

What changes are necessary to reduce the introduction of harmful invasive species to forests?

Dušan Jurc

Slovenian Forestry Institute, SLOVENIA

The forestry phytosanitary system does not assure the successful prevention, detection and eradication of new, invasive harmful organisms, which can destabilize forests or threaten the existence of trees or other species. It has numerous deficiencies, which enable the constant inflow of these organisms through trade, transport and tourism. From other continents saplings and trees with soil are imported and, along with them, innumerable organisms, which are insufficiently known, and some have not even yet been described. Latent pathogens are transferred as endophytes in living plants. Thorough improvements of phytosanitary system could increase capability of the states for the detection and eradication of harmful organisms, but it will not prevent their introduction. Detection and eradication will fail in many cases. The only measure that can stop the transfer of these organisms among continents is a total ban on the transport of live plants (and their parts, including flowers) and on the transfer of soil (plants with roots, root balls and associated soil). Plant products in trade (non-living parts of plants) should be treated to kill all organisms in them. Only disinfected seeds and plant tissue cultures should be transported between continents. Lists of harmful organisms should be abandoned because they are incomplete, i.e. they do not contain unknown harmful organisms and organisms, which are in their native ecosystems harmless but could pose a risk if introduced elsewhere. Pest Risk Analyses are not a suitable basis for adequate measures since they are produced after assessing the damages from newly introduced organisms and when it is too late to be eradicated. A variety of measures to also prevent the transfer of pests among and within continents should be developed and implemented. For achieving all of these goals, the basic agreements on free trade among World Trade Organization members have to be changed and the precautionary principle should be used as a new paradigm. Following the precautionary principle, legal restrictions should be implemented at an early stage in response to threats of environmental harm, including in situations of scientific uncertainty. Already gathered knowledge of invasive organisms' pathways through trade, transport and tourism should be used as a basis for an immediate ban on trade that pose the highest risk for transferring alien organisms. Non-realization of these proposals will lead to high ecological and economic harm in forests. To inform society of the possible consequences of the non-realization of the proposed measures is at present the utmost important activity of all phytosanitary experts.

Corresponding author:

Prof. Dušan JURC

Slovenian Forestry Institute

Večna pot 2

1000 Ljubljana

SLOVENIA

e-mail: dusan.jurc@gozdis.si