



INTRODUCTION TO THE TRANSBOUNDARY DIMENSION ON SOME HYDROPOWER PROJECTS

**TAIEX Multi-country
First workshop on Regional Hydropower Development
in the Western Balkans
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LEGISLATION ON STRATEGIC LEVEL

Protocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment in a Transboundary Context, 2001, Kiev, 24 Parties

SEA Directive 2001/ 42 on the assessment of the effect of certain plans and programmes on the environment

Environmental Protection Act

Zakon o varstvu okolja - (ZVO-1-NPB7, 26.11.2013)

(Official G. No.

41/04, 20/06, 39/06, 70/08, 108/09, 48/12, 57/12, 92/13, 56/15, 102/15, 30/16)

SEA needs national or regional renewable plans !

It means the evaluation of the likely environmental, including health effects, which comprise:

- the determination of the scope of an environmental report and its preparation,
- the carrying-out of public participation and consultation, and the
- the carrying-out of transboundary SEA,
- **taking into account of the environmental report and results of the public participation and consultation.**

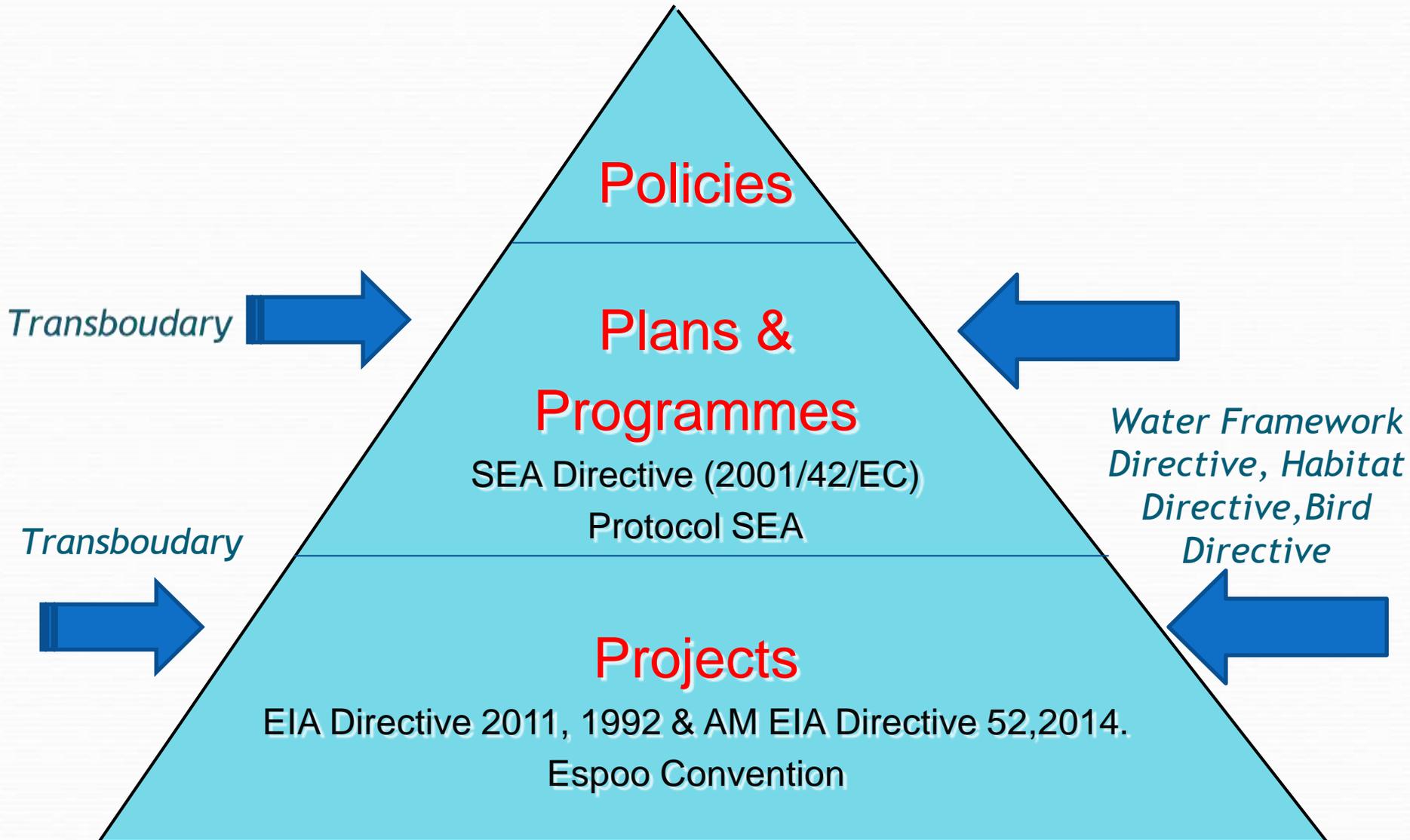
LEGISLATION ON PROJECT LEVEL

European legislation

- DIRECTIVE 2011/92/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment (codification) (OJ L 26, 28.1.2012, p. 1) as amended by: Directive 2014/52/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 April 2014 (OJ L 124, 25.4.2014, p. 1) and other EU Directives (WFD, HD, BD)
- Convention on Environmental Impact Assessment in a Transboundary Context (Espoo), done at Espoo (Finland), 1991

International: EU and member States are Parties

ENVIRONMENTAL ASSESSMENT





Convention on Environmental Impact Assessment in a Transboundary Context (Espoo), done at Espoo (Finland), 1991

- Interrelation between economic activities and their environmental consequences
Need to ensure environmentally sound and sustainable development
- Enhance international cooperation in assessing environmental impact in particular in a transboundary context

General objective

- The Parties shall take all appropriate and effective measures to PREVENT, REDUCE and CONTROL significant adverse transboundary environmental impact
- To provide high level of protection of the environment, including health **by ensuring that environmental, including health consideration are thoroughly taken into account in the development of projects, plans and programmes**

General objective

- Preventive tool which works well in EU
- Mostly not to stop the projects, but to
 1. improve the projects (different location and technical alternatives) and reduce the impacts
 2. improve the acceptance of the project by public, by presenting environmental information
 3. better decision making process
 4. less environmental damage and less costs for sanitation, renaturation and other measures
- Realisation of development in sustainable way

CASE BY CASE ENVIRONMENTAL IMPACT ASSESSMENT

- Effect on environment, including human health,
- and safety
- Flora
- Fauna, **Natura 2000**
- Soil
- **Climate- Adaptation and mitigation measures !**
- Air
- Water: good ecological status, morfological status, chemical status, bentos, etc. (Art. 4.7 WFD)
- Landscape and historical monuments or other physical structures or the interaction among these factors
- Incl. Cultural heritage
- Or socio-economic conditions resulting from interactions to those factors

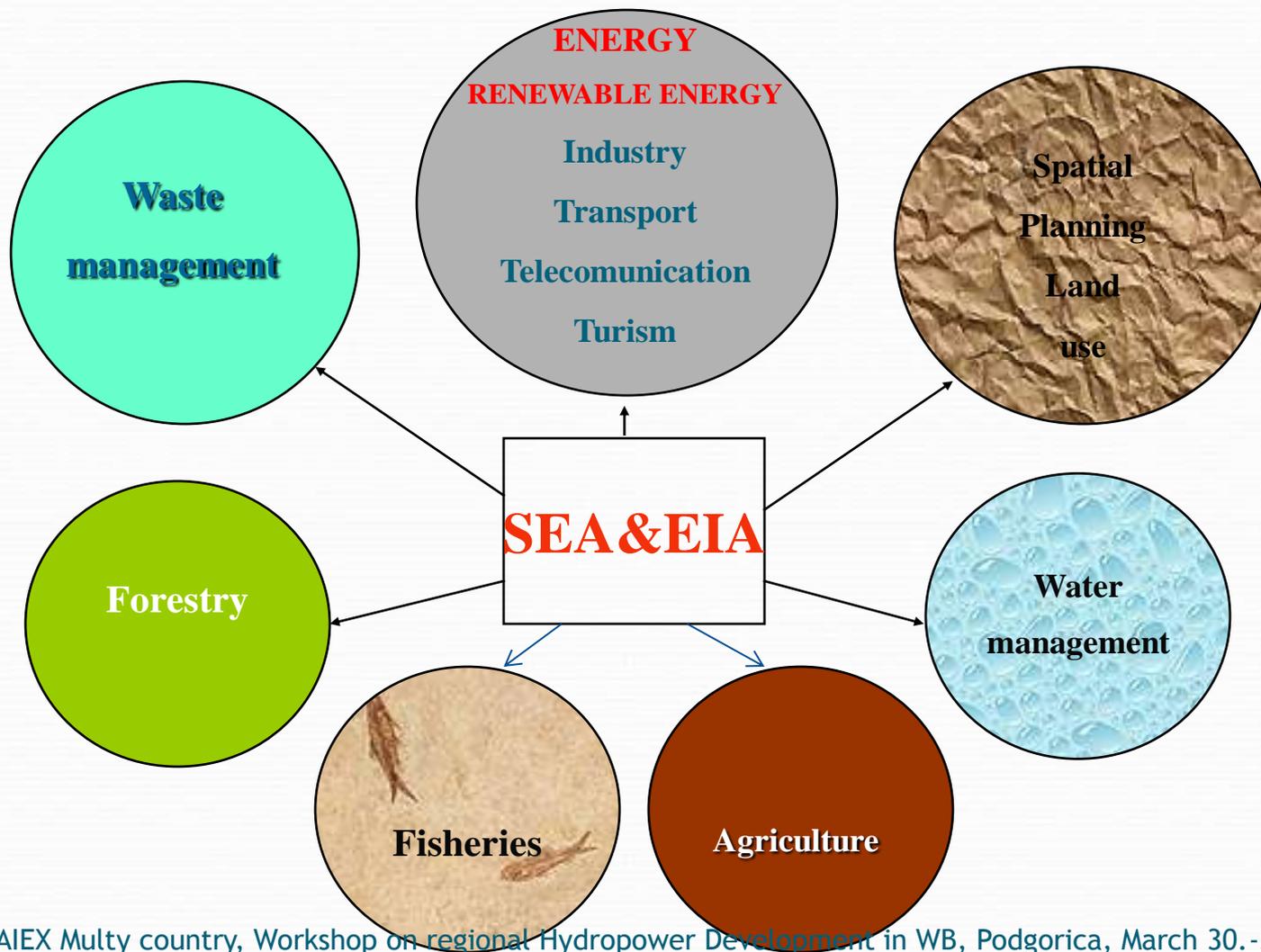


CASE BY CASE ENVIRONMENTAL IMPACT ASSESSMENT

- Secondary
- Cumulative
- Synergistic
- Short
- Medium
- Long-term
- Permanent and temporary
- Positive and negative



Programmes, plans and projects



Transboundary SEA FOR NEP



Notification:

Austria

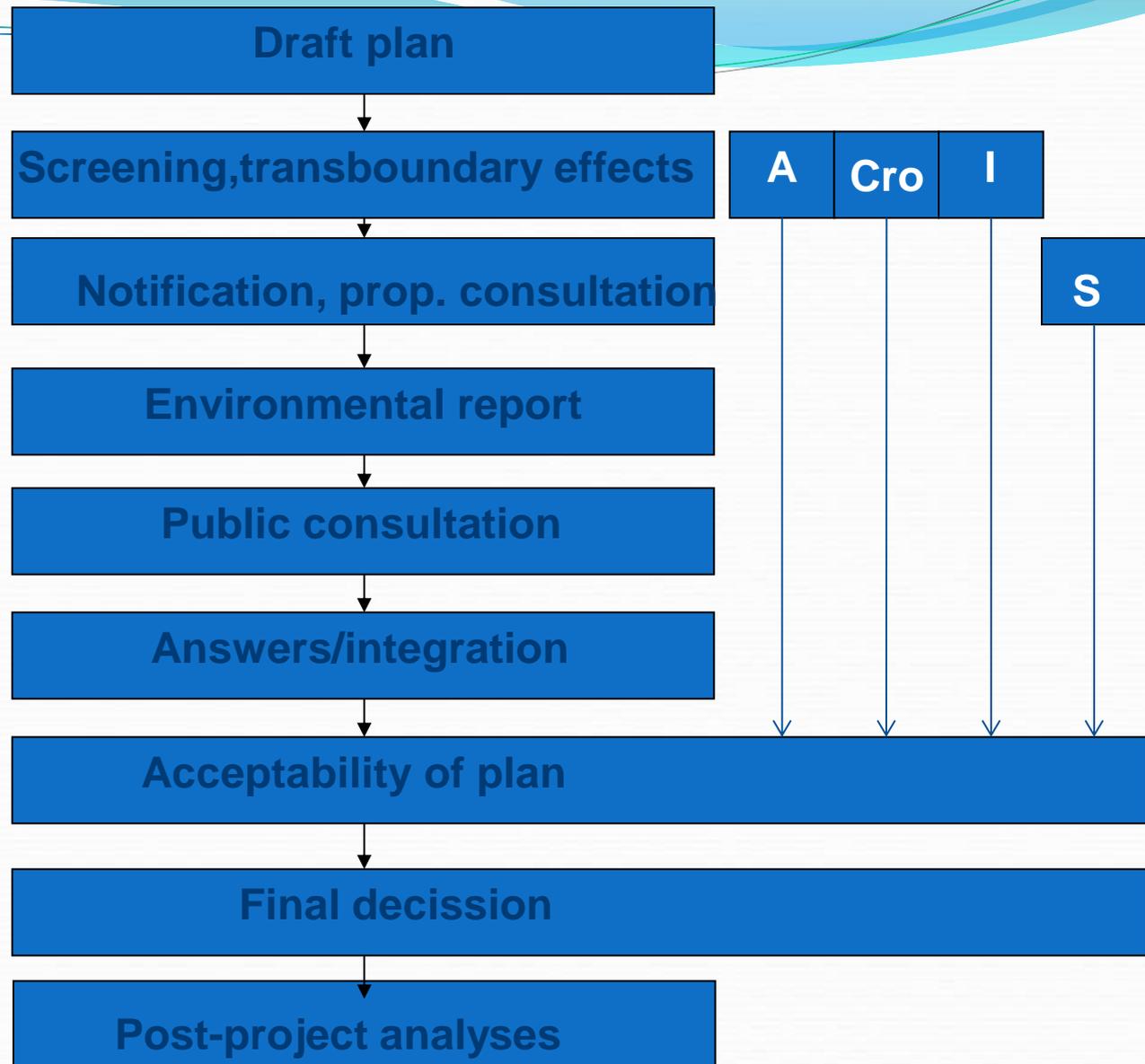
Italy

Croatia

Hungary

**Asking for
notification:**

Serbia

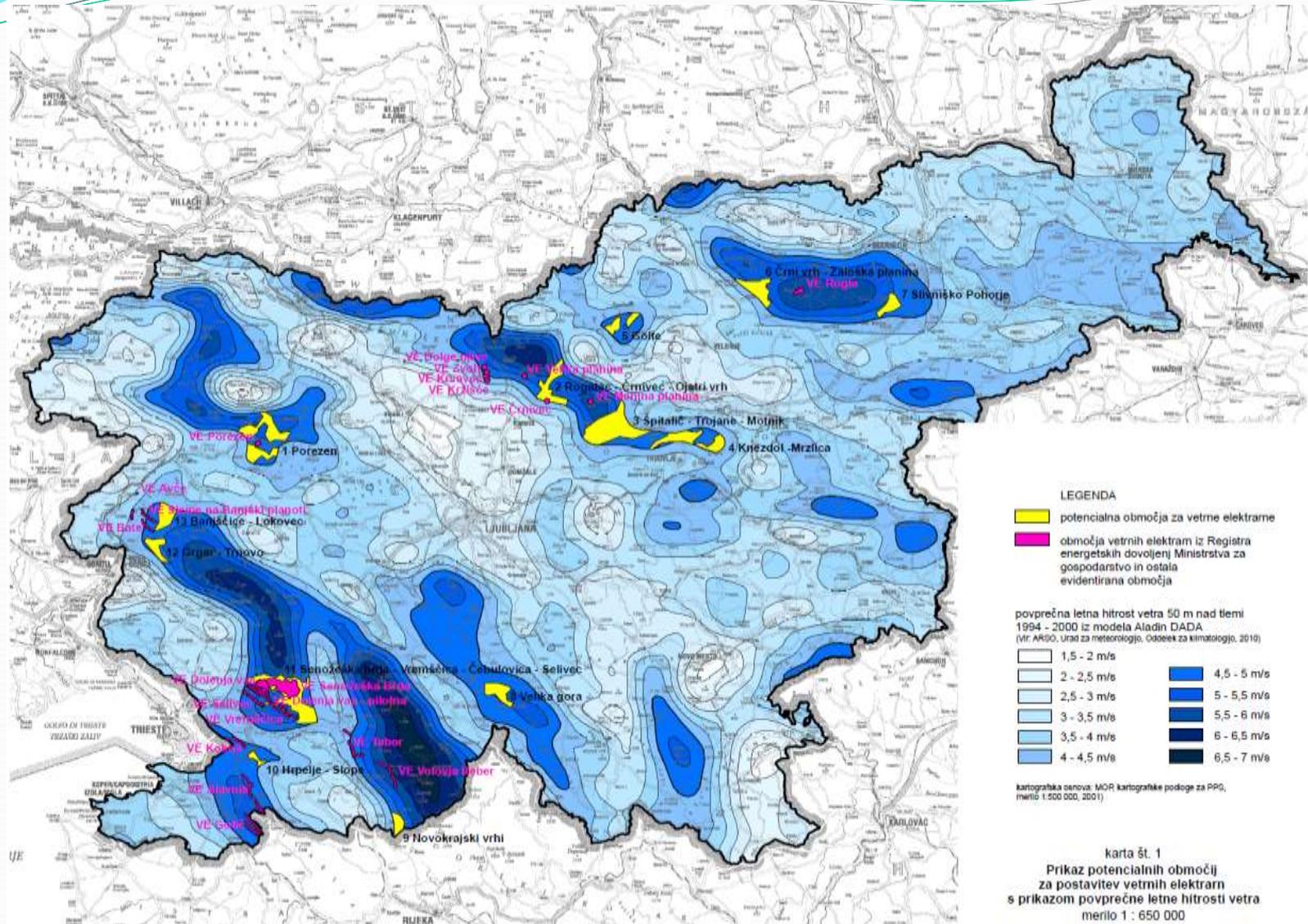


Transboundary issues Case

Alternatives on rives

- Developed in SEA
- Chain of 9 hydropower 600 MW
- D/not acceptable, reaching renewable energy aim, but not reaching Natura 2000 and cultural heritage aims, transboundary effects
- Chain of 4 hydropower 400 MW
- D/not acceptable, reaching renewable energy aim, but not reaching Natura 2000 aim, transboundary effects
- Two small from 0/55 MW *possibility at the reconstructed chanel
- C/acceptable, reaching both aims, but renewable aim not adequate, it must be achieved in solar or wind option

Wind farms acceptable location



Example Mura Natura 2000



Strategic Environmental Transboundary Assessment between Slovenia and Croatia of Slovenian National Plans for Hydropower Use on the Lower Sava in Brežice and Mokrice

- Outline of development and environment
- The procedure: key steps and timeline
- Summary of costs
- Key benefits
- Lessons learned

Transboundary process

A step-by-step approach:

- notification,
- environmental report preparation,
- consultation with environment authorities, transboundary consultation,
- public participation,
- consultation on mitigation measures and their approval,
- draft final decision
- All steps agreed between the focal points *UNECE focal points for administrative matters, international responsibility

Methodology

The method of work was:

- implementation of two SEA transboundary procedures:
 1. for the national plan for Brežice and
 2. for the national plan for Mokrice
- implementation of two EIA transboundary procedures:
 1. for the project for Brežice and
 2. for the project for Mokrice
- a one-by-one approach starting the new one only after ending the first, while taking into account the cumulative effects of the chain in both procedures

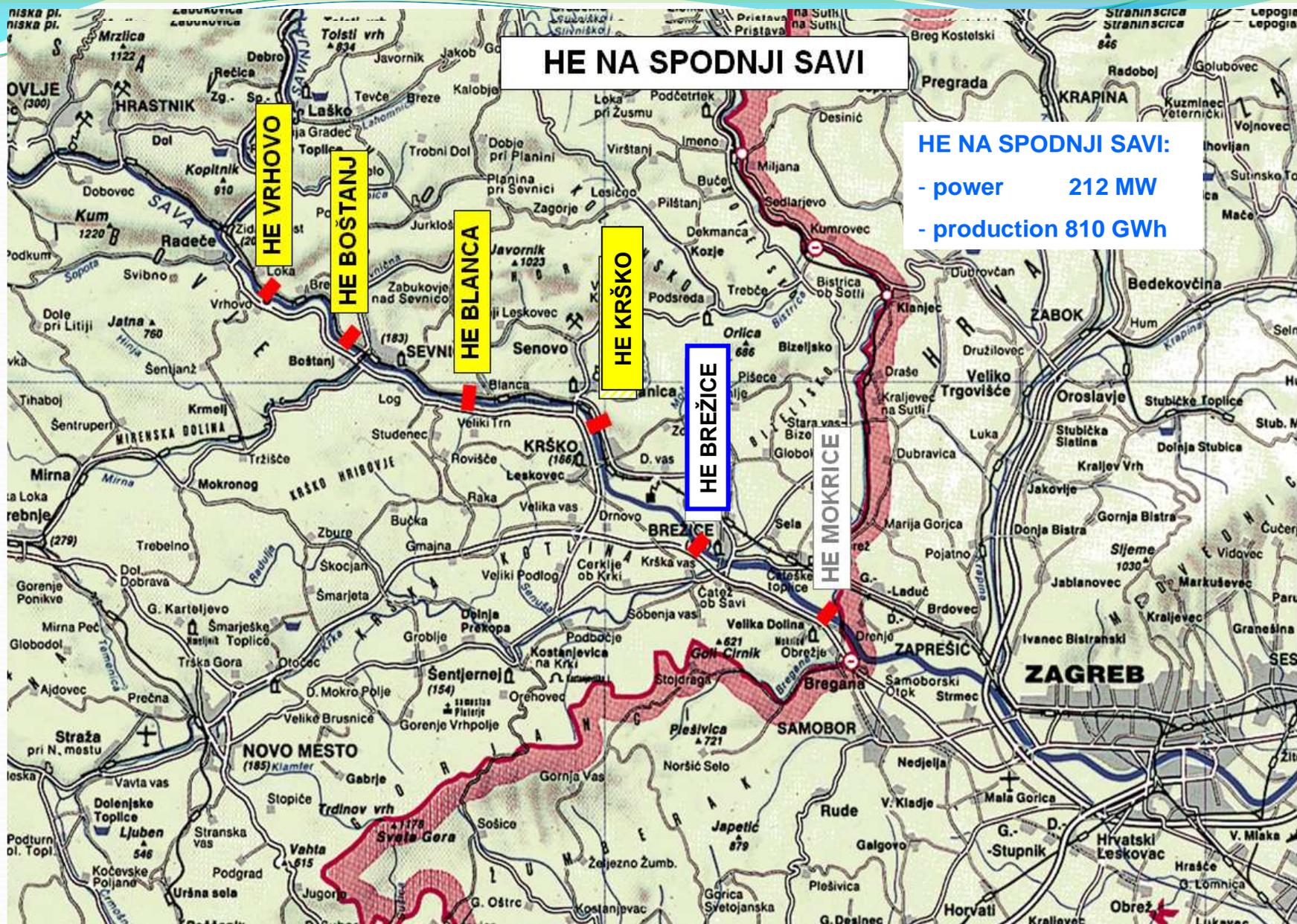
Notification

- The notification contained all documents and data according to Article 10 of the SEA Protocol:
 - a.) the draft plan and environmental report including information on its possible transboundary environmental, including health effects;
 - b.) information regarding the decision-making procedure, including a reasonable time schedule for the transmission of comments.
- Croatia responded in the proposed time of one month and sent the confirmation to cooperate in the transboundary SEA procedure supported with reasons such as care for underground water sources in Zagreb and Samobor, possible effects on the morphology of the river, nature conservation, flood protection and possible risks with the dam.

Screening

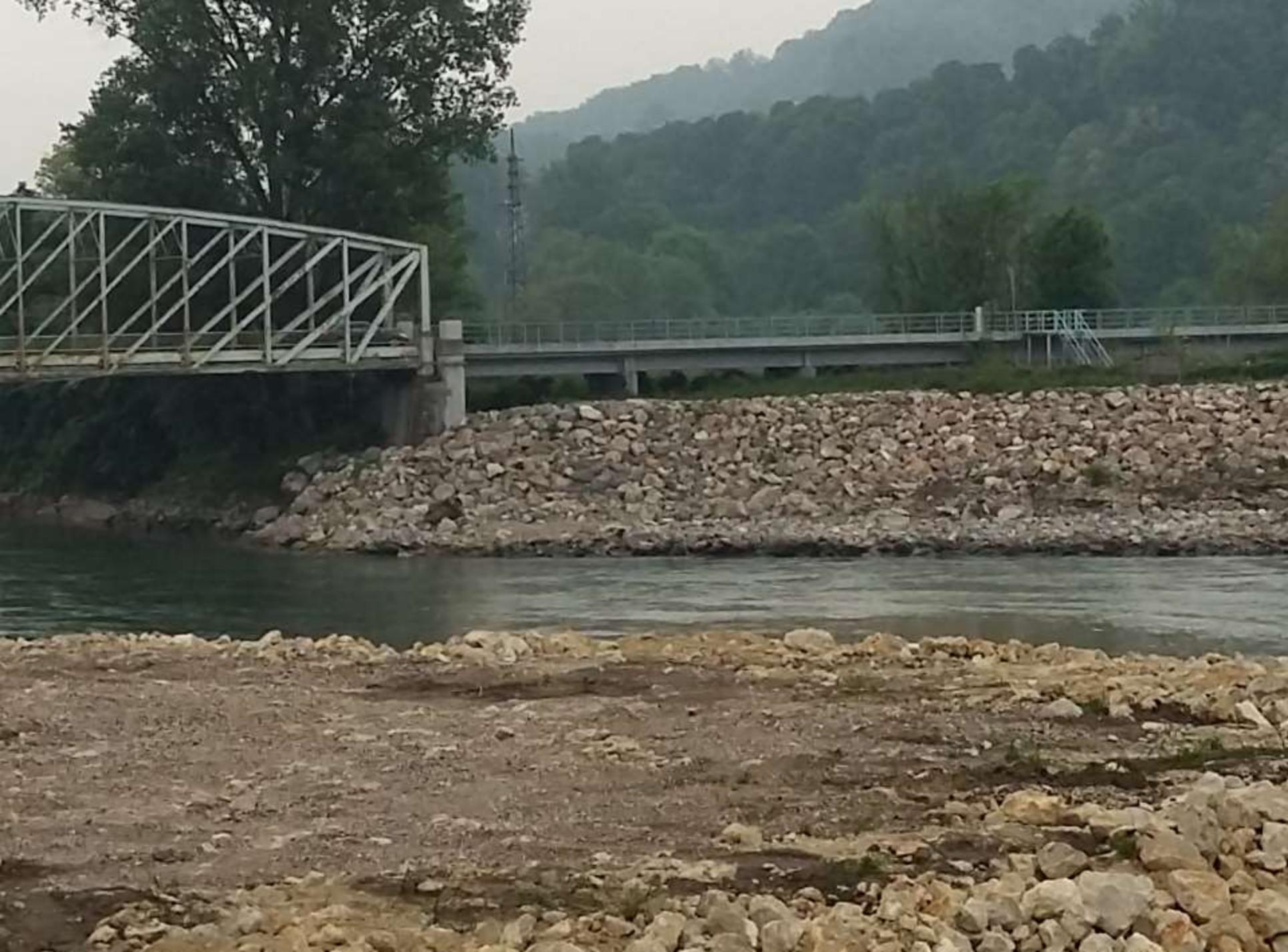
- In the SEA Protocol, Annex I includes a list of activities that automatically require the application of the Protocol if significant impacts may extend across a border. According to the fact that energy activities are planned in the two national spatial plans on the transboundary Sava River, the transboundary SEA thus applied.
- Annex I of the SEA Protocol, referring to paragraph 2 of Article 4, defines large dams and reservoirs.
- In the national plan there is a planned dam and reservoir on the Sava, which flows to Croatia: thus there is possibility for transboundary effects and transboundary effects **could not be excluded**.

Strategic Environmental Transboundary Assessment between Slovenia and Croatia of Slovenian National Plans for Hydropower Use on the Lower Sava in Brežice and Mokrice











Why good practice

- Transboundary SEA in the border which is under dispute on the International Court of Justice
- Good cooperation between focal points
- Transparency of all steps
- Agreement on each step and preparation of a clear conclusion of each step
- Consulting on all environmental aims with an emphasis on the state of the water bodies, including underground water and water supply, nature conservation and flood protection
- Agreement on how to deal with new facts :
- between the procedure: Croatia enter EU; Natura 2000 European ecological network, Slovenia prepare in addition appropriate assessment in line with art.6 of the habitats directive

Environmental Transboundary Assessment between Slovenia and Croatia of Slovenian National Plans for Hydropower Use on the Lower Sava in Brežice and Mokrice

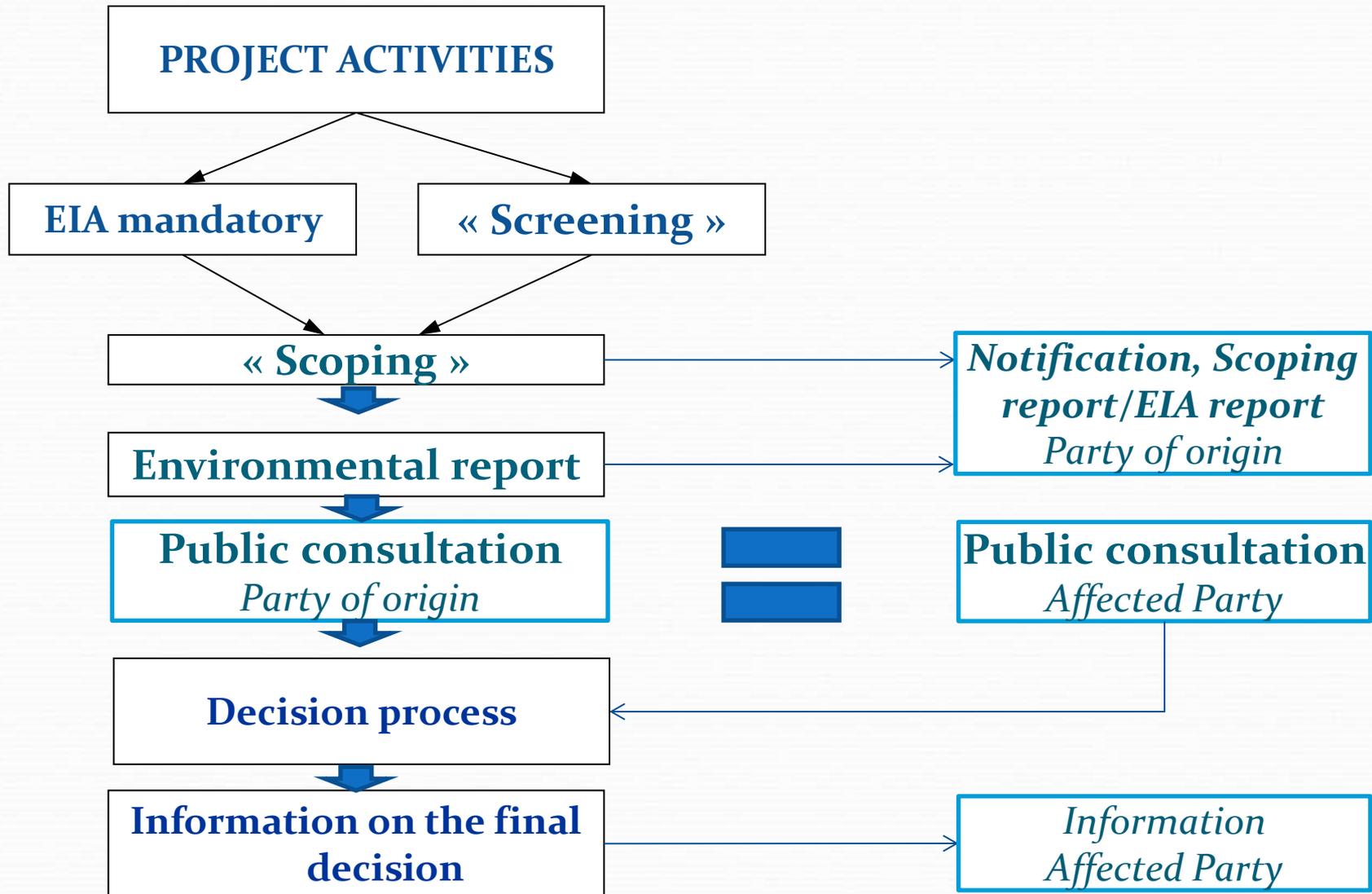


Figure: Illustrative location map for national plans for hydropower use in Brežice, 13 km from the border between Slovenia and Croatia, and Mokrice, ca. 0.5 km from the border, and existing hydropower chain on the Sava River

Transboundary technical consultation

- After the EIA report was accepted by the Ministry for Agriculture and the Environment , as the competent authority in Slovenia, it was presented to the Ministry of Environment and Nature Protection of Croatia for comment.
- Environmental commissions were established on both sides. These are composed for all transboundary procedures on the Sava River, with the following members: environmental experts, environmental authorities, project proponent and energy authorities.

Public participation in EIA in transboundary context



Good practice

Additional agreement on how to deal with new facts :

- between the procedure: Croatia enter EU; Natura 2000 European ecological network,
- Slovenia prepare in addition appropriate assessment to Croatian Natura 2000 ecological network in line with art.6 of the habitats directive
- In implementation process there new situation appear, important how to deal with and manage it with aim to improve the environment.
- Manage the process technically.

Time and programming

- The interest of both parties that time schedules were specified as early as possible.
- The focal points discussed the possible timeframe according to the legislation in both countries, the legislative timeframe for the stages of the procedure, and opportunities to combine steps and prepared the time plan to avoid or minimise possible delays by planning the time schedule at early stage. The agreed time schedule was also presented to the public. As a time-saving measure, public participation on both sides of the border was organised almost in parallel; this could be recommended as a good practice

Financial aspects

- The application of transboundary EIA had certain financial implications. Financial aspects were agreed in advance.
- The cases show that agreement on all elements also costs is an important aspect of the procedure, while complication could produce a much longer period and uncertainty on both sides.
- Costs of translation of the SEA report, presentation of documentation, an additional expert consultation, and the public hearing and participation were covered by Slovenia; costs of publication of the public hearing in the Croatian press and organisation of the public hearing and participation were covered by Croatia.

Transboundary technical consultation

Two expert teams were consulted on the following:

- the state of the environment;
- possible alternatives, including a no-action alternative; evaluation methods;
- cumulative effects;
- possible effects and mitigation measures for the following: sediment, erosion, water protection, nature conservation and flood protection.

Transboundary technical consultation

- In addition, a flood-protection model was prepared; Croatian experts were invited at a very early stage of its preparation and the model and its conclusion were also presented to the public and at the technical consultation.
- Consultation on mitigation measures showed at a very early stage that from the three alternatives of mitigation measures only the alternative with project measures only on the Slovenian side was acceptable to Croatia, so this alternative was proposed for further evaluation.

Consultation with environmental and health authorities

- Within the process, each of the responsible environmental authorities consulted mentioned authorities and has to reach consensus and common understanding of measures needed for reducing transboundary effects.
- Consultation on the national plan for Brežice, in which two alternatives were evaluated, showed that the narrow alternative was better for the environment, but in addition all flood-protected areas have to be preserved to reduce the impact to Croatia.
- In addition, a flood-protection model was prepared; Croatian experts were invited at a very early stage of its preparation and the model and its conclusion were also presented to the public and at the technical consultation.
- Consultation on the national plan for Mokrice showed at a very early stage that from the three alternatives only the alternative with project measures only on the Slovenian side was acceptable to Croatia, so this alternative was proposed for further evaluation.

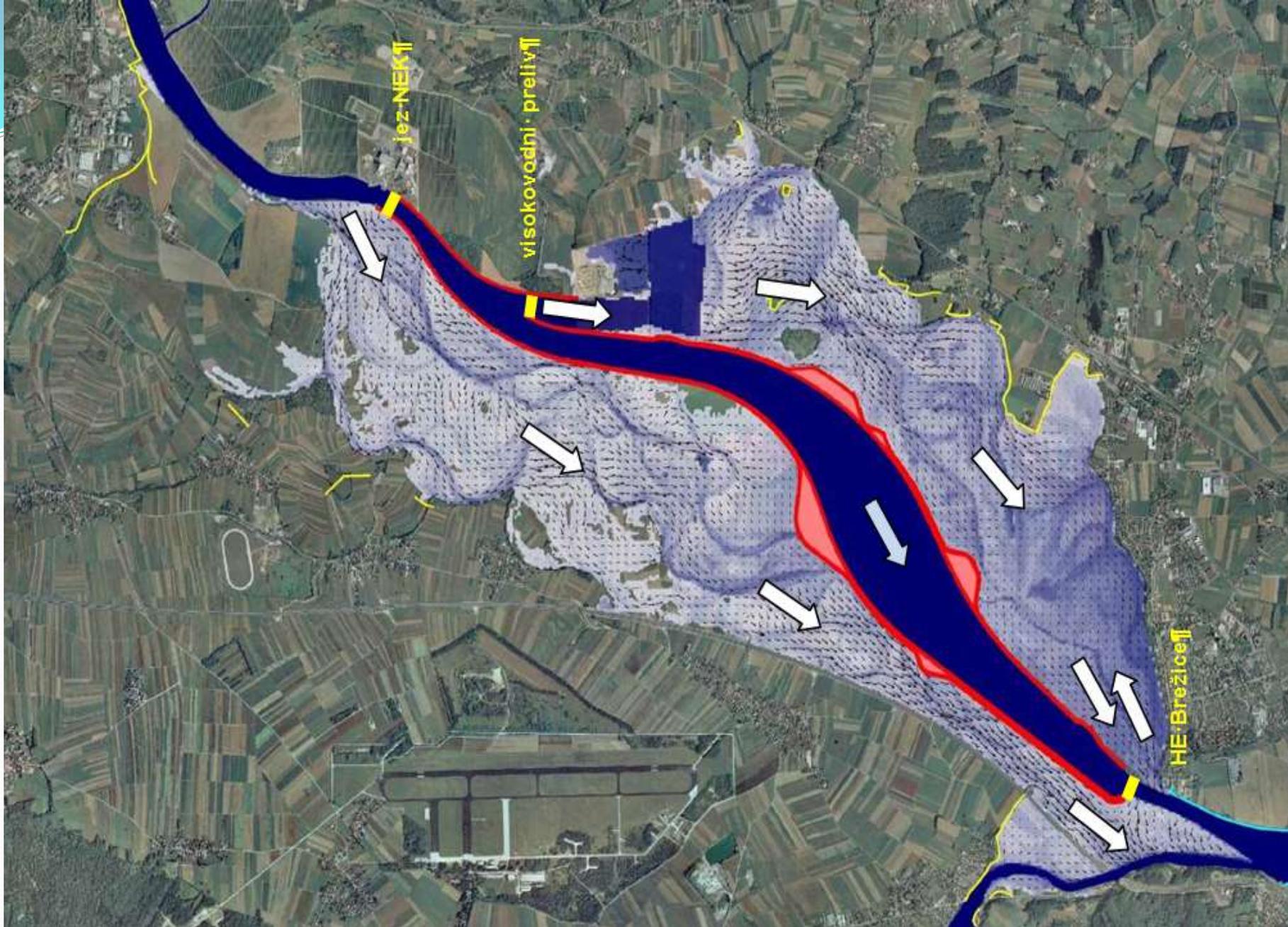


Figure 3: The assessment on underground water

PODZEMNE VODE

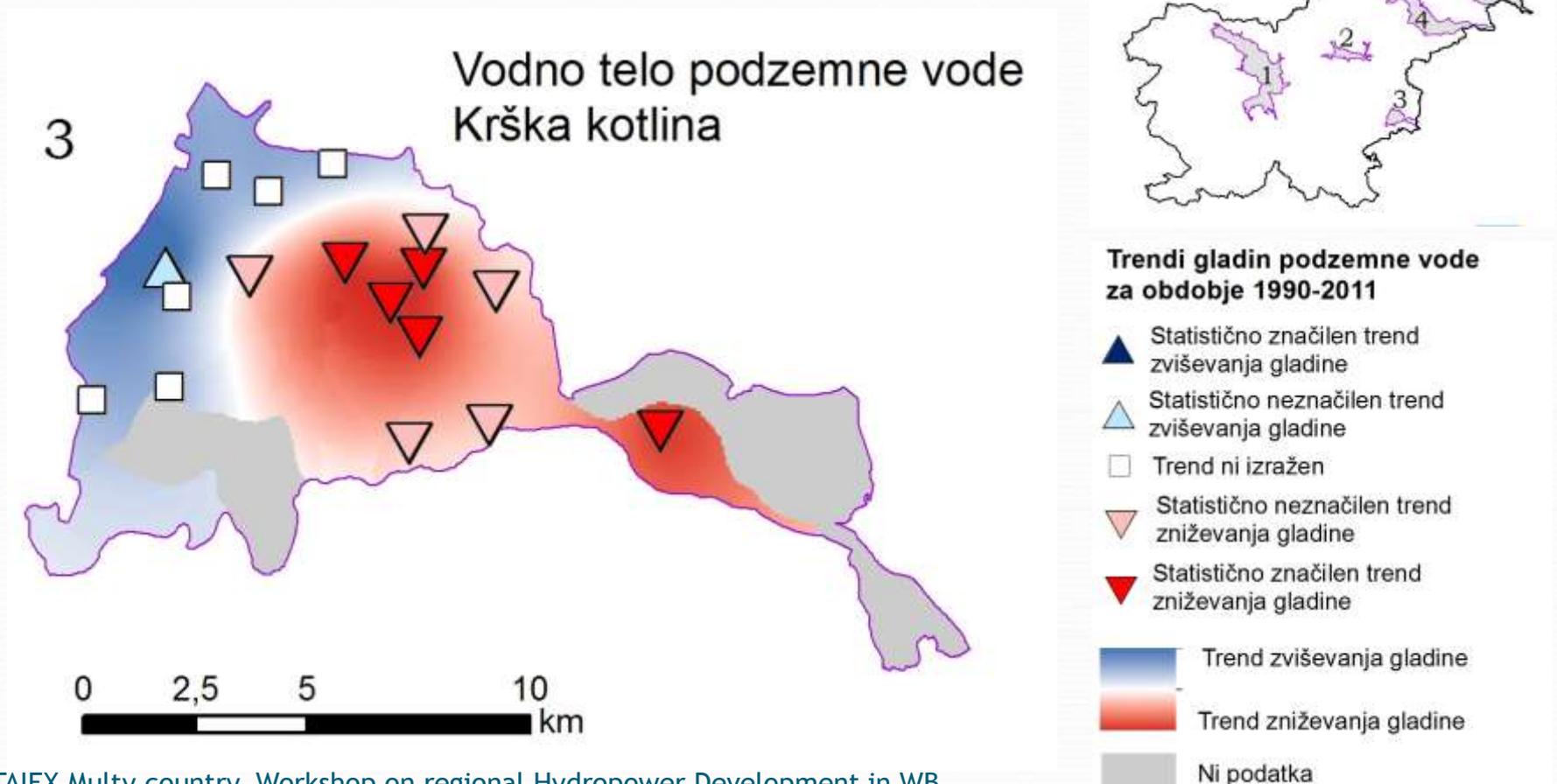
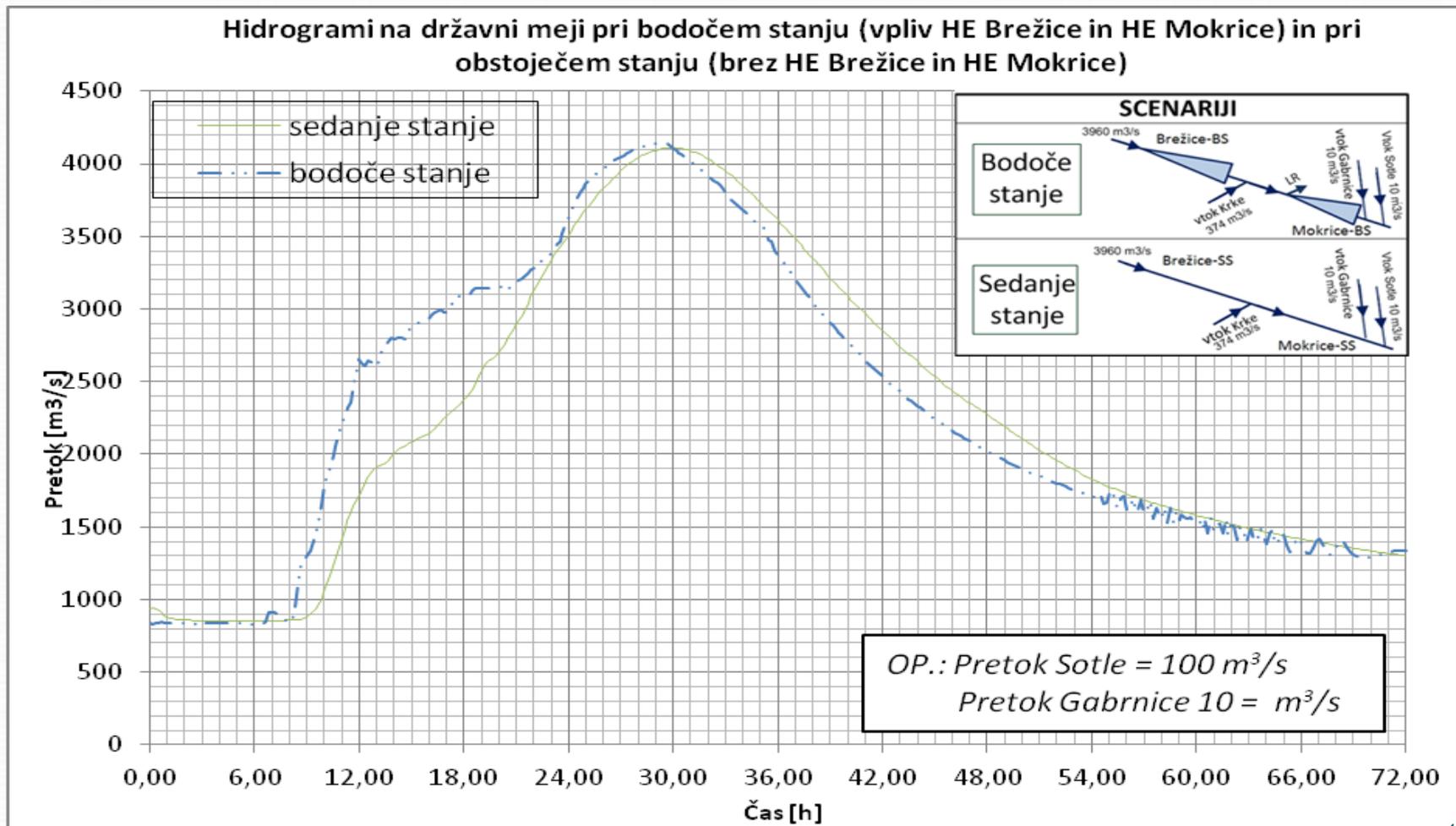
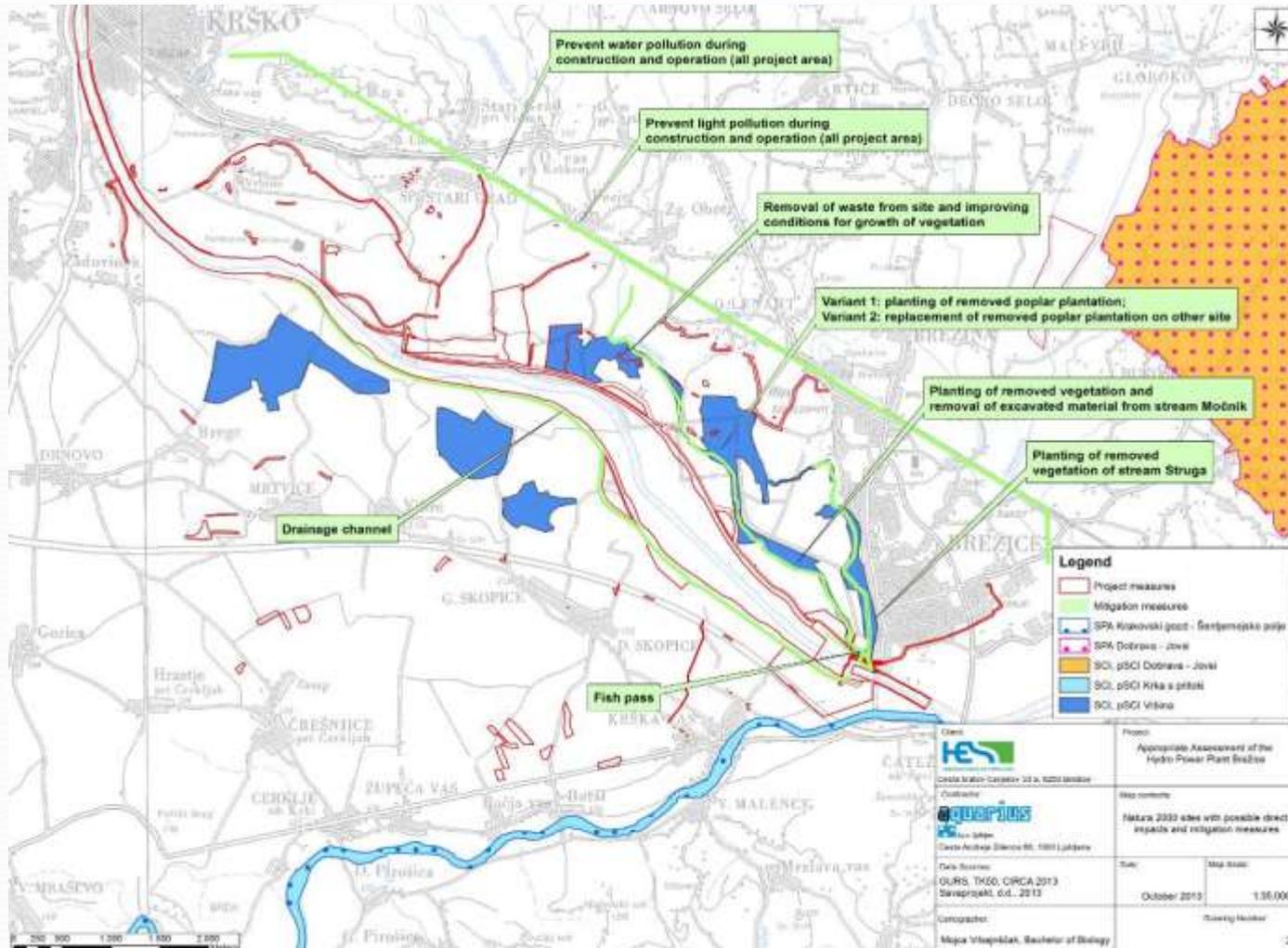


Figure 2: The assessment on flood protection

Hydrogram for existing state (SS) and future state (BS)

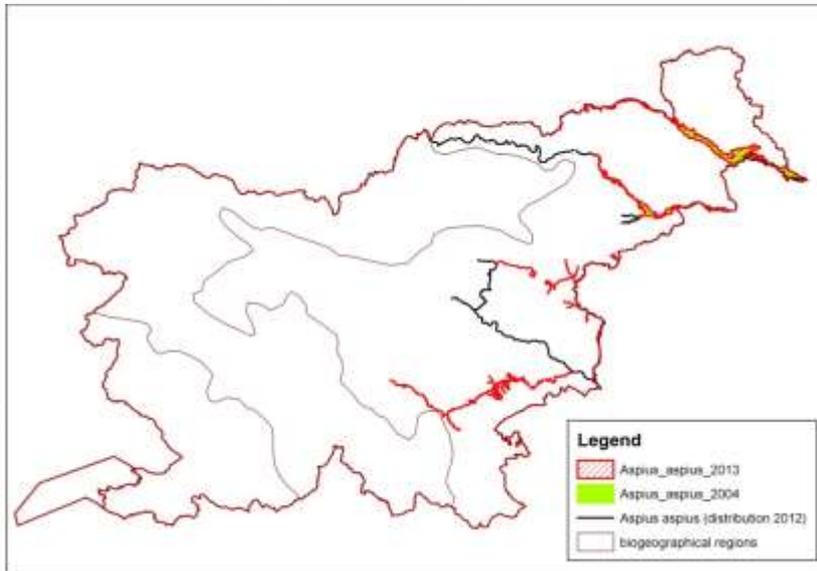


The summary conclusion of the Appendix for the protected areas

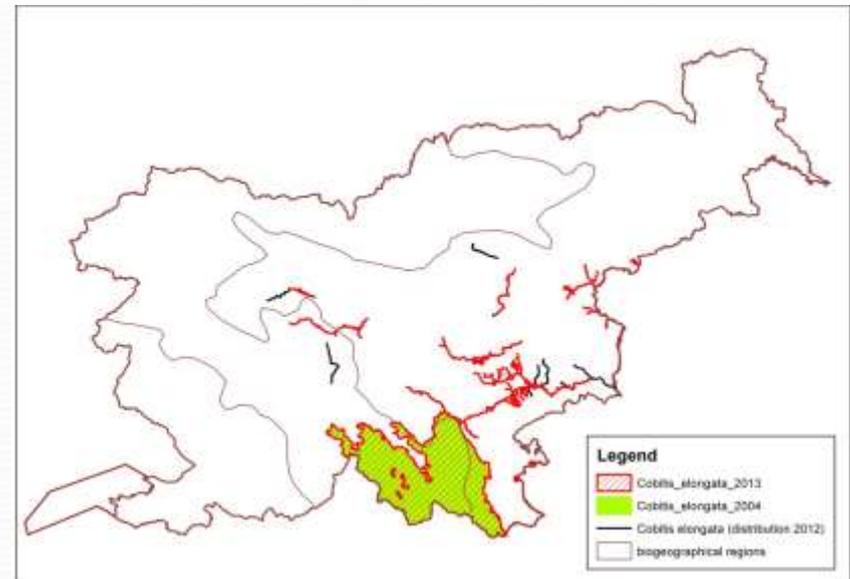


Cumulative effects on fishes

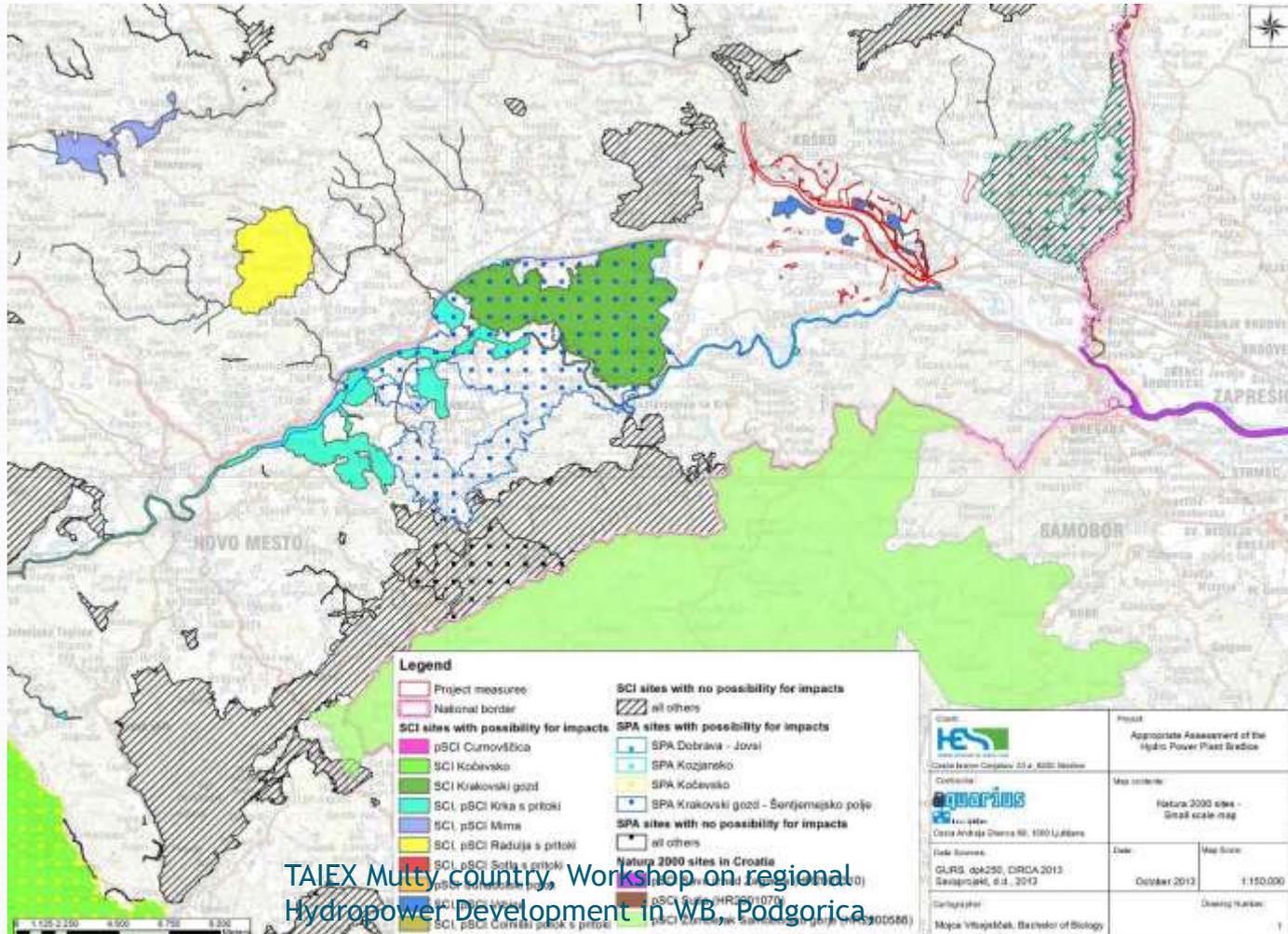
Aspius aspius



Cobitis elongata



Transboundary impacts on Natura 2000 sites in the Republic of Croatia



TAIEX Multy country, Workshop on regional
 Hydropower Development in WB Podgorica,
 March 30.-31 2017

Transboundary consultation

- After the SEA report was accepted by the Ministry for Agriculture and the Environment, as the competent authority in Slovenia, it was presented to the Ministry of Environment and Nature Protection of Croatia for comment.
- Environmental commissions were established on both sides. These are composed for all transboundary procedures on the Sava River, with the following members: environmental experts, environmental authorities, planning authorities and energy authorities.
- The above were consulted on the following:
 - the state of the environment;
 - possible alternatives, including a no-action alternative;
 - evaluation methods;
 - cumulative effects;
 - possible effects and mitigation measures for the following: sediment, erosion, water protection, nature conservation and flood protection.

Transboundary technical consultation

- There was no additional bilateral agreement between the countries, but points of contact and focal points for the purposes of the Espoo Convention and its SEA Protocol were designated with their tasks and responsibilities. The cases show that the procedures could be managed successfully via focal points.
- A formal contact has been carried out to meet the legal requirements of EIA, Espoo.
- The cooperation shows that it is important to trigger informal communication throughout the process and especially at the starting, consultation and final stages.

- There was no relevant bilateral agreement between the countries, but points of contact and focal points for the purposes of the Espoo Convention and its SEA Protocol were designated with their tasks and responsibilities. The cases show that **the procedures could be managed successfully via focal points.**
- A formal contact has been carried out to meet the legal requirements of the SEA Protocol. The cooperation shows that it is important **to trigger informal negotiation throughout the process and especially at the starting, consultation and final stages.**
- Experience in the two cases shows that the negotiations which were conducted between points of contact and responsible authorities within both countries as well as between authorities and NGO and public on both sides of the borders were essential for the conclusion of the procedure.
- To manage the process, working groups – called “*delovna skupina*” in Slovenia and “*povjerenstvo*” in Croatia – were organised on both sides of the border and cooperated during the whole process until the final decision.

Cumulative effects of an overall hydropower scheme on Natura 2000 Article 6(3) Habitats Directive requirements

'Any **plan or project not directly connected** with or **necessary** to the **management** of the site but **likely** to have a **significant effect** thereon, either individually or in combination with other plans or projects, shall be **subject to appropriate assessment** of its implications for the site in view of the site's **conservation objectives**. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of **paragraph 4**, the **competent national authorities** shall **agree to the plan or project** only after having **ascertained** that it will **not adversely affect** the integrity of the site concerned and, if appropriate, after having obtained the **opinion of the general public**'.

*This Article is transposed by Nature Conservation Law and rules and has been fully implemented in the procedure * 3 times Opinion of Institute for Nature Conservation, Addition opinion of experts for fish, Fishery institute*

Challenges

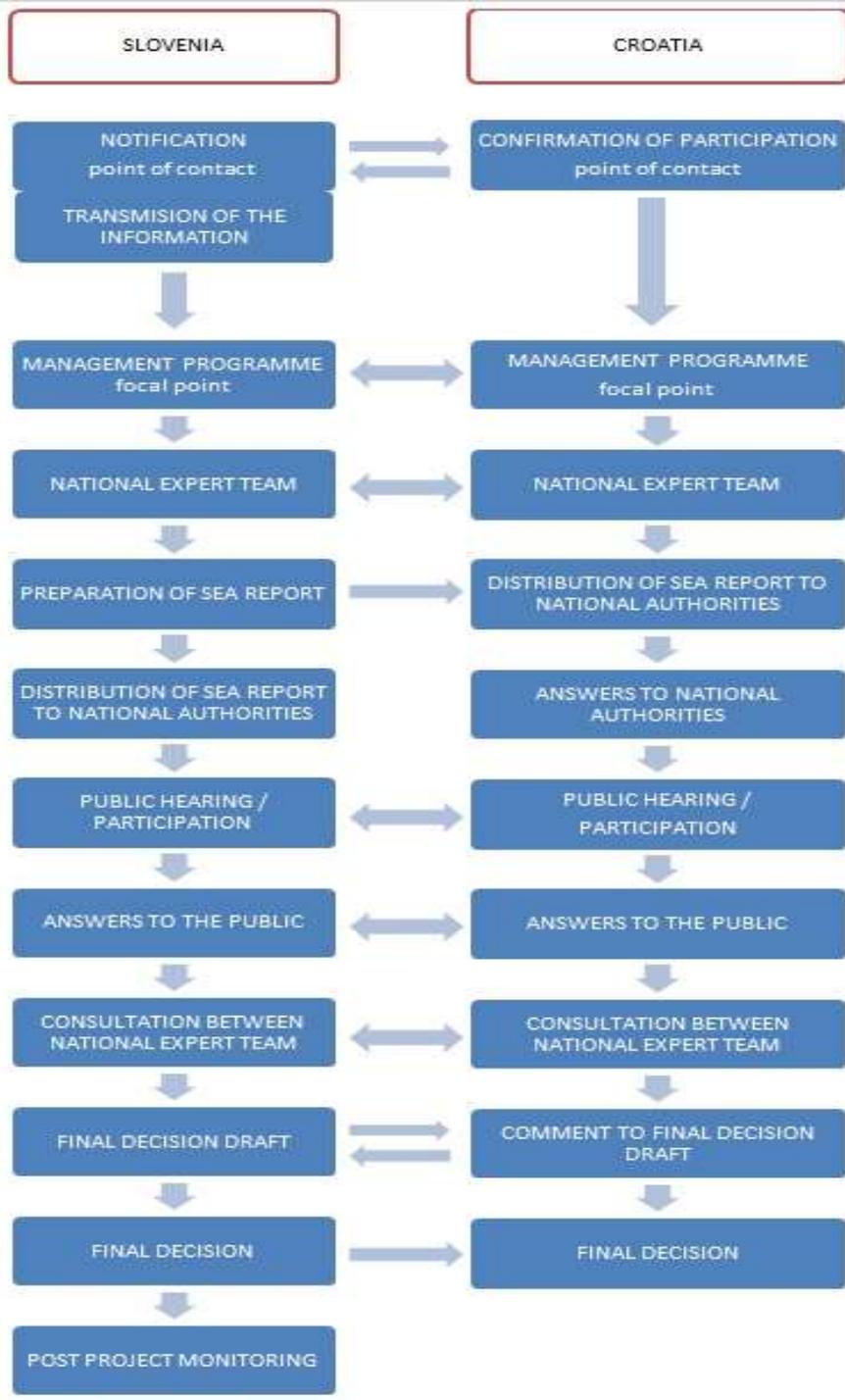
- Manage and harmonizing the procedure
- Discuss alternatives
- Using SEA for location alternative side selection and EIA for technical alternative
- Quality of documentation
- Up to date evaluation methods (scientific, current knowledge)

Practical recommendation on EIA in regional context for transboundary processes:

1. accept the legal framework and develop administrative capacities,
2. start with notification as early as possible,
3. keep the process on technical level,
4. organise active public participation with public hearing in parallel in both sides of the border;
5. keep process transparent and open and define each stage; keep the management;
6. present methods of assessment, discuss alternatives, option 0 and mitigation measures and post project analyse
7. work with agreement on each step.

Time and programming

- The interest of both parties that time schedules were specified as early as possible. The focal points discussed the possible timeframe according to the legislation in both countries, the legislative timeframe for the stages of the procedure, and opportunities to combine steps and prepared the time plan to avoid or minimise possible delays by planning the time schedule at early stage. The agreed time schedule was also presented to the public. As a time-saving measure, public participation on both sides of the border was organised almost **in parallel**; this could be recommended as a good practice.
- Clear agreement on schedule:
- in sending the formal notification (30 days),
- in responding to the notification (30 days),
- in public consultation and participation (30 days),
- on technical consultation (60 days),
- in the final opinion on the draft decision (90 days) and
- on informing of the final decision (30 days).



Financial aspects

- The application of transboundary SEA/EIA had certain financial implications. Financial aspects were agreed.
- The cases show that agreement on all elements also costs is an important aspect of the procedure, while complication could produce a much longer period and uncertainty on both sides.
- Costs of translation of the SEA/EIA report, presentation of documentation, an additional expert consultation, and the public hearing and participation were covered by Slovenia (; costs of publication of the public hearing in the Croatian press and organisation of the public hearing and participation were covered by Croatia.

Practical recommendation on EIA in regional context for transboundary processes:

1. Start with notification as early as possible, in scoping phase, before notifying national public
2. Organise active public participation with public hearing in parallel in both sides of the border/ in all affected countries;
3. Inform public in advance where and when they could comment EIA report
4. Organise portal, EIA report available on web and copy at ministry or regional authority
5. Take into account the interest of public and organise public hearing with translation and active public participation

Conclusion

- Transboundary SEA/EIA is the main international method to achieve transparent, participative process to avoid, reduce and mitigate impacts to the environment on the regional level
- SEA for hydropower plans and EIA for projects are important tools for sustainable development
- Alternatives and their assessment helps in efficient consultation and public participation
- Final decision has to be based on plan and SEA/EIA together, after being sure that the project will not cause negative effects to the environment and all preventive/mitigation measures are in the project !

More information and links

- http://www.mop.gov.si/si/zakonodaja_in_dokumenti/veljavni_predpisi/okolje/zakon_o_varstvu_okolja/
- DIRECTIVE 2011/92/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment (codification) (OJ L 26, 28.1.2012, p. 1) as amended by: Directive 2014/52/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 April 2014 (OJ L 124, 25.4.2014, p. 1)
- <http://ec.europa.eu/environment/eia/eia-legalcontext.htm>
- <http://ec.europa.eu/environment/eia/home.htm>
- Guidance on the Application of the Environmental Impact Assessment Procedure for Large-scale Transboundary Projects
- <http://ec.europa.eu/environment/eia/pdf/TransboundaryGuide.pdf>
- Convention on Environmental Impact Assessment in a Transboundary Context
- <http://www.unece.org/env/eia>
- <http://www.unece.org/env/eia/publications.html>

<http://ec.europa.eu/environment/eia/contacts.htm>

- The homepage of UN ECE Convention on Environmental Impact Assessment in a transboundary context ([UN ECE Homepage ESPOO Convention](#))
- Guidelines on Public Participation under the Espoo Convention
- Guidelines on notification
- Guidelines on the Practical Application
- Best practice recommendation
- The homepage of UN ECE Protocol on Strategic Environmental Assessment in a transboundary context ([UN ECE Homepage Protocol on SEA](#))
- The homepage of UN ECE Convention on access to information, public participation in decision-making and access to justice in environmental matters ([UN ECE Homepage Aarhus Convention](#))
- Court of Justice where you can search for recent EIA and SEA [case-law](#)

Thanks for your attention !

