IAS mapping and monitoring in Sava River Basin – a harmonized transnational platform for successful IAS management

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Introduction

Many invasive plants are known to be easily spreading along rivers, threatening the very existence of natural ecosystems' continuity along the ecological corridors.

The transnational ecological corridor of Sava River is connecting five EU and non-EU countries, having quite different policies and management practices when it comes to invasive alien species (IAS). Majority of the countries have no IAS database and they do not systematically map, monitor, report or exchange the data about the IAS presence either.

Transnational approach

All project deliverables have been jointly developed by the project consortium.

INVCP was coordinating work packages:

- WP4 Transnational Approach (in IAS management)
- WP5 Pilot Implementation (7 pilot activities on IAS eradication in the Sava Basin countries).

The IAS management tools are tailored to the needs and capacities of conservation practices, being implemented by protected area managers.

Mapping and Monitoring Protocol for a joint approach in the IAS management was prepared.

IAS database

The backend structure was developed by JRC EASIN including a mobile application for IAS mapping (Android and Apple).

The final product is the transnational online database developed at two levels – experts and citizen science, creating possibilities to involve wide circle of stakeholders into database building.

Along the georeferenced map of invasive plant records, the attributes include data on infested habitat types and basic spatial characteristics of the IAS spot.

It will function as an public, online early warning system and platform for planning eradication activities on Sava River Basin scale.

Sava TIES Project

Preseving Sava River Basin Habitats through Transnational Management of Invasive Alien Species - the transnational project SavaTIES (DTP2 096-2.3) recognized the key gap was the lack of joint platform for IAS management in this heterogeneous environment.

Gathering 8 partners from Southeast Europe: Slovenia, Croatia, Bosnia and Herzegovina, Serbia and Lead partner from Germany.

The project was launched by SavaParks Network.

http://www.interreg-danube.eu/approved-projects/sava-ties

Interreg Danube Transnational Programme

Sava TIES

Project co-funded by EU funds (ERDF, IPA)

Main goals of the project

- find an effective solution for IAS eradication;
- reduce habitat fragmentation;
- improve the connectivity of the transnational ecological corridor.

The Sava TIES project is focused on invasive plants, as the network recognized the well-known cause of the habitat fragmentation in the transnational river basin.

Project outputs

IAS Strategic Framework for IAS Management in Sava River Basin.

Guidelines
Cross-sectoral guidelines for joint management, control and eradication of IAS

IAS Database
with Andriod and Apple app for IAS mapping

IAS Risk assessment
for key IAS in Sava river basin

Land Use Study
- land use practices enhancing or preventing the invasions.

Review
of best practices in IAS management, control and eradication.

Pilots
- testing methods and the effectiveness of national policies on IAS eradication

Protocol
Mapping and monitoring protocol for IAS

Key IAS in Sava River Basin

1. *Acer negundo* L.
2. *Ailanthus altissima* (Mill.) *Swingle*
3. *Ambrosia artemisiifolia* L.
4. *Amorpha fruticosa* L.
5. *Asclepias syriaca* L.
6. *Bidens frondosa* L.
7. *Buddleja davidii* Franch.
8. *Conyza canadensis* (L.) Cronquist
9. *Echinocystis lobata* (Michx.) Torr. & A. Gray
10. *Fraxinus americana* L.
11. *Fraxinus pennsylvanica* Marshall
12. *Gleditsia triacanthos* L.
13. *Heracleum mantegazzianum* Sommier & Levier
14. *Impatiens glandulifera* Royle
15. *Lysichiton americanus* Hultén & H. St. John
16. *Oenothera biennis* L .
17. *Paulownia tomentosa* (Thunb.) Steud.
18. *Panicum barbipulvinatum* Nash ex Rydb.
19. *Physocarpus opulifolius* (L.)
20. *Phytolacca americana* L.
21. *Pueraria montana var. lobata (*Willd.) Maes. & S. Almeida
22. *Reynoutria × bohemica* Chrtek & Chrtková *(Fallopia × bohemica* (Chrtek & Chrtková) J. P. Bailey)
23. *Reynoutria japonica* Houtt. *(Fallopia japonica* (Houtt.) Ronse Decr.)
24. *Reynoutria sachalinensis* (F. S. Petrop.) Nakai in T. Mori
25. *Robinia pseudoacacia* L.
26. *Solidago canadensis* L.
27. *Solidago gigantea* Aiton
28. *Spiraea japonica* L.
29. *Symphyotrichum novi-belgii agg. (Syn: Aster novi-belgii agg.)*
30. *Symphyotrichum lanceolatum* (Willd.) G. L. Nesom (Syn: *Aster lanceolatus* Willd.)
31. *Vitis riparia* Michx.
32. *Xanthium strumarium agg.*

Attributes in the IAS database

Expert user profile (additional data)

Habitat types (Habitat Directive)	Habitat type						%
Endangered species:							
Endangering factors and conservation problem:							
The degree of degradation of the habitat:	Low		Moderate		High		
Spreading pathways (eg: river, ditch, road, cattle):							
Risk assessment of spreading	Low		Moderate		High		
Scientific name of IAS / local name	Distribution/area covered			Tree layer	Invasiveness status /density		
	point	patchy	linear	tree shrub herbaceous	initial	intermediate	progressive

Laic user profile (basic data)

Name of data collector:		Institution:				
Date:						
Locality:						
Location coordinates: (automated)						
Invasive species (dropdown menu on scientific and/or local name):	Surface area (m², ar or ha):	Coverage is expressed in percentage:				
		1-25%	25 – 50%	50 – 75%	75 – 100%	

☐ Forest	☐ Beach
☐ Park	☐ Stream bank
☐ Grassland	☐ Agro. Field
☐ Wetland	☐ Yard / Garden
☐ Dune	☐ Water habitat
☐ Rocky outcrops	☐ Road corridor
☐ Mining deposits	☐ Other_____

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- Center for Environment - BiH
- Institute for Nature Conservation of Vojvodina Province - SER
- Public Enterprise "Vojvodinašume" - SER
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