

**Terms of Reference
for the
Development of the Strategic Environmental and Social Assessment (SESA)
for Sanitary Protection Zones of the Cross-Border Karstic Aquifers of the
“Klokot” Source (Bihać) Project**

General issues and SESA purpose

The World Bank recognizes strategic environmental and social assessment (SESA) as a key means of integrating environmental and social considerations into policies, plans and programs, particularly in sector decision-making and reform. **The Bank is committed to promoting the use of SESA as a tool for sustainable development.** The Bank uses the SESA as a means of integrating environmental protection into early stages of decision making and planning. In 2004, the Bank approved and updated policy OP/BP 8.60 which emphasizes the importance of upstream analytical work using the SESA.

In this specific case SESA is related to the preparation of the document having in mind Espoo Convention and SESA in a transboundary context. All countries that ratified Espoo convention have to implement their provisions. World Bank also acts in accordance with the Directive 2001/42/ES on the assessment of the effects of certain plans and programs on the environment and Protocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment in a transboundary context. Paragraph 15 of the Directive states: The United Nations/Economic Commission for Europe Convention on Environmental Impact Assessment in a Transboundary Context of 25 February 1991, which applies to both Member States **and other States**, encourages the parties to the Convention to apply its principles to plans and programmes as well. Annex II of the Directive: Criteria for determining the likely significance of effects referred to in Article 3(5) point 2.

Directive also states that “the systems operating within the Community for environmental assessment of plans and programmes should ensure that there are adequate transboundary consultations where the implementation of a plan or programme being prepared in one Member State is likely to have significant effects on the environment of another Member State. The information on plans and programmes having significant effects on the environment of other States should be forwarded on a reciprocal and equivalent basis within an appropriate legal framework between Member States and these other States.”

Having in mind that significant area to be protected and maintained is located within the Republic of Croatia which is a Member State, it is essential for the findings of the Studies produced under the guidelines for protection of Klokot water source to be subject to an SESA, developed in reciprocal way between the two countries, in order to evaluate all potential impacts and possible decisions that can significantly influence the Project area. The SESA shall follow the guidelines for development of such a study as per the WB policies, EU directives and guidelines, which are either fully or partially transposed into practice in Croatia and BiH.

Given the transboundary context of the project and number and variety of procedures to be followed this document represents a draft ToR which will be consulted with relevant stakeholders in BiH and Croatia (namely Ministry of Environmental and Nature Protection in Croatia, Federal Ministry of Environment and Tourism in Bosnia, and other) and further streamlined to satisfy requirements of national regulations.

Background

In order to ensure protection of the groundwater sources BiH and Croatia have established Bilateral Commission for Adriatic Sea and Black Sea River Basin (Commission). Commission coordinates activities on transboundary water resources management. Commission established Working Group (WG) in order to determine the list of ground water bodies intersected by the state borders, which needed to be protected.

Una River Basin belongs to the Dinaric karst area and is shared between Bosnia and Herzegovina (BiH) and Croatia. Basin consists of a number of the ground water bodies and spring sources, among which the most important is Klokot and Privilica, which are determined by the established Working Group as a priority water sources to be protected.

Groundwater body (GWB) of Klokot and Privilica water sources covers the area of about 685 km², out of which only 13,8% (94,5 km²) is in the territory of Bosnia and Herzegovina, while the rest is in the Republic of Croatia. The municipal potable water supply of the town of Bihać (BiH) is supplied with water from Klokot, where the average extraction rate is 225 l/s, the Privilica with an extraction of 125 l/s and the Žegar with a capacity of 5 l/s.

The results of water quality tests from those water sources, which are carried out on a regular basis, suggest water quality deterioration and presence of ammonium, phenols, oils, detergents, even mercury, etc., with occasional fecal pollution.

To implement necessary measures for protection of the ground water bodies of the Klokot and Privilica water source, it is required to prepare a study assessing the establishment of the protection zones and recommending the adequate priority protection measures. This will include:

1. Develop a new Technical Study (Elaborate) on protection zones of the Klokot spring source according: (i) Rule book of Federation BiH („Sl. novine F BiH“ broj 88/12), (ii) Rule book of Republic of Croatia (NN 66/11 i 47/13) and (iii) Proposal of protection and investigation methods for protection of karst water bodies in transboundary areas of BiH and RH.
2. Prepare overall suggestion for protection measures for different zones and prepare draft Decision Decisions on the protection of the Klokot source;
3. Preparation of the list of existing and potential sources of pollution within the different protection zones (including wastewater drainage, sanitary wastewater treatment, landfills, pollution from agriculture, transport, industry and forestry, demining, erosion processes in the catchment, etc), including also the assessment of point-sources versus non-point sources.
4. Prepare the list of priority measures with cost estimates. For the purposes of defining the funding required for their implementation in BiH and the Croatia it would be needed to make an assessment on the costs of the identified priority measures / projects, including the conceptual designs to confirm the capital investments;
5. Develop proposal of International Agreement for the Sanitary Protection Zones of the Cross-Border Karstic Aquifers.
6. Implementation of the investigation works for purpose of preparation of Technical Study (Elaborate) on protection zones of the Klokot spring source.

For the purposes of developing the Study on the Spring Sanitary Protection Zones, additional investigation works need to be carried out: groundwater flow tracing for the purposes of determining the spring catchment area and boundaries of the different zones, implementation of the piezometric boreholes, including monitoring, establishment of continuous monitoring at the Klokot spring and monitoring of hazardous substances from the direction of the Zeljava Airport.

The SESA shall be developed to review and address the recommendations of the above studies, regarding impacts on the catchment area, as well as protection zones, having in mind environmental impacts and future planning and decision making, from FBiH side, but also including transboundary cooperation and cumulative impacts assessment emerging from Croatia.

Laws, regulations and guidelines

The SESA should identify and comply with any laws, regulations and guidelines that will govern the conduct assessment. There shall include minimum the following:

- World Bank applicable PRs (Environmental Assessment OP 4.01, Natural Habitats OP/BP 4.04, Forests OP/BP 4.36, Involuntary Resettlement OP/BP 4.12, Projects on International Waterways OP/BP 7.50)
- List of Laws and regulations including EU Directives related to SEA and EIA; but more specifically a) Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment; b) Protocol on Strategic Environmental Assessment in a transboundary context (UN ECE Homepage Protocol on SEA); and transposed Croatian and BiH legislation,
- List/description of water supply and sanitation Laws, regulations and policies relevant to the SEA
- Description of obligation emerging from the ratified Espoo convention, i.e. Convention on Environmental Impact Assessment in a Transboundary Context

SEAs need to be carried out before details are finalized within projects for water use and protection of the area.

Objectives of the SESA

The overall objective of the Strategic (Sectoral) Environmental and Social Assessment is to ensure that in-country capacity, regulatory framework (state, EU and WB) and procedures are effectively applied and enhanced to guide environmental/social policy, planning and management for proposed water supply and protection activities, as well as to achieve broad consensus on this, based on environmental, social and economic considerations, to achieve long-term sustainable use and protection of natural resources and ecosystems. More specifically, objective of the SESA is to:

- Offer way of intersection and cross boundary necessary cooperation
- Identify most critical overall and cumulative impacts of multiple activities across a broad area related to water supply and protection of drinking water source as recommended in the Study for establishment of Protection Zones
- Analyze existing/proposed national environmental policies and regulations and sector specific polices and assess whether the environmental and social issues are covered adequately and recommend measures to strengthen them for effective environmental planning and protection, especially having in mind transboundary impacts and effects.

- Overcome disciplinary boundaries by helping environmental and water sources experts understand the points of connection between their different terminology, techniques, and approaches, what would lead to the higher level of protection and coherence of their efforts.
- Review in country capacity (various public and private stakeholders) as well as capacity of bilateral commission for assessing the environmental protection and management of water supply and suggest plan for strengthening of the connection between government bodies, consultants, contractors and public.
- Provide adequate environmental and social baseline information to inform consultation/dialogue with decision makers and other stakeholders and assist with the development of common plans.
- Lead to optimizing project recommendations and configuration, the single most effective environmental and social impact avoidance measure available.
- Conduct a workshop with relevant stakeholders on the draft SESA and modify as appropriate to gain support from both governments (Croatia and BiH).

Scope of work

An essential sequential methodology defined in accordance with EU Directive 2001/42/ES on the assessment of the effects of certain plans and programs on the environment and Protocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment in a transboundary context shall be followed to prepare the SESA, as outlined below. Due to the status of the project this is open to modification and the addition of tasks to improve the assessment process as the SESA develops and new information is obtained. This refers to the fact that the opinion if the SESA procedure should follow the national (Croatian and BiH) procedures is currently pending from MENP and FMOIT. Although Klokot source is in Bosnia, both BiH and Croatian ministries are advised with as the proposed measures could also impact protected areas in Croatia like Plitvice National Park in Croatia. The respective ministries will either advise to follow national procedures or provide advises to strengthen the current ToR.

Collection of baseline data

Identification of the scope(s) will be carried out prior to commencement of the SESA. Specific relevant features of the potentially impacted area should be described, analyzed and taken into account. The level of detail of baseline data will be limited to the best available information at the time, to enable an informed discussion by key stakeholders on the main impact issues. Majority of the baseline data will become available once the actual measurements are performed on the ground, for the development of the above sections of the Study. Further baseline information will be collected if and as needed.

The following essential baseline data is required to provide a firm starting point for discussions on multiple impacts and related priorities:

- Administrative boundaries;
- Contour mapping, river/drainage, major watershed boundaries, etc.;
- Population distribution;
- Natural forest cover – existing and change over time;
- Identify areas of special sensitivity to impacts and disturbances (Protected areas – existing and proposed (including e.g. Natura 2000, heritage, sites and precincts)) – note major data gaps;

- Any other notable high conservation value, significant or sensitive sites or well-known/widely recognized key ecosystem services; and
- Conflict areas;
- Assess the impacts and state of the environment in the area;
- Develop maps to illustrate where environmental and social impacts are present, and where are expected to be present in future in case no measures are implemented.

Depending on the selected procedures for SESA, the list provided above might be fine-tuned.

Existing Policies, Plans, Programs and Decision Making

This section will identify national and supranational (EU) policy and legal base for environmental commitment in the water supply and protection activities in Croatia and BiH as well as SESA requirements and procedures for the both countries individually and in transboundary context. All Republic of Croatia, BiH, FBiH and relevant cantonal and municipalities in Croatia and BiH, including municipality Bihac, development policies, plans and programs for sectors relating to sustainable water supply, including, protected area management, legal and customary resource rights, spatial plans and other issues related to sustainable natural resource use shall be obtained and analyzed. The Consultant shall analyze the existing environmental policies and legislation, including guidelines for environmental impact assessment and assess needs for their effective application. A short summary shall be prepared focusing on how each policy relates to water, land and ecosystem resource management and environment protection. The policy overview will include applicable WB policies and procedures.

Strengthening of institutions and building of capacity will be one of the main outputs of the SESA for improving the environmental management in the sector. Hence, the SESA should assess “in-house” capacity (at all levels: state-level, entity-level, municipality, agencies in charge, bilateral commission) of relevant institutions in the water supply and protection sector regarding implementation of proposed protection measures, and suggest strengthening where needed.

Overview of national requirements and procedures for SESA will be provided for both countries, including: procedures for establishing mandatory content of SESA, for obtaining opinions from competent bodies, public consultation process, requirements of authorization of expert companies, transboundary impact procedures, monitoring program requirements, update/changes procedures, etc.

Mandatory content requirements resulting from this ToR and national and supranational legislation might be supplemented by competent bodies’ requirements (e.g. water management agencies, ministries of environmental protection, etc.) in the case it is decided that SESA should follow the national procedures.

Stakeholder Analysis and Engagement Planning

SESA is an integral process that requires the participation of key stakeholders. The opinions, perspectives and priorities of wide range of stakeholders (including both countries) shall be sought to scope the SESA, informing stakeholders about the priorities of other stakeholders, and seeking to influence them about the need to establish a shared vision for protection of water source Klokot.

Hence, SESA should open dialogue between Bilateral Commission for Adriatic Sea and Black Sea River Basin (Working Group), Hrvatske Vode, Ministry of Foreign Trade and Economic

Relations of BIH, Ministry of Forestry, Agriculture and Water Management of Federation of Bosnia and Herzegovina, Agency for watershed area of Sava river basin, Government of USC, municipality Bihac and representatives of Croatia in charge of environment protection and affected municipalities, i.e. Ministry of Environmental and Nature Protection as well as Hrvatske vode. Goal is that stakeholders endorse SESA recommendations what would lead to support during development of the Study and projects that emerge from this process.

Stakeholder consultation shall not be slanted towards individual interests or any other narrow interest. It will be inclusive of all relevant views, both major and minor, so that balanced and equitable priorities and a broad range of issues are identified.

Analysis of Environmental and Social Impacts and Mitigation Measures

Within this section shall be assessed major environmental and social issues (existing and potential), related to the protection activities on the site (loss of biodiversity, soil erosion, hydrological conditions, disturbance of wildlife migration, resettlement, land value degradation). Special attention should be given to cumulative effects (direct – indirect - cumulative, long – short term). Identification of relevant stakeholders needs to determine individuals and/or groups who may have an interest in the project or who may affect or be affected by it. Identify individuals, groups (especially highly vulnerable or disadvantaged groups) or local communities that may be affected by the project **positively or negatively and directly or indirectly** within a geographic project area. Describe population; communities; demographics; employment and socio-economics; land use; land ownership and tenure. The SESA shall also identify potential impacts that should be addressed as a part of EIA process.

Mitigation measures need to be indicated based on the findings and recommendations of the analysis and should consider mitigation solutions and project (protection zones) alternatives. Mitigation measures can be streamlined in accordance with requests from the authorized bodies, such as Ministries or water management agencies within their competences. SESA should contain major gaps and recommendations regarding mitigation measures for activities prior, during and after researches and zone protection process.

In order to ensure implementation of environmental protection measures, within the SESA shall be developed an environmental guide to be used during the planning and on site activities. Guideline shall include all EIA (SESA) demands related to water supply and protection of natural resources. Special attention should be given to the recommendations with respect to cooperation between two countries.

Monitoring

The Consultant shall identify environmental performance indicators to be monitored during the activities on protection of water source. Monitoring plan should be prepared indicating specifications for expertise, description of program/plan goals, environmental and social indicators, monitoring methods, procedures in the case of accidents and cost estimates.

Public consultation

Public consultation is integral part of the SESA process. The Consultant shall keep in contact with relevant Ministries, municipality and communities, as well as with national NGOs, relevant experts in both countries etc. Draft recommendations of the SESA should be discussed with key stakeholders.

In the case SESA will be carried out in accordance with national regulations and procedures in Croatia and BiH, public consultations shall also be organized for general public in both Croatia and BiH in such way that it fulfills the requirements of meaningful and adequate public consultations as well as requirements of the national legislation.

In other cases, Protocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment in a Transboundary Context (UNECE Protocol) will be followed. According to the UNECE Protocol, when the implementation of a plan or program is likely to have significant transboundary environmental, including health, effects Initiator, in this case shall as early as possible before the adoption of the plan or program notify the respective environmental ministry in affected countries.

This notification shall contain, inter alia:

(a) The draft plan or program and the environmental report including information on its possible transboundary environmental, including health, effects; and

(b) Information regarding the decision-making procedure, including an indication of a reasonable time schedule for the transmission of comments.

The respective ministries should therefore, within the time specified in the notification, indicate whether it wishes to enter into consultations before the adoption of the plan or program and, shall enter into consultations concerning the likely transboundary environmental, including health, effects of implementing the plan or program and the measures envisaged to prevent, reduce or mitigate adverse effects.

UNECE Protocol envisages timely public availability of the draft plan and program and SESA (environmental report) using electronic media or other appropriate means. An opportunity for expressing opinion within a reasonable timeframe must be provided under the Protocol, and detailed arrangements for informing and consulting the public concerned are determined and made publically available, namely: opportunities for public participation, time and venue of envisaged public hearing, authorities from which relevant information can be obtained and questions or comments submitted, information on plan, program and environmental and transboundary assessment procedures. NGOs and other public concerned should be identified for the abovementioned purpose.

Duration of the consulting services

It is estimated that no more than 4 person with 30 days each (total of 120 days) will be required for this consultancy service over a period of not more than 2 months. The total number of days is provided provisionally and is a subject to revision, depending the pending decision on following national SEA procedures. The works on the SESA include travel to the site, analysis of conditions on the ground and liaising with the key actors and stakeholders.

Reporting

The following reports will be expected from the consultant:

Inception report

The inception report must be submitted within three (3) weeks of the commencement of service. It should outline the approach to be followed based on scoping and available baseline data. In the case national SEA procedures would be applied, this time frame would be extended accordingly.

Draft of the Final report

Draft may be organized, but not limited by the following content:

- Executive summary,
- Project purpose, and short content description including overview of major goals of plan and program as well as relationship with other relevant plans and programs,
- Baseline data including business as usual scenario (projection of environmental conditions if no plan is implemented),
- Relevant national and EU Legislation Policy, Plans, Programs and Decision Making overview (for the plan). SESA legislation, requirements and procedures overview for Croatia and BIH.
- Identification of areas of impact and their main characteristics,
- Existing environmental and social issues which are important for the plan, especially those related to areas of special ecological value (in line with special nature protection ordinances),
- Environmental and social protection goals stemming out of international agreements and treaties that are relevant for the plan as well as the way they are addressed in the plan's making;
- Anticipated environmental impacts (primary, secondary, cumulative impacts, synergy, short term, mid-term and long term, temporary and irreversible, positive and negative) including impacts to biodiversity, protected areas, humans, flora and fauna, soil, water, air, climate, material property, cultural-historical physical resources, landscape and taking into account their interrelationships,
- Ecological Network Acceptability Assessment
- Anticipated social impacts - Mitigation plan including prevention, mitigation, compensation and reduction measures,
- List of criteria for establishing significant impacts of the plan/program
- Short overview of variant plan options, and rationale for the selected environmental and social protection plan option, description of the assessment carried out, including encountered issues and obstacles during the data collection (e.g. technical or human resources shortages, etc.)
- Capacity needs
- Environmental (and social) guidelines
- Monitoring plan
- Public consultation plan
- Recommendations.

The Draft Final report should be submitted not later than 8 weeks from commencement of the Study. In the case national SEA procedures would be applied, this time frame would be extended accordingly.

Final report

After the stakeholder meeting/workshop and after all comments on Draft report are incorporated, Final Report must be submitted. The Final report may be revised following comments received from the World Bank team.

All reports should be submitted in electronic format (MSWord, AUTOCAD, Excel, or similar).

Required qualifications and experience

The team shall have expertise, covering as a minimum, the following areas:

- Environmental issues,
- Water supply
- Management and protection of natural resources/hydrology
- Institutional, legal and policy issues (BiH, Croatia and EU)
- Capacity building.

Specific requirements for the team:

- Team leader with 10 years of experience in environmental protection or water resources management and carried out minimally 2 SESAs,
- Nature protection expert with minimum of 7 years of experience,
- Water resources management expert with 10 years of experience (if not team leader),
- Environmental protection expert with 7-year experience minimally (if not team leader) and participated in preparation of minimally 2 SESAs.

In the case national procedures in SESA would be followed, Croatian Environmental Protection Act (OG 80/13, 78/15) and Regulation on Strategic Environmental Impact Assessment of Plans and Programs (OG 64/08) envisage: (i) an authorization of the consulting company for preparing Assessment on Need for SEA as well as SEA, (ii) an authorization for Pre-assessment Study of Acceptability of Plan and Program to Ecological Network, (iii) an authorization for the consulting company for carrying out Strategic Study's Main Assessment of Acceptability of Plan and Program to Ecological Network on its territory.

Cooperation with PIU and Other Key Actors

The SESA will be developed in a manner that is the most time-efficient with regards to the development of the overall study for the protection of the Klokot spring. The Consultant shall be under the direct supervision of the World Bank task team and will cooperate as needed with implementing partners in the Ministry of Forestry, Agriculture and Water Management of Federation of Bosnia and Herzegovina, Hrvatske vode of Croatia, Agency for watershed area of Sava river basin, the representatives of the local municipality – Bihac.