

European Union Network for the Implementation and Enforcement of Environmental Law

# Roadmap for Projects on Invasive Alien Species (IAS)

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### **Introduction to IMPEL**

The European Union Network for the Implementation and Enforcement of Environmental Law (IMPEL) is an international non-profit association of the environmental authorities of the EU Member States, acceding and candidate countries of the European Union and EEA countries. The association is registered in Belgium and its legal seat is in Brussels, Belgium.

IMPEL was set up in 1992 as an informal Network of European regulators and authorities concerned with the implementation and enforcement of environmental law. The Network's objective is to create the necessary impetus in the European Community to make progress on ensuring a more effective application of environmental legislation. The core of the IMPEL activities concerns awareness raising, capacity building and exchange of information and experiences on implementation, enforcement and international enforcement collaboration as well as promoting and supporting the practicability and enforceability of European environmental legislation.

During the previous years IMPEL has developed into a considerable, widely known organisation, being mentioned in a number of EU legislative and policy documents, e.g. the 7th Environment Action Programme and the Recommendation on Minimum Criteria for Environmental Inspections, and more recently in the General Union Environment Action Programme to 2030 and EU Action Plan: 'Towards Zero Pollution for Air, Water and Soil'.

The expertise and experience of the participants within IMPEL make the network uniquely qualified to work on both technical and regulatory aspects of EU environmental legislation.

Information on the IMPEL Network is also available through its website at: www.impel.eu



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### **Executive Summary**

From 2022 – 2024 the IMPEL project on providing support for inspection planning of Natura 2000 sites consisted of two parts:

Part A: Testing and improving the planning tool for inspections of Natura 2000 sites (NIRAM) and providing training material and

Part B: Roadmap for projects on invasive alien species (IAS).

This document belongs to the second part of the 2022 – 2024 project. During this period, the project team has collected basic information about the item and integrated it into the inspections of Natura 2000 sites. As dealing with IAS is a very complex task with many different aspects and involved parties, the project team proposes a multi-annual approach for future projects on IAS with the following activities:

- Workshops including joint inspections with focus on IAS combating / eradication methods in the field (inspection planning with NIRAM – definition of targets – documentation of outcome), (work on priority species, use of innovative methods, ...) (Article 14 Surveillance System (EU) 1143/2014) – each year in June / July with another main topic,
- Share best practice on eradication methods (learning from LIFE-projects / LIFE networking activities and Interreg-projects) development of a checklist for preparing, planning, carrying



out and assessment of results of eradication activities, identification of necessary follow-up measures – preparation in 2025, operating phase June - December 2026

- Exchange on early detection notifications and rapid eradication (Article 16 and 17 (EU) 1143/2014) – second workshop in 2026
- Workshop on awareness rising identification of methods and results (using citizens science, new information techniques, applications (apps)), education through media, different event types for different target groups – workshop in 2027
- Work on internet trading (if there is time for it).
- Make a three-minute video explaining the results of the project 2027.

#### Disclaimer

This report is the result of a project within the IMPEL network. The content does not necessarily represent the view of the national administrations or the Commission.



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### 1. Background / General information

For the past 40 years, The Council of Europe has been encouraging its member states to prohibit the introduction of invasive alien species (IAS) into the environment, to take precautionary measures against accidental introductions and/or to take corrective measures when necessary.

These invasive alien species may multiply and occupy the same ecological niche as native species, ultimately driving these to extinction, or at least unsettle ecosystems with unpredictable effects on biodiversity. The invasive alien species have been identified as the second cause of species extinction, after habitat deterioration or loss, at world level.

In April 2022 IMPEL published the survey report: "Challenges in the Practical Implementation of EU Environmental Law and how IMPEL Could Help Overcome Them." This study identified management of invasive species as the second highest concern of the respondents.

Key commitment no. 9 in the EU Nature Restoration Plan is: Reduce the number of Red List species threatened by invasive alien species by 50 % by 2030. As IAS are a priority item of the Commission, IMPEL decided to set up a roadmap for projects on the item in 2022. The project should – if possible - benefit from the experience of countries which dealt with that item at a very early stage (e.g. PT) and from those which carried out projects in that field (e.g. LV). As the item is complex (88 different species / 41 plant and 47 animal species), the project series should be established by using a step by step approach.

### 2. Objectives

According to the Terms of Reference 2022 the roadmap should identify the most urgent items / questions to work on, and especially:

- focus on Invasive alien Species (IAS) of Union concern;
- work on EU regulation implementation in national legal acts -member states (MS) experience:
- who are responsible bodies (environmental inspectors; other inspectors); competence of Nature Conservation Agencies in combating of IAS in MS;
- identify best practice in combating IAS in MS;
- seek consultation and cooperation with other networks (e.g. Neobanis);
- work on awareness rising best practice in MS-initiatives, projects;
- carry out joint inspections; sharing of know-how in combating of IAS...

### The roadmap should define:

the activities and objectives for a series of projects in the IMPEL work period 2025 - 2027, the involved parties, the expected outcomes, the products expected for above mentioned phase and – as far as possible – the activities for the next three years.



### 3. Methodology

One aim of the development of the roadmap was to avoid double work. Therefor the project team started its work with identifying and assessing already existing material. The <u>first steps</u> were:

- Carrying out an assessment of the Commission Report on the Application of the Invasive Species Regulation (EU) No 1143/2014,
- Analysis of information from different network activities,
- Discussions of the item in different video conferences among members of the project team.

As a second step, a <u>questionnaire</u> focussing on the objectives defined in the TOR was developed and circulated. Separately the team worked on the <u>input from other resources</u> as the EU-report like IMPEL's Implementation Challenge report 2021.

Further input was collected during the project team meeting in Rome (19 April 2023) with an enlarged number of participants as well as during the workshops (including joint inspections) in Galicia (13 – 15th June 2023), Latvia (24 – 26 October 2023), Romania (May 2024) and Czech Republic (08 – 10 October 2024).

### 4. The EU report and work of other networks.

On 13/10/2021, the Commission published the first report on the application of the Invasive Alien Species Regulation (EU) No 1143/2014. The report revealed that some Member States lack sufficient funding and the administrative capacity to address IAS. This leads to insufficient implementation of the various provisions of the regulation. According to the report, most Member States have not yet implemented the action plans to address the priority pathways (routes and mechanisms of the introduction and spread of invasive alien species). Furthermore, there is scope to improve both the comprehensiveness of the coverage of surveillance systems and the official control structures in many Member States.

Also, knowledge gaps remain such as on the costs and benefits of addressing IAS and on methods for IAS management.

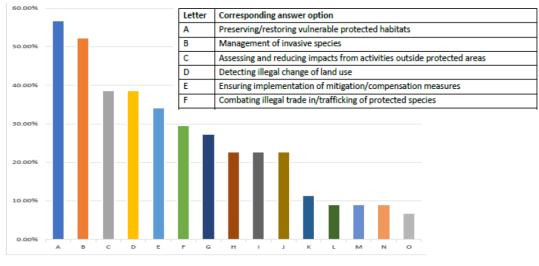
### 5. IMPEL's Implementation Challenge report 2021

In 2021 IMPEL carried out an inquiry among its members and other relevant networks and organisations to collect information on challenges in the implementation and enforcement of EU environmental law and how they might be overcome. Practitioners from all over Europe were involved.



Among others, one item was on the challenges in applying and implementing regulations concerning nature protection.

# What are the main challenges in applying and implementing environmental regulations on nature protection?



From: Implementation Challenge Report 2021, IMPEL report 2021/18

### Figure 1: Management of invasive alien species – a challenge in IMPEL member countries

The study identified the management of invasive species of second highest concern after preserving / restoration of vulnerable protected habitats.

### 6. Input from the work of other Networks to the project

The following organisations provided useful information on their activities that can be found on their homepages:

- Risk assessment and management information on IAS
- Regulation, guidance, scientific references related to IAS in the region

### NOBANIS - European Network on Invasive Species

NOBANIS stands for **European Network on Invasive Species (NOBANIS**) and is a gateway to information on alien and invasive species in North and Central Europe. It covers marine, freshwater and terrestrial environments. NOBANIS carried out projects. One was an "Assessment of existing policies on invasive alien



species in EU Member States and selected OECD countries (2011)". As this is rather outdated, it cannot be a source for the current IMPEL project.

There are no current activities shown on the homepage, only some information about conferences and their outcomes. A German representative, mentioned on the homepage, confirmed that there have been no recent activities.

### ESENIAS – East and south European Network for Invasive Alien Species

ESENIAS is a regional data portal on invasive alien species (IAS) which provides data on:

- Invasive alien species in East and South Europe scientific names, biology, ecology, habitat, invasiveness, pathways of introduction, impact,
- First findings distribution and spread of invasive alien species in East and South Europe

The network has a homepage with:

- Species Alerts, News (information about conferences and outcomes),
- information about the ESENIAS tools-project (is a collection of scientific reports, ending in 2018),
- Announcements of conferences and events.

Together with other organisations like the Danube Region Invasive Alien Species Network (DIAS) ESENIAS carries once per year a conference or workshop out. Detailed information and reports are not available. Under the headline projects no specific documents can be found.

- **EMAPI – Information on a series of conferences on:** Ecology and Management of Alien Plant invasions

It is a platform for the organisation of conferences and spreading of results.

### - EASIN – European Alien Species Information Network (the following text is from the homepage)

**EASIN** is an initiative of the Joint Research Centre of the European Commission. It has been established upon the recognition of the increasing serious threat posed by Alien Species in Europe.

EASIN facilitates the exploration of existing Alien Species information from a variety of distributed information sources through freely available tools and interoperable web services, compliant with internationally recognized standards.

The EASIN web tools and services can be used freely and independently by policy makers, researchers, stakeholders and users from the public, while **ownership of the data remains within its source**, which is properly cited and linked.



### → It is a pure information network, does not facilitate inspectors work and provide support for people "working on the ground".

### 7. Possible input from LIFE- and Interreg-projects to the IMPEL project

The European Commission provides funding for projects through its LIFE- and INTERREG programmes. The sub-programmes cover projects in the field of nature and biodiversity. Biodiversity includes the item of invasive alien species. These projects should include the obligation to disseminate results and to publish reports. IMPEL projects on IAS should benefit from experiences and results that have been or are being carried out and are funded by European programmes. A first check of availability and access showed the following results.

### 7.1 Projects funded under the LIFE programme

a) Obligation for dissemination of project results

Networking is a standard requirement for all LIFE projects. Some projects are designed with networking as a key outcome. LIFE meta-projects may include networking by holding international workshops as part of the project.

The electronic templates for participating in the LIFE tender procedures include a part where applicants have to describe their strategy for the dissemination of results. There are no formalised requirements in the LIFE programme. The quality of the strategy plays an important role for the scoring in the assessment of the project proposals. In the evaluation process, proposals are given scores for excellence, impact, and quality and efficiency of implementation.

During the time of active work on the projects, each must maintain a homepage on the internet.

b) Projects carried out with focus on / including on IAS funded through the LIFE programme

In 2020 the Commission published the study report "Bringing nature back through LIFE – The EU LIFE programme's impact on nature and society". It is an assessment of LIFE projects that have been carried out from 1992 till 2018. The study says that inter alia the programme has "supported practical measures on the ground to prevent, control and eradicate invasive alien species (IAS). The programme has been particularly effective in developing guidance, raising awareness, and producing tools to help stakeholders reduce the pressure by IAS on native species and natural habitats. This experience and know-how, coupled with effective awareness raising of the threats and impact from IAS, facilitated the adoption of the EU's IAS Regulation."

A first quick evaluation showed that the study refers to circa 30 projects related to IAS. Some of them dealt with eradication of species in protected sites. Many of them deal with IAS and Natura 2000 sites. A quick search in the database of LIFE-projects produced a similar result. A systematic assessment on how the



IMPEL project series on IAS can benefit from the projects funded by the LIFE programme, could not yet be carried out.

In the sub-programme 'Nature and Biodiversity' the LIFE programme for the period 2021 – 2027 addresses Invasive Alien Species as typical field of action separately.

### 7.2 Projects funded through the Interreg Europe programme

The European Union is working to reduce disparities in development and quality of life in European 'regions'. The Interreg Europe programme was designed to support interregional learning among policy relevant organisations across Europe. The programme's objective is to enable public authorities and other relevant organisations to actively learn from the experience of other regions. A main objective of the Interreg programme is the exchange of experience and capacity building among regions (see Table 1 – Interreg Europe policy objective and specific objective in the Interreg programme manual). 'preservation of nature and biodiversity' is listed in Table 2 – Indicative allocation of programme budget per Policy Objective - under no. 2 A greener Europe. The item of invasive alien species is not mentioned. Joint pilot actions and exchange of experience are key elements of Interreg projects.

At first sight, it seems to be difficult to find a representative number of project reports including work / exchange on the item of biodiversity on the Interreg homepage. A systematic assessment on how the IMPEL project series on IAS can benefit from the projects funded by the Interreg programme, could not yet be carried out.

→ The IAS project team will further explore whether and how the IAS project series may benefit from the results of the activities funded through European programmes.

### 8. Assessment of the answers to the questionnaire

The questionnaire mainly requested information on IAS legislation and supporting tools to manage IAS in member countries, threats to specific countries as well as priorities for investigation in member countries. The summary of responses to the questionnaire can be found in Annex II of this report.

### 8.1 Respondents, Competent Bodies /Authorities Dealing with IAS

11 organisations from different IMPEL member states answered to the questionnaire (HR, CZ, DE, ES, IT, LV, RS, SE, SI, SK, GR). They are all competent bodies in nature conservation. Custom authorities or agricultural/forestry authorities or inspectorates did not participate.

The answers came from 8 national (HR, IT, LV, RS, SE, SI, SK, GR) and 3 regional bodies (CZ, DE, ES). 8 of them are responsible for inspection tasks, 2 for administration and one providing support for the application of EU Regulation 1143/14.

The number of competent bodies varies a lot in the member countries. In Galicia, the environment department of the regional government is responsible. In Latvia, the Nature Conservation Agency



coordinates the tasks for limiting the spread and destruction of invasive species. In Italy the tasks are divided between 4 administrative levels and for Sweden 10 different competent organisations are mentioned.

### 8.2 Legal background (EU level), national legislation and IAS support tools

Figure 2 shows the results of the assessment of the answers to the questions 1, 4, 5 and 6 of the questionnaire.

All respondents indicated that their country has implemented Regulation **(EU) No 1143/2014** into national legislation. The answers show that in practice there is a big variety in the ways of implementation: ranging from a separate law and two sublegal decrees/regulations on invasive species (SK) to more than 15 pieces of legislation dealing with individual aspects of IAS in the different media and concerning different impacts (Question 1).

### 8.2.1 Definition of threat in the Member Countries

Regulation (EU) No 1143/2014 does not provide a clear definition of "threat" but it gives different hints on its meaning, e.g. in the recitals 2 and 3.

(2) Invasive alien species represent one of the main threats to biodiversity and related ecosystem services ....

(3) The threat to biodiversity and related ecosystem services that invasive alien species pose takes different forms, including severe impacts on native species and the structure and functioning of ecosystems through the <u>alteration of habitats</u>, <u>predation</u>, <u>competition</u>, <u>the transmission of diseases</u>, <u>the replacement of native species throughout a significant proportion of range and through genetic effects by hybridisation</u>. Furthermore, invasive alien species can also have a significant <u>adverse impact on human health and the economy</u>. <u>Only live specimens</u>, and parts that can reproduce, <u>represent a threat</u> to biodiversity and related ecosystem services, human health or the economy, and therefore, only those should be subject to the restrictions under this Regulation.

Article 3 no. 2 defines 'invasive alien species' and in this context it puts the threat into a relation with adverse effects upon biodiversity and related ecosystem services. What this might mean can be found in the recitals mentioned above.

In their answers, the respondents referred to these sources. Additionally Latvia has developed a set of criteria to assess the species in order to decide whether a species should be considered invasive. In Croatia "threat" has the following definition: The introduction and spread of invasive alien species can cause the disappearance of native species, habitat loss, disease transmission, and more other damages" (source-web site Ministry of Environmental Protection and Green Transition)



### 8.2.2 IAS Support Tools

7 participating countries have methodology guides for assessment and 6 visual guidance for identification of IAS in place (question 5). 7 respondents confirmed that they have alert systems for the situation when IAS are found for the first time (question 6). The differences in the positive answers may indicate that not yet all information is available for the competent authorities or it may not yet be elaborated.

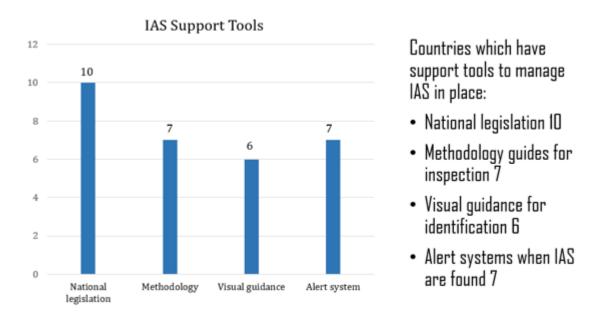


Figure 2: Summary of answers to the questions 1, 4, 5 and 6 of the questionnaire

### EASIN website - Guidance on Management and eradication on European Level:

The information on the EASIN website is about species characteristics and occurence but only very few about preventive and eradication measures.

In 2014 the Council of Europe published the "European Guidelines on Protected Areas and Invasive Alien Species". (Recommended citation : Monaco, A., Genovesi, P. (2014), European Guidelines on Protected Areas and Invasive Alien Species, Council of Europe, Strasbourg, Regional Parks Agency – Lazio Region, Rome).

In 2022 the Commission published "A manual for the management of vertebrate invasive alien species of Union concern, incorporating animal welfare". The manual has been produced through the European Commission (EC) service contract '*Identification, Assessment, Sharing and Dissemination of Best Practices for Humane Management of Invasive Alien Species*' (07.027746/2019/812504/SER/ENV.D.2.). It provides information on management measures fro 22 invasieve alien vertebrate species.



There is need for general and up to date guidance about appropriate and successful eradication measures on European level. The Commission should develop such guidance documents. A systematic assessment of the results of LIFE projects or projects carried out on national level could provide most current input.

### 8.3 Management measures (question 7)

Figure 3 summarises the answers concerning the management measures that are applied in the countries.

### Management measures across member states

- National scale landowner responsibility measures and compulsory authority eradication and cost recovery against responsible persons for non-compliance -*Heracleum sosnowskyi* on private properties
- Voluntary support from landowners.
- Species specific mitigations e.g. cutting, burning, sprout removal, reduce rhizome transference
- Immediate native species restoration post eradication
  - No wild releases
  - Education on IAS
  - Garden species replacement
  - No spreading of contaminated land
  - Careful disposal

#### Figure 3: Overview on management measures in the participating countries

In Croatia, the Act on Invasive alien species stipulates in article 22, paragraph 3: The Minister determines the eradication of an invasive alien species that causes concern in the Union in the early stage of invasion

- Legislation
- Restrictions on possession and handling
- Authorizations of persons
- Liability for breach of duty
- Measures to prevent the introduction and spread, information system on the occurrence and spread, liability for breach of duty
- Specific rules/plans apply to specific species.
- Authorities have budgets specific to IAS



by means of a removal order, in accordance with the provisions of Article 17 of Regulation (EU) 1143/2014. (4) The removal costs referred to in paragraph 3 of this article shall be borne by the physical or legal person who caused the spread of the invasive alien species, i.e. in the case when it is not possible to identify that person or when it is a spontaneous spread of the population of the invasive alien species, the removal costs shall be provided in the state budget"

# 8.4 Responsibility for carrying out measures / support from nature protection associations / volunteers

(question 8) The answers mainly covered the second part: Do authorities get support from nature protection associations or voluntary groups? 6 answers clearly confirmed this and 4 others say that the involvement and support from nature protection associations and volunteers becomes more usual and even popular.

### 8.5 Item with most need to work on

(question 9) Figure 4 summarises the answers concerning the items where participating countries see the most urgent need to work on.

### Priorities identified

- Project Protection against invasive alien plant species in forests
- Guide to visually identify IAS
- Networking and sharing best practice





- Guidelines for prioritizing and identifying threats within border control activities would be very appreciated - what species could be found in what types of shipment and/or from which country of origin.
- Developing DNA barcoding
- Methodological support for the evaluation and cost-benefit analysis for species management measures (calculation formulas, principles, etc.).
- Increase people's awareness of invasive species and to enforce compliance with the law.

Figure 4: Priority items identified from the answers to the questionnaire



During the workshops, it turned out that the "networking and sharing best practice" should include the exchange of experience about eradication methods, information about dangerous IAS and information about the use of poisons.

As the responsibilities / number of involved bodies concerning the implementation and enforcement of the regulation is very broad (from customs via nature protection authorities, universities, coordinating bodies, ...), there are different proposals for setting priorities in IMPEL projects. The proposals have to be assessed according to their feasibility in the frame of IMPEL projects. Double work should be avoided.

No.	item	Assessment / feasibility in IMPEL project	Result
1	IMPEL project: Protection	Tasks: Setting up a list of species, evaluation of	+
	against invasive alien plant	literature on the species, identification of best	See 3
	species in forests	practice examples and evaluation. Can be combined with no. 3	
2	Guide to visually identify IAS	EASIN network offers good information from different EU member states on that item.	-
3	Networking and sharing	Can be combined with no. 1	+
	best practice		See 1
4	Guideline for prioritizing		
	and identifying threats	Could be a project for colleagues from border control	?
	within border control	units / customs (street, ports, airports). Different	
	activities;. i.e. what species	target group. Up to now most participants work in	
	could be found in what	nature protection authorities or institutes.	
	type of shipment and/or		
	from which country of	First step: exchange of information on the item	
	origin.	among colleagues of border control units.	
5	Developing barcoding or	Cooperation between practiciants and scientists	?
	other approaches to	needed.	
	identifying/detecting	First step: identification of methods already used or	
	species in transportation	under development. Exchange of experience on the	
	bubs (airports/ports etc.)	item.	
6	Methodological support for	Very complex item. Could be a separate project. COM	Team
	the evaluation and cost	should explain whether a systematic assessment is	may
	benefit analysis for species	meant with that requirement of Art. 19 of the	try
	management measures	Regulation.	that.
	(calculation formulas,	In the frame of the project, only an exchange of	
	principles )	information or identification of best practice examples can be made.	



7	Increase people's awareness of IAS and enforce compliance with the law.	Many parties involved in awareness raising: gardeners and farmers associations, nature protection organisations, NGOs, volunteers, management of supermarkets etc. In the project the group can collect best practice	+
		examples about campains and activities authorities	
		have carried out.	
8	Implementation of a	Development of a draft text that should become part	+
	unified protocol at	of all funding documents with the following content:	
	European Union level on	prohibition of the use of IAS in the frame of projects	
	the detection, control and	that are being funded through European Union	
	eradication of IAS.	money. E.g. all funded infrastructure or reforestation	
		projects have to use regional plant species and to	
		combate IAS, etc.	

Table 1: Items with most need to work on in IMPEL projects and assessment of feasibility

### 8.6 Project priorities identified from the answers to the questionnaire

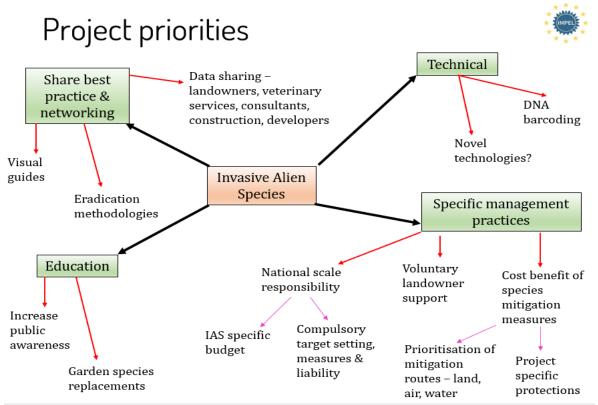
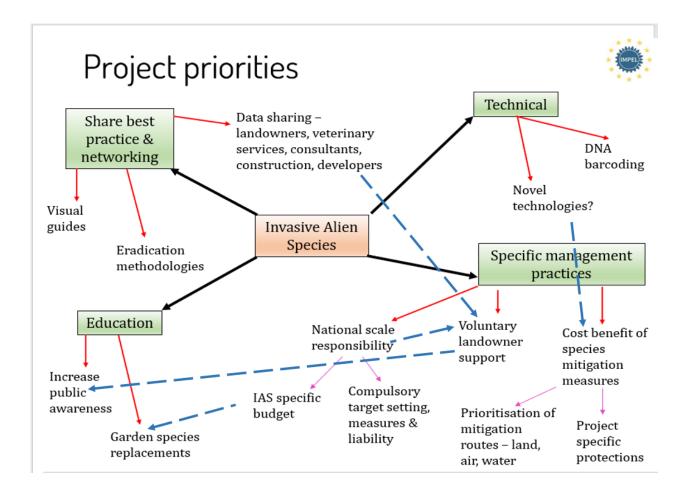


Figure 5: The mind map demonstrates the project priorities identified from the answers to the questionnaire



The complexity of the tasks related to Invasive Alien Species and the number of involved parties is very high. In this situation, sharing of best practice and establishment of good networking among the members of the involved parties will deliver on middle and long term a good knowledge base for overcoming the challenges. It will address the items of technical methods and specific management practices as well as education and awareness raising.

The blue arrows in figure 6 below demonstrate that there are additional interrelations between the main items. They increase the complexity of the topic the project has to deal with. The number of actors being involved is high.



#### Figure 6: The additional lines demonstrate the next and higher level of complexity – horizontal item



### 9. Input from the project team meetings and the workshops

### 9.1 Different speed in implementation and enforcement of the Regulation

The answers to the questionnaire and the discussions during the workshops revealed that the implementation and enforcement of the Regulation in the Member states took place with different speed. While in some countries the competent Nature Conservation Agencies prepare updates of the action plan, others try to cope with the first edition. In 2021 the Commission had initiated infringement procedures against 18 Member States, Greece was one of them. After that, the effort to finalise the Action Plan in Greece took up speed. The analysis of the pathways has been published in June 2023. The national IAS list has been submitted for public consultation in September 2024. Currently the management plans for species of the EU and national list are being established. In cooperation with the Hellenic Centre for Marine Research, the Natural Environment and Climate Change Agency (NECCA) has developed the National Action Plan for Lagocephalus sceleratus. Additionally, the Ministry of Agriculture and Fishery is going to proclaim 6 Euros per kilo for Lagocephalus.

### 9.2 Joint inspections as part of the workshops

The joint inspections carried out during the workshops in Galicia (ES), Jurmala (LV) and near Prague (CZ) provided valuable information on approaches in dealing with IAS and on the need for exchange of experience. They revealed urgent needs for information on reliable and successful management and eradication measures. After first detection of an IAS species, the competent bodies should have the chance to start eradication / combating measures immediately. The examples from the three countries showed that valuable time is lost during testing of methods. EASIN should establish a database with information about successful measures for the individual species. It should be available in different languages.

Joint inspections should always be part of workshops in MS that carry out eradication of IAS, The focus should be on methods which have been expanded to other countries and especially where the results of the application of a particular method are visible.

### 9.3 Awareness raising needed

The Regulation (EU) 1143/2014 on IAS addresses many different actors: private people as landowners, hobby gardeners and pet owners, farmers, professional gardeners, responsible people for public greens and parks in cities, consultants, forest owners, etc., staff of environmental, agricultural and forest authorities, customs, shopowners, ... In short, it addresses the whole of the society. As the damage IAS may cause might become very high, the knowledge about them has to be improved. Public media, schools, farmers, forest and gardeners associations may play an important role in this context.

The complexity of the actors shows that another big group are people who can be reached through their professional or hobby associations: traders (shops, internet, private producers), farmers, gardeners, consultants, associations of mountaineers, fishermen and hunters.



### 9.4 Cooperation cross border and between competent bodies needed

The Regulation puts the tasks on different shoulders. One package goes to customs. Art. 15 provides details about procedures, supporting guidelines and training programmes to facilitate the work of customs. Concerning the cooperation Art. 22 of the Regulation addresses the coordination and cooperation between Member States. In these tasks generally people from national agencies for border control are involved and not people doing the inspection job in the field.

The workshops showed that close cooperation between different disciplines is needed for being successful. Scientists / biologists / botanists should be involved in the development of eradication measures for plants as well as competent colleagues from agricultural or forest agencies and authorities. Inspectors need input from them and they should share their findings with the colleagues from the other disciplines. In the field of IAS, the coordination and direct exchange of information is a crucial point for being successful.

In Portugal, core competencies concerning IAS are concentrated in the Institute for Nature Conservation and Forests (ICNF). The division for the application of regulations is part of the department for Nature Protection and Biodiversity and it is the competent entity concerning the application / enforcement of legislation on IAS. It is responsible for establishing the National Action Plan for IAS and development of the national programme for woody IAS. On top, it prepares calls for funding from the Portuguese Environmental Fund and provides advice on submitted applications. More than 3 Mio. Euros were spent for combating invasive alien wasp species. The Portuguese national list of IAS contains 337 species and includes 88 species of the EU list. As Portugal is a hotspot of aquatic biodiversity with a high number of endemisms, there is an urgent need for protection.

In Czech Republic, the Ministry of the Environment (MoE) established a joint interdepartmental commission for non-indigenous and invasive non-indigenous species to ensure the tasks arising from Act no. 364/2021 Coll., amending some laws in connection with the implementation of European Union Regulations in the field of invasive non-native species. It serves as an advisory body to the Ministry in the area of prevention and mitigation of adverse effects of invasive non-native species and issues statements in accordance with the relevant provisions of the law. The joint commission also raises initiatives on its own initiative, or draws attention to specific or new issues within its purview, especially in cases of new risks related to non-native and invasive non-native species and their spread. When performing the above-mentioned tasks, the joint commission cooperates with external parties as necessary experts or other persons to whom the issue under discussion concerns. Members include representatives of the Ministry of the Environment and Agriculture, Nature Conservation Agency of the Czech Republic (NCA), Czech Environmental inspectorate (CEI), State Veterinary Administration and the Central Institute for Supervising and Testing in Agriculture, moreover also experts in the field of non-native and invasive non-native species from scientific and other professional workplaces.

The participants identified a lack of cross border cooperation concerning IAS. (see example under 9.5)



### 9.5 Improving exchange of experience needed

The participants in the project meetings work in the field of nature conservation either on regional or on national level, most of them as inspectors. Only the representatives from Latvia and Galicia are involved in the operational tasks of management of sites and organisation of combating measures.

The tasks of the other competent inspectorates vary a lot. As the number of detected IAS in the participating countries is increasing, the focus has to be put on feasible measures with appropriate success. In Belgium, the efforts to combat IAS have been concentrated on species that are possible to control. In the Azores, the law is quite restrictive, and the inspection concentrates on controlling shops and others that sell IAS. The nature inspections are being carried out in protected areas.

The participants identified a lack of cross border exchange of experience and cooperation concerning IAS. In one country, there might be intensive measures to combate a species, on the other side of the border nothing happens. IAS do not respect national borders. In reality, situations occur that IAS species are produced in one country for being sold in another EU country. An example is Cortadeira Selloana. In Portugal it is listed as invasive species. But it was found there on a farm where it was produced for the German market. In Germany, it is still allowed. On EU level, a discussion on putting it on the list of potential invasive species took place in 2023.

These findings show again that a ban on trading with IAS is necessary as well as a ban to use of IAS in public projects such as public parks and gardens.

There is no transparency about the annual budgets the IMPEL member countries allocate to the item of dealing with IAS. On top, there is no information available about eradication methods and the cost / effect control. Workshops on that item could provide support for decision-making processes.

IMPEL work has to concentrate on tasks that are obligatory for all member countries. That is why future work should concentrate on the management of IAS in Natura 2000 sites. A basic element for purpose of sharing experience could be the following: Each workshop should have one part of information about the implementation of the Regulation in the host country and the organisation of the work on IAS.

# 9.6 Ten years of experience with Regulation (EU) 1143/2014 – Attempt at an Evaluation

During the workshop in Prague, a discussion about the experiences with the Regulation was carried out. It produced the following main results:

• The Regulation (EU) 1143/2014 has a horizontal character  $\rightarrow$  the subtopics were implemented into many different pieces of legislation. That is why it is not visible as an important item and it



might be possible that competent bodies partly do not even know that it is their task to deal with IAS.

- For the competent authorities it seems to be an additional burden (unless they do not get extra staff and budget). The main approach seems to be that the tasks were put to agencies/authorities with similar tasks without any training and compensation.
- Dealing with IAS is manifold and affects the whole society; private people as hobby gardeners and as individuals to provide the first alert to the competent authorities, pet owners, farmers and gardeners, school children, customs, different nature protection bodies like agencies and inspectorates, ... Due to this situation, it is difficult to get a complete overview and to draw general conclusions.
- The participants involved in the current IMPEL project are mostly working for enforcement bodies and could only provide contributions from their own experience.
- Guidance on eradication of invasive animal species with taking into consideration aspects of animal welfare is in place, a similar up-to-date document for plant species is not available. The European Commission should develop such a guidance document.
- There are doubts concerning the effectivity of LIFE-projects. After the end of the individual programme, there is no obligation for follow-up measures. The longterm effect is not visible. Estonia has a system of nationwide measures for some species with a corresponding funding.
- An effective measure concerning combating measures for invasive plant species might be to oblige the landowner to carry out measures. CZ has such a regulation already, LV plans it currently. There were some doubts whether this would be successful. Farmers and their associations are very powerful. Perhaps the integration of the compliance with the IAS-Regulation into cross compliance checks might be a targeted measure.

### 10. Best practice examples

### 10.1 Integration of IAS into routine inspections – Joint inspection in Galicia

In June 2023 IMPEL carried out a joint inspection of the A Limia Natura 2000 site (code ES0000436) that is part of the Biosphere Reserve Area of Allariz. It is located in the province of Ourense (Galicia).

### 10.1.1 Quick facts on the site "A LIMIA"

The quick facts according to the standard data form are:

- Natura 2000 site\_(code ES0000436)
- Under Birds Directive
- Since November 2009
- Country: **Spain**
- Administrative region: **Galicia** (ES11)



- Surface area: **69** km<sup>2</sup> (6939.28 ha)
- Marine area: **0%**
- Located in Atlantic and Mediterranean biogeographical regions
- It protects **51**\_species of the Nature Directives
- It protects **10**\_habitat types of the Habitats Directive

Characteristics of SPA "A LIMIA" and periferic protected area: area predominated by agricultural activities and alluvial planes with sand extraction ponds. In Galicia, the area is of special importance and value for birds (SEO/BirdLife IBA 008 A Limia)

There are:

125 species of birds

74 of these are nesting species

38 are included in Annex I of the Birds Directive.

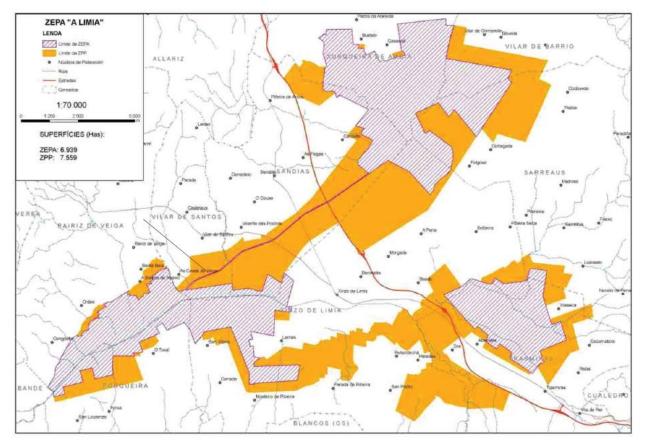


Figure 7: SPA "A LIMIA" ES0000436 and Peripferic Protection Area



#### IAS present in the SPA "A Limia":

Flora:

- Ludwigia grandiflora (Michx.) Greuter & Burdet
- Acacia dealbata Link
- Azolla filiculoides Lam.
- Cortaderia selloana (Schult. & Schult.f.)

Fauna:

- Neovison vison American mink
- Procambarus clarkii American crab
- Micropterus salmoides American bass
- Leponis gibbosus Perca sol
- Vespa velutina Asian hornet

### 10.1.2 Two practical cases of fighting IAS in "A LIMIA"

The department of Environment and Planning of the Regional Government in Galicia carried out measures for combating Ludwigia grandiflora (flora) and Neovison vison (American mink, fauna) on the site of "A LIMIA".

### 10.1.2.1 Practical Case IAS - Ludwigia Grandiflora

Ludwigia grandiflora originating from South America was introduced to Spain as ornamental plant for garden ponds. First information of its presence in Galicia, namely in a sand pond in A Limia dates from 2004. The first control action took place in 2014. This was too late.

Initially, this IAS was introduced and expanded on private land (sand ponds). It is unknown who introduced it and what was the reason for this introduction and the evolution of this IAS was not monitored until 2014 when the adverse environmental effects (excessive proliferation and competition over native species) began to be seen in the Antela Lagoon Channel (Natura 2000 site).





### Picture 1: Ludwigia Grandiflora

Preparing of Control Measures:

- Botanical study of the species: The species has two kinds of propagation sexual propagation (seeds) and asexual propagation (sems/plant fragments).
- Time of control:
  - First option: before May is impossible (flooded riverbed)
  - Second option: May-June (less developed plants before flowering, Limitant factors: nesting Ixobrychus minutus L.
  - Third option: September-October  $\rightarrow$  end of nesting and before water level rises
- Control methods assessment of options
  - Chemical control (herbicides) significant negative effects on flora and fauna of the SPA/SCA
  - Physical control:
    - \*Opaque covers (ex.polyethylene): NO → large surface of treatment and significant effects on flora and fauna
    - \* Mechanical control (ex. backhoe loaders): NO  $\rightarrow$  significant effects on the rest of flora and/or habitats for fauna
    - \* Manual control: YES  $\rightarrow$  because measures have to be carried out inside a SPA, impossible to have access with machinery and Ludwigia grandiflora is mixed with native plants.
- Where does the biomass go?
  - Incineration: No, because it implies prior drying of the extracted biomass → risk of spreading
  - Burying: YES: because the machinery and a plot near the treatment area could be used



- Transportation from the extraction area to underground deposit area (burying field) was carried out by pick-up with a trailer. The vegetable remains of Ludwigia grandiflora were buried in a two meters deep pit.
- Collaborating organisations

NATURE CONSERVATION SERVICE (Province of Ourense) HYDROGRAPHIC CONFEDERATION MIÑO-SIL (National Water Agency) GALICIAN SOCIETY OF NATURAL HISTORY (SGHN) (NGO) ADEGA (NGO)....Environmental Volunteers

### 10.1.2.2 Practical Case IAS Galicia – American Mink (Neovison vison)

The American mink originating in North America spread in Europe after illegal escape or intentional release from fur farms.

First information on American mink in Galician wild environment dates from 1978. Dates of first control actions are not known. In an area of 46,95 ha with sand ponds of the "Sand Corporation of a Limia" the control measures are carried out every two years through aid from European funds (FEADER), funds from the Ministry of the Environment of the Government of Spain and the Environmental Department of the Regional Government of Galicia. The site has a custodian GREFA (Group for the Rehabilitation of the Native Fauna and its Habitats).

### 1. Preparing of Control Measures:

- Study on/Assessmant of biological behaviour of the species
  - Species linked to aquatic environment (NP Atlantic Islands),
  - Wide food base (all groups of vertebrates are potential prey),
  - Adapting in each habitat to the available resources.

Objectives of the control action:

Article 48 of "The Galician RN 2000 Master Plan" sets as one of the objectives

d) "Avoid the introduction and expansion of exotic specimens in nature and, explicitly, those of an invasive nature"

The main goal of this control action was to reduce the impact of American Mink on:

- Circus pygargus,
- Nycticorax nycticorax,
- Botaurus stellaris,
- Ixobrychus minutus,
- Charadrius dubius,

and also, species of Annex II: Anas crecca, Anas platyrhynchos,...etc.



### 2. Practical Implementation of Measures:

- a) Mink presence detection and capture: For this purpose a typical characteristic of this animal was used as an ally: curiosity. The following sources of information were used:
  - Perimeter route of sand ponds with note of indicaions of presence (footprints, faeces, ...), Sampling band of 5 meters wide around perimeter
  - Photo trapping cameras (invisible infrared)
  - Floating platforms to detect presence and for capture
     Elements of this system: basis + tunnel + footprint marker
     All presence data must be georeferenced (GPS, UTM coordinate, datum ETRS89, zone 29)
- b) Determination of time and frequency for carrying out control measures:
  - Time of Control (Dunstone 1993, Moore et al.2003, Bonesi et Macdonald 2004): Autumn / winter ... dispersion of juveniles and time of rut
  - Trap intensity (Bonesi et al.2007, Harrington et al.2009)
  - Successive traps every 2 3 years and campaigns of 3 4 months / year
- c) Scope of and results of the measures:
  20 platforms with 20 tunnels (62,50 cm X 17,50 cm X 17,50 cm),
  10 metal trap cages (60,00 cm x 16,00 cm x 16,00 cm),
  Result for 2 ½ months operation of a trap in 2019: 15 catches.



Picture 2: platform with trap



### 10.1.2.3 Lessoms Learnt

- > Faster, more early detection of IAS is essential for successful measures.
- The work on alert systems / with information available through alert systems has to be improved (potential proposal for a follow-up IMPEL project).
- > Once the IAS is detected, the competent bodies have to react as soon as possible.
- It is necessary to establish an action plan / protocol specific control has to be developed for each species.
- > All affected administrative bodies and NGOs have to work together and in parallel
- > Acting entities have to be persevering. It is a long term fight.

"IAS ARE USUALLY MORE PERSEVERANT THAN US"

### 10.2 Activities concerning IAS in Latvia and joint inspection in Latvia

In May 2023 Latvia has started several activities on invasive species. The project covers four main items:

Development of the Regulatory Framework, results so far:
 Guidelines for species inclusion into the National List of Invasive Species
 Risk assessments for 24 pilot species
 List of prioritised invasive species
 Description of IAS early detection and rapid eradication system
 Action plan on the most important pathways of introduction and spread of IAS
 Guidelines for IAS management plan
 IAS management plan for two pilot species

So far, the elaborated documents include:

- Identification of **Pathways of Introduction** in Latvia **for 66 Invasive Alien Species** of European Union concern
- Action Plan on the Pathways of IAS to identify measures to be taken to minimize the risk of new invasive animal species entering into the wild in Latvia by escaping from holding places, according to Article 13, Regulation No 1143/2014
- Framework Action Plan on the priority pathways of IAS in Latvia for 2023-2028
- Nature Concerthall the Theme of 2022 Invasive Alien Species:
- : <u>https://www.dabaskoncertzale.lv/invasivus</u>
- Sosnowsky's Hogweed eradication system



Citizen Science and Gathering Data,

The EASIN homepage provides input on the Citizen Science Program – Report sightings of Invasive Alien Species. Latvia developed a website and a smartphone app "Invasive Species Manager"

Goals: to educate and create public awareness, involve the public in reporting IAS locations, collect IAS distribution data, provide an opportunity to easily and quickly obtain and use the collected IAS data.

> New Methods of Eradication, steps and results so far:

Testing eradication methods: Five target species are included in the IAS project in Latvia: Himalayan balsam, Dwarf serviceberry, Canadian goldenrod, Boxelder maple, Japanese rose. Criteria for election: the most aggressive species, lack of knowledge on costeffective eradication methods.

Identification of pilot sites for testing IAS eradication methods, inter alia Naturepark Ragakapa, also Natura 2000 site

Tested eradication methods: lifting the whole plants by using excavators, grasing, removal of young plants by hand, mowing, work with fire, methods of felling and precise processing, brushing of tree stumps with plant protection products as well as frequent trimming on steep slopes and around tall trees.

Raising Public Awareness through volunteer activities. "Let's do it for nature" initiative – a series of events for volunteers was carried out in 2021/2022.

13 events took place with 531 participants from diverse target audiences from which 7 events with 300 participants concentrated on the eradication of IAS.

- It was for people who love nature and enjoy being outdoors. The initiative of the "Let's Do It for Nature" was a great opportunity to do good things for nature and on the other hand side volunteers could meet new people and learn new skills
- The eradication measures on Invasive alien species included cutting down bushes; mowing meadows, harvesting hay; clean rivers of trees and beaver dams; prevention of erosion of coastal habitats etc.

### 10.2.1 Preparing the joint inspection – Nature Park Ragakapa (Natura 2000 site)

Information on the Nature Park Ragakapa and the Natura 2000 site (LV0303300) was provided based on the SDF and experts' knowledge. Area: 150 ha, establishment of the Park: 1962.



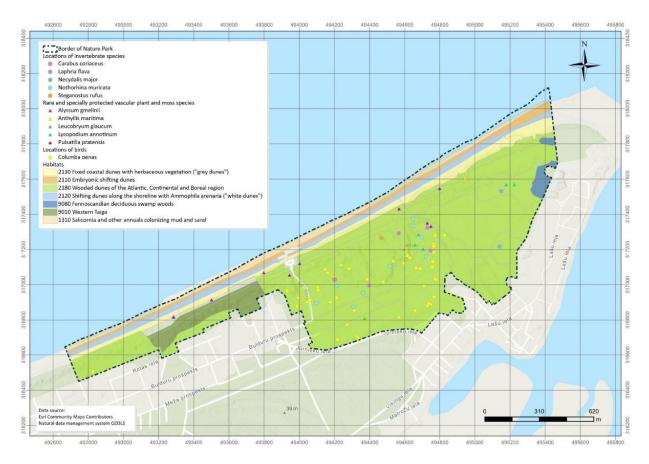
Current activities are part of the Latvian EU LIFE Programme project **"Optimising the Governance and Management of the Natura 2000 Protected Areas Network in Latvia"** (LIFE19 IPE/LV/000010 LIFE-IP LatViaNature).

Ragakapa Nature Park is an important site for the protection of forest coastal dunes. There are 6 types of protected habitats of European importance on the site, which cover 98 % of the territory, as well as 10 plant species, 4 each of bird and invertebrate species, one mamal an one fungi species (of which 6 are of EU importance). The Ragakapa dunes are 12 – 15 m high and are one of the highest dunes in Latvia.

Invasive species in Ragakāpa: The dwarf serviceberry Amelanchier spicata is the most widespread on the site; the red-berried elder Sambucus racemosa, the cotoneasters Cotoneaster sp., the silverberry Elaeagnus commutata and the Japanese rose Rosa rugosa are less often found. In order to preserve the unique nature assets of the site, the eradication of these species in an area of 49 ha has been prioritised as a top management measure in the Management Plan of Nature Park "Ragakāpa" for 2019 - 2031.

It is planned to test methods of eradication of the invasive alien species dwarf serviceberry on the site within the Project LIFE IP LatViaNature. Preparatory work is carried out in Project Action A.7, but practical work - in Action C.6.2. In total the Project plans to test methods of eradication of five different invasive alien species in an area of 100 ha. Ragakāpa is one of 13 pilot areas, but the only one for testing methods of eradicating the dwarf serviceberry.





### Figure 8: Map of the Ragakapa site

#### Ragakāpa pilot area:

Size of the plot: 32,9 h Land owner: state (under administration of the Nature Conservation Agency) Planned period of activities: 2023 – 2026 Methods applied:

- uprooting bushes with manual lifters (1)
- uprooting bushes with tractor machinery (2)
- intensive trimming of shoots (2-3-times a year) (3)
- treatment of stumps with chemical plant protection products after felling (4)









## Picture 3: Different eradication measures: removal with root lifter, harvester, mowing, brushing tree stumps with pesticides

There is high pressure on the site because it is situated in a touristic area. Another threat comes from IAS that may totally change the nature of the site through input of nutrients and reducing the reproduction of the pine tree forest. The experts gave detailed input on invasive species and management measures that are being carried out on site. One target species for the planned work in the field was Dwarf serviceberry (Amelanchier spicata), with origin in North America. It grows up to a hight of 8 m and through its leaves it brings a high amount of biomass and nutrients into the forest. It is spread by birds and other animals that eat the fruits of the serviceberry.

The first scoring (based on knowledge from SDF, the invited experts and files) was carried out. Scoring result: one inspection every three years.



# 10.2.2. Joint inspection of pilot area in Nature Park Ragakapa (Natura 2000 site) - including practical work

A joint inspection was carried out based on the preparatory assessment with the NIRAM Tool, the additional information on IAS and the information on eradication measures that are part of the Latvian LIFE-project LatViaNature. Different methods are being applied and could be seen in the forest: eradication of dwarf serviceberry (Amelanchier spicata) by working with machines partly adjusted for the purpose was carried out by a group of workers on site. Methods of felling and precise processing – brushing of tree stumps with plant protection products were also mentioned, as well as frequent trimming on steep slopes and around tall trees, like for example, Canada goldenrod (Solidago Canadensis), Low juneberry (Amelanchier spicata).

First tests had shown that it is most effective to take out the whole plant with the roots and in an as early stage of plant development as possible. If Amelanchier spicata is only cut, the roots of the plant spread widely below the surface and it produces a big number of new young plants.  $\rightarrow$  For each plant species the best eradication method has to be explored before working on a big area.

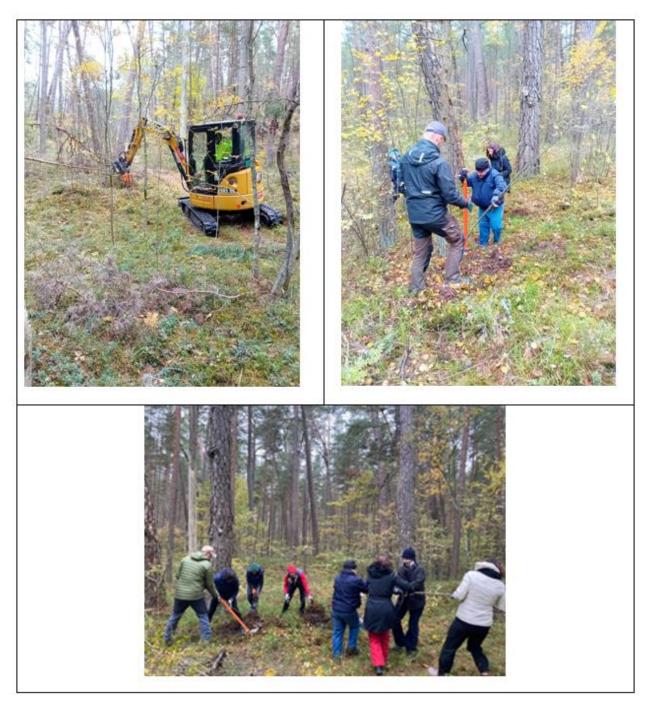
The participants of the IMPEL project got the opportunity to test the removal of the young trees by hand with the help of root lifters, axes and spades.

### 10.2.3 Lessons learnt

Successful work on IAS means:

- Working on Education, for example by developing a website and smartphone App "Invasive Species Manager" for recognising and reporting on sightings of IAS (Citizen Science)
- Involvement of the public work of volunteers on eradication of IAS
- Cooperation between all parties that can support to achieve the objectives
- Use of public media news, interviews and production of documentary films with best practice examples
- produce good material for information, e.g. table games and cards as an attractive way to tell about IAS
- testing different eradication methods and disseminate best practice
- create labels that will alert buyers about IAS plants, seeds or animals..
- establish a network of inspectors (contact persons) between neighbouring countries for early warning of the spread of IAS





Picture 4: Eradication of IAS in Nature Park Ragakāpa by using of small tractor, by uprooting bushes with manual lifters and manpower



# 10.3 Activities concerning IAS in Czech Republic and joint inspection in Czech Republic

In October 2024, a workshop was carried out in Czech Republic (CR).

<u>The regulatory framework</u>: In the Czech Republic the obligations of Regulation (EU) No. 1143/2014 on Invasive Species have been implemented into different pieces of Czech legislation through the "antiinvasion amendment-Act" (Act on Nature and Landscape, Act on Hunting, Act on Forestry, Act on Fishery, partial changes concern the Act on the Protection of Animals against Cruelty, Water Act or Act on Phytosanitary Care) and consequently there are different competent bodies for the enforcement, the early warning instruments and guidance material. A joint interdepartmental commission for non-native and IAS has been established (as mentioned above in chapter 9.4). The first Action Plan was approved by the government on 14.06.2023.

<u>Monitoring</u>: The Nature and Landscape Protection Agency of the Czech Republic is responsible for the nationwide data collection, https://portal.nature.cz/nd/, or e.g. project financed with EU support "InvazMap" (2023 – 2029). Another option is to record findings via the mobile application BioLog. New findings can be sent via email <u>invaznidruhy@nature.cz</u> to the early warning system. The occurrence of **northern raccoon, raccoon dog, American mink or river nutria** can directly be reported to the nearest hunting association.

<u>Guidance:</u> Many **certified methodologies** as well as **professional information** on non-native and IAS and additional technical documents have already been published. They can be downloaded from the website of the Nature Conservation Agency of the Czech Republic (NCA) (PDF format, in czech language). <u>https://invaznidruhy.nature.cz/https://www.nature.cz/web/invazni-druhy/metodiky-prirucky</u>

- Methodology of the AOPK / NCA CR: invasive non-native species with a significant impact on the European Union
- Methodology of the MoE: regulation and eradication of invasive fish species: selection of suitable methods depending on the nature of the water body
- Methodology of the MoE: regulation and eradication of invasive species of crayfish: selection of suitable methods depending on the nature of the water body
- Methodology of the MoE: monitoring of threats to localities of interest by invasive non-native species
- Methodology of the MoE: evaluation of the effectiveness of the elimination of invasive plant species
- Methodology of the MoE: mapping of invasive species using remote sensing
- Methodology of the MoE: elimination and prevention of the spread of the invasive Asian clam (Sinanodonta woodianna) in aquatic ecosystems and aquaculture facilities of the Czech Republic



- Methodology of the MoE: mapping and monitoring of invasive (selected non-native species)
- AOPK CR standards: elimination of selected invasive plant species

According to Regulation (EU) 1143/2014, it is necessary to introduce regulatory measures. This aims at minimizing the species' impact on biodiversity, human health and the economy. The priority of measures is determined on the basis of the level of risks and the ratio between costs and benefits and the needs of individual countries. The form of the measures thus differs, and regulatory measures include both basic actions to limit population growth or the removal of individuals in the place of the most significant impacts, as well as more intensive interventions. Control measures may also include temporary commercial exploitation of widely distributed species, provided adequate controls are in place to prevent their further spread.

The above mentioned regulation itself does not specify in detail the specific methods of regulation of individual invasive non-native species (only basic principles follow directly from the European regulation). Regulatory planning in the Czech Republic is ensured through the so-called **principles of regulation**. They formulate the concept of access to the species and its regulation at the national level. Following the principles of regulation, the procedure at the regional level is specified by the locally competent nature protection authorities (regional authorities, nature park administrations, Nature Conservation Agency of CR, county authorities) in the form of measures of a general nature. Here it is specifically specified where and with what intensity the implementation of regulative measures is necessary and effective. Measures to limit the impact of invasive non-native species or as part of them can also be followed by steps to restore or increase the resilience of the affected ecosystems.

The principles of regulation are drawn up by the MoE, based on the opinion of the joint interdepartmental commission for invasive and non-native species. The MoE publishes the draft regulation principles on its website, and anyone can submit comments on the draft within 60 days of its publication. The approved regulatory principles are gradually published on the MoE website. Until recent time Principles of regulation for *Heracleum mantegazzianum, Ailanthus altissima* (both in 2023), *Asclepias syriaca* and *Impatiens glandulifera* (both in 2024) were approved.

# 10.3.1 Preparing the joint inspections – Větrušické rokle and Karlštejn-Koda

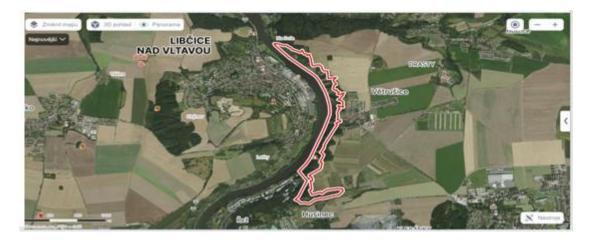
Information on both sites was provided based on the SDF and experts' knowledge.

- a) Větrušické rokle (36,85 ha) protected under the Habitats Directive (CZ0210729), 6 habitats
- **4030** European dry heaths
- 6110 (Alysso-Sedion)
- 6190 (Stipo-Festucetalia pallentis)
- **6210** (Festuco-Brometalia)



- 8220 Silicerous rocky slopes with chasmophytic vegetation
- **8230** Silicerous rock with pioneer vegetation of *Sedo-Scleranthion* or *Sedo albi-Veronicion dillenii*

The SCI/SAC is overlapping with the National natural reserve "Větrušické rokle". It has a rich geology, from basalts in the north to silicites in the south and different communities of plants grow in the area depending on various nutritious substrates (from calciphyte communities on spilites to poor communities on slates and other silicerous rocks) contains grassland with Stipa or Sesleria, , oak forests, or shrubs with Cotoneaster.Plants as Biscutella laevigata, Gagea bohemica, Oxytropis pilosa, Glaucium corniculatum, Anthricum liliago can be found there.



#### Figure 9: "Větrušické rokle" situated along the river Vltava

Findings of IAS so far: Robinia pseudoacacia, Ailanthus altissima and Laburnum anagyroides. As the main part of the site is rocky, the accessibility is very difficult and the management of the site is very difficult. On top, due to the discontinuity in care and intentional planting of Ailanthus in 1970s and 1980s, the IAS could spread. Different strategies are being used for the species. Robinia pseudoacacia is widespread – eradication is only carried out on places of conservational value (to save open parts free of trees or to improve fine oak forests).

Combating Ailanthus altissima is a challenge. The tree has a great invasive potential and high aggressiveness, settles even on most exposed rocks. A mapping of the whole area was carried out in winter 2023/2024. New findings occurred all over the area. Different methods were tried:

2017 and 2018:	cuttings
since 2019:	application of chemicals, first on the leaves
since 2022:	small-scale management with drilling woody parts and application of
	herbicide







Picture 5: Treatment of Ailanthus altissima (injection of Glyphosate) and area with the remains

The management is funded from the <u>National program MoE (Landscape care)</u> and co-funded from the <u>IP</u> <u>LIFE project</u> **"One nature**"

Methods (2022, 2023 a 2024):

- Herbicide injection into the wood most effective
- Partial peeling of the bark with subsequent hericide application (in young individuals)
- Spray on leaf (seedlings)

Pitfalls of working with a contractor:

- marking in the field before, often hard to find or accessible (on the rock), usually more controls needed
- =) many "man-hours" of work

The costs of the measures increase each year:

- Year 2022: € 2 500
- Year 2023: € 4 000
- Year 2024: € 6 000

The competent body for carrying out measures needs an annual extra budget for these tasks. Otherwise the efforts are in vaine. The landowners colaborate, they don't cause any problems, but problems come from Ailanthus growing near by (and not only in close vicinity but it can be kilometres far growing trees



which have seeds that disper on long distances).



Picture 6: "Větrušické rokle" – the steep riverbank

b) **Karlštejn-Koda** (2658 ha, 16 habitats, 6 species) is a large site with high touristic pressure due to the Karlštejn castle inside. For 4 types of habitats this site represents the most important locality in Czech Republic. SCI/SAC overlaps with 3 national protected areas:

National nature reserve "Karlštejn" (established in 1955),

National nature reserve "Koda" (established in 1952),

Nature reserve "Tetinske skály" (established in 1974) and

it is inside the protected landscape area "Český kras", the largest karst area in Bohemia. For each of them management plans are in place.

In Czech Republic Karlštejn-Koda is the most important area where the following habitats occur:

- 6110 Alysso-Sedion albi
- 6190 Stipo-Festucetalia pallentis
- 9150 Cephalanthero Fagon
- 91HO Pannonian woods with Quercus pubescens

and another 12 kinds of habitats protected under the Habitats Directive are present in the area, as well as the following species:



29353 Barbastella barbastellus
29364 Myotis myotis
32764 Euplagia quadripunctaria
35102 Adenophora liliifolia
36630 Dracocepha austriacum
6707 Lucanus cervus

The high value of the site are rare species of plants and animals, unique geological formations and a whole range of preserved "karst" biotopes (rock steppes, forest steppes, deciduous forests, rock and scree communities, caves). Karlštejn-Koda is a large protected area that is situated close to the Czech capital Prague. Karlštejn Castle attracts local people and tourists from all over the world. Due to this situation, the site suffers from the turistic pressure.

The communities try to reduce the pressure of tourism near Karlstejn Castel through reducing the areas for car and bus parking. The direct surrounding of the castle is dominated by visitors' activities. On top there is high pressure from building activities. Another current threat is the modernisation of the railway.

On the other side of the site mining activities take place. Several closed quarries belong to the Natura 2000 site, two still operated sites are outside (right behind the borders of NATURA site). According to the site expert, the work with the explosives and the work as such do not have negative impact. The management measures for the grassland on the hill above the quarries include grasing of horses and sheep for preserving an open grassland.

**Management of IAS:** The pressure from IAS mainly occurs inside the protected landscape area "Cesky kras" and outside the Natura 2000 sites. In 2024 eradication measures on Ailanthus altissima (herbicide injection, paint on cut surfaces or spray on leaves ( $1200 \in$ )) and other non-invasive species are carried out ( $2000 \in$ ).



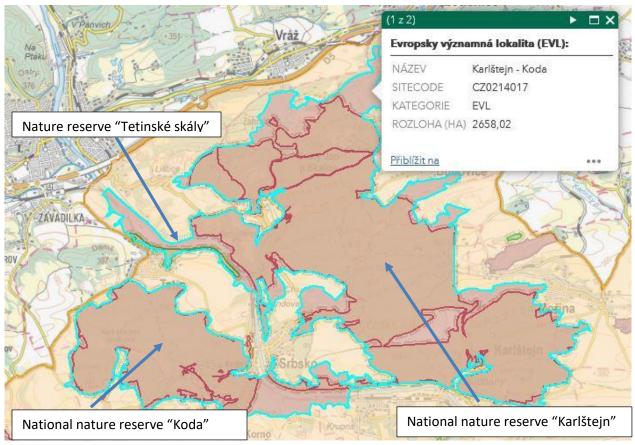


Figure 10: Karlštejn koda with the three protected areas

# 10.3.2 Joint inspection of the sites

a) Větrušické rokle: The result of the eradication work on Ailanthus altissima could clearly be seen: the dead remains of the trees were still there. As the site is very rocky, the trees cannot be reached all over the site. The right method for the definite eradication is not yet known. Different methods were tested and did not show any success. Cutting produces stress and the plant produces more roots and new young plants. Digging out the plant requires that all parts of the root have to be removed. Otherwise the remains will produce new plants. That is, why Glyphosat was used by the Nature Conservation Agency of Czech Republic, with special treatment (herbicide injection into the wood). Regular checks have to be carried out for the assessment of the measures. This obligation could be put to several competent bodies and perhaps to volunteers from the local neighbour villages.

**b)** Karlštejn-Koda: As the site is very large, two spots of main interest were visited: the surrounding of the castle and the grassland close to the mining activities. The efforts to conserve the open grasslands on the hill above the quarries through grasing of horses and sheep involve hard work. As there is no water, it has



to be brought uphill. A daily check has to be carried out and maintenance measures like mowing and repair of fences are necessary.

### 10.3.3 Lessons learnt

- Early detection and immediate reaction are crucial points for being successful in the fight against IAS.
- In regions with difficult access, nature will not wait for development of appropriate eradication measures. Nature and in this case IAS might be spreading very quickly and on places that cannot be reached.
- For successful eradication or at least management, resources (money and staff) are important. The amount of money to be invested tends to increase from year to year.
- Good cooperation between competent bodies and volunteers can facilitate the management.
- Regular inspections have to be carried out to check the success of the measures. This obligation could be put to several competent bodies and perhaps to volunteers from the local neighbour villages.

# 11. Conclusions and Recommendations

# 11.1 Evaluation of the most urgent items of the TOR and findings so far

Concerning the 6 core items mentioned in the ToR for the roadmap, the findings listed in table 2 have been generated. On top, other items turned out to be of high interest for the roadmap.

No.	objective	finding	result
1.	focus on Invasive alien Species (IAS) of Union concern	At the initial stage, it only makes sense to work on Invasive alien Species (IAS) of Union concern. For these, MS have to fulfil obligations and comparison concerning measures and management will be possible.	yes
2.	work on EU regulation implementation in national legal acts -member states (MS) experience - who are responsible bodies (environmental inspectors; other inspectors); competence of Nature Conservation Agencies in	A comparison how EU legislation is implemented in the MS and how administrative bodies work with it might build one element of the work in the project. But basically this must be part (background	Project(s) on



	combating of IAS in MS;	information) of European evaluation report. Exchange of experience on how administrative bodies work on the tasks concerning IAS, on methods used and comparison of approaches belongs to the original IMPEL activities.	methods and appproaches
3.	identify best practice in combating IAS in MS	Identification of best practice in combating IAS in MS shall be carried out by using questionnaires, joint inspections, face to face discussions in workshops and videoconferences.	Project(s)
4.	seek consultation and cooperation with other networks (e.g. Neobanis)	Concerning existing networks, the first internet research showed that there are only few activities in that field. It seems to be the case that there is no really active network. The homepages do not provide the information that could be expected.	Further exploration whether and how LIFE- and Interreg funded projects can provide input.
5.	work on awareness rising – best practice in MS -initiatives, projects	Initiating an IMPEL project is an important step of awareness rising on authority level. Best practice in MS, information about initiatives and projects shall be collected by using a questionnaire (see o. 3)	Project
6.	carry out joint inspections; sharing of know-how in combating of IAS	Carrying out joint inspections, sharing of know-how on practical work in combating of IAS shall be part of the events that will be organised by the project team.	Part of project(s)
7. new	It might be a reasonable approach to concentrate the activities mentioned under No. 6 in a first step on Natura 2000 sites.		yes



8. new	The NIRAM working group should check whether the aspect of IAS should become a criterion for the scoring.	A new impact criterion "presence of invasive alien species" and its definition were developed and integrated into the template.	done
9. new	Exchange of experience on market surveillance of online trading with IAS (e.g. beginning with seeds), identification of competent authorities in the IMPEL MS, organisation of the activities (centralised or local), communication, fines, identification of best practice, measures for awareness rising.	Exploring possibility to combine the task with other surveillance work of online trading, e.g. chemicals, ESIX, CITES. Identification which organisations work on similar online trading items, seek for information whether existing systems can take on board IAS.	Possible project but further exploration necessary
10. new	Exchange on enforcement experiences	Identified violations, fine cases: background, kind of subjects involved, kinds of species of IAS solved, where (in what parts/locations of countries),	Follow-up questionnaire
11. new	Identification of main topics and main obstacles in member countries	What was done in most countries and can become a standard?	Follow-up questionnaire
12. new	Exchange of experience with NGOs	take up contact with NGOs which lead project on IAS and exchange experience – problem: often NGOs are active on local level	Further discussion necessary
13. new	EASIN should establish a database with information about successful management and eradication measures	Take up contact with competent colleagues at the Commission – e.g. may become part of IMPEL dates with Commission representatives	to be discussed

Table 2: Objectives of the roadmap according to the TOR and findings so far

# 11.2 Integration of IAS into the NIRAM tool for planning routine inspections

IAS should become part of other tasks of authorities, e.g. of routine inspections. During the current IMPEL



project parts on the further development of the NIRAM tool first experience was made related to inspections of Natura 2000 sites. Good results were achieved. As IAS may produce pressure on protected sites and a threat for the further development, they should be of high importance. A separate criterion for the NIRAM tool was developed, so that IAS get more influence on the frequency of inspections (at least in authorities using NIRAM for inspection planning).

# 11.3 Project proposals and prioritisation

Criteria for IMPEL projects should focus on the work of authorities, what may mean the following in the context of IAS:

- Having a robust legal bases for the work this is the case according to the results of the questionnaire.
- Having supporting material in place (e.g. methodology guides for inspection, visual guidance for identification and alert systems) this is partly the case, can be part of projects. As EU MS are obliged to have the information on their homepages, basic visual guidance should be available.

# 11.4 Concrete project proposals so far: (priority indicated in red colour)

1. Joint inspections of NATURA 2000 sites with focus on IAS (including inspections as part of other projects or other IMPEL inspection activities), methods in the field (planning – expectations – outcome), similar species, innovative methods, priority species

Responsible: nature protection authorities, environmental inspection authorities 1 or 2

- Share best practice (including eradication methods for IAS). Problem: there are different species and problems in different regions, innovative methods, learn from LIFE-projects and LIFE networking activities, (perhaps regional approach - 3 or 4 neighbouring counties share the same IAS) 1 or 2
- Awareness rising (Swedish project Life Project, citizens science new information, app), education through media for different target groups, schools (events, part of lessons in biology), NGO

Responsible: authorities? (not highest priority for those who work in the field, limited work on that), NGOs, farmers associations, professional gardeners associations, 3

4. Work on internet trading (explore what others already do, not a separate project at present) side task



5. Cost – benefit analysis (e.g. for health, ..) / effect (how effective in money and results) analysis (the task is too big for an IMPEL project at present – others might work on it) no priority

# 12 Future work – plan for 2025 and onwards

For the work programme 2025 – 2027 IMPEL collected project proposals in 2024. Within the Nature Expert Team, the "Development of a Roadmap for a series of projects on Invasive Alien Species (IAS)" resulted in the following proposal:

Name of the project:

Invasive Alien Species – Identification of Best Practice, Development of Supporting Material

Full name of the project: Implementation and Enforcement of Regulation (EU) No. 1143/2014 on Invasive Alien Species in IMPEL Member Countries – Exchange of Experience, Development of Supporting Tools/Guidance and Joint Inspections (with Focus on Natura 2000 sites and use of NIRAM tool)

Activities planned in the project:

- Workshops including joint inspections with focus on IAS combating / eradication methods in the field (inspection planning with NIRAM definition of targets documentation of outcome), (work on priority species, use of innovative methods, ...) (Article 14 Surveillance System (EU) 1143/2014) each year in June / July with another main topic,
- Share best practice on eradication methods (learning from LIFE-projects / LIFE networking activities and Interreg-projects) development of a checklist for preparing, planning, carrying out and assessment of results of eradication activities, identification of necessary follow-up measures preparation in 2025, operating phase June December 2026
- Exchange on early detection notifications and rapid eradication (Article 16 and 17 (EU) 1143/2014) second workshop in 2026
- Workshop on awareness rising identification of methods and results (using citizens science, new information techniques, applications (apps)), education through media, different event types for different target groups – workshop in 2027
- Work on internet trading (if there is time for it).
- Make a three-minute video explaining the results of the project 2027

The expected products:

- Workshop reports on items that can be finalised between project years
- Checklist for preparing, planning, carrying out and assessment of results of eradication activities, identification of necessary follow-up measures



- Three-minute video with spread best practice on planning and carrying out successful eradication methods, knowledge about methods for planning of inspections and methods for raising awareness on IAS.
- Final report 2027

# 13 Summary

Based on the input from the workshops and Nature Expert Team meetings in 2023 and 2024, the project team learned that:

- due to the horizontal character, the subtopics of Regulation (EU) 1143/2014 are implemented into many different pieces of legislation of the MS. That is why it is not visible as an important item and it might be possible that competent bodies partly do not even know that it is their task to deal with IAS
- there are many different parties involved in the enforcement
- the tasks concerning Invasive Alien Species (IAS) are a big challenge for competent authorities.
- there is a need for exchange of experience, spread of best practice on planning and carrying out combating measures, including follow-up measures and integrating IAS in inspection work.

The planned series of workshops and additional activities like production of checklists and guidance, the project series 2025 – 2027 will contribute to closing the gaps in knowledge and improve practical inspection work.

Annexe I: TOR 2022 – VII/02

Annex II: Summary of responses to the questionnaire



# Annexes



# Annex I. TOR 2022 – VII/02

Name of Project: Testing and improving the proposed planning tool for inspections of Natura 2000 sites (NIRAM) and Roadmap for a project series on invasive alien species (IAS)

ToR Reference No.: 2022-VII/02	Author(s): Gisela Holzgraefe and project team		
Version: □Draft □Final ⊠Adopted	Date: 11-Mar-22		
TERMS OF REFERENCE FOR WORK UNDER THE AUSPICES OF IMPEL			

# 1. Work type and title

1.1 Identify which Expert Team this needs to go to for initial consideration			
Industry and air			
Waste and TFS			
Water and land			
Nature protection	$\boxtimes$		
Cross-cutting tools and approaches			
1.2 Type of work you need funding for			
Exchange visits			
Peer reviews (e.g. IRI)			
Conference			
Development of tools/guidance	$\boxtimes$		
Comparison studies			
Assessing legislation (checklist)			
Other, (please describe):			



#### 1.3 Full name of work

- Inspection of nature protected sites Development of an easy and flexible tool as a part of the planning of inspections of Natura 2000 sites linked to European environmental law and the RMCEI (testing and improving the proposed NIRAM-Tool in different IMPEL member countries
- Roadmap for a project series on invasive species (IAS)

#### 1.4 Abbreviated name of work or project

- a) Testing and improving the proposed planning tool for inspections of Natura 2000 sites (NIRAM) in IMPEL member countries and providing training material.
- b) Setting up a roadmap for a project series on invasive alien species (IAS)

# 2. Outline business case (why this piece of work?)

# 2.1 Name the legislative driver(s) where they exist a) - Habitats Directive, Council Directive 92/43/EEC of 21 May 1992. Birds Directive, Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009. b) - Convention on the Conservation of European Wildlife and Natural Habitats No 82/72/EEC - Council Decision concerning the conclusion of the Convention on Biological Diversity (93/626/EEC) Regulation on the prevention and management of the introduction and spread of invasive alien species (Eu) No 1143/2014 2.2 Link to IMPEL MASP priority work areas $\square$ 1. Assist members to implement new legislation. 2. Build capacity in member organisations through the IMPEL Review Initiatives. 3. Work on 'problem areas' of implementation identified by IMPEL and the X European Commission. 4. Other, (please specify): $\square$ 2.3 Why is this work needed? *Motivations* **Decline in EU biodiversity**

The alarming decline in Europe's biodiversity has driven the adoption, by the European Union (EU) of two key pieces of legislation – **the Habitats and Birds Directives** – to conserve Europe's most valuable



species and habitats across their entire natural range within the EU.

The Birds and Habitats Directives are central to achieving the EU 2020 target of halting and reversing the loss of biodiversity endorsed by Heads of State and Government. The Commission has adopted an ambitious strategy to achieve this objective, comprised of six targets. Target 1 of this Strategy is focused on "Full implementation of EU nature legislation to protect" biodiversity and requires a significant improvement in conservation status. The implementation of EU nature legislation also contributes significantly to other targets of the biodiversity strategy, including in relation to green infrastructure and restoration under Target 2.

The Action Plan for nature, people and the economy COM(2017)198 points out that key factors behind the shortcomings in the implementation of the Nature Directives are e.g. "*limited resources, weak enforcement, poor integration of nature objectives into other policy areas, insufficient knowledge and access to data.*" The development of an IT tool as a part of the planning of inspections of nature protected sites will provide a systematic approach which would maximize resources into key areas of concern.

For the past 40 years The Council of Europe has been encouraging its member states to prohibit the introduction of invasive alien species (IAS) into the environment, to take precautionary measures against accidental introductions and/or to take corrective measures when necessary.

These invasive alien species may multiply and occupy the same ecological niche as native species, ultimately driving these to extinction, or at least unsettle ecosystems with unpredictable effects on biodiversity. The invasive alien species have been identified as the second cause of species extinction, after habitat deterioration or loss, at world level.

The Invasive Alien Species **Regulation (Eu) No 1143/2014** aims to prevent and minimise the adverse impact on native biodiversity posed by the introduction and spread of invasive alien species. Acc. to the Regulation, MS have to establish action plans and implement surveillance systems to enable early detection and rapid eradication. On 13/10/2021, the Commission published the first report on the application of the IAS Regulation. The overall conclusion is that progress has been made in halting the spread of invasive alien species, but challenges remain and are linked to the projected increase in global trade and travel, which together with climate change increase the risk of the spread of invasive alien species.

The report also reveals that some Member States lack sufficient funding and the administrative capacity to address IAS. This leads to unsufficient implementation of the various provisions of the regulation. For instance, most Member States have not yet implemented the action plans to address the priority pathways (routes and mechanisms of the introduction and spread of invasive alien species). Furthermore, there is scope to improve both the comprehensiveness of the coverage of surveillance systems and the official control structures in many Member States. Also, knowledge gaps



remain such as on the costs and benefits of addressing IAS and on methods for IAS management.

Part A -Development of an easy and flexible tool as a part of the planning of inspections of Natura 2000 sites linked to European environmental law and the RMCEL

#### Background:

The IMPEL <u>project 2018/14</u> provided criteria and a scoring system for a risk-based assessment of the frequency of inspections of nature protected sites (focus: Natura 2000 sites). The project team decided to adjust the already existing IRAM-IT-Tool to the needs in this field and proposed the name NIRAM-Tool (Integrated Risk Assessment Methodology for Nature).

In <u>2019</u> the applicability of the proposed criteria and the tool were confirmed / substantiated through tests and practical work with them in Slovenia (IMPEL project 2019/15).

The <u>Project 2020/19</u> aimed at developing training material and providing training for NIRAM administrators, coordinators and inspectors in different IMPEL member countries. Due to the COVID situation it could not yet be finalised and the project team proposed a follow-up for 2021.

If possible, the project should have explored whether the tool can be combined with a possibility to store data collected through inspections over the long term in order to be used by inspection authorities for the purposes of evidence and long term trends in nature protected sites change.

In 2021 the project team decided to <u>merge the project phases 2020 and 2021</u>, developed training material and planned carrying out training sessions via videoconferences. This turned out to be difficult.

- Project 2022 will:
  - Develop a presentation of NIRAM, providing concise information on what has been developed so far and improve training material
  - $\circ~$  Gather feedback from NIRAM users and identify needs for improvement and further recommendations for the tool.
  - Provide further training for NIRAM administrators, coordinators and inspectors in different IMPEL member countries.
  - $\circ$  Carry out one training workshop (presence or depending on the situation video conferences)
  - $\circ$   $\;$  Assessment of total input and preparation of draft final report.

Part B: Setting up a roadmap for a project series on invasive alien species (IAS)

As IAS are a priority item of the Commission (see above), IMPEL will set up a roadmap for projects on the item in 2022. The project team will benefit from the experience of countries which dealt with that item at a very early stage (e.g. PT) and from those which carried out projects in that field (e.g. LV). As the item is complex (66 different species / 36 plant and 30 animal species), the project team thinks that it is a good bases to work with a step by step approach.



The <u>roadmap will identify the most urgent items / questions</u> to work on, and especially:

- 1. focus on Invasive alien Species (IAS) of Union concern (48 species); (hot points??)
- work on EU regulation implementation in national legal acts member states (MS) experience - who are responsible (environmental inspectors; other inspectors); competence of Nature Conservation Agencies in combating of IAS in MS;
- 3. identify best practice in combating IAS in MS;
- 4. seek consultation and cooperation with Neobanis;
- 5. work on awareness rising best practice in MS initiatives, projects;
- 6. carry out joint inspections; sharing of know-how in combating of IAS...

#### The roadmap will define:

- the activities and objectives for 2023
- the involved parties
- the expected outcomes
- the products expected for the 2023 phase
- the activities and objectives for 2024
- the involved parties
- the expected outcomes
- the products expected for the 2024 phase.

Interim reports of progress, key successes and failures will be provided at the end of each project year and a final report at the end highlighting successes, failures, feedback and lessons learned.

# 2.4 Desired outcome of the work

• Part A:

Making progress in the use of the NIRAM IT tool as a part of the planning of inspections of Natura 2000 sites. It provides a systematic approach which would maximize resources into key areas of concern.

Further development and finalisation of training material that can be used by authorities and their administrators, coordinators and inspectors in different IMPEL member countries. (Simple and easy to understand so that organisations can independently work with it.)

• Part B:

A roadmap with defined work packages for a series of projects on invasive alien species to be carried out from 2023 on.

The <u>roadmap will identify the most urgent items / questions</u> to work on (see under 2.3) and define:

- the activities and objectives for 2023
- the involved parties



- the expected outcomes
- the products expected for the 2023 phase
- the activities and objectives for 2024
- the involved parties
- the expected outcomes
- the products expected for the 2024 phase.

#### 2.5 Does this project link to any previous or current IMPEL projects?

#### Part A:

- 2017/18: Nature protection in permitting and inspection: Implementation of Art. 6(3) of the HD – inspection of non-energy extractive industry (quarries and open cast mining), and Roadmap for a planning tool concerning inspection of Natura 2000 sites (including the option of using the IRAM-Tool).
- **2018/14:** Development of a planning tool for inspections of nature protected sites with focus on Natura 2000 sites.
- **2019/15:** Development of a planning tool for inspections of nature protected sites with focus on Natura 2000 sites application on different sites in Slovenia.
- **2020/19:** Development of a planning tool for inspections of nature protected sites with focus on Natura 2000 sites training for NIRAM administrators, coordinators and inspectors in different IMPEL member countries
- **2021/10:** Development of a planning tool for inspections of nature protected sites with focus on Natura 2000 sites training on using the NIRAM tool

# 3. Structure of the proposed activity

#### 3.1 Describe the activities of the proposal

#### Part A

Working with a core team for the preparation of the project activities, like preparing a presentation with information on NIRAM and providing information that has been developed so far.

Development of a short questionnaire to be sent to MS (concerning further needs of users).

Sending of the questionnaire to MS (to be decided, t.b.d.).

Invitation of experts concerning inspection of Natura 2000 sites.

Preparation of the documents (outputs).

#### Part B

In parallel discussion and development of the roadmap for a series of projects on invasive alien species to be carried out from 2023 on.

Activities 2023: will be defined in detail in the roadmap

Activities 2024 will be defined in detail in the roadmap.

#### **3.2** Describe the products of the proposal

# Part A



Documents and presentation on how to work with the NIRAM tool (providing information for administrators, coordinators and inspectors.

**Final Report** 

#### Part B

Roadmap with defined steps and milestones for a series of projects on invasive alien species to be carried out from 2023 on.

Interim report: end of 2023 and Final Report: end of 2024

#### 3.3 Risks

Description of the Risk	Mitigation Method	Probability	Impact
What are the potential risks for this p place to mitigate these?	Give a score fi 1: Low probab 5: High probab	oility/impact	
No workshop possible because of COVID-situation	Online meeting	3	3

# 4. Organisation of the work

4.1 Lead	t
•	responsibility: Project Manager: Gisela Holzgraefe, Ministry for Energy Transition, Agriculture, Environment, Nature and Digitalisation of Land Schleswig-Holstein, Germany. Project Co-Manager: tbd.
4.2 Proj	ect team
	Gisela Holzgraefe, Ministry for Energy Transition, Agriculture, Environment, Nature and Digitalisation of Land Schleswig-Holstein, Germany.
	Kate Bayley, Environment Agency, Warrington United Kingdom.
• .	losé Antonio Vazquez Quintela, Regional Government of Galicia, Department Environment and Planning, Spain.
•	Andris Sirovs, Nature Conservation Agency, Latvia.
• /	Andreja Slapnik, Inspectorate RS for the Environment and Spatial Planning, Slovenia.
•	Lia Mergulhão, Institute for Nature Conservation and Forests (ICNF), Portugal.



- Alexandra Magalhães, General-Inspectorate for Agriculture, Sea, Environment and Spatial Planning (IGAMAOT), Portugal.
- Joao Loureiro, Institute for Nature Conservation and Forests (ICNF), Portugal.

#### 4.3 Other IMPEL participants

- Invitation to be extended to all member states of IMPEL, but particularly those already involved in previous workshops (Malta, Romania, Greece, Estonia, Slovakia).
- Malta: Environment and Resources Authority.
- Greece: Hellenic Ministry for the Environment and Energy, Inspectorate of Northern Greece, Thessaloniki.
- Estonia: Estonian Environmental Inspectorate, Parnu.
- Slovak Environmental Inspectorate, Bratislava.
- Romania: National Environmental Guard.

4.4 Other non-IMPEL participants

Possible participation of e.g. ENCA, Habitats Committee, JASPERS, others with experience in the use of different planning tools, e.g. IRAM, tbc.

Experts from the European Alien Species Information Network (EASIN) and the European Network on Invasive Alien Species (NOBANIS).

In case of doubts or questions please contact the IMPEL Secretariat.

Draft and final versions need to be sent to the IMPEL Secretariat in Word format, not in PDF.

Thank you.



# Annex II. Summary of responses to the questionnaire

#### Summary of responses (Version 31 January 2024)

#### Questionnaire concerning "Development of a roadmap IAS"

The questionnaire was sent out as a request for support from experts who work on the national implementation of the Regulation (EU) No 1143/2014 on the prevention and management of the introduction and spread of invasive alien species.

The Invasive Alien Species **Regulation (EU) No 1143/2014** aims to prevent and minimise the adverse impact on native biodiversity posed by the introduction and spread of invasive alien species. Acc. to the Regulation, MS have to establish action plans and implement surveillance systems to enable early detection and rapid eradication. On 13/10/2021, the Commission published the first report on the application of the IAS Regulation. The overall conclusion is that progress has been made in halting the spread of invasive alien species, but challenges remain and are linked to the projected increase in global trade and travel, which together with climate change increase the risk of the spread of invasive alien species.



#### Information about respondent, organisation and contact details

Responses have been submitted from the following countries:

Croatia (HR)	Latvia (LV)	Greece (GR1) ombudsman, Greece (GR2) NECCA
Czech Republic (CZ)	Serbia (RS)	
Germany (DE), TH	Sweden (SE)	
Galicia (ES)	Slovenia (Sl	
Italy (IT)	Slovakia (SK)	

Is the organisation	national	HR, IT, LV, RS, SI, SK, GR	regional	CZ, DE, ES, SE
	Other, please specify			
Is your organisation / authority responsible for	administration	DE, LV, GR1	inspection	CZ, HR, ES, LV; RS, SI, SK, GR2
Other, please specify	<ul> <li>IT: : Technical support to the environmental ministry and regional administration for the application of Reg. UE 1143/14</li> <li>SE: The Swedish Environmental Protection Agency and the Swedish Agency for Marine and Water Management (SwAM) are the nationally responsible authorities for invasive alien species and offer guidance in the application of laws and regulations. The Swedish En-vironmental Protection Agency is the responsible authority for the administrative and coordinative work on Invasive Alien Species (IAS) in terrestrial environmental Protection and Green Transition is responsible administrative body for legal framework (laws, regulations, ordinances). The Nature Protection Institute is responsible body for guidance, public awareness, project, report</li> </ul>			
Does it carry out	Supervising tasks	CZ, HR, DE, IT; ES; LV, SE, SI, SK, GR1	Operational tasks on management of sites, organisation of measures	ES, LV, GR2
Do you work in the field of:	Nature conservation	CZ, DE; ES; IT; LV, SE; SK, GR2	inspection	HR, CZ, ES, LV, RS, SI, SK, GR2



	Supervising tasks	HR, CZ, IT, ES, LV, RS, SE, SK, GR1	Operational tasks	CZ, ES, LV, GR2	
		Please specify: As a part of the job, mostly based on issued conditions/ measures? DE: As a part of the job, mostly based on issued conditions			
	Galicia: Implementation and environmental projects.	Galicia: Implementation and control of mitigation, corrective and compensatory measures in environmental projects.			
	IT: - LV: NCA manages state own stakeholders, including, mar HR: inspection is doing supe	nagement of species, habita	ats, IAS etc		
Which is your professional background?	Nature conservation	HR, CZ, DE, IT, ES, LV, RS, SE, SI, SK, GR1, GR2	customs		
	If nature conservation, pleas	If nature conservation, please specify:			
	HR: Laws and other legislation	HR: Laws and other legislation related to nature protection			
	CZ: Inspection based on national law of nature conservation and NATURA 2000				
DE: protection of species or habitat					
	IT: Biological sciences				
	LV: NCA is the national authority responsible for the unified implementation of the state natur conservation policy in Latvia. RS: National park, nature reserve, protected species (national and international – CITES). In cas custom has case in the field of illegal trade prortected species.			ation of the state nature	
				national – CITES). In case when	
	SE: Expert/analyst of enviror	nmental impacts			
	SI: biology				



SK: Nature and landscape protection
Other, please specify

#### Questionnaire

No.	question		Yes/no	Plese specify
1.	Do you have national legislation on IAS?	HR	Yes	<ul> <li>HR:</li> <li>Strategy and action plan for nature protection of the Republic of Croatia for the period from 2017 to 2025 (Off. Gaz. 72/17</li> <li>The Act on the Prevention of the Introduction and Spread of Foreign and Invasive Alien Species and Their Management</li> <li>Regulation on assessment of environmental risk and risk of invasiveness of foreign species (off.Gaz. 102/2024 from 30.8.2024.),</li> <li>Ordinance about the Black and White List of Alien species (Off, Gaz. 13/2024) from 10.02.2024</li> <li>Forestry</li> <li>Law on short-range woody crops - Zakon o drvenastim kulturama kratkih ophodnji NN 15/2018 (14.2.2018.),</li> <li>Ordinance on the list of plant species for the establishment of woody cultures of short trips and the method and conditions under which they can be grown (off.Gaz. 16/2019 (15.2.2019)</li> <li>Ordinance on the professional supervision of the cultivation of woody crops of short rotations "Narodne novine" br. 111/2018., 33/2019., 50/2019</li> <li>Notice: IAS legislation is implemented in legislation of different state bodies dealing with IAS (Environment, Agriculture, Fishing, Hunting, Health)</li> </ul>



	T			
	CZ	Yes	CZ: European Regulations implemented since 1.1.2022:	
			Act No. 364/2021 Coll., which amends some laws in connection with the	
			implementation of regulations in the area of invasive non-native species. This legal	
			regulation is also called "anti-invasion amendment".	
			(solved on 3 levels: 1. Non-native species in general, 2. Alien and non-locally occurring	
			species in aquaculture (results from Regulation No. 708/2007), 3. invasive non-native	
			species from the EU list (results from Regulation No. 1143/2014).	
			The key part of the law is a rather extensive amendment of Act No. 114/1992 Coll., on	
			the protection of nature and landscape. Then there were other several amendments	
			made.	
			Invasive species from the position of quarantine pests and harmful organisms are	
			dealt with by Act No. 326/2004 Coll., on phytosanitary care and subsequent Decree	
			No. 215/2008 Coll., on measures against the introduction and spread of harmful	
			organisms of plants and plant products.	
	DE	Vac		
	DE	Yes	DE: Federal Nature Conservation Act, Nature Conservation laws of federal states, e.g.	
			Thüringer Naturschutzgesetz	
	56			
	ES	Yes	ES - Law 42/2007, December 13, on nature heritage and biodiversity.	
			- Royal Decree 1274/2011, September 16, approving the Strategic Plan of nature	
			heritage and biodiversity.	
			-Royal Decree 1628/2011, November 14, by which the Spanish list and catalog of	
			invasive alien species is regulated.	
			- Other specific legal regulations on invasive alien species.	
	IT	Yes	IT: National decree n. 230/2017	
			LV: At the national level, Regulation on Invasive Alien Species is implemented	
	LV	Yes	only in relation to the plants – as stipulated in the Plant Protection Law, and its	
			subsequent Regulation of the Cabinet of Ministers of June 30, 2008 No. 467	
			Subsequent regulation of the Cabinet of Ministers of June 30, 2006 No. 467	



RS	Yes	Regulations Regarding Restriction of the Distribution of Invasive Alien Plant         Species" and in the Regulation of the Cabinet of Ministers of June 30, 2008 No.         468 " List of Invasive Alien Plant Species" (includes only one species - Heracleum sosnowskyi).         It has to added, that indirectly the invasive animal species are tackled in the         Regulation of the Cabinet of Ministers of July 22, 2014 No. 421 "Hunting         regulations'. Indeed, it is stipulated there that "species not characteristic of         Latvian fauna or invasive species - Mustela vison, Nyctereutes precyonides,         Dama dama, Ovis orientalis, Cervus nippon, Procyon lotor, Myocastor coypus         Molina, Marmota bobak - are allowed to be hunted all year round, and Canis         aureus - from July 15 to March 31."         Further amendments in the national legislation necessary for the management of IAS to         the fullest extent are currently under discussion in the Cabinet of Ministers.         RS: We have Law on nature protection with few article which related to it.         SE: The Swedish legislation (SFS 2018:1939) supplementing the EU regulation means,
SI	Yes	among other things, that responsible authorities can gain access to pri-vate land to carry out control measures, and that actions prohibited under EU law is punishable. The County Administrative boards are the authorities responsible for manag-ing invasive alien species and are tasked with supervising the compliance with rules and regulations within the county. The County Administrative Board can defer this responsibility to a municipality upon request. SI:
		<ul> <li>Zakon o ohranjanju narave (ZON)</li> <li>Pravilnik o izvedbi presoje tveganja za naravo in o pridobitvi pooblastila</li> <li>Pravilnik o prosto živečih živalskih vrstah, za katere ni treba pridobiti dovoljenja za gojitev</li> <li>Uredba o ravnanju in načinih varstva pri trgovini z živalskimi in</li> </ul>



		SK	Yes	rastlinskimi vrstami. Uredba o posebnih varstvenih območjih (območjih Natura 2000) Uredba o Krajinskem parku Ljubljansko barje. Zakon o zdravstvenem varstvu rastlin (ZZVR-1). Odredba o ukrepih za zatiranje škodljivih rastlin iz rodu Ambrosia. Zakon o sladkovodnem ribištvu (ZSRib). Uredba o ribih vrstah, ki so predmet ribolova v celinskih vodah Pravilnik o ribolovnem režimu v ribolovnih vodah. Zakon o dvjadi in lovstvu (ZDLov-1) Uredba o določitvi divjadi in lovnih dob. Zakon o gozdovih (ZG) Pravilnik o varstvu gozdov. We have plenty of legislation, adopted by different Ministries: for the Environment, Agriculture, Fishing, Hunting, Forests, Health SK: Act no. 150/2019 Coll. on the prevention and management of the introduction and spread of invasive alien species Regulation of the Government of the Slovak Republic No. 449/2019 Coll., issuing a list of invasive alien species of concern on the Slovak Republic Decree of Ministry of the Environment of the Slovak Republic no. 450/2019 Coll. which establishes the conditions and methods of removing invasive non-native species Action Plan for solving the problem of penetration routes of unintentional introduction and unintentional spread of IAS on the territory of the Slovak Republic and on the territory of the EU through the territory of the Slovak Republic – approved by the Government in June 2022 by resolution no. 414/2022.
2.	How is a "threat" defined in your country? How to identify a	HR		HR:The threat is defined as the introduction of invasive alien species from other countries and the spread of existing invasive alien species
				The introduction and spread of invasive alien species can cause the disappearance of



46.00.012	II	
threat?		native species, habitat loss, disease transmission, and more other damages. (source:
		https://mingo.gov.hr/o-ministarstvu-1065/djelokrug-4925/zastita-prirode/strane-i-
		invazivne-strane-vrste/invazivne-strane-vrste/5512)
	CZ	CZ: We can use the possibilities of predicting the spread of species based on knowledge
		of the biology and ecology of individual species depending on the properties of the
	_	environment and processed in the form of map outputs from the models spreading. For
		this, it is possible to use the Geoportal of invasive non-native species (GEOPINS,
		http://www.geoinvaze.czu.cz)
	DE	
		DE: -
	ES	ES: Biological invasion
		Alteration on the structure and functioning of accoustoms
		- Alteration on the structure and functioning of ecosystems
		- Severe impact on native species through the alteration of habitats, predation,
		competition, transmission of diseases, the replacement of native species from their
		natural areas
		natural areas
		- Genetic negative effects by hybridisation
		- Genetic negative enects by hybridisation
		- Significant adverse impacts on human health and on the economy.
	Іт	IT: Invasive alien species are recognised as one of the major threats to the biodiversity
		in several national and international official documents
		Following as requested by the EU Regulation 1143/2014 we prioritized the major
		pathways for IAS (which can be considered as a processes to "identify threats') and
		developed action plans for their management. The two most critical pathways were
		the pet trade and the ornamental plant trade



LV	LV: Regarding IAS term "threat" is not specially defined, however, Guidelines and a Set
	of Criteria is developed to assess the species in order to make the decision whether or
	not particular species should be considered invasive.
RS	RS: Article 82, Law on nature protection: "Introduction of allochthonous wild species
	into the wild:
	It is prohibited to bring non-native wild species and their hybrids into the wild in the
	territory of the Republic of Serbia.
	Exceptionally, the introduction from paragraph 1 of this article is allowed if it is
	scientifically and professionally proven and acceptable from the point of view of
	protection
	of nature and sustainable management, i.e. if the introduction does not endanger the
	populations or natural habitat of indigenous wild animals
	Species.
	The Ministry issues the permit from paragraph 2 of this article on the basis of an
	acceptability study based on a previously obtained opinion
	institute and studies on assessment of impact on nature, with the consent of the
	ministry responsible for agriculture, forestry and water management.
	The introduction of non-native wild species under controlled conditions is possible
	based on a permit issued by the Ministry by decision, according to
	the obtained opinion of the institute or other authorized scientific and professional
	organization that there is no danger to autochthonous species,
	if there is an accidental or intentional escape of specimens into the free nature of the



 -	
	Republic of Serbia.
	Non-native wild species that, by introducing and/or spreading, threaten other species
	and the overall biological diversity in the area
	The Republic of Serbia is declared invasive by the Ministry, based on generally
	accepted international scientific criteria
	knowledge and obligations taken from international agreements and international
	documents, at the suggestion of authorized scientific or
	professional organizations, and according to the previously obtained opinion of the
	ministry responsible for agriculture, forestry and water management.
	The act from paragraph 5 of this article prescribes measures to control and suppress
	invasive species.e."
SE	SE: IAS threat: High risk to have a negative impact on the native biodiversity
SE	SE we aread in Site of the a regarine inpact of the native biodiversity
SI	SI :
51	
	- According to Nature Conservation Act a favourable status of a plant or
	animal species shall mean a status that ensures the existence of a
	species for the foreseeable future.
	- Threat is when an activity affecting nature results in the degradation
	of nature or in the endangering of favourable status of a plant or
	animal species.
SK	SK: I think the definition of "threat" comes directly from the REGULATION (EU) No
	1143/2014 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the prevention
	and management of the introduction and spread of invasive alien species



		GR	GR: IAS are the species of animals, plants, fungi or micro-organisms which are imported, and their introduction or spread it has been found to threaten or to adversely affect the biodiversity and the ecosystem services
3.	Which are the competent bodies / authorities dealing with the item of invasive species in your country?	HR	HR: , Ministry of Environmental Protection and Green Transition and State Institute for Environment and Nature
		CZ	<ul> <li>CZ: 1. Nature conservation Agency of the Czech Republic (AOPK CR) - monitoring, permittions</li> <li>2. Ministry of the Environment of the Czech Republic - Action plan, interdepartmental commission, granting exemptions</li> <li>3. Czech environmental inspectorate – inspections</li> </ul>
		DE	DE: There are different authorities depending on where the IAS is and for whom there is any threat. For example the lower nature conservation authority but also the fishing and hunting authority
		ES	ES: Environment Department (Regional Government of Galicia).
		іт	IT: Ministry of Environment, ISPRA, Regional Governments, National Parks
		LV	LV: State supervision and control of the spread of invasive plant species is carried out by the State Plant Protection Service of the Republic of Latvia. According to the Informative Report "On Invasive Alien Species and Distribution of Competences", Nature Conservation Agency is the coordinating authority in limiting the spread and destruction of invasive alien species. However, these competences have not yet been formally incorporated in the legal acts.



RS	RS: Institute for Nature Protection and Ministry for environmantal protection.
SE	SE: SEPA, SWAM, Administrative County boards (Länsstyrelsen), Agricultural Board (Jordbruksverket), Customs (Tullverket), Local municipalities (Kommuner), The Swedish Food Agency (Livsmedelsverket), Transport Agency (Transportstyrelsen), Swedish police, Swedish Species Information Centre (Artdatabanken)
SI	<ul> <li>SI:</li> <li>Ministry of the Environment and Spatial Planning</li> <li>Ministry of Agriculture, Forestry and Food</li> <li>Ministry of health</li> <li>Ministry of Infrastructure</li> <li>Administration for Food Safety, Veterinary Sector and Plant Protection</li> <li>Inspectorate of the Environment and Spatial Planning</li> <li>Inspectorate of Health</li> </ul> And many others state authorities, Expert Institutes and Organizations (Nature protection Institute, Fishing Association, Botanical Society of Slovenia, Hunting Association, Slovenia Forest Service)
SK	<ul> <li>SK:</li> <li>Ministry of the Environment of the Slovak Republic</li> <li>Slovak Environmental Inspectorate</li> <li>District Offices</li> <li>State Veterinary and Food Administration of the Slovak Republic</li> <li>Central control and testing institute for agriculture</li> <li>State nature protection of the Slovak Republic</li> <li>Customs offices.</li> </ul>



		1			
		GR		GR : - Ministry of Environment	
				- Ministry of Agriculture and Ministry of Shipping	
				- Regional Services of Fishery, Veterinary Medicine and Environmantal Protection	
				- Forest Offices	
				- NECCA	
				- Customs	
4.	Do you have a methodology for	HR	Yes	HR – We have legal act «Regulation on assessment of environmental risk and risk of	
	the assessment of invasive			invasiveness of foreign species» in article 7. of Regulation is proscribed:	
	species in your country?			(1) Assessment of the invasiveness risk of a foreign species can be based on any	
				protocol or <b>method</b> used within the scientific community in the field of biological	
				invasions, provided that the protocol or method contains the following common	
				elements: 1. taxonomic affiliation of the species 2. description of the current	
				distribution of the species 3. routes of introduction and spread 4. patterns of spread	
				and their dynamics 5. description of adverse impacts on biodiversity and related	
				ecosystem services, as well as on human health and the economy	
				ceosystem services, as well as on numan nearth and the economy	
				Expert article Assessment of the risk of invasiveness of foreign freshwater fish	
				species in Croatia (CROSBI ID 652211), Duplić, Aljoša ; Ćaleta, Marko ; Plavac,	
				Ivana ; Mrakovčić, Milorad ; Penava, Kristina	
		CZ	yes		
				CZ: - Görner T., Šíma J., Pergl J. 2021. Invasive non-native species with a significant	
				impact on the European Union, their characteristics, occurrence and possibilities of	
				regulation. Methodology of AOPK CR, 2nd updated edition	
				- Berchová-Bímová, K. et al. 2019: Monitoring of threats to localities of interest by	
				invasive non-native species - Methodology of the MoE, Lesnická Práce, Kostelec n. C. lesy.	
				1053.	



		- and lots of others (general, focused on plants, focused on animals) https://invaznidruhy.nature.cz/metodiky-prirucky
ſ	DE Yes	DE: yes
E	ES Yes	ES: "Galician strategic plan for the management of the invasive alien species and for the development of the standardized system of risk analysis for the invasive alien species in Galicia".
	ІТ	IT: no
L	LV Yes/no	LV: The methodology for assessing the risk of invasive species was developed in 2022 within the framework of the project "Optimising the Governance and Management of the Natura 2000 Protected Areas Network in Latvia" (LIFE19 IPE/LV/000010 LIFE-IP LatViaNature). In order to legally approve it, proposals for amendments to regulatory acts have been developed, but they have not yet been approved by the Cabinet of Ministers
F	RS Yes	RS: Institute for Nature Protection has.
S	SE Yes	SE: An assessment of about 1000 species was conducted by the Swedish Species information centre in 2017-2018 using a simplified version of the EICAT pro-tocol.
		See for more information: https://www.artdatabanken.se/globalassets/ew/subw/artd/2det-har-gor- vi/publikationer/29artdatabankens-risklista/rapport_klassifisering_av_fram- mande_arter2.pdf
	SI _	SI: Different institutions are dealing with assessments for the invasive species they are specialized for.
S	SK yes	SK: Decree of Ministry of the Environment of the Slovak Republic which establishes



		GR		the conditions and methods of removing invasive non-native species GR: The deliverables of the project "Compilation of a list of invasive (alien) species and organization of methodology for the assessment of the risk they cause", which prepared on behalf of the Ministry of Environment and Energy by the National Kapodistrian University of Athens in collaboration with the Hellenic Center of Marine Surveys (82623/2325/8-8-2022)
5.	Do you have a guide to visually identify IAS? Namely to help with inspectors, and other authorities, in field work.	HR CZ	Yes yes	Please specify (e.g. database with short description of content, guidance book and title)         HR: Manual on identifying and dealing with IAS         Ministry of Economy and Sustainable Development, 2022         CZ: - e.g. see Görner T., Šíma J., Pergl J. 2021 (guidance book),         - <a href="https://www.nature.cz/web/invazni-druhy/invazni-druhy-z-unijniho-seznamu">https://www.nature.cz/web/invazni-druhy/invazni-druhy-z-unijniho-seznamu</a>
		DE ES	No yes	<ul> <li>DE: We have some information paper for some of the species for the population. You can find them here: https://umwelt.thueringen.de/themen/natur-artenschutz/biologische-vielfalt/invasive-arten</li> <li>ES: - A guidance book. "Galician invasive plants.Biology, distribution and control methods"</li> <li>Oficial Web of Environmental Department</li> <li>Brochures about specific specific invasive alien species (flora/fauna)</li> </ul>
		IT	yes	IT: We have translated the identification guides produced by the European Commission <b>to support the surveillance system and customs controls</b>



		https://www.specieinvasive.it/specie-di-rilevanza-unionale/guide-identificative
		and we are working on the implementation of the guides of other alien
		species of Union concern (following the same model)
LV	no	LV: In 2022, the training on the detection of invasive alien species was held for the
		employees of those institutions whose competence, according to the Informative
		Report "On Invasive Alien Species and Distribution of Competences" includes data
		collection or control of invasive alien species.
		Work is currently underway on the "Invasive Alien Species Identification Guide". It is
		planned to be completed at the end of 2023.
RS	no	
SE	yes	SE: A field-guide was recently finished for use during inspections:
JL	yes	(https://www.miljosamverkansverige.se/wp-content/uploads/IAS-digital-fal-
		thandbok.pdf).
		Some species are described in detail in https://artfakta.se/artbestamning, alt-hough
		there are no IAS-specific guides here to date.
SI		SI: We can contact the experts from other Authorities or Expert Institutes.
SK	yes	SK. Online detailes with short description of content and shotes. The State Nature
	,	SK: Online database with short description of content and photos. The State Nature Conservation Agency manages an information system focused on data collection,
		recording and transmission of data and information, including spatial data
		ightarrow places of occurrence of IAS, the size of their population, the method of
		their spread and penetration routes, and
		ightarrow measures taken as part of management and their effectiveness.
		$\rightarrow$ <u>https://invaznedruhy.sopsr.sk/invazne-druhy-sr/</u> - information about IAS,



		GR		description of species IAS, obligations of the owners, administrator and land user         Data from the information system are accessible to the public via its network services.         The currently registered occurrence of IAS in the SR is available on the interactive map of Slovakia, which is continuously updated from the data base maintained by the State Nature Conservancy of SR         → https://maps.sopsr.sk/mapy/invazne.php         GR: A database-web platform has been published for the non-native plant species of Greece (they may not be invasive). This project assigned to the University of Patras, Department of Biology, by the National Center for Environment and Sustainable Development. The project was handed over to the Natural Environment and Climate Change Organization (NECCA).         The action plan provides that relevant guides will be published
6.	Is there an alert system in place? (That identifies new IAS and divulges information: how to identify the IAS, ways that the IAS is coming into the country, how to tackle that IAS, etc.)	HR	Yes	Please specify: HR: Mobile application "Invasive species in Croatia" - for citizens, reports on the findings of IAS that they observe in nature Early warning on link: <u>https://invazivnevrste.haop.hr/prijava-opazanja</u>
		CZ		CZ: Species included in the "early warning system" are advised to report immediately to invaznidruhy@nature.cz.



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		In case of invasive species is found, it is recommended to report it to the local authority for nature protection (municipal authority, national park administration or protected landscape areas). Valuable information will also be provided by a record in "the finding database" of the AOPK CR, which can be supplied, for example, using the
		"iNaturalist" or "BioLog" mobile application.
		There is also individual project in "iNaturalist" called Biosmrst:
		https://www.inaturalist.org/projects/biosmrst-2023
		In the case of presence of a northern raccoon, raccoon dog, American mink or river
		nutria, we can try to contact the nearest hunting association or hunting association.
		DE: If someone recognises one of the IAS species, our system starts with
DE	No	implementation of (EU) No 1143/2014.
50	N	ES: - Warning Official Network on invasive alien species (Official sheet – official e-mail
ES	Yes	address).
		- Intensive inspections in petshops, veterinary clinics, etc.
		- Control of online sales of free-living pets (authority agents).
		- control of offline sales of free-initig pets (autionity agents).
		- NGOs complaints and informations
IT	Yes	
	103	IT: The Minister of environment decree n. 16, 16/03/2017 defines structure, roles and
		tasks of the National surveillance system of IAS of Union Concern.
		Designs, west-stad every and sitisans are call ICDDA for support in identifying 14C
		Regions, protected areas and citizens can ask ISPRA for support in identifying IAS.
		There is also an institutional e-mail address to send requests



	1		]
		(specieinvasive@isprambiente.it	
LV	Yes/no	LV: Early detection and rapid eradication system for invasive alien species was developed in 2022 within the framework of the project "Optimising the Governance	
		and Management of the Natura 2000 Protected Areas Network in Latvia" (LIFE19	
		IPE/LV/000010 LIFE-IP LatViaNature). In order to legally approve it, proposals for	
		amendments to regulatory acts have been developed, but they have not yet been	
		formally approved by the Cabinet of Ministers.	
RS	No		
SE	Yes	SE: The County Administrative Board must promptly notify the Swedish Agency for Marine and Water Management (aquatic species) or the Swedish Environmental	
		Protection Agency (terrestrial species) if, in their environmental monitoring or during	
		their supervisory activities, they become aware that an EU-listed invasive species are	
		present in the Swedish environment. Aquatic species are reported through Rappen	
		(report tool, https://rapportera.artfakta.se/eftersokta/rappen/taxa).	
		Citizen reporting is handled via www.invasivaarter.nu and alerts can be set for rare species or findings in new areas. Geographic analyses of citizen data can be visualized in https://fyndkartor.artfakta.se/.	
SI		SI: In Slovenia we have special web application www.invazivke.si, which is	
		part of the public electronic information system for collecting data on	
		invasive alien species and is available to every citizen. Application	
		includes a desktop, web and mobile application and connects several	
		existing information systems that already collect data on invasive alien	
		species.	
		species.	
SK	Yes	SK: It comes from the Act on the prevention and management of the introduction and	
		spread of invasive non-native species. State Veterinary and Food Administration of the	
		Slovak Republic, State nature protection of the Slovak Republic and Customs offices	



		GR	should take the necessary measures and immediately inform Slovak Environmental Inspectorate and Ministry of Environmental GR: At the borders (entries to the country) the species are checked at the existing Stations Sanitary Veterinary Control or at the existing Stations of Phytosanitary Control, which are under the Ministry of Rural Development and Food. Afterwards, a
			formal check is carried out by the competent customs authorities, based on the certificates which have been issued at the Control Stations. I am not informed about any alert system, but in case of invasion of IAS the competent authorities are obliged to immediately notify the National Coordinator for the coordinated implementation of measures to eradicate these species (article 8 of MD 115162/3055/2021)
7.	Which kind of management measures do you have in your country?	HR	Please specify:HR: we have 2 Action Plans and 5 Management Plans, also we have legal act issued by minister od environment -Order on the removal of the invasive alien species Ailanthus altissima, Off. Gaz. 89/2021 (11/8/2021),in which are proscribedHitne mjere Članak 22. (1) Ministar naredbom određuje mjere postupanja radi sprječavanja unošenja ili širenja strane vrste na područje Republike Hrvatske ili u ekosustave u kojem ona prirodno ne obitava, a posebno invazivne strane vrste koja izaziva zabrinutost u Uniji i/ili invazivne strane vrste koja izaziva zabrinutost u Republici Hrvatskoj, kao i mjere njezina uklanjanja ili iskorjenjivanja. (2) Ministar naredbom o uvođenju hitnih mjera određuje primjenu bilo kojih ograničenja za invazivnu stranu vrstu koja nije na Unijinu popisu, sukladno odredbi članka 10. Uredbe (EU) 1143/2014. (3) Ministar naredbom o uklanjanju određuje iskorjenjivanje invazivne strane vrste koja izaziva zabrinutost u Uniji zi korjenjivanje invazivne strane vrste koja izaziva (3) Ministar naredbom o uklanjanju određuje iskorjenjivanje invazivne strane vrste koja izaziva zabrinutost u Uniji u ranoj fazi invazije, sukladno odredbi članka 17. Uredbe (EU) 1143/2014. (4) Troškove uklanjanja iz stavka 3. ovoga članka



	snosi zička ili pravna osoba koja je prouzročila širenje invazivne strane vrste,
	odnosno u slučaju kada tu osobu nije moguće utvrditi ili kada se radi o
	spontanom širenju populacije invazivne strane vrste, troškovi uklanjanja
	osiguravaju se u državnom proračunu
	CZ: Regulation planning should be ensured by the so-called "principles of regulation"
CZ	(They are drawn up by the Ministry of Environment, and for 2022 they were supposed
	to be drawn up for 11 species).
DE	DE: different depending on the species
ES	ES: Galicia: - Specific projects about detection, control and eradication carried out by
	the Environmental Department of the Regional Goverment of Galicia.
	- Collaborations with ONGs, Environmental Associations and other official bodies
	(ex.Water Deparment)
	- Population control methods. Capture and lockdown in closed facilities (official
	confinement center). Sterelization.
	- Others (informative talks, official Web,)
IT	IT: Control, containment and eradication
1.17	LV: The management measures on a national scale are legally determined for only one
LV	species - Heracleum sosnowskyi. It is the landowner's responsibility to eradicate this
	plant from their land.
	General provisions set in the administrative law permit compulsory execution (for
	example for eradication measures) that can be applied or organized by governmental
	or municipal authority and costs of such compulsory execution can be recovered from
	the person responsible for non-compliance. Regarding eradication of invasive species
	this legal tool has been applied by municipalities to eradicate Sosnowsky's hogweed in



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	private properties.
	For the other invasive alien species, management measures are applied fragmentarily - within the framework of projects or thanks to the voluntary initiative of landowners and some activities from NCA side as a "joint (voluntary) work".
RS	In general, the implementation of management measures is hindered by the lack of completion of the IAS legal framework and insufficient funding for the competent authorities. RS: Only Article 82, Law on nature protection: "Introduction of allochthonous wild species into the wild".
SE	SE: Specific rules/plans apply to the signal crayfish. The Administrative County Boards have had budgets to conduct management measures in areas within their jurisdiction. Methods for management/eradication of IAS are collected and presented in https://metodkatalog.invasivaarter.nu/methods.
SI	SI: Measures to prevent the introduction and spread of the invasive alien species:
	<ul> <li>Different measures for different types of alien species (fauna, flora, water, land)</li> </ul>
	<ul> <li>When natural flora is removed as a result of construction or earthworks, shold be restored as soon as possible by the local domestic species</li> </ul>
	- Aquarium animals and plants should not be released into the wild.
	<ul> <li>Organizing the education on invasive alien species and act in such a way that the risk is minimal for public</li> </ul>
	- In gardens replacing invasive alien plant species with non-invasive plants.
	<ul> <li>not spreading the earth and sand from areas where alien species are invasive</li> </ul>
	Some measures for land invasive plants:



	<ul> <li>avoiding to introduce alien species into our environment at all</li> </ul>
	- removing (cutting) and burning the flowers before the seeds are formed
	<ul> <li>removing sprouts on a regular basis to prevent the spread</li> </ul>
	- green parts of plants and roots should not be disposed of in nature
	<ul> <li>when moving the soil or gravel, pay attention to the possible transfer of rhizomes or roots of invasive species</li> </ul>
SK	SK:
	- restrictions on possession and handling of invasive non-native species,
	<ul> <li>obligations and authorizations of persons,</li> </ul>
	<ul> <li>measures to prevent the introduction and spread of invasive non-native species,</li> </ul>
	<ul> <li>information system on the occurrence and spread of invasive non-native species</li> </ul>
	<ul> <li>- the scope of state administration bodies, state organizations and municipalities,</li> </ul>
	liability for breach of duty.
GR	GR: enhancing knowledge, updating laws, information actions,
	strengthening partnerships,
	education and training of competent authorities Cooperation of regional agencies,
	ship ballast management,
	inspections at the entries of the country, customs and at the internal market, control of species entering from the Suez Canal
	In Greece, a series of actions is being implemented through the Fisheries Operational Program, with a total budget of approximately 2 million euros, for the management of the populations of the most important marine invasive species With the <i>«LIFE-IP 4 NATURA (LIFE16 IPE/GR/000002) Integrated actions for the</i>



			conservation and management of areas of the Natura 2000 network, species, habitats and of ecosystems in Greece», specific measures have been proposed to limit or eradicate plant and animal IAS
8	Who is responsible for carrying out the measures?	HR	State Institute for Environment and Nature, State inspectorate, Public institution for management with protected areas,
	Regional administrations and National Parks		The authorities get the support of nature protection associations or voluntary groups but not enough
	Do authorities get support from nature protection associations or voluntary groups? Please specify	CZ	CZ: Responsibility is spreaded between several different bodies Lots of them are still part of discussions. In following the "principles of regulation", the procedure will be specified at the regional level, when it already is possible to specify where and with what intensity individual regulation should be carried out (necessary and effective). The regional procedure will be determined by a measure by the relevant nature protection authorities. They are regional in the area of their territorial jurisdiction authorities, AOPK CR, national park administrations and county authorities. We have several different types of financial support which can be taken from national donations etc.
		DE	DE: yes, nature protection associations do some of the measures.
		ES	ES: In Galicia, all actions to control and eradicate of invasive alien species must be authorized and supervised by the Environmental Department of the Regional Government
			- Yes. Collaboration agreements with NGOs, Environmental Associations, have been made for detection control and eradicate of invasive alien species.
		IT	IT: Rarely, is not usual in Italy. Environmental associations are more often engaged in directly supporting the conservation of native species



LV	LV: Landowners are responsible for the respective arrangements on their land.
	There is no support for the measures at the national level, but some municipalities implement a support program to eradicate the invasive <i>Heracleum sosnowskyi</i> .
	Involvement of society in the management of IAS through voluntary work is getting more popular in Latvia.
RS	RS: Ministry of environmental protection. Yes.
SE	SE: In Sweden you have a statutory obligation to prevent the spread of the EU-listed species. The Swedish Environmental Protection Agency encourages everyone to contribute to stopping the introduction and spread of other in-vasive alien species as well.
SI	SI: Depends on measures, for example for removing Ambrosia sp. the land owners are responsible.
	Authorities get support from nature protection associations and also from voluntary groups.
SK	SK: See the question 3 and 6. I don't have any information if there is support form voluntary groups, but I think that there is from the State nature protection.
GR	<ul> <li>GR: - Ministry of Environment <ul> <li>Ministry of Agriculture &amp; Ministry of Shipping</li> <li>Regional Services of Fishery, Veterinary Medicine and Environmental Protection</li> <li>Forest Offices</li> <li>Necca</li> <li>Customs</li> </ul> </li> </ul>
	They have support from university institutions, from the Hellenic Center for Marine



			Research and from independent projects (ex. Invalis, or Life programs). In these projects volunteers can work as well.
9.	Which is the item where you see the most urgent need to work on in this project?	HR	HR: Development of an action plan to prevent the introduction and spread of invasive alien species. Experience exchange about eradication method, information about poisones and dangerous IAS
		CZ	CZ: To share knowledge of a good practise/experiences with problematic species and their regulations.
		DE	DE: a) get people in contact with each other, b) make information workshops on how the other countries deal with a concrete species
		ES	ES: Implementation of a unified protocol at the European Union level on the detection, control and eradication of invasive alien species
		ІТ	IT: -
		LV	LV: We would need the methodological support for the evaluation and cost-benefit analysis for species management measures (calculation formulas, principles, etc.). This is determined by Article 19 of the Regulation (EU) No 1143/2014–
			1. Within 18 months of an invasive alien species being included on the Union list, Member States shall have in place effective management measures for those invasive alien species of Union concern which the Member States have found to be widely spread on their territory, so that their impact on biodiversity, the related ecosystem services, and, where applicable, on human health or the economy are minimised.
			Those management measures shall be proportionate to the impact on the environment and appropriate to the specific circumstances of the Member States, be based on an analysis of costs and benefits and also include, as far as is feasible, the restoration measures referred to in Article 20. They shall be prioritised based on the risk evaluation and their cost effectiveness.
			RS: Guide to visually identify IAS, namely to help with inspectors, and other



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		RS:	authorities, in field work.
		SE	SE: Guidelines for prioritizing and identifying threats within border control activi-ties would be very appreciated. I.E. what species could be found in what types of shipment and/or from which country of origin. Maybe developing DNA barcoding or other approaches to identifying/detecting species in trans-portation hubs (airports/ports etc. ).
		SI	SI:
			At the moment several projects concerning reducing invasive alien species are going on in Slovenia:
			- Protection of reaper for less invasive alien species
			- Project Protection against invasive alien plant species in forests
			<ul> <li>Protection against invasive alien plant topinamburh in Kozjansko Regional Park</li> </ul>
			Some of the projects are financed or cofinanced by LIFE programme in the field of Nature and Biodiversity.
		SK	SK: From IMPEL I am not sure, but in general there is a need to increase people's awareness of invasive species and to enforce compliance with the law.
		GR	GR: To share expertise on ways to limit IAS and effectively implement action plans
10.	Proposals for the workshop	HR	HR: Regional warning /alert system about IAS in the vicinity, near the border.
		ES	ES: Draft of an action protocol on detection, control and eradication of invasive alien species.
		LV	LV:



progress of the action plan		SE	<ol> <li>Experience exchange on best practices for the efficiency of eradication methods for the invasive species</li> <li>Economical assessment of works regarding invasive species and the eradication methods, the principles of the cost benefit analysis.</li> <li>SE:         <ul> <li>Maybe have regional workshops and/or involve national authorities/bodies that work with border control to facilitate between-country co-operation.</li> <li>Discussing national or regional approaches to enforcing the regulation of IAS on national lists (e.g. transport bans), within the limits of the EU treaty</li> <li>We are interested to participate in the workshop:</li> <li>Johan Linnander (johan.linnander@naturvardsverket.se)</li> <li>Henrik Lange (henrik.lange@naturvardsverket.se)</li> <li>Michael Diemer (michael.diemer@havochvatten.se)</li> <li>Olivia Langhammer (olivia.langhammer@havochvatten.se)</li> <li>GR: To speed up the implementation procedures of the action plans by proposing the support of the EU with the appropriate funding. Emphasize to central and regional agencies about the seriousness of the problem and request official data on the progress of the action plan</li> </ul> </li> </ol>
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