

Great Britain Invasive Non-Native Species Framework Strategy Initial Regulatory Impact Assessment

1. Title of Proposal

1.1 The Great Britain Invasive Non-Native Species Framework Strategy
(Protecting our natural heritage from invasive species)

2. Purpose and Intended Effect

The Objective

2.1 The overarching aim of this framework strategy is to minimise the risk posed, and reduce the negative impacts caused, by invasive non-native species in Great Britain.

2.2 We will do this by building on the recommendations in the 2003 “Review of non-native species policy – Report of the working group”. The GB Non-Native Species Programme Board is the over-arching co-ordinating body that will oversee the implementation of this framework strategy. It describes the main strategic mechanisms that the GB Administrations will establish and how we envisage the full range of interested bodies can then work together to give effect to the various chapters of the strategy.

2.3 Tackling the threats posed by invasive non-native species is a key task in pursuit of the protection of natural resources and the strategy proposes action on a range of areas including prevention, surveillance, rapid response, long term control, research and importantly – raising awareness of the risks.

2.4 Across the range of stakeholders, significant resources are currently devoted to non-native species issues and tackling invasive non-native species. This strategy aims to maximise the benefits secured with those resources by addressing important gaps. Some of those require:

- a strategic process for setting clear objectives, priorities and common purposes with which stakeholders can align their work;
- an agreed and systematic process for assessing the risks posed by non-native species and disseminating that information;

- effective capturing of and access to surveillance, monitoring and best practice information currently widely dispersed across stakeholders;
- a clear process for instigating rapid responses to invasive non-native species detected early;
- mechanisms for implementing preventative measures to increase awareness of the issues and reduce the risks of introductions along important pathways; and,
- an ability to better co-ordinate dispersed research effort.

The Background

2.5 Broadly defined, invasive non-native species are those that find themselves:

- outside of their natural range (even within the country where they are normally resident),
- free of their normal predators or other factors that keep them in check in their natural range,
- and able to dominate or otherwise impact on species and habitats in their new environment, or cause other environmental harm.

2.6 Biodiversity impacts:

Dominance can be achieved through predation, displacement, better competition for resources; whilst other impacts can include genetic harm through hybridisation leading to loss of genetic diversity through homogeneity, adverse habitat alteration and introduction of diseases to native species. Invasive species are often extremely persistent. For example, Japanese knotweed and aquatic invasive plants can re-grow from very small fragments. This makes treatment costly and technically difficult given that knotweed can damage concrete and brick walls whilst physical removal of aquatic invasive species can result in further dispersal of viable fragments down stream to establish new populations.

2.7 Economic and other impacts:

The impacts of invasive species result in not only loss of native biodiversity, but also loss of ecosystem services and degradation of quality of life. Impacts include flooding implications as drainage channels are clogged up with invasive aquatic plants, maintenance costs as outflow pipes are clogged up with zebra mussel, additional costs to the development industry as development sites have to be cleared of invasive plants or on-site treatment is proven necessary, fishery losses caused by large populations of topmouth gudgeon, agricultural losses caused by rabbits and deer, and the impacts on the aesthetic quality of our natural environment which requires costly control of invasive plants.

2.8 The risks to, and the significant adverse impacts that invasive non-native species can have on biodiversity, economic interests and quality of life are widely recognised in key circles though perhaps not as well appreciated

by the general public. The following paragraphs illustrate the significance attached to them as a threat to biodiversity:

“The threat to biodiversity due to invasive alien species is considered second only to that of habitat loss. They are thus a serious impediment to conservation and sustainable use of global, regional and local biodiversity, with significant undesirable impacts on the goods and services provided by ecosystems.” ***Convention on Biological Diversity website.***

“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.” ***Defra Non-Native Species Policy Review Group Report, 2003.***

“Invasive alien species were identified in the 6th EAP [Environmental Action Plan] as a priority for action. While support has been given to some localised eradication programmes via LIFE funding, the Community has still to develop a comprehensive strategy to address this issue. Work has now begun on this.” ***“HALTING THE LOSS OF BIODIVERSITY BY 2010 — AND BEYOND (Sustaining ecosystem services for human well-being)”, European Commission Communication COM(2006) 216 final.***

“The most important direct drivers of biodiversity loss and ecosystem service changes are habitat change ..., climate change, invasive alien species [emphasis added], overexploitation, and pollution.” ***Millennium Ecosystem Assessment report.***

2.9 The Defra Policy Review Group noted that the direct economic costs of invasive non-native species is likely to run into billions of pounds annually in Great Britain. Species like Japanese knotweed for example require control action where they interfere with private interests, often land use development. This is control on a 'where necessary' basis but the Review Group estimated that eradication of Japanese knotweed for example would cost £1.56 billion. The development industry expends significant sums of money in dealing with this plant and it is currently expected to cost tens of millions of pounds to deal with knotweed and other invasive plants on land destined to host infrastructure for the 2012 London Olympics. It is not at all unusual for Defra to receive several telephone calls per day from members of the public enquiring about advice on how to deal with Japanese knotweed.

2.10 A similar estimate for eradication of Giant hogweed was £100 million and eradication of Australian swamp stonecrop from 200 sites was estimated at between £1.8 million and £4 million. There are of course also invasive animal species with the grey squirrel imposing annual losses on the timber and forestry sector as well as severely impacting on our native red squirrel. The economic cost of damage to beech, sycamore and oak woodlands in 2000, assuming all damaged trees were rendered valueless, was estimated at an upper limit of c. £10 million. However, this is an example of an invasive species that is well established and for which there is currently no feasible significant control method.

2.11 Once they have become established, cost effective and technically feasible eradication is generally not possible leaving only ongoing, recurrent control and mitigation costs. The Millennium Ecosystem Assessment report noted that a fortuitous set of circumstances is often necessary for successful eradication and that prevention of introduction and early intervention measures have been shown to be more successful and cost effective.

2.12 Certain economic sectors are served by existing systems, such as plant and animal health and the fisheries sector. These sectors have specific bodies with clear responsibilities for intervention for example the plant health inspectors, State Veterinary Service and the Environment Agency. There is less clarity as regards responsibility for action when the threat is to non-commercially important biodiversity or habitats, consequently loss of ecosystem services is likely to have been under-recognised.

2.13 Under the Convention on Biological Diversity, a set of key guiding principles for tackling the issue have been agreed and adopted by the Contracting Parties. The widely accepted approach has three aspects: (i) prevention measures as the most cost effective measures, (ii) early detection through adequate surveillance and monitoring leading to rapid response, and (iii) longer term mitigation and control measures for those that have become established, including eradication where possible.

2.14 This strategy maintains this approach from the Policy Review Report and aims to establish a more effective GB strategic approach that will make the most effective use of available resources to put those principles into

practice. It will implement measures that will respond to all of the 2003 Review Report's key recommendations with the exception of the two that have already been implemented through the establishment of the GB Programme Board and the Stakeholder Forum. It also helps deliver against measures identified at European level in relation to the 2010 target to halt the loss of biodiversity – those measures include the development of national strategies on this particular issue.

Rationale for Government Intervention

2.15 An audit commissioned by the former English Nature identified 2,271 non-native species in England, of which 1,798 were flowering plants. Of the species that were terrestrial and freshwater plants, the majority were considered to be escapees from cultivation whereas most marine organisms arrived by accidental transport.

2.16 Similar work by Scottish Natural Heritage has identified 988 non-native species in Scotland and at least 734 established non-native vascular plants have been identified in Wales.

2.17 Only a small proportion of these become major problems. The English Nature audit identified 19 species as having strongly negative environmental impacts while the Scottish audit identified a list of 71 species considered to be moderately or highly significant. However, even a small number of invasive species can have very significant adverse impacts.

2.18 Non-native species can be introduced in many ways – sometimes intentionally but often unintentionally and without adequate appreciation of the risks involved. Annex 5 of the 2003 policy review report identifies some of the main pathways for introductions. In summary, it identified 8 marine pathways; 14 freshwater and 14 terrestrial pathways. These are separated into intentional and unintentional pathways.

2.19 These pathways cover a wide range of activities from transport of goods via international shipping to use of plants in recreational gardening. The number of possibilities for introductions are therefore very significant and it would be unrealistic to expect that a completely water-tight preventative system could be achieved. That would involve very significant and unacceptable regulatory restrictions or prohibitions on trade, travel and civil freedoms; or levels of resources for inspection and enforcement that are completely unrealistic.

2.20 In adopting the three-pronged approach therefore, the strategy will aim to achieve an effective balance between prevention and intervention. The rationale behind the greater emphasis on preventative measures, effective detection and surveillance leading to rapid responses is that the costs of doing so at an early stage of the process are far outweighed by the costs of reactive management once the invasive species become established.

3. Consultation

3.1 The following departments and organisations have been consulted on this draft document within the GB Administrations:

Cabinet Office
Central Science Laboratory
Countryside Council for Wales
Deer Commission Scotland
Department for Communities and Local Government
Department for Culture, Media and Sport
Department for Education and Skills
Department for International Development
Department for Transport
Department of Trade and Industry
Environment Agency
Environment Agency Wales
Foreign & Commonwealth Office
Forestry Commission
Forestry Commission Scotland
Forestry Commission Wales
HM Revenue and Customs
Home Office
Joint Nature Conservation Committee
Ministry of Defence
Natural England
Scottish Agricultural Science Agency
Scottish Environment Protection Agency
Scottish Executive Development Department
Scottish Executive Enterprise, Transport and Lifelong Learning Department
Scottish Executive Finance and Central Services Department
Scottish Natural Heritage

4. Options

Option 1 – Do Nothing

4.1 Doing nothing would allow invasive non-native species to destroy much of our native biodiversity and environmental assets. Whilst many invasive species were introduced long ago – demonstrating the lack of awareness of risks and the time-lag process that may occur during which some first become established, there are also more recent examples such as floating pennywort which appeared here in the 1980's. Taking just one example of its impacts - in the space of 3 years and despite attempts to control it, floating pennywort has infested 15 miles of waterways in Leicestershire and now threatens to infest the Trent catchment downstream thus significantly expanding the potential scope of its adverse environmental impacts.

4.2 The bullfrog, a native of north America was discovered in Essex in 2006. This is known to carry the chytrid fungus that has devastated amphibian populations worldwide. It can rapidly establish large populations and each female can lay up to 30,000 eggs that produce larvae that are unpalatable to most predators. Doing nothing would therefore carry enormous risks to native amphibian species and subsequently their role in the food-chain and ecosystem.

4.3 Given that the global scale of trade and travel is unlikely to abate significantly in the foreseeable future, doing nothing would also leave the continuing risks of the introduction of more invasive species un-checked.

Option 2 – Maintain the present situation

4.4 Current action against invasive non-native species is generally un-coordinated with the exception of a small number of regional initiatives such as the Cornwall Japanese Knotweed Forum and the Tweed Invasives Project, and the work of more local biodiversity action groups.

4.5 Much of the control work is undertaken by a range of bodies (governmental and non-governmental) or by individuals. This is done to address biodiversity impacts in important locations, for example at important nature conservation sites; to address public concerns because of the impacts on local quality of life; to avoid risks to land use development or to protect landowner's interests.

4.6 It is true that the most commonly known invasive species are well established and many were introduced many years ago. The threat of further

introductions of potentially invasive species is always present however and it is recognised that continuing high levels of global movement of goods and people sustain high levels of risk. Under present arrangements, tackling new invasives when discovered relies on the willingness of some organisation or other to accept responsibility, the availability of resources and of technically sound and cost-effective control methods.

4.7 Maintaining the present situation would therefore perpetuate the shortcomings identified by the Policy Review Group. Its eight key recommendations are listed in [annex \[2\]](#) of the draft strategy covered by this outline RIA. Although the GB Programme Board has already been established in response to one of those recommendations, it would be possible to stop there and use the Board simply to discuss and generally oversee policy development concerning the issue – however, this would be reaping only a part of its potential value.

Option 3 - Develop and implement a strategy

4.8 There is support amongst the wide variety of stakeholders – those whose interests are impacted by invasive species, whose activities might enable introductions or spread or whose role might involve taking action against them - for a high level strategic framework. There is a need to set out clear priorities, to help guide funding and other resource decisions and possibly above all else, to help achieve a coherent approach to the issue in order to develop a common sense of purpose for everyone.

4.9 The disparate roles, functions and powers available require the cohesion of a widely supported strategy in order to maximise returns for effort spent. The draft GB strategy aims to provide that and to enable the potential contributions of different stakeholders to be channelled effectively at the issues they are best placed to address, for example control work on the ground, general or applied research or improving education or biosecurity measures.

4.10 Achieving the right focus on prevention, early detection and intervention would enable us to minimise the impacts and the significant control or eradication costs that arise in connection with established invasive species. That will require the development of a joined-up approach across the variety of bodies involved, and making effective use of relevant expertise and capacity with a clear sense of long-term objectives.

4.11 Invasive species have no regard for administrative or political boundaries, a joined-up and clearly understood approach is therefore necessary on a GB basis.

5. Benefits

Economic

Option 1 – Do Nothing

5.1 None.

Option 2 – Maintain the present situation

5.2 Maintaining the current approach is not expected to produce significant economic benefits. Ongoing levels of expenditure and effort would probably remain necessary in order to enable current economic activities to continue whilst necessarily managing and limiting the adverse impacts of invasive species alongside.

Option 3 – Develop and implement a strategy

5.3 Implementation of a GB strategy is expected to produce economic benefits in a variety of ways.

5.4 These would include a co-ordinated ability to identify significant risks and, where feasible, to instigate rapid responses before establishment – thus reducing or avoiding greater potential economic impacts and significant future expenditure needs.

For example, only a few populations of the invasive South American water primrose were identified in 2006 and rapid action was instigated by the GB Programme Board to test methodologies for eradicating them at a cost of approximately £10,000. This species can double its biomass in 15 – 20 days under the most favourable water conditions and in one part of France, invaded 500 hectares in 5 years. The project is progressing well and the evidence is that the populations are successfully killed off so that much more significant control costs and environmental impacts will have been averted. It is estimated that control of this plant in France costs several million Euros per annum. Action on this scale clearly dwarfs the costs of later control as might be expected in some of the worst established cases. The combined annual cost of controlling other non-native aquatic plant species in GB (floating pennywort, parrots feather and Australian swamp stonecrop) has been estimated at over £3 million per annum.

This is a fortuitous example of early intervention pre-dating the strategy but illustrates what could be achieved more frequently with a more comprehensive approach towards surveillance, early detection and decision-making.

5.6 Minimising further introductions and achieving better value for money in terms of control efforts would help reduce the economic impacts of invasive species on the variety of sectors impacted.

5.7 Instigating more strategic prevention measures to reduce the risk of new introductions is the accepted international wisdom but success is clearly difficult to measure. It is not easy to account for a risk that did not arise or to demonstrate what did not get introduced and become a problem. Interceptions and early interventions can be recorded and counted but we are less likely to be able to demonstrate the threats averted because a more highly aware tourist, for example, decided against bringing something home that might later have been carelessly discarded.

5.8 Prevention successes however would neatly complement the resources expended on control of invasive species already here by landowners and various other bodies or organisations active in land and water management and conservation. More effective focussing of research could also help produce cheaper, practical and technically sound solutions to current problems.

5.9 Responsibility for tackling the impacts of invasive species already present is usually shared across all whose interests are threatened but only the GB Administrations are well placed to put in place effective prevention and rapid response measures, and to generally raise public standards of behaviour that create risks of introductions.

Environmental

Option 1 – Do Nothing

5.10 None.

Option 2 – Maintain the present situation

5.11 Maintaining the current approach is not expected to produce significant environmental benefits. Ongoing levels of control expenditure and effort would probably remain necessary in order to achieve some conservation successes against other environmental setbacks.

5.12 Committing as much as possible to control and mitigation of current impacts has little to commend it in the long term if no significant effort is put towards addressing the threats much earlier in the chain of events.

Option 3 – Develop and implement a strategy

5.13 Implementation of the draft strategy would bring a number of environmental benefits - the measures proposed in the draft strategy would lead to better safeguarded native biodiversity and environmental assets.

The risks of not having more comprehensive early response measures in place and how quickly a species can spread might be illustrated by the case of the Harlequin ladybird. This threatens our native ladybird species, they can also damage soft fruit and affect grapes and the wine-making industry. It quickly invaded North America, and from its debut appearance in the South East of England in summer of 2004 it has by now spread significantly throughout the South East, along the south coast, through the Midlands and had reached Cornwall and West Wales by November 2006.

5.14 Once a species has gained a foothold, devising safe and effective control measures for wide deployment takes time and involves the consideration of many risks. It may even prove impossible under the present state of knowledge or technical capability.

5.15 Whilst there can be no guarantee that every introduction could be intercepted, full implementation of the proposed strategy would significantly increase our ability to respond quickly in future to minimise the risks.

Social

Option 1 – Do Nothing

5.16 No social benefits are expected to accrue from doing nothing.

Option 2 – Maintain the present situation

5.17 Maintaining the current approach is not expected to produce significant social benefits. Ongoing and repeated levels of control expenditure and effort would probably remain necessary in order to conserve quality of life aspects where invasive species take over river banks and urban waterways for example, or to help ensure enjoyment of the countryside whilst complete solutions such as effective eradication remain not possible.

Option 3 – Develop and implement a strategy

5.18 Through its prevention and early response measures, and its enhanced basis for guiding long term control efforts set alongside better education and awareness of the risks; the strategy aims to address behaviours that create at least some of the risks, thus providing social benefits by reducing the likelihood of further introductions of invasive species and securing more effective control of their current impacts.

6. Costs

Economic

Option 1 – Do Nothing

6.1 Doing nothing will likely lead to sustained and probably additional economic impacts of the kind of magnitude discussed earlier in this document. There is no single cost that can be attributed to this although research has shown for example that non-native species impacts on crops may amount to somewhere between £200 - £300 million per year in the British Isles with the annual losses to cereal crops due to rabbit predation estimated at £40 million¹. Non-native insect and mite crop pest species are estimated to cause £490 million worth of damage². Damage caused by the grey squirrel has already been mentioned, (economic cost of damage to beech, sycamore and oak woodlands in 2000, assuming all damaged trees were rendered valueless, estimated at an upper limit of c. £10 million).

Option 2 – Maintain the present situation

6.2 Existing ongoing control and mitigation costs would continue and it is recognised that in some instances, given the risks and ease of re-colonisation, many of the current control costs are likely to require long-term continuation because complete eradication is either not technically feasible or not affordable. Climate change might also bring changes that will favour the invasive capabilities of some species which for example, have tended not to survive the British winters in the past.

Option 3 – Develop and implement a strategy

6.3 It is difficult to attribute firm costs to many of the measures proposed in the draft strategy because they will require elaboration and development in detail during the implementation phase.

6.4 The majority of the action proposed falls to the GB Administrations and their delivery bodies to facilitate and businesses such as farming, forestry, aquaculture and the development industry will continue to incur the costs of dealing with the current impacts of invasive species on their interests. However, the strategy could help facilitate more effective control initiatives and partnerships. Implementation of the strategy should not generally add further costs onto stakeholders although one possible exception is discussed below.

¹ “Biological Invasions – Economic and Environmental Costs of Alien Plant, Animal and Microbe Species”, D Pimentel, 2002.

² Ibid.

6.5 The strategy does not include specific regulatory measures – most of its measures are administrative or policy measures. Amongst the package of proposals however, is the intention to develop a legislative regime that is more fit for purpose and to make effective use of existing powers. Existing powers for example, include a power to prohibit the sale of non-native species or species listed in schedule 9 of the Wildlife and Countryside Act 1981. Whether exercise of this power would impact on business significantly remains to be seen in the context of developing specific proposals and such an exercise would involve its own RIA as necessary when that measure was being taken forward.

6.6 If there is significant trade in invasive species that might be prohibited, any shift in consumer choice in terms of buying more native plants or animals would be a factor the supply industry could respond to.

Environmental

Option 1 – Do Nothing

6.7 Adverse environmental impacts would continue unabated with no counterpoint except for the possibility of a viable economic use being found for an invasive species.

Option 2 – Maintain the present situation

6.8 There would need to be continued effort to control or mitigate the impacts of invasive non-native species with action in respect of the worst species, either currently present or detected in future, being dependent on exploration of available resources and acceptance of responsibility for such a programme. Loss of valuable time would lead to further expansion of the problem with concomitant escalating final costs of control.

6.9 Whilst some environmental successes would be secured therefore, in general, there would also be environmental losses which would be likely to continue to stretch out of affordable control. It is clear that despite current efforts, it will not be possible to keep invasive non-native species completely under control, vis a vis the floating pennywort example.

Option 3 – Develop and implement a strategy

6.10 Implementation of the strategy would not generally impose any environmental costs with the possible exception of some losses or damage as collateral to other control or mitigation action against invasive species. Overall however, any such losses would be far outweighed by the gains.

Social

Option 1 – Do Nothing

6.11 Quality of life as well as aspects of human safety where flood water drainage or defences are concerned, would be undermined by the impacts of invasive species. The example concerning floating pennywort mentioned earlier indicates how invasive species can quickly take over waterways and may give rise to significant water management issues.

6.12 Society would continue to bear the costs of controlling or mitigating against established invasive species where their impacts cannot be tolerated, and the costs arising from new invasive species introductions. Some new invasive species may have very severe impacts and may be strongly invasive such that control might quickly become impossible with the technical capability only perhaps becoming available through research and long after widespread establishment. Society would also lose the benefits and enjoyment of native biodiversity.

Option 2 – Maintain the present situation

6.13 Society would bear the continuing costs of controlling certain established invasive species. The lack of a comprehensive approach could lead to further losses to society and biodiversity. For example, adverse and misguided public reaction to the eradication of grey squirrels in Italy halted that programme such that by now, they pose a far greater threat to the native red squirrels. Unlike the situation now faced in GB, an attempt to deliver an early solution was thwarted in Italy and demonstrates the need for strategic planning and effective education and awareness programmes.

6.14 Invasive species generally impoverish society's access to native biodiversity. For example, the invasive American mink has impacted on birds, fish and mammals, especially the native water vole. The Environment Agency contributes over £160,000 a year for mink control to the water vole Biodiversity Action Plan. Business and recreational angling can also be impacted by invasive fish species.

6.15 The invasive Giant hogweed spreads along river banks in particular and poses a genuine health risk in that its sap causes serious skin blisters on exposure of the skin to sunlight, examples are known of people having suffered very severe injuries from this plant. There is current control effort in some areas but the species will persist.

Option 3 – Develop and implement a strategy

6.16 There would be no social costs in implementing the strategy other than those that might arise from a shift in use of plants and animals more in favour of native species. Directly curbing the use of certain species of plants or animals in some circumstances – for example through prohibiting their sale –

would have more direct effects but in the light of the risks involved, we expect few people would consider that this involved great loss to society in general.

6.17 Other legitimate uses such as having certain exotic pets or plants would continue but increasingly responsible behaviours would be required concerning their keeping and any disposal of unwanted non-native species of pets or disposal of unwanted non-native plants.

Business Sectors Affected

6.18 Land use industries such as farming, forestry and development would not be adversely affected by the strategy, indeed implementation of its measures would better safeguard their interests from future damaging impacts caused by invasive non-native species; and better targeted national, regional or local programmes should help them secure better returns for control effort through effective partnerships or simple aggregation of individual efforts aimed at tackling the same priority issues.

6.19 Trade and commerce industries supplying non-native plants or animals may be affected by any measures implemented concerning sale of species known to be, or presenting risks of becoming invasive. The exact impacts would not be known until the species concerned were identified and the extent of any trade in them was examined with the trade sector in the context of such measures being taken forward as explained earlier.

6.20 Promotion of consumer choice, for example, in terms of whether to use native or non-native plants for gardening, or by landscape developers and so forth might have some general impact but this would probably be a pressure the sector could respond to.

Issues of Equity and Fairness

6.21 No significant issues of equality and fairness have been identified.

6.22 There may be issues to resolve as regards any sharing of surveillance and monitoring information between government agencies, NGO bodies, academic institutions and so on if we are to develop a more comprehensive intelligence capacity to facilitate effective interventions. That remains to be explored during the implementation phase but the principle is supported as far as can be gleaned from current contact with stakeholders.

7. Impact on Small Businesses

7.1 The effect on this sector is expected to be much the same as for the businesses in general and we would not expect to find small business

significantly dependent on trade in species of the sort likely to justify being prohibited from sale.

7.2 For the majority of small business like farms, woodland managers, fisheries and so on, the strategy would bring benefits in terms of better protection of their interests against the threat of invasive species.

7.3 Small businesses in the supply market of exotic plants or animals might be asked to provide customers with better information about the risks of irresponsible behaviour but we do not envisage this would impose significant costs on the businesses themselves. This is a subject area to be explored in implementation of the Building Awareness and Understanding chapter of the strategy with stakeholders.

8. Enforcement and Sanctions

8.1 The introduction of the strategy will have no direct legislative impact stakeholders. However the strategy includes proposals to review current legislation and identify conflicts, omissions or shortcomings that would need to be rectified. At this stage however, it is not possible to identify specific legislative proposals that might be implemented in future and that would require enforcement. This is largely an enabling strategy, providing a high level strategic steer and framework within which the various work strands that touch upon the issue of non-native species can be drawn together into a single broad perspective.

9. Monitoring and Review

9.1 The strategy contains proposals for monitoring implementation and subsequent review. The GB Programme Board will oversee implementation of the strategy. We propose to develop an action plan in this regard and to report progress on the Non-Native Species Secretariat's website.

10. Consultation

10.1 Stakeholder involvement has been important in the development of this draft framework strategy. Much of its content takes forward the recommendations of the 2003 policy review report which is widely known amongst the main stakeholder organisations represented at the annual Stakeholder Forum.

10.2 The review report was followed by a short Government response and consultation on a small number of issues.

10.3 The 2006 annual Stakeholder Forum was largely devoted to consideration of a skeleton outline of the strategy and workshops held to discuss key aspects.

10.4 The strategy working group includes representation from trade, industry and the conservation sectors in addition to government or government-related bodies.

10.5 A stakeholder dialogue session was held on 31 October 2006 with a range of invited stakeholders who were not members of the working group to take a sounding on the general direction of the draft strategy at a fairly mature stage of its development.

11. Summary and Recommendation

11.1 The impacts of invasive non-native species on biodiversity, the environment generally, economic interests and quality of life are widely recognised as a globally important issue. The overall costs of these impacts are very significant. Based on just the research figures quoted in this document, the economic costs to this country amount to hundreds of millions of pounds and the benefits of implementing a strategic approach as proposed clearly outweigh the costs.

11.2 The nature of the threats they pose and the risks of their introduction and the impacts they can cause mean that strategically guided action across the three pronged approach set out under the Convention on Biological Diversity's Guiding Principles represents the most effective means for tackling the issues.

11.3 A co-ordinated and pro-active approach is clearly the most cost-effective solution and we strongly recommend that Option 3 – namely this GB framework strategy - be developed, supported and implemented in partnership with all those whose interests are affected.