

## **Bioinvasion and Global Environmental Governance: The Transnational Policy Network on Invasive Alien Species**

### Croatia's Actions on IAS

#### **Description<sup>6</sup>**

Croatia is located in Eastern Europe, across the Adriatic Sea from the Eastern Coast of Italy. The nation covers a land area of approximately 56,542 sq km. Most of the islands of the Adriatic Sea lie off the 5,835km coastline of Croatia, and consist of some 1,200 island, islets, ridges and rocks. The nation also has 1,982 km of land boundaries which it shares with Bosnia and Herzegovina, Hungary, Serbia, Montenegro and Slovenia. The current population of the nation is 4,491,543. Since the adoption of the 1990 Constitution, Croatia has been a democracy. Between 1990 and 2000 it had a semi-presidential system, and since 2000 it has a parliamentary system. Croatia is a member of the United Nations, the Organization for Security and Co-operation in Europe, the Council of Europe and is a non-permanent member of the United Nations Security Council for the 2008-2009 term.

#### **Overview of Biodiversity**

Croatia is located on the coast of the Adriatic Sea and can be divided into 16 distinct landscape units, such as the Pannonian highlands and the plateau of Kordun. Some of the features of these landscapes are karst fields and rivers, mountain chains and limestone plateaus. Forests cover 44% of the land area of Croatia, the majority of which is owned by the state.

- [CBD Country Profile](#)
- [Earth Trends country Profile on Biodiversity and Protected Areas](#)

#### **Legislation relating to IAS**

- Freshwater Fisheries Act (Articles 55 and 57)
- The Nature Protection Act of 2005
- Environmental Protection Act (2 November 2007)
- The Marine and Freshwater Fisheries Acts regulate farming and the introduction of marine/freshwater alien species
- [The Animal Protection Act](#) forbids introducing alien animal species into the habitat
- [The Plant Health Act](#)

#### **Government Agencies/Programs/Ministries dealing with IAS**

- [The Ministry of Environmental Protection, Physical Planning and Construction](#) (MEPPPC)
- [Ministry of the Sea, Tourism, Transport and Development](#)
- [The State Institute for Nature Protection](#)
- Forest Inspection Department of the Directorate of Forestry
- Department of Phytosanitary Inspection
- [Croatian Environment Agency](#) (fulfils the Environmental Protection Strategy)

- The Plant Health Department
- The Department of Plant Protection Products

### Major Invasive Alien Species<sup>2</sup>

[Ambrosia artemisiifolia](#) (herb)

[Amorpha fruticosa](#) (plant)<sup>1</sup>

[Caulerpa taxifolia](#) (algae)

[Caulerpa racemosa](#) (algae)<sup>1</sup>

[Dressenia polymorpha](#) (zebra mussel)<sup>1</sup>

[Eriocheir sinensis](#) (crustacean)<sup>1</sup>

[Gymnocephalus cernuus](#) (fish)

[Herpestes javanicus](#) (mammal)

[Orconectes limosus](#) (crustacean)<sup>1</sup>

[Oncorhynchus mykiss](#) (fish)<sup>1</sup>

[Ovis Aries](#) (mammal)<sup>1</sup>

[Podarcis \(sicula\) campestris](#) (reptile)<sup>1</sup>

[Sus scrofa](#) (mammal)<sup>1</sup>

[Vomersleyella setacea](#) (algae)<sup>1</sup>

### Native Species Exported/Introduced to Non-Native Environments<sup>2</sup>

[Butomus umbellatus](#) (aquatic plant)

[Columba livia](#) (bird)

[Hypericum perforatum](#) (herb)

[Leuciscus idus](#) (fish)

[Ostrea edulis](#) (mollusc)

[Perca fluviatilis](#) (fish)

[Sabella spallanzanii](#) (annelid)

[Scardinius erythrophthalmus](#) (fish)

### Table 1 Actions to prevent, detect and manage IAS categorized into three themes: biodiversity, human health, and economic

Note: Actions (such as projects, publications and programs) are classified according to the most obvious theme but may also fit into the dimensions of another.

Theme	Action
Biodiversity	<ul style="list-style-type: none"> <li>• A Programme/overview of the status of Caulerpa species on the Adriatic has been made, and the state monitoring working group has been established by the <a href="#">The Ministry of Environmental Protection, Physical Planning and Construction</a> (MEPPPC)<sup>1</sup></li> <li>• The MEPPPC is responsible for the Marine Pollution Emergency Response Plant which includes the occurrence of tropical algae Caulerpa (<i>C. taxifolia</i> and <i>C. racemosa</i>). The Minister has decided to appoint a Working Group for monitoring, preventing the spread and for cleaning of tropical algae. The report on the state of the algae and to prevent its spread has been prepared by oceanographic institutions as planned by the programme. ... financial support to the programme is provided by the Ministry of Culture, MEPPPC, and <a href="#">Ministry of the Sea, Tourism, Transport and Development</a>.<sup>1</sup></li> <li>• The programme for the implementation of preliminary activities related to monitoring of invasive taxa of vascular flora is under preparation... Project Database of invasive taxa of vascular flora in Croatia has begun with the <a href="#">State Institute for Nature Protection</a> co-financing several activities: preparation of the preliminary list of invasive species of Croatia's flora and the analysis for the aspect of the <i>allochthonous origin</i> and potential or actual invasive character;</li> </ul>

	<p>development of an appropriate classification system of invasive plants adapted to national needs; preparation of a database of invasive taxa as the extension of the already existing database (<a href="#">Flora Croatica Database</a> – FCD); formulation of a specialized web service entitled “Invasive Plants of Croatia”; automatic creation of identification cards for each species in .pdf format (the Croatian and Latin name, synonyms, taxonomy, biology and ecology of the species, photo documentation) and preparation of distribution maps.<sup>1</sup></p> <ul style="list-style-type: none"> <li>• The <a href="#">State Institute for Nature Protection</a> prepared manuals for inventorying and monitoring the status of vascular flora and terrestrial and underground habitats under the <a href="#">National Biodiversity Monitoring Programme</a>. The manuals are in the first line intended for amateurs and nature fans willing to take part in the collection of data on Croatia's biodiversity, but should also help experts and scientists in their professional work.</li> <li>• The Institute of Oceanography and Fisheries and the 'Ruder Boškovic' Institute are implementing the programme to prevent the spread of invasive Caulerpa species, funded by the Ministry of Culture, MEPPPC and <a href="#">Ministry of the Sea, Tourism, Transport and Development</a></li> <li>• <a href="#">The State Institute for Nature Protection</a> has initiated a project for creating an inventory of invasive plant species in cooperation with competent scientists.<sup>12</sup></li> <li>• <a href="#">The State Institute for Nature Protection</a> created a Database of Invasive Taxa of Vascular Flora in Croatia.<sup>7</sup></li> <li>• Held a national workshop on invasive alien species under the Convention on the Conservation of European Wildlife and Natural Habitats, which included comments and recommendations; information exchanges for best use strategies of existing mechanisms (such as the EPPO Reporting service); cooperation with neighbouring countries; strengthening monitoring and rapid response systems; and developing risk assessment procedures based on existing methodologies (such as the EPPO Pest Risk Analysis Scheme).<sup>11</sup></li> <li>• The <a href="#">Plant Health Act</a> regulates plant health protection, including biological plant protection; preventive measures against the introduction and spread, as well as the measures for eradication of organisms harmful to plants, plant products and other controlled objects; methods of collection and exchange of data and information; the information system; financing, fees and compensations; organisation and implementation of plant health protection and supervision through inspections.<sup>4</sup></li> </ul>
Human health	<ul style="list-style-type: none"> <li>• Public Health- <i>Abrozia artemisifolia</i> has been recognized as an exceptionally potent allergen and programmes for its cleaning have been established.<sup>1</sup></li> <li>• Plants, seeds, seedlings, organic fertilizers and plant products which</li> </ul>

	<p>may transmit plant pests can be carried into Croatia only across border crossings where the border inspection carries out health control. Every consignment must have a certificate of health (Phytocertificate) as issued by the exporting country.<sup>3</sup></p> <ul style="list-style-type: none"> <li>• A health inspection and a Phytocertificate are not required if a traveller brings in small packets of vegetable or flower seeds in original packages, up to the total weight of 100 g, or flower tubers or bulbs in the total weight of up to 3 kg, in their original packaging, with a declaration, and originating from the European Union.<sup>3</sup></li> </ul>
Economic	<ul style="list-style-type: none"> <li>• The Republic of Croatia's <a href="#">Plant Health Act</a> aims to prevent the introduction and spread of harmful organisms and work towards their eradication through application of phytosanitary measures.<sup>4</sup></li> <li>• To deal with ballast waters the <a href="#">Ministry of the Sea, Tourism, Transport and Development</a> has appointed a Working Group with the task to prepare management regulations on the control of ballast water and sediment (by the end of 2006) while they are in Croatian internal waters, territorial sea and protected ecological and fishing zones.... This will also contain provisions for the prevention of IAS. The regulation will be harmonized with the IMO guidelines in Resolution A.868 (20) and the provisions of the Ballast Water Convention.... In January 2005 in preparation for drafting regulation the Ministry of the Sea, Tourism, Transport and Development started collection ballast water reporting forms (BWRF)... the Adriatic ballast water issue is being addressed within the framework of the Ballast Water Working Group of Croatian-Italian-Slovenian Trilateral Commission<sup>1</sup></li> <li>• To deal with ballast waters the <a href="#">Ministry of the Sea, Tourism, Transport and Development</a> has appointed a Working Group with the task to prepare regulations on management and control of water ballast and sediment (by the end of 2006) while they are in Croatian internal waters, territorial sea and protected ecological and fishing zones.... This will also contain provisions for the prevention of IAS. The regulation will be harmonized with the IMO guidelines in Resolution A.868 (20) and the provisions of the Ballast Water Convention.... In January 2005 in preparation for drafting regulation the Ministry of the Sea, Tourism, Transport and Development started collection ballast water reporting forms (BWRF)... the Adriatic ballast water issue is being addressed within the framework of the Ballast Water Working Group of Croatian-Italian-Slovenian Trilateral Commission.<sup>1</sup></li> <li>• The Republic of Croatia's Plant Health Act aims to prevent the introduction and spread of harmful organisms and work towards their eradication through application of phytosanitary measures.<sup>4</sup></li> <li>• The Department of Phytosanitary Inspection... is responsible for plant health inspection inland and for import and export, surveying and monitoring, and the control of plant protection products (PPPs)</li> </ul>

	<p>in import.<sup>5</sup></p> <ul style="list-style-type: none"> <li>• Live animals may only be imported at certain border crossing where there are border veterinary stations which conduct medical control. Each animal must have an international health certificate or a veterinary certificate issued by the country of export.<sup>3</sup></li> <li>• Any import of animal origin products (meat and meat products and all other products containing meat, eggs, milk, cheese and other dairy products, as well as animal feed of animal origin), independent of the amount, requires a mandatory veterinary examination and prescribed certificate from the veterinary service of the country from which the goods are imported.<sup>3</sup></li> <li>• Food products import, independent of the amount, is subject to an examination by a sanitary inspector at the entry border crossings.<sup>3</sup></li> </ul>
--	--

**Table 2 Actions on IAS in cooperation with other countries**

<b>Agreement/ Organization</b>	<b>Countries/ Member</b>	<b>Action</b>
<a href="#">Central European Free Trade Agreement</a> (CEFTA)		Chapter II – Article 15: Sanitary and Phitosanitary Measures includes provisions that states that all parties shall apply their regulations in veterinary, plant health and health matters in a non-discriminatory fashion and shall not introduce any new measures that have the effect of unduly obstructing trade. <sup>8</sup>
Republic of Croatia-Islamic Republic of Iran Trade Agreement	Iran	ARTICLE 18 The content of this agreement will not limit the rights of either of the contracting parties in exercising any kind of prohibition or limitation with respect to protection of national interests and/or public health care or preventing herbal and animal diseases and pests. <sup>9</sup>
Free Trade Agreement between the EFTA states and the Republic of Croatia		ARTICLE 11 <i>Sanitary and phytosanitary measures</i> 1. The Parties shall apply their regulations in sanitary and phytosanitary matters in a non-discriminatory fashion and shall not introduce any new measures that have the effect of unduly obstructing trade. 2. The principles set out in paragraph 1 shall be applied in accordance with the WTO Agreement on the Application of Sanitary and Phytosanitary Measures. <sup>10</sup>

## References

1. Croatia Third National Report to the CBD. Retrieved 19 October 2008, from <http://www.cbd.int/doc/world/hr/hr-nr-03-en.pdf>
2. Global Invasive Species Database – Species List. Retrieved on 7 November 2008, from <http://www.invasivespecies.net/database/species/List.asp>
3. Croatia Customs Travellers Information. Retrieved 19 October 2008, from <http://www.carina.hr/engindex.htm#7>
4. The Plant Health Act of Croatia. Retrieved 19 October, from [https://www.ippc.int/servlet/BinaryDownloaderServlet/191641\\_Act.do.doc?filename=1197634081488\\_Republic\\_of\\_Croatia\\_Plant\\_Health\\_Act.doc&refID=191641](https://www.ippc.int/servlet/BinaryDownloaderServlet/191641_Act.do.doc?filename=1197634081488_Republic_of_Croatia_Plant_Health_Act.doc&refID=191641)
5. Organisation Structure of the Phytosanitary service in Croatia. Retrieved 19 October 2008, from [https://www.ippc.int/servlet/BinaryDownloaderServlet/pr47847\\_NPPO.pd.pdf?filename=1165846727359\\_CRO\\_NPPO.pdf&refID=pra47847](https://www.ippc.int/servlet/BinaryDownloaderServlet/pr47847_NPPO.pd.pdf?filename=1165846727359_CRO_NPPO.pdf&refID=pra47847)
6. Country descriptions are compiled from the Central Intelligence Agency's World FactBook, available at <https://www.cia.gov/library/publications/the-world-factbook/>, and Wikipedia: The Free Encyclopaedia, available at [http://en.wikipedia.org/wiki/Main\\_Page](http://en.wikipedia.org/wiki/Main_Page).
7. State Institute for Nature Protection – Finished Projects. Retrieved 19 October 2008, from [http://www.dzrp.hr/eng\\_project\\_finished.htm](http://www.dzrp.hr/eng_project_finished.htm)
8. Central European Free Trade Agreement. Retrieved 19 October 2008, from <http://www.worldtradelaw.net/fta/agreements/cefta.pdf>
9. Trade Agreement between the government of the Republic of Croatia and the government of the Islamic Republic of Iran. Retrieved 19 October 2008, from <http://www.mingorp.hr/UserDocsImages/ZakoniUgovoriENG/TradeandEconomicAgreements/Iran%20-%20Bilateral.pdf>
10. Free Trade Agreement between the EFTA States and the Republic of Croatia. Retrieved 19 October 2008, from <http://www.efta.int/content/legal-texts/third-country-relations/croatia/HR-FTA.pdf/view>
11. National Workshop on Invasive Alien Species in Croatia – Report. Retrieved 19 October 2008, from [http://www.coe.int/t/dg4/cultureheritage/Conventions/Bern/T-PVS/sc26\\_tpvs09\\_en.pdf](http://www.coe.int/t/dg4/cultureheritage/Conventions/Bern/T-PVS/sc26_tpvs09_en.pdf)
12. Biodiversity of Croatia – published by the State Institute for Nature Protection. (2006) Retrieved 19 October 2008, from [http://www.dzrp.hr/publikacije/biodiversity\\_brosura.pdf](http://www.dzrp.hr/publikacije/biodiversity_brosura.pdf)