high priority.

In addition to the above presented steps, a clear time plan of 2-year span and programme of actions and goals should be developed. Finally, monitoring and evaluation of the functioning of the working group will have to be performed to secure long-term sustainability, including: evaluation of the functionality of the working group, review of work plans and achieved outputs and report back to the SWG General Assembly.

To strengthen the regional cooperation and to promote an integrated approach to water and forest management, it is recommended to also involve the nature protection sector.

To enhance sustainable development in the SEE region on the long term, the signing of an intergovernmental convention for sustainable development to be ratified by the parliaments of the respective countries is recommended. The preparation and signing of such an agreement is however a time consuming endeavour and will possibly involve lengthy negotiations between representatives of the countries but to our understanding the SWG is well placed to initiate and coordinate this process.

[i)] This designation is without prejudice to positions on status, and is line with UNSCR 1244 and ICJ opinion on the Kosovo declaration of independence.

List of Annexes on CD rom

A: Country Baseline Reports

A1 Baseline Report on Forestry in Albania by Genti Kromidha
Baseline Report on Water Management in Albania by Miriam Bogdani

A2 Baseline Report on Forestry and Water Management in Bosnia-Herzegovina by Sabina Hadziahmetovic and Vladimir Stupar

A3 Baseline Report on Forestry in Croatia by Jela Bilandzija
Baseline Report on Water Management in Croatia by Olga Jovanovic

A4 Baseline Report on Forestry and Water Management in Kosovo[i] by Abdullah Nishori and Qazim Kukalaj

A5 Baseline Report on Forestry and Water Management in Macedonia by Ivan Blinkov and Ordan Cukaliev

A6 Baseline Report on Forestry and Water Management in Montenegro by Velibor Spalevic and Zarko Vucinic

A7 Baseline Report on Forestry and Water Management in Serbia by Dusica Trnavac and Aleksandar Damnjanovic

B: National Workshop Summaries and Participants Lists

B1 Notes from Meeting on Forestry and Water Management in Albania

B2 Notes from Meeting on Forestry and Water Management in BiH

B3 Notes from Meeting on Forestry and Water Management in Croatia

B4 Notes from Meeting on Forestry and Water Management in Kosovo[i]

B5 Notes from Meeting on Forestry and Water Management in Macedonia

B6 Notes from Meeting on Forestry and Water Management in Montenegro

B7 Notes from Meeting on Forestry and Water Management in Serbia

C: Reports from the International Workshops

C1 Report on Implementation of a Concept for Sustainable Forest Management in South Eastern Europe; Andrevlje, Fruska Gora, Serbia

C2 Report on Implementation of the EU Water Framework Directive in South Eastern Europe; Herceg Novi, Montenegro

C3 Report on Integrated management of water and forests in river basin areas across the South Eastern European countries; Ohrid, Macedonia

D: Participants' Statements from the Final Conference

References and Resources

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