

Introduction

When non-native species become invasive they can transform ecosystems, and threaten native and endangered species. All terrestrial and marine natural and semi-natural habitats are affected. Invasive non-native species also damage economic interests, such as agriculture, forestry and infrastructure, and can threaten public health. Thus the problems caused by invasive non-native species are serious; so serious that the introduction of invasive non-native species is identified as one of the main causes of biodiversity loss worldwide. This includes the loss of the distinctive local biodiversity that makes each area special. With increasing global trade and world travel, these problems are likely to continue to grow.

The United Kingdom has international obligations to address invasive non-native species issues, principally the Convention on Biological Diversity (CBD) and including the International Plant Protection Convention (IPPC), the Bern Convention on Conservation of European Wildlife and Habitats and the EC Habitats Directive. The sixth CBD Conference adopted a series of Guiding Principles for States to take into account in when developing their policies.

Defra set up a Review Group in March 2001 to review policy and legislation on non-native species throughout Great Britain¹. This is the report and recommendations of that Group. The CBD Guiding Principles have been taken into account in this report and are reflected in its recommendations.

This report recognises that many non-native species do not become *invasive* nor cause problems. Many non-native species provide considerable benefits to society, for example as agricultural, horticultural and forestry crops, or in the pet industry. The recommendations therefore aim to address the threats posed by *invasive* non-native species without hindering legitimate activities. The Review Group also accepted that the natural ranges of many species will change in future, and this needs to be recognised in policy development.

Key recommendations

The Review Group considered current arrangements for dealing with the introduction, establishment and spread of non-native species, and assessed the main pathways through which non-native species are introduced and spread. The report makes eight key **recommendations** to improve measures to limit the ecological and economic impact of invasive non-native species in Great Britain. More detailed recommendations are included in the main body of the report.

The key recommendations follow the three-stage hierarchical approach proposed by the CBD Guiding principles. This approach emphasises that measures to prevent introduction of invasive non-native species are generally far more cost-effective and environmentally desirable than measures taken following their introduction and establishment.

¹ The terms of reference and membership of the Review are in Annex 1 and 3 respectively.

- The first stage is to give priority to measures to prevent introductions of invasive non-native species.
- The second stage concerns detection of newly-introduced invasive non-native species and, where appropriate, rapid action to prevent their establishment.
- The third stage concerns longer-term mitigation measures, such as containment or control, for established invasive non-native species.

It is essential that the approach is prioritised to address the most serious threats. It is also acknowledged that some long-established non-native species are valued by society and are here to stay.

To accord with the CBD guiding principles, the rationale for future policies dealing with invasive non-native species should be developed using the precautionary approach. This assists in balancing the freedom and rights of individuals and organisations with the need to reduce the risk of adverse effects to the environment or other interests.

Responsibility for non-native species issues

Responsibility for non-native species is spread across several Government Departments and agencies. There is no single contact point and, although a variety of statutory powers and non-statutory measures exist to address non-native species issues these are unco-ordinated and focus on individual sectors.

The Review Group believes that the lack of a co-ordinating body in Government is the greatest constraint to drawing up effective, coherent policies to address invasive non-native species issues. The Review's Terms of Reference specifically acknowledge the need for co-ordination. It is necessary to focus the political responsibility for this issue by designating or creating a single lead co-ordinating organisation. Even though environmental policy is devolved, the nature of the issue is such that the Review Group strongly recommend that the lead co-ordinating organisation has a Great Britain-wide remit.

Specific expertise already exists within a range of organisations. The challenge will be to marshal and develop that expertise, and target efforts and resources towards agreed priorities. The co-ordinating body should liaise with all the relevant sectors (within and outwith Government), and provide advice on implementing appropriate measures. The Group is aware of the Cabinet Office study into Government structures and functions to tackle the illegal import of products of animal origin, non-animal origin (food), trade in endangered species, plants and plant products and non-native species. The Group considers that there are clear linkages between invasive non-native species issues and animal and wildlife disease issues and suggests that the Government should assess the opportunities for synergy with any other new biosecurity initiatives.

- **Key Recommendation 1: The Government should designate or create a single lead co-ordinating organisation to undertake the role of co-ordinating and ensuring consistency of application of non-native species policies across Government.**

Prevention measures

Introductions of many non-native species into Great Britain are regulated by licensing arrangements under the Wildlife and Countryside Act 1981 and other legislation (*e.g.*, Plant Health legislation, the Import of Live Fish Act 1980). All intentional introductions to the wild should be subject to proper consideration of the issues and specific consents (improvements in the coverage of plants are proposed in Key Recommendation 5). To enable this, satisfactory risk assessment procedures are required.

Many introduced non-native species do not become invasive and action must be targeted towards species likely to cause problems, based on thorough, transparent risk analyses. This should include impact assessment, cost estimation and cost-benefit analyses to agreed criteria (economic, biodiversity, social, animal welfare, animal and human health considerations). These analyses should provide criteria from which to prioritise actions for different species. Risk assessment procedures should identify potential problem species (*i.e.* those not yet introduced into Great Britain or a part of it) and will target and prioritise preventative action. They should also inform management decisions when invasive non-native species are discovered to be present in the wild. These procedures must be robust, so action taken is justifiable and widely accepted.

The internationally accepted risk assessment procedures used for plant health under the International Plant Protection Convention could form the basis for non-native risk assessment procedures.

- **Key Recommendation 2: Develop comprehensive, accepted risk assessment procedures to assess the risks posed by non-native species and identifying and prioritising prevention action.**

Codes of conduct

In addition to intentional introductions, many introductions of non-native species arise unintentionally as the result of legitimate activities, and preventative action to reduce these is needed. The group identified a number of different pathways by which non-native species can be introduced unintentionally into Great Britain.

Some of these pathways are already the subject of action, such as the International Maritime Organization's work to address the introduction of non-native species in ballast water. It is recommended that codes of conduct or best practice be drawn up with stakeholders in relevant sectors, to prevent introductions. Risk assessment procedures will be useful in prioritising areas for action. Codes of conduct can be adapted to specific industries or pathways and are relatively easy to update and amend. They should be given a statutory underpinning. It is recommended that codes of conduct be developed to address all relevant intentional and unintentional introduction pathways.

- **Key Recommendation 3: Develop codes of conduct to help prevent introductions for all relevant sectors in a participative fashion involving all relevant stakeholders.**

Raising awareness

Many problems posed by invasive non-native species stem from a lack of public, commercial and institutional understanding of the legislation prohibiting their release, and of the costs and consequences of their establishment. Better information and education, and improved public awareness of these issues are therefore all required. This should take account of translocation of native species outside their natural range within Great Britain, which can also become invasive. This approach should help to prevent problems arising and increase the public acceptance of measures taken to address existing problems. Management of invasive non-native species and eradication programmes are more likely to succeed if supported by an informed and co-operative public. Reducing the number of inadvertent introductions will allow agencies to concentrate on more productive actions, such as supporting codes of conduct. Different approaches will be needed to reach different audiences, for example, the general public, enforcement agencies, industries and trade professionals, conservation groups, scientists and policy makers.

- **Key Recommendation 4: Develop a targeted education and awareness strategy involving all relevant sectors.**

Existing legislation provides many of the powers required to implement an effective policy for invasive non-native species. However, there are specific areas where the existing legislation is inadequate to address the problems posed by invasive non-native species and this requires revision.

Key areas to improve prevention measures include improvements to Section 14 of the Wildlife and Countryside Act 1981, to rationalise the treatment of plants and animals and to enable the more regular update of Schedule 9 to ensure that problem species are included. A statutory basis for the codes of conduct set out in Key Recommendation 3 is also recommended.

Non-native bird species are afforded protection under the Wildlife and Countryside Act 1981, along with native species, due to the broad definition of wild birds used in that Act. This impedes management of invasive non-native bird species and these provisions should be revised, or a licensing solution found.

Fines for criminal offences in respect of invasive non-native species are very low in comparison to the potential costs of damage, control and repair. These remedial costs are typically met by the taxpayer, or the interests affected. The Review Group suggests that the level of fines available does not constitute a deterrent and recommends that where a release constitutes a criminal offence or wilful negligence then the “polluter pays” principle should be available, *i.e.* courts should be able to impose fines bearing some relation to the cost of reparation.

The statutory framework could also be revised to assist the capacity to undertake mitigation measures. Powers of compulsory access to undertake management or eradication of problem species are provided under some existing legislation, *e.g.* the Destructive Imported Animals Act 1932. However, there is no general provision in respect of non-native species, which would enable emergency control of a newly-discovered non-native species before it becomes firmly established and much more difficult and expensive to remove.

- **Key Recommendation 5: Revise and update existing legislation to improve handling of invasive non-native species issues.**

Detection and capacity for mitigation action

To detect and control non-native species, it is necessary to have sound information on their numbers and distribution. Surveillance at points of entry and in the wild is needed to inform management and control decisions. An enormous amount of wildlife monitoring is undertaken in Great Britain, although there are few nationwide arrangements specifically aimed at non-native species. Many existing national and local monitoring schemes provide some information about non-native species or could be adapted to do so. However, there are many gaps and improvements are required.

- **Key Recommendation 6: Establish adequate monitoring and surveillance arrangements for non-native species in Great Britain.**

Where non-native species are detected there must be the capacity to undertake management or eradication of invasive non-native species. This applies equally to newly-discovered and more established invasive non-native species. A structured approach must be developed to assess the impact and management of individual species. Control should not be the automatic response; this would be prohibitively expensive and publicly unacceptable. The policy should accommodate a range of options from acceptance of that species' presence and future review, through mitigation such as containment or control, to eradication. Such arrangements should make use of the capacity of existing organisations. The current capacity for action is greatest in those areas where economic interests are threatened, and least where biodiversity is threatened. A contingency capacity is needed to deal with newly-discovered non-native species to prevent them from becoming established.

- **Key Recommendation 7: Policies should be established with respect to management and control of invasive non-native species currently present or newly-arrived in the wild, and operational capacity be developed to implement these policies.**

Key Recommendation 4 will also support these measures, in terms of public acceptability of control and encouraging detection and reporting of non-native species. Key Recommendation 5 is also relevant, *e.g.* to enable access to land in order to undertake control operations.

Other supporting measures

Invasive non-native species are an international problem and the Government should continue to work through international mechanisms to address the issues and to contribute through information sharing. These include the Convention on Biological Diversity, the International Plant Protection Convention, the Bern Convention, the work of the International Maritime Organization and the International Civil Aviation Organisation, and the European Commission's consideration of how EC Wildlife Trade Regulations might address invasive non-native species issues.

Implementation of recommendations

It is essential that stakeholders are fully engaged in the development of policies and actions to address invasive non-native species. This should include all those who have an interest; such as conservationists, the wildlife trade, agriculture and horticulture, scientists, and animal welfare bodies. A consultative forum must meet regularly, to develop good understanding of the issues, and to ensure that the relevant sectors become engaged. Its remit should include consultation on policy issues, assisting with development of codes of conduct and assisting with public education and awareness work.

- **Key recommendation 8: Stakeholders should be fully consulted and engaged in development of invasive non-native species policies and actions through a mechanism such as a consultative forum.**

These key recommendations will require adequate funding if they are to be effective. This funding will need to be met from improved use and targeting of existing resources combined with some enhancement of resources in the areas of co-ordination and the development of monitoring, risk assessment and control measures.

Progress in addressing invasive non-native species issues must be maintained and the Review Group recommends that Government reviews progress towards meeting these recommendations after five years.