

South Atlantic Invasive Species Strategy and Action Plan

October 2010

**Based on the contributions by participants to a Regional Meeting
Ascension Island, 14-19 May 2009**

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Strategy: Table of Contents

Foreword	2
Introduction	5
The need for a South Atlantic Strategy	5
Strengths and opportunities for regional cooperation	8
Challenges to be tackled across the region	9
Development and content of the Strategy	9
Who is the Strategy for?	10
Strategic aims	11
Scope and terminology	13
Objectives	15
A Building awareness and support	15
B Coordination, cooperation and capacity-building	16
C Prevention	18
D Monitoring, early detection and rapid response	21
E Control, management and restoration	22
Implementation	25
Monitoring	25
Annex 1: Action & Implementation Plan for the South Atlantic	27
Annex 2: Participants at the South Atlantic Invasive Species Regional Meeting	35
Annex 3: List of abbreviations	37

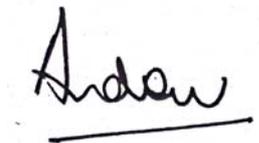
Foreword

The South Atlantic UK Overseas Territories (UKOTs) are small groups of islands, scattered over a huge area of ocean. Our unique ecosystems include South Georgia's glaciers, penguins and albatrosses; Ascension's white-sand turtle beaches; St Helena's cloud forests; Tristan da Cunha's Peak and Gough's mountainous landscape; and the Falklands' tussac islands. Our islands are incredibly diverse and valuable places that have been remarked on by explorers for centuries, and continue to draw visitors today.

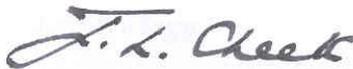
However, islands are inherently fragile places, and the impacts of introduced invasive species have caused havoc in islands ecosystems around the world. The South Atlantic UKOTs are no exception. Many species have been lost forever, and some ecosystems have been changed almost beyond recognition. Invasive species have negative economic and social impacts, and it is in everyone's interests to prevent further damage.

This Strategy seeks to draw together all elements of the invasive species issue, and to strengthen links between the South Atlantic UKOTs in this area. Sharing experiences and opportunities, and building on best practice in the South Atlantic Region will be the key to making progress and extending our knowledge and abilities to enable us to safeguard our biodiversity, economies, and community values.

We, the undersigned representatives of the South Atlantic UKOTs support the vision of this ambitious Strategy and as a Region we will endeavour to obtain the resources and work together to ensure it can be achieved. However, we cannot guarantee compliance without obtaining the necessary external funding.



His Excellency Governor
Andrew Gurr
Governor of St Helena



The Honourable Jan Cheek, MLA
Falkland Islands



Ross Denny
HH The Administrator
Ascension Island



Darren Christie
Environment Officer, Government of
**South Georgia and the South Sandwich
Islands**



Trevor Glass
Head of Conservation Department
Tristan da Cunha

Vision for the South Atlantic

The South Atlantic is the best-kept secret in the world. Our islands, our people and our biodiversity are unique.

We will work together to maintain and restore native ecosystems, prevent further damage from invasive species and to support sustainable livelihoods through actions driven by local communities, coordinated regionally and supported internationally.

Introduction

The need for a South Atlantic Strategy

The introduction of new species to small islands has a long history. For centuries, people have taken plants, animals and other organisms beyond their natural range, deliberately or unintentionally, as trade and settlement have expanded around the globe. The volume of such movements has risen sharply in recent decades and the transport, trade and travel associated with globalisation ensure that this growth will continue. Although they are some of the remotest islands on earth, the South Atlantic UKOTs, are dependent on imports and long-haul travel connections, and are not immune to these trends.

Not all introduced species cause problems in their new locations and some have considerable benefits for societies and economies, including in agriculture, horticulture and forestry. However, serious impacts can result from those species that become established and proliferate in ways that are detrimental to the environment and/or human interests. On islands, these typically include introduced animals such as rodents, goats and cats as well as some plant and invertebrate species.

“Invasive species” (often commonly called pests and weeds) can threaten biodiversity, natural resources, food security, human health and ecosystem services such as water supply and nutrient cycling. They can cause erosion and alter fire regimes. They can also compromise island economic development and livelihoods by affecting agriculture, fisheries, forestry and tourism, ultimately reducing land values, damaging buildings, and disrupting trade and transportation. In addition, they can cause or transmit disease to humans, animals and crops. Looking ahead, climate change is predicted to affect species distribution and abundance, and may increase the vulnerability of ecosystems to invasions.

Islands make up only 3% of the Earth's land but they contain more than 20% of the world's species. These species are particularly vulnerable to threats such as invasive species with 64% of all recent extinctions occurring on islands (90% of all bird extinctions in the last 400 years were on islands), and 45% of all species now listed as critically endangered are islanders. However, it is on islands that we can most easily stop these trends and restore ecosystems and there are growing national and international programmes to manage insular invasive species to achieve these biodiversity goals.

The island ecosystems of the South Atlantic UKOTs are particularly vulnerable to biological invasion. Our native species have evolved in isolation and often cannot cope with the impacts of predators, herbivores, insect pests, highly competitive weeds, and diseases brought in from continental areas or other islands. Moreover, our small administrations have few human and financial resources available to tackle such threats. Invasive species do not respect local, national, or international boundaries, so the issues need to be addressed at all levels (local, national, regional and supra-regional) if actions are to have any impact.

Invasive species impacts in the South Atlantic

Invasive species have already made an indelible mark on the “Forgotten Islands” of the South Atlantic. Although they are incredibly isolated (Tristan da Cunha lies approximately 3,000 kilometres from South Africa and is the most remote inhabited island in the world), this isolation has not been sufficient to shield them from negative impacts. Invasive species have acted along with other pressures to change each of these islands in different ways, eg:

- loss of globally significant colonies of seabirds on Tristan da Cunha;
- massive changes to the plant and invertebrate composition of ecosystems on St Helena;
- the ongoing “experiment” to vegetate Ascension, which began in the 19th century and has led to serious impacts on the island’s native fauna and flora.

The impacts of invasive species are ongoing. Introduced mice are eating endangered albatross chicks alive on Gough Island every winter. New introductions, such as earwigs in the Falkland Islands are costing businesses and individuals money to manage – in some cases, thousands of pounds per year. On St Helena, the annual Government budget for invasive species control is in excess of £250,000, and this does not include money spent by private landowners and other individuals¹.

Unless we act quickly at all levels, these impacts will continue, and further extinctions may be the result. Six endemic species of plants of St Helena and four on Ascension are now presumed extinct, and these losses have been largely due to the impacts of invasive species (herbivores and competing plants). From recent botanical survey work, we can estimate that one or two new plant species are still becoming established on Ascension, Tristan da Cunha, and St Helena every year – we do not yet know if they will cause environmental or economic problems in the future, but history tells us that it is likely that some of them will.

Despite the problems, good practice is increasing in the region: South Georgia is proving an excellent example with thorough quarantine procedures and a new building dedicated to biosecurity. Perhaps partly due to climate, and partly to its robust systems, new species are not arriving on South Georgia at the same rate as on the other South Atlantic Territories. By sharing experiences and skills, the South Atlantic UKOTs have the chance to reduce the negative impacts of invasive species across the region.

¹ Jenner, N. 2009. An assessment of the socio-economic impacts of invasive species in the UK South Atlantic Overseas Territories. Report to RSPB for the South Atlantic Invasive Species Project.

The international community has recognised that invasive species pose one of the most critical threats to biodiversity and are responsible for the extinction of more native island species than any other factor.

Countries around the world have committed themselves to take steps to prevent and minimise invasive species impacts on biodiversity, plant and animal health and other interests, notably through the Convention on Biological Diversity 1992 (CBD)². A strategic framework for this purpose is in place across Europe³ and under development for the European Union (EU)⁴. The United Kingdom (UK) has responded through the Invasive Non-Native Species Framework Strategy for Great Britain⁵ (GB NNS Strategy), which covers England, Wales and Scotland, and for Northern Ireland, through the cooperative Invasive Species Ireland project which covers the whole island of Ireland⁶.

The UK Overseas Territories (UKOTs) are mostly small islands, scattered through all three of the main oceans: the Atlantic, Pacific, and Indian. They are rich in biodiversity and high in endemism, yet many of their species and habitats remain seriously threatened. The UKOTs are self-governing with the UK retaining responsibility for defence and external affairs.

² <http://www.cbd.int/invasive/>.

³ Genovesi, P. and Shine, C., 2004. European Strategy on Invasive Alien Species. Nature and Environment No.137, Council of Europe Publishing.

⁴ Communication from the European Commission (Brussels, 3.12.2008) (COM(2008) 789 final).

⁵ Defra 2008. The Invasive Non-Native Species Framework Strategy for Great Britain. Department for Environment, Food and Rural Affairs, United Kingdom.

⁶ <http://www.invasivespeciesireland.com/>.

The UKOTs in the South Atlantic include Saint Helena, Ascension Island, Tristan da Cunha, the Falkland Islands and South Georgia and the South Sandwich Islands⁷. The British Antarctic Territory lies at the far south of the Atlantic, but is not included in this Strategy.

Several UKOTs have taken on commitments relevant to invasive species under multilateral environmental agreements, acting through the UK as sovereign state. The UKOTs were included in the UK Biodiversity Action Plan 1994 but have not been included in processes post-1994 and are not covered by the GB NNS Strategy published in 2008.

The South Atlantic UKOTs are associated with the EU as Overseas Countries and Territories of a Member State and collectively host a significant proportion of EU biodiversity, but are not covered by European environmental legislation such as the Habitats and Birds Directives. There have no joint framework for regional environmental coordination or to address invasive species threats. The special needs of small islands in this context were recently recognised at EU level:

“Isolated islands with high biodiversity, including most of the EU’s Overseas Entities, are exceptionally vulnerable to invasion, which can also have a disproportionate impact on local livelihoods, culture and economic opportunities . . .

The ecological, economic and social consequences of invasive species in the EU are significant and require a coordinated response”⁸.

It is clear that invasive species present a real threat to biodiversity and other values in the South Atlantic UKOTs. This Strategy has been produced in response to that threat.

Strengths and opportunities for regional cooperation

The South Atlantic UKOTs differ widely in socio-economic, environmental and other aspects but share important strengths.

Our islands may be scattered throughout a vast ocean but we have much in common to celebrate. We share an amazing and unique biological heritage and breathtaking landscapes on a planet where opportunities to experience a pristine environment are fast disappearing. On our unique islands with their small populations, life and livelihoods are still intimately and intricately linked to nature and natural resources. Isolation has kept our islands relatively pest-free compared to many other parts of the world and fostered dynamic, cohesive, and self-sufficient communities.

These assets give us a powerful incentive to support robust biosecurity policies to protect and enhance the distinctive character of the Territories.

On a practical level, we have considerable advantages. We share cultural ties, the same language and similar political and legal systems. We have ‘light’ administrative structures which should make it easier for agencies to work together and communicate directly with local people and trading partners. Pathways and points of entry for potentially invasive species, though expanding, are very limited compared to large islands and continental countries.

In 1999, the UK Government reviewed its relationship with what were then called the Dependent Territories, and produced a White Paper entitled “Partnership for Progress and Prosperity”. One of the new partnership principles referred to a commitment by HMG to “work with OT Governments increasingly to conserve, manage and protect the rich natural environment of the territories”. The White Paper suggested that an Environmental Charter should be negotiated with each UKOT to clarify the roles of the partners in this important work. In 2001, each of the South Atlantic UKOTs accordingly signed an Environment Charter with the UK Government to provide a framework to integrate environmental protection across sectoral policies and implement relevant multilateral agreements. The Charters commit each Territory’s Government to bring stakeholders together to develop a strategy for environmental action and to

⁷ NB: the constitutional relationship between the five South Atlantic UKOTs is complex, and is undergoing change at present (eg St Helena, Ascension and Tristan da Cunha are developing a new Constitution). For the purposes of this Strategy, each of the South Atlantic UKOTs is considered separately (although the South Sandwich Islands are included with South Georgia). The British Antarctic Territory is not included.

⁸ Communication from the European Commission (Brussels, 3.12.2008) (COM(2008) 789 final).

“ensure the protection and restoration of key habitats, species and landscape features through legislation and appropriate management structures and mechanisms, including a protected areas policy, and attempt the control and eradication of invasive species” (Commitment 2).

The UK Government’s Charter commitments include institutional and technical capacity-building, help with updating of environmental legislation, extension of appropriate multilateral environmental agreements, information-sharing and networking.

Meeting the objectives set out in this Strategy will assist both the UK Government and local governments to meet their Charter commitments.

Challenges to be tackled across the region

Despite their strengths, the UKOTs face very significant constraints when tackling invasive species issues and other environmental challenges. These vary between the very different islands but generally include:

- lack of awareness and understanding of the impacts of invasive species;
- insufficient baseline data, trained personnel, quarantine facilities and other equipment;
- weak networking, coordination and collaboration;
- inadequate legislation, regulations, cross-sectoral policies and enforcement, linked to low capacity and legislative backlog;
- competing priorities between different sectors;
- conflicts between local communities and external agencies, arising from poor communication and a lack of understanding of respective viewpoints;
- shortage of information on best practices for management; and
- restricted funding opportunities.

Many of these are common to other island regions but they are even more acute in the South Atlantic because of:

- extreme isolation:

- exceptionally low populations (< 10,000 people in the entire region);
- manpower constraints (limited working age populations);
- cost of hiring external experts, and lack of trained local people;
- the prohibitively high cost of electronic and telephone communications⁹;
- the expense and time involved in travelling both within the region and internationally; and
- political issues surrounding the Argentine claim to the Falklands and South Georgia.

Development and content of the Strategy

The Strategy was commissioned through the South Atlantic Invasive Species Project 2007-2009, supported by the European Commission’s Ninth European Development Fund. The project was led by the St Helena Government and managed by the Royal Society for the Protection of Birds (RSPB). The Project aimed to increase regional capacity to reduce the impact of invasive species in the five South Atlantic UKOTs and to pave the way for a regional strategy, regional early warning system and awareness raising and training activities. These outputs are essential to keep up the momentum and expertise developed through the Project.

The Strategy and its Action & Implementation Plan are based on the discussions and conclusions of a regional working meeting on Ascension Island (14-19 May 2009). Participants included representatives from the five UKOTs, the UK Government, RSPB, the IUCN Invasive Species Specialist Group, other non-Governmental organisations (NGOs) and research organisations (see Annex 2)

⁹ With the exception of Tristan da Cunha.

They spanned a range of sectors, including nature conservation, scientific research, environmental management, agriculture, plant and animal health, transport, public works, public relations and fund-raising. Through interactive working groups, participants assessed progress during the Project on each UKOT, identified remaining gaps and priorities for future efforts and drew up agreed lists of concrete actions adapted to Territory characteristics and needs.

Following the regional meeting, the Strategy was drafted by an external consultant taking account of the recommendations of the Project's legal and policy review¹⁰ and biosecurity/quarantine training audit¹¹. It draws on experience and lessons learnt outside the region in developing invasive species strategies in Great Britain, Europe and the Pacific and is fully aligned with international and regional instruments relevant to invasive species.

The draft Strategy was circulated for consultation with Territory administrations and project steering committees made up of other stakeholders before being finalised.

The Strategy sets out broad objectives for tackling regional invasive species threats, supported by Key Actions for each operational section. It is supported by an Action & Implementation Plan (see Annex 1) that lists specific activities to be carried out by one or more UKOTs and/or at the UK and EU levels. Each action is prioritised, assigned a lead agency and, as far as possible, costed in terms of finance and/or staff time and expertise.

The Action & Implementation Plan will permit practical progress on Strategy delivery to be measured. We suggest that the Action Plan should be updated every 2-3 years to take account of progress achieved and emerging issues.

Who is the Strategy for?

The Strategy is aimed at guiding future invasive species work in the South Atlantic, and it is primarily designed to be a useful working document for the South Atlantic community. Through the Strategy, we seek to engage all those who can contribute to invasive species prevention and management in the South Atlantic and help to build a more sustainable and dynamic future for our islands and communities. Potential audiences and users include:

- everyone who lives in the Territories;
- everyone who visits one of the Territories, whether for work or leisure;
- stakeholders whose activities provide opportunities for the introduction of potentially invasive organisms (exporting countries and territories; shipping and aviation operators; military services; traders and retailers; growers, breeders and resource managers);
- Territory Governments and decision-makers across all relevant departments;
- UK Government institutions and agencies concerned with the UKOTs;
- EU institutions concerned with the conservation of biodiversity in EU Overseas Entities;
- NGOs and research institutes.

¹⁰ Shine, C. 2009. Introduced Species/Biosecurity Legislative Review for South Atlantic UKOTs. RSPB South Atlantic Invasive Species project.

¹¹ Ikin, R. 2009. Border and Quarantine/Biosecurity Training. Draft Report on mission to the Falkland Islands, 3-7 November 2008. RSPB South Atlantic Invasive Species project.

Strategic aims

The Strategy aims to provide a focus for the South Atlantic Overseas Territories to develop effective prevention and response measures for invasive species and thus reduce damage to their natural heritage, communities, livelihoods and options for future development.

Specific aims of the Strategy are to:

- raise the global profile of the South Atlantic UKOTs as a haven for unique but currently threatened biodiversity;
- establish a common framework for all invasive species work in the South Atlantic and catalyse regional cooperation on a broader range of issues;
- place public participation and open communication at the forefront of island invasive species actions;
- improve coordination, efficiency and effectiveness of OT and UK Government decision-making and clarify responsibilities and functions at Territory and UK levels in relation to invasive species;
- identify key problem areas to be addressed in relation to invasive species and facilitate prioritisation;
- leverage efforts in and beyond the region to make best use of limited manpower, capacity and resources to address invasive species issues; and
- guide regional and local fundraising for invasive species prevention, contingency response capabilities and longer term investments.

Scope and terminology

The Strategy addresses invasive non-native species issues for all five South Atlantic UKOTs. Whilst recognising that priorities and problem species will vary between different islands, it provides a comprehensive framework to inform action at all levels (i.e. local, UK, Regional, EU, etc).

The scope of the Strategy includes the economic, environmental and social impacts of invasive species in terrestrial, freshwater and marine environments. The Strategy is therefore relevant not only to biodiversity concerns but also to wider biosecurity concerns related to plant, animal and human health. This inclusive approach, which recognises that diseases may be introduced via non-native species, is adapted to the characteristics of small island administrations where staff carry out multiple roles at points of entry and on-island. We envisage that it will provide opportunities to develop cross-linkages between different sectors and to mainstream biosecurity into operational mandates and procedures.

The Strategy covers all non-native species of plants, animals, diseases and other organisms, except genetically modified organisms, with a primary focus on those species that are known to be invasive or identified as potentially invasive.

The terms used in this Strategy correspond to the definitions in the GB NNS Strategy (2008) which are broadly aligned with those used under the Convention on Biological Diversity. Adapted to the specific context of islands:

- 'invasive species' means non-native species whose introduction and/or spread threaten biological diversity or have other unforeseen negative impacts (the equivalent of 'invasive alien species'¹² under the CBD);
- 'pathway' means the geographic route by which a species moves outside its natural range (past or present) and/or the human activity that gives rise to an intentional or unintentional introduction;
- 'vector' means the physical means or agent (i.e. aeroplane, ship) in or on which a species moves outside its natural range (past or present);
- 'biosecurity' refers to measures designed to prevent the spread of invasive species across international borders, between Territories and between islands within the same Territory.

¹² Invasive alien species are species introduced deliberately or unintentionally outside their natural habitats where they have the ability to establish themselves, invade, outcompete natives and take over the new environments. See <http://www.cbd.int/invasive/terms.shtml>.

Objectives

A Building awareness and support

The Strategy recognises that better understanding of invasive species impacts on biodiversity, the economy, human health and socio-cultural values is essential to generate support for action to manage and reduce them.

In the South Atlantic (as elsewhere in the world), the public, Governments and other key players often have limited understanding of the scale and range of threats posed by invasive species and their impact on island people and livelihoods. We also have little information on concrete costs and benefits of action although it is internationally agreed that taking preventive action now to address new risks will cost far less in the long term than attempts at control and containment after establishment.

At UK level, the UKOTs have low public and political visibility and the globally-significant richness and vulnerability of their biodiversity is

not well known. The UKOTs lack a high-level political 'champion'. A regionally-backed approach is needed to raise their profile and remind decision-makers of their international commitments to support biodiversity conservation around the world.

The success of this Strategy depends on changing perceptions, attitudes, behaviour and systems to foster a sense of shared responsibility on- and off-island and to strengthen political will for action. This means developing messages adapted to very different target audiences with very different priorities. We need to show that everyone is part of the problem and part of the solution: success stories do exist and need to be widely shared.

Positive communication that avoids the blame culture is essential on small islands with our close communities and reliance on imports. At the same time, it is important to be realistic and to manage public expectations. Voluntary best practice and compliance is always desirable and particularly important where resources for surveillance and enforcement are limited.

Sharing best practice – Building awareness in the Falkland Islands

A set of invasive species education materials, integrated with the school curriculum have been developed in the Falkland Islands, aimed at children aged 9-13. The materials include exercises in maths, English, and science – all getting the students to think about the broad impacts that invasive species may have.

Following the launch of the education materials, Falklands Conservation obtained funding support from the Falkland Islands Government for a series of school field trips to sites where invasive species issues are prominent. These include one rodent-free island, one farm site where invasive plants are causing problems for agriculture, and one island where there are introduced foxes.

A budget for island visits has also been included in other projects in the Falkland Islands in connection with rat eradications, and will allow visits by different sectors of the community. Previous visits to rodent-free sites during eradication programmes were very well subscribed and remembered – and those people who took part may be more likely to support future rodent eradication work as they have a better understanding of the potential benefits of the work.

Objective

Raise awareness of invasive species issues to:

- demonstrate to local communities and Governments the social, economic and environmental benefits of effective invasive species management and the risks and costs of inaction for South Atlantic biodiversity and future development opportunities;
- reach target audiences with clear and convincing messages to build understanding of action being taken, awareness of the role they can play and support for the decision-making process;
- enable the South Atlantic region to speak effectively with a common voice to UK and EU institutions, donors and research organisations; and

- secure sufficient resources for national and regional invasive species priorities to be addressed.

Key Actions

Key Action A1: secure long-term support from local communities through information, education and ongoing consultation and encourage voluntary participation in invasive species prevention, monitoring and management.

Key Action A2: identify priority target audiences for each Territory and the Region, and work with local tourism and education departments to develop joint regional information and guidance tailored to the sector and audience, building on existing materials to avoid duplication¹³, for:

- air and marine carriers, including military, fisheries and freight;
- cruise liners, yacht crews, other tourists and short-stay populations;
- agriculture, horticulture, retail, construction and development sectors;
- off-island stakeholders eg exporters, military command centres, fishing companies.

Key Action A3: implement a funded regional communication action plan, with professional support, to create a strong regional identity and provide for:

- imaginative branding of invasive species (slogan, 'flagship species', case studies);
- a dedicated regional website linked to UKOT invasive species websites and other sites;
- templates for brochures and fact sheets that can be adapted for use on individual Territories;
- regular streamlined publicity and dissemination of information using all available media;

¹³ For guidance addressed to different sectors, see eg National Invasive Species Strategy and Codes of Conduct (2003). Bahamas Environment, Science and Technology Commission (www.best.bs/Documents/bahamas_nationalstrategy.doc); Code of Conduct on Horticulture and Invasive Alien Plants (2009). European and Mediterranean Plant Protection Organization/Council of Europe (http://www.coe.int/t/dg4/cultureheritage/Conventions/Bern/GoE_IAS/7953-E_%20Code%20on%20Horticulture-%20rev_JB.pdf).

- leadership by individual Territories on specific public awareness items.

Key Action A4: move invasive species up the agenda of local, UK, and international decision-makers by:

- demonstrating through economic analysis the costs of existing and potential impacts in the region and the benefits of investing in biosecurity and rapid response;
- publicising successes in invasive species prevention and management;
- incorporating the issue into local political processes, UK, OCTA and international meetings;
- making representations to Members of the UK and European Parliaments.

Key Action A5: use the Strategy and the Action & Implementation Plan to identify priority actions for prevention and management and seek strategic funding from external donors.

B Coordination, cooperation and capacity-building

Building on a stronger sense of regional identity, the Strategy promotes closer coordination on and between the Territories and with the UK, and improved access to resources, skills and research.

The South Atlantic UKOTs have close links to the UK, but have separate constitutions and are independently governed. Through our Environment Charters (2001), we are committed to attempting the control and eradication of invasive species but small populations, lack of funds and lack of specialist expertise has delayed our progress in strengthening and implementing the necessary legislation.

The UK Government shares responsibility for improving regional biosecurity under the Environment Charters and international frameworks related to plant and animal health, environmental protection and shipping pathways (ballast water, biofouling of ships' hulls). It has direct control over UK military operations and bases in the South Atlantic and hosts the British Antarctic Survey which conducts activities from specific sites on South Georgia.

On general environmental matters, Territory Governments work in partnership with the UK Government, and the Department of Environment, Food and Rural Affairs (Defra) is the lead department. In practice, responsibilities and functions are divided between several organisations with varying familiarity with conditions and priorities on the ground. These include the Foreign and Commonwealth Office (FCO), the Department for International Development (DFID), Defra and the Joint Nature Conservation Committee (JNCC).

Because they are considered separately from the UK, the UKOTs cannot access the majority of UK or European funding sources. Moreover, they are also ineligible for Global Environment Facility support. Limited funding is available through the UK Overseas Territories Environment Programme and Defra's Darwin Initiative, but there is nothing specific or ongoing for invasive species. RSPB have estimated that £16 million per year is needed to undertake priority work for biodiversity protection in the UKOTs¹⁴: the funds currently available total around £2.5 million annually.

Networking with other islands and regions is essential given our isolation and tiny populations. However, communication (electronic, telephone, transport) within our region is usually expensive or slow. This reduces local access even to existing scientific and technical expertise and is thus highly inefficient. We have no dedicated mechanism to disseminate information and decisions directly between Territories without passing via the UK. The dedicated GB machinery for invasive species coordination (Programme Board, Secretariat, Risk Assessment Panel, Annual Stakeholder Forum) does not extend to the UKOTs.

Objective

Establish practical procedures for improved governance and ongoing cooperation on invasive species issues within and beyond the region by:

- mainstreaming biosecurity in Territory administration, policy and legislation;
- convincing Territory Governments of the benefits of working regionally;

- building capacity for cost-effective and proportionate action in the UKOTs;
- expanding regional access to information, expertise and targeted research.

Key actions

Key Action B1: on-island, clarify roles and responsibilities (amongst eg Customs, agriculture, plant/animal health and quarantine, environment, trade, transport, public works, the military, NGOs) and put in place a simple coordination mechanism appropriate to the Territory's scale and administrative system.

Key Action B2: designate a focal point for each Territory to lead communication on-island and within and beyond the region.

Key Action B3: progressively mainstream invasive species issues, in consultation with stakeholders:

- by adjusting legislation and departmental budgets in line with this Strategy and associated recommendations¹⁵;
- in decision-making processes on trade and transport, economic development and land-use planning, including environmental impact assessment.

Key Action B4: at UK level, designate one institution/agency to lead collaboration with UKOTs on regional biosecurity and biodiversity conservation and contribute to core funding to strengthen local capacity for prevention, early detection, contingency planning and management.

Key Action B5: establish, with political backing and secretariat support, a compact South Atlantic Invasive Species Committee, comprised of the five UKOT focal points, the UK lead representative and representatives of NGOs and other key stakeholders, with a mandate to:

- work electronically and streamline communication between all key players;
- liaise with and lobby UKOT representatives in London and UK and EU decision-makers;
- integrate invasive species issues into high-level documents, meetings and work programmes;

¹⁴ Rayment, M. (2007) Costing Biodiversity Priorities in the UK Overseas Territories. Unpublished report to RSPB.

¹⁵ *supra*, notes 10 and 11.

- support efforts to expand funding for UKOT invasive species programmes and develop cost-recovery mechanisms;
- organise a meeting of the Committee and other stakeholders every three years to review progress and update the Action & Implementation Plan as necessary.

Key Action B6: develop a low-cost regional electronic information exchange system, preferably supported through the existing GB Non-Native Species Mechanism¹⁶, with links to:

- baseline information (UKOT species inventories, status and distribution of invasive species);
- support for species identification (taxonomic databases);
- guidance for management and legislation (codes of practice, standardised protocols, risk assessments, technical fact sheets, information on control techniques, research papers);
- a register of regional invasive species specialists and links to other expert networks;
- institutions providing facilities unavailable in individual UKOTs eg biocontrol or rapid response facilities.

Key Action B7: identify options, in association with Government and communications stakeholders, to reduce the cost of and expand access to electronic and telecommunications within the region.

Key Action B8: develop a streamlined regional research plan, based on identification of local priorities, peer review of proposals and links to international research strategies and programmes (eg NERC, GSPC, CBD) where possible. The plan should be focused on applied research to provide UKOTs with policy-relevant information to tackle key invasive species problems.

C Prevention

The Strategy will support efforts to prevent unwanted organisms from reaching the South Atlantic UKOTs or moving between islands and thus reduce long-term costs and other impacts to their communities and other stakeholders.

Preventing the arrival of potentially invasive species on islands is the most effective way to avoid impacts and costs less per species than managing established invasives. Prevention works by identifying pathways and establishing a series of barriers at source or on-island:

- pre-export control aims to prevent the export of known invasive species from islands where they are established to other islands;
- pre-border control aims to regulate importation to an island;
- at-border control aims to prevent the arrival of invasive species on-island;
- post-border rapid response aims to eliminate newly-arrived introduced species before they can spread far beyond the point of arrival (see D).

An effective biosecurity system needs to include all four elements but prevention at source is particularly critical for the South Atlantic due to capacity and time constraints on-island. Our ship rotations are infrequent so there is community and commercial pressure to unload and distribute mail, internet orders and perishable commodities quickly, while weather permits. Our air links are largely operated by military authorities separately from local administrations. Transient visitors (eg yachts) can arrive at any time which has implications for manpower at points of entry. Our staff lack the specialist training and information resources needed to target inspections and make accurate identifications, especially for invertebrates. Many people travel between the South Atlantic UKOTs for work, and goods are also moved frequently between Territories.

Relevant legislation varies widely between Territories but is generally incomplete¹⁷. Pre-border biosecurity and offshore risk management are limited to plant/animal health certification, except for islands dedicated to research or restricted use (eg Gough, South Georgia). Some UKOTs implement prevention at borders mainly through plant/animal health regulations and Customs legislation which may not be up to date or cover high-risk pathways (eg seeds, used machinery, equipment for development projects, etc.). Specific controls on the import of non-native animals and plants

¹⁶ <http://www.nonnativespecies.org>.

¹⁷ Recommendations for region-wide and Territory-specific application are set out in Shine, C. 2009. Introduced Species/Biosecurity Legislative Review for South Atlantic UKOTs. RSPB South Atlantic Invasive Species project.

are very uneven. Inter-island biosecurity (eg protection of uninfested islets against incursions) is mostly weak.

More generally, we lack the capacity, data and criteria to assess risks scientifically, apply precaution where appropriate¹⁸ and support consistent decision-making. Our high turnover of personnel makes it particularly difficult to ensure continuity and make the most of experience gained. No prevention policies for marine pathways are in place in the region.

Sharing best practice – South Georgia’s quarantine building and procedures

Using funds from OTEP, the SAIS project, and its own budget, the Government of South Georgia and the South Sandwich Islands constructed a new biostore building at King Edward Point in 2009. The building will be used to clean field equipment prior to use on South Georgia, and will allow secure inspection of equipment on arrival on, and prior to it being transported around the island (especially to pest-free locations).

Before construction of this designated building, South Georgia were already leading the way in the South Atlantic with tourist self-check forms, rigorous pre-border biosecurity procedures and a DVD highlighting biosecurity issues that is distributed to cruise-ship visitors. Perhaps due to some of these measures, the number of new species that seem to be arriving on South Georgia is substantially lower than in some of the other UKOTs – even Gough Island has had more new establishments recorded.

¹⁸ “Where scientific knowledge is insufficient to assess accurately either the risk of a species becoming invasive, or its present or future impact, it should be assumed that impacts will occur and action should be taken to prevent the species spreading or becoming established” (*Guidelines for Invasive Species Management in the Pacific: A Pacific Strategy for managing pests, weeds and other invasive species*: South Pacific Regional Environment Programme/Secretariat of the Pacific Community, 2008).

Objectives

Effective systems are in place throughout the South Atlantic to regulate intentional introductions and to detect and manage unauthorised and unintentional introductions across international borders and between islands.

Each Territory has biosecurity policy and legislation in place, backed by staff with the knowledge, tools, powers and resources to implement and enforce it.

Island communities and other stakeholders understand and contribute to prevention efforts.

Key actions

Key Action C1: designate a Biosecurity Officer on each Territory with responsibility for improving prevention off-shore and on-island and provide training, resources and institutional support, including access to species identification advice (may be the UKOT focal point, see B2).

Key Action C2: ensure that legislation and protocols appropriate to Territory needs are in place and operating to underpin biosecurity¹⁹.

Key Action C3: develop regional information materials to raise awareness and decrease risks of introduction through passengers, their baggage, mail and other vectors.

Key Action C4: at targeted source points, work with trade, transport, military and research stakeholders to improve offshore risk management through:

- screening, inspection and treatment procedures by country of export/transshipment;
- improved packing and transport methods;
- on-board monitoring and necessary treatment along shipping routes;

- certification for reputable suppliers operating integrated pest management regimes;
- making import permits conditional on proof of compliance at point of export;
- operational support for biosecurity officers in key source ports.

Key Action C5: develop a simplified risk assessment system, building on the GB Non-Native Species Mechanism and using regional expertise, to guide and prioritise decision-making on:

- imports of commodities/equipment that provide pathways for unintentional introductions;
- intentional introductions of non-native species²⁰.

Key Action C6: strengthen prevention at point of entry by:

developing and sharing practical tools (Biosecurity Operational Manual, quarantine protocols) covering inspection of passengers, goods and certificates and quarantine procedures;

- building and maintaining adequate quarantine facilities and rodent-proof storage facilities;
- exploring regional options to develop cost-recovery mechanisms to contribute to funding biosecurity programmes and on-island control programmes.

Key Action C7: on and between islands on each Territory, prohibit the unauthorised introduction, cultivation or release of non-native species, irrespective of sector; promote best practice to minimise translocations on vehicles, equipment, packaging, soil and waste; and promote the use of locally produced alternatives to imported products where possible.

Key Action C8: use regional leverage to build support for robust UK/international policies on pathways and vectors for marine invasive species (ballast water, hull fouling) and expand targeted research.

¹⁹ See *supra*, notes 10 and 11, and Manzella, D. and Vapnek, J. 2007. *Development of an analytical tool to assess biosecurity legislation*. FAO legislative study No 96. FAO Rome (2007); Vapnek, J. and Manzella, D. 2007. *Guidelines for the revision of national phytosanitary legislation*. Legal paper online FAO No 63 (2007); and Shine, C. 2008. *Developing legal and institutional frameworks for invasive alien species*. Global Invasive Species Programme (www.gisp.org).

²⁰ Following the example of South Georgia and Tristan da Cunha, consider use of a 'white list' approach under which all introductions are prohibited pending an assessment that indicates they are unlikely to damage the Territory's biodiversity or other interests.

D Monitoring, early detection and rapid response

The Strategy recognises the need for an early warning system tailored to regional needs to support horizon-scanning and cost-effective intervention before a species becomes widely established.

Even though South Atlantic islands are small and have limited points of entry, the Territories currently lack procedures and capacity to identify emerging risks or implement emergency responses to detected incursions. We need to develop simple and proportionate approaches that take account of the frequency and nature of the risks and make as much use as possible of local communities and other island stakeholders. Electronic networking with external experts is essential because of the lack of on-island expertise.

Under an effective system, staff need to know up-front:

- what's already present in the Territory or some of its islands and islets (species inventories);
- what to look out for and where to focus observations;
- who to contact to identify a species;
- what are the highest-risk species that require prompt intervention;
- who to alert and how;
- what actions they have legal powers to take;
- what precautions to take to avoid creating further environmental harm.

Sharing best practice – baseline surveys and early action on Ascension and St Helena

In cooperation with RBG Kew and local partners, the SAIS project team undertook baseline botanical surveys on both St Helena and Ascension. The surveys involved recording all plant species observed on each island, and walking transects through 1km squares through all habitats.

On completion of the surveys, a rapid analysis of the invasiveness risks of the species recorded was carried out. In some cases, eg wild mango on Ascension, the risks were apparent from experience elsewhere in the region – on St Helena this plant is a major pest along waterways. Recommendations for rapid response (eradication) were made, and these were carried out by the team at the Ascension Conservation Department. Four species have now been targeted on Ascension: Indian rubber vine, wild mango, bull grass, and Jerusalem thorn. By acting early, we hope the team on Ascension have avoided a lot of work and expense in the future.

Objective

Establish and maintain effective systems to detect incursions of invasive species reliably and quickly with the backing of island communities and other stakeholders.

Consistent with the precautionary approach, mount rapid responses to newly-detected species before they have established and spread widely.

Key Actions

Key Action D1: working through each UKOT Biosecurity Officer/focal point, use the regional information exchange network (see action B6) to:

- generate an alert (watch) list based on local reports and information from source points;
- access diagnostic support on species ecology/taxonomy;
- share information on the status and distribution of invasive and potentially invasive species.

Key Action D2: prioritise and target effective monitoring systems at:

- places vulnerable to new incursions, eg points of entry into and between islands (airports, ports, harbours, quays, warehouses, surrounding marine waters; disturbed land);

- sites in need of protection (sensitive natural areas, biodiversity hotspots, rodent-free islands).

Key Action D3: mobilise available manpower for monitoring through:

- active monitoring: provide training and build capacity in relevant departments; engage other stakeholders, particularly the military;
- passive monitoring: develop information alerts on a limited number of target species.

Key Action D4: create a reporting 'hotline' on each UKOT, linked to the South Atlantic Invasive Species Committee.

Key Action D5: create an enabling framework by:

- incorporating emergency management of new incursions into existing plans and funding mechanisms for disaster management (eg oil spills) and military operations;
- allocating lead and support roles in advance;
- adjusting legislation where necessary to permit safe use of potentially harmful products and substances (eg pesticides, biocontrol agents);
- introducing explicit powers to access, inspect and treat infested public and private areas.

Key Action D6: at regional level, develop and field test generic contingency plans for rapid response to common threats (eg shipwrecks and other marine contamination events, rodents, wildlife disease, highly invasive plants) that can be adapted to the needs of individual UKOTs and:

- provide an adequate supply of equipment, materials and products to be stored on-island or held at the regional level;
- identify expert responders in or beyond the UKOT that can form a task force where needed;
- consider establishment of regional emergency response funds.

E Control, management and restoration

The Strategy provides for measures to tackle established invasives as part of integrated land management policies in

order to protect and restore native South Atlantic biodiversity.

We recognise that a structured approach is needed for invasive species management, consistent with international practice²¹;

- eradication (complete removal from the island) is the preferred option since management cost is minimal once it is achieved although continued surveillance is required to ensure that re-invasion does not occur;
- if assessment shows that eradication is not feasible with available resources, biological control should be considered (with careful assessment of potential risks and the need for long-term monitoring);
- species that cannot be eradicated or controlled biologically, and invasive species whose value to people prevents the use of biocontrol, should be contained within delimited areas or excluded from important areas where feasible;
- permanent control of an established invasive species population by chemical or physical methods requires continual management and expenditure so should be considered the last resort option;
- site restoration following removal of invasive species is vital to avoid reinvasion.

The South Atlantic UKOTs face a range of challenges in putting such approaches into practice. These are sometimes technical (eg challenging terrain; lack of expertise, manpower, equipment or criteria for prioritisation) and sometimes political or social (eg conflicts of interest; community opposition; outdated/inadequate legislation; lack of accountability).

²¹ Eg Wittenburg, R and Cock, M. (eds) 2001. Invasive Alien Species: A Toolkit of Best Prevention and Management Practices (GISP/CABI); Guiding Principles for the prevention, introduction and mitigation of impacts of alien species that threaten ecosystems, habitats or species (annexed to COP Decision VI/23, adopted at COP6 in 2002; Guidelines for Invasive Species Management in the Pacific: A Pacific Strategy for managing pests, weeds and other invasive species (South Pacific Regional Environment Programme/Secretariat of the Pacific Community, 2008).

Sharing best practice – eradications in the Tristan group (Tristan da Cunha)

There are four main islands in the Tristan group, each with its own selection of introduced species. The Tristan government and its collaborators have developed some expertise in choosing appropriate action, given the size and type of each problem. For example, on Nightingale Island New Zealand flax had become established after being planted for use in thatching, and was spreading into natural areas. The species was targeted for eradication, and ongoing local efforts have now reduced the population to a few individual plants. An OTEP project to control loganberry at Sandy Point on the main island of Tristan is ongoing: this is not a total eradication but aims to clear large areas of this invasive plant, and restore local orchards for fruit cultivation.

The most challenging projects in the islands are perhaps those on Gough Island, where introduced house mice are threatening two bird species (the Gough bunting and Tristan albatross) with imminent extinction and the alien plant *Sagina procumbens* has become established with the potential to dramatically modify upland habitats. A systematic, science-based approach is being taken to these problems - the Tristan da Cunha government has supported the development of a feasibility study for eradication of the mice (funded through OTEP), and new methods for *Sagina* control have been developed and are being trialled. Strict biosecurity requirements are now in place to prevent future introductions, and these are supported by robust legislation. If the Gough projects succeed, they will provide a flagship for the South Atlantic, and globally!

Objectives

Impacts of established invasive species are reduced or eliminated:

- by means of effective eradication, containment, exclusion or population reduction using physical, chemical or biological control;
- based on realistic objectives supported by informed communities and land owners;
- backed by appropriate policies and legislation applicable to all concerned sectors and not limited to public land or areas dedicated to conservation; and
- to promote recovery of native species and ecosystems and other affected values.

Key Actions

Key Action E1: at regional level, develop decision support tools to help UKOTs to:

- determine feasibility and costs of management options and prioritise use of available resources;
- implement an adaptive, multi-species approach (anticipate non-target species impacts);
- design projects to best practice standards, with the full participation of all concerned;
- monitor project results and evaluate success in protecting biodiversity or other values.

Key Action E2: at local level, encourage volunteering through high-level leadership and demonstration projects to tackle visible invasive species problems and show concrete benefits for flagship native species of importance to the community.

Key Action E3: recognise and address possible conflicts of interest over introduced species of value to people and/or ethical objections to species control.

Key Action E4: work towards adopting or adjusting legislation to:

- list invasive species for mandatory control, regardless of land ownership (eg noxious weeds, nuisance animals);
- require owners/occupiers to notify competent authorities of the presence of listed species on their land and to take prescribed control measures where feasible/appropriate;
- authorise competent authorities to access and inspect land and to recover the costs of control from owners/occupiers who do not comply with legal requirements;
- consider incentives for control through rural development or other programmes;
- establish meaningful penalties for offences.

Key Action E5: mainstream invasive species management and habitat restoration goals by:

- clarifying roles and responsibilities for control and enforcement, particularly between conservation, agriculture and military authorities;
- addressing invasive species risks through environmental impact assessment procedures;
- promoting sustainable use of native or known non-invasive species in policies and plans for erosion control, forestry, landscaping, construction, infrastructure and waste disposal.

Key Action E6: design and implement Territory action plans, prioritising measures to prevent further spread of highly-invasive species (eg rodents, feral animals, fast-spreading weeds) to areas that are currently not invaded or where eradication is still feasible, and provide training to support implementation of locally-driven priorities.

Key Action E7: support on-island nursery projects to produce native plants for habitat restoration and wider local use, as well as projects to restore island ecosystems using the plants produced.

Implementation

The actions contained in this Regional Strategy will need to be implemented at many levels: on-Territory by local governments and NGOs; in the UK by stakeholders there; and also at EU and international level.

Locally, there are already invasive species project steering groups on St Helena, Ascension and the Falkland Islands. Tristan da Cunha has a Conservation Committee who have served as a steering group there. These steering groups could continue to offer advice on local implementation of this Strategy.

Focal points are to be appointed (see action B2), and it is expected that they will take the lead on driving actions on-island, and also throughout the region. Focal points will also lead on measuring implementation of the Strategy (see monitoring section, below).

The South Atlantic Invasive Species Committee (action B5) will act as a regional steering group for invasive species work in the region, and can include stakeholders from off-island.

Monitoring

It will be important to monitor progress with Strategy implementation to ensure goals are met. A two or three yearly meeting of the Committee has been proposed in order to allow assessment of regional achievements (see action B5).

In between meetings, monitoring of ongoing progress will also be needed in order to maintain enthusiasm and build regional links and overall capacity. When the regional website is established (see action A3), it is proposed that a restricted area is established, and this is set up so that each UKOT focal point and other committee members can report progress against an online version of the Strategy Action & Implementation Plan on an ongoing basis.

Annex 1: Action & Implementation Plan for the South Atlantic

Priority: H = High, M = Medium, L = Low. Note: all activities are key to overall success, so rankings are intended only to be relative.

KEY ACTION	TASK	PRIORIT	ASI	SH	TDC	FLK	SG	REGION	UK/EU/et	START DATE	END DATE	LEAD/SUPPORT	COST £/€
A: AWARENESS AND SUPPORT													
A1.1	Introduce Invasive Species Action Day	M	✓	✓	✓	✓	✓			ASAP	Ongoing	UKOTs	N/A
A1.2	Recruit volunteers at local, regional and international levels for all aspects of invasive species management	M	✓	✓	✓	✓		✓	✓	ASAP	Ongoing	UKOTs	N/A
A1.3	Produce educational materials with inter-island input and develop pupil and teacher training	M	✓	✓	✓	✓	✓	FI	✓	ASAP	Dec 2009	UKOTs	€20k
A1.4	Provide resource packs/field trips for schools	M	✓	✓	✓	✓				ASAP	Dec 2009	UKOTs	€10k
A1.5	Use demonstration projects as a catalyst	M	✓	✓	✓	✓				ASAP	Ongoing	UKOTs	N/A
A2.1	Develop targeted information for South American/African Authorities, fishing companies, BAS, AWS suppliers.	H	✓	✓	✓	✓	✓	✓	✓	ASAP	Apr 2010	UKOTs	€5k
A2.2	Produce DVD for cruise ships (via IAATO), air bridge (RAF, LAN Chile), RMS and yachting sector	M	✓	✓	✓	✓	✓	✓		ASAP	End 2010	UKOTs	€100k
A2.3	Develop information products for the military and associated personnel	H	✓			✓	✓		✓	ASAP	Ongoing	UKOTs	€2k
A3.1	Develop a media 'brand' for South Atlantic	M	✓	✓	✓	✓	✓	✓		2010	Mid-2010	UKOTs	€20k
A3.2	Create South Atlantic invasive species website and place biosecurity link on all relevant site (human health, agriculture and tourism)	M	✓	✓	✓	✓	✓	✓		2010	Mid-2010	UKOTs	€20k
A3.3	Develop case studies for internet (through existing medium) and ensure these are regularly updated.	M	✓	✓	✓	✓	✓	✓		ASAP	Ongoing	UKOTs	N/A
A3.4	Expand local TV/radio programming/ coverage, including through British Forces Broadcasting Services (BFBS), Saint FM, Radio St Helena, Cape Talk	L	✓	✓	✓	✓	✓	✓				UKOTs	Unclear

KEY ACTION	TASK	PRIORIT	ASI	SH	TDC	FLK	SG	REGION	UK/EU/et	START DATE	END DATE	LEAD/SUPPORT	COST £/€
A: AWARENESS AND SUPPORT													
A3.5	Regular dissemination of articles and information through local and national newspapers and electronic media	H	✓	✓	✓	✓	✓ FI	✓			Ongoing	UKOTs	N/A
A3.6	Develop prospectus for 'selling' to TV and radio producers	L						✓	✓	2010		UK orgs	N/A
A3.7	Investigate production of South Atlantic invasive species films to be shown on international TV (approach Steven Moss, and South African contacts)	L						✓	✓	2010		UK orgs	N/A
A4.1	Assess economic benefits of implementing/ not implementing Action Plan	M	✓	✓	✓	✓	✓	✓	✓	2010		UKOTs, UK orgs	€30k
A4.2	Ensure invasive species are a regular item on ExCo/LegCo agendas	M	✓	✓	✓	✓	✓			Dec 2009	Ongoing	UKOTs	N/A
A4.3	Ensure exchange of information with island and UK representatives, MPs and individuals.	H	✓	✓	✓	✓	✓				Ongoing	UKOTs, UK orgs	N/A
A4.4	Lobby UK Government (Defra, FCO, JNCC) to include more coverage of OTs	H						✓	✓		Ongoing	UKOTs, UK orgs	N/A
A4.5	Seek endorsement at all levels of regional IS Action Plan	H	✓	✓	✓	✓	✓	✓	✓	Nov 09	Ongoing	ANRD	N/A
A4.6	Identify funding requirements, lobby Government for more strategic and sustainable funds, including for invasives control	H						✓	✓	ASAP	Ongoing	UK Orgs	N/A
A5.1	Participate in JNCC Funding Training Programme	M	✓	✓	✓	✓	✓	✓	✓		2009/10	JNCC	N/A
A5.2	Develop proposal for EU Environment and Sustainable Management of Natural Resources Including Energy thematic programme (ENRTP)	H	✓	✓	✓	✓	✓	✓	✓	ASAP	2009	SAIS Project	N/A

KEY ACTION	TASK	PRIORITY	ASI	SH	TDC	FLK	SG	REGION	UK/EU/etc	START DATE	END DATE	LEAD/SUPPORT	COST £/€
B: COORDINATION, COOPERATION, AND CAPACITY-BUILDING													
B1	Clarify roles and responsibilities and develop on-island coordination	H	✓	✓	✓	✓	✓			ASAP		UKOTs	N/A
B2	Designate focal point for inter-island and UK liaison	H	✓	✓	✓	✓	✓			ASAP		UKOTs	N/A
B3.1	Integrate IS priorities into Government budgets.	H	✓	✓	✓	✓	✓			ASAP	Ongoing	UKOTs	N/A
B3.2	Raise awareness and train staff in relevant Government departments (eg Public Works)	H	✓	✓	✓	✓	✓			ASAP	Ongoing	All	N/A
B4	Designate UK lead responsibility for UKOT invasive species coordination and resourcing	H						✓		ASAP		All	N/A
B5	Establish South Atlantic Invasive Species Committee	M	✓	✓	✓	✓	✓	✓	✓		2010	All	N/A
B6	Develop regional information exchange system to provide more detailed information, including species identification	M	✓	✓	✓	✓	✓	✓	✓		Ongoing	UK Orgs, UKOTs	€2k
B6	Provide/complete on-island identification reference resources for all existing and presumed extinct species	M	✓	✓	✓	✓	✓	✓	✓		End 2010	UKOTs, UK Orgs	€50k
B6	Develop list of experts to support taxonomic identification	H	✓	✓	✓	✓	✓	✓			Mid 2010	UKOTs, UK Orgs	N/A
B6	Produce species identification key (including risk analysis)	M	✓	✓	✓	✓	✓	✓			2010	UKOTs, UK Orgs	€50k
B7	Assess options to increase access to communications	H	✓	✓		✓		✓	✓		Ongoing	All	N/A
B8	Identify on-island problems to determine applied research priorities	H	✓	✓	✓	✓	✓	✓			2010	UKOTs, UK Orgs	N/A
B8	Increase understanding of marine ecosystems and documentation of native marine species	H	✓	✓	✓	✓	✓	✓			2012	UKOTs, UK Orgs	€100k

KEY ACTION	TASK	PRIORITY	ASI	SH	TDC	FLK	SG	REGION	UK/EU/etc	START DATE	END DATE	LEAD/SUPPORT	COST £/€
C: PREVENTION													
C1.1	Identify a dedicated Biosecurity Officer for each Territory	H	✓	✓	✓	✓	✓	✓	✓	ASAP	mid-2010	UKOTs	Salary costs
C1.2	Biosecurity training of all staff needed to implement effective system	M	✓	✓		✓	✓				2010	UKOTs	Training costs
C2.1	Provide technical consultant support to review regional biosecurity needs and support establishment of effective system	M						✓			mid-2010	UK orgs	€50k
C2.2	Review biosecurity needs, justify and define Terms Of Reference	H	✓	✓	✓	✓	✓				Dec 2009	UKOTs	€20k
C2.3	Draft/enact biosecurity legislation	M	✓	✓	✓	✓	✓				2010	UKOTs	€50k
C2.4	Incorporate biosecurity as a high priority in strategic and sectoral planning	M	✓	✓	✓	✓	✓			ASAP	On-going	UKOTs	N/A
C3	Produce leaflets and posters for display at airports/ports/onboard ships and on stakeholder websites eg (FI Ports & Harbours booklet)	M	✓	✓	✓	✓	✓			2010	Ongoing	UKOTs	€5k
C4.1	Engage authorities at source ports and points of departure, where appropriate	M	✓	✓	✓	✓	✓	✓		2010	Ongoing	UKOTs	N/A
C4.2	Use regional leverage to engage military stakeholders to incorporate biosecurity, and quarantine measures into military protocols, and operating manuals	M	✓			✓		✓	✓		Ongoing	MoD, US Air Force	N/A
C4.3	Raise awareness at appropriate level on transport pathways	M	✓	✓	✓	✓	✓	✓		By Dec 2009	Ongoing	UKOTs	N/A
C5	Carry out an audit of pathway and vector risks, including for marine invasive species	H	✓	✓	✓	✓	✓	✓			Dec 2010	UKOTs	€20k
C6.1	Draft & implement practical quarantine manuals and procedures	H	✓	✓	✓	✓	✓				Dec 2010	UKOTs	€50k
C6.2	Construct simple biostores (secure storage facilities) and address difficulties on the ground	H	✓	✓	✓	✓	✓				2012	UKOTs	€500k
C7	Develop inter-island protocols to improve internal biosecurity	H	✓	✓	✓	✓	✓				2010	UKOTs	N/A
C8	Lobby UK Government re adoption of instruments and standards for marine pathways (ballast water, hull-fouling)	M	✓	✓	✓	✓	✓	✓	✓	2009	Ongoing	All	N/A

KEY ACTION	TASK	PRIORITY	ASI	SH	TDC	FLK	SG	REGION	UK/EU/etc	START DATE	END DATE	LEAD/ SUPPORT	COST £/€
D: MONITORING, EARLY DETECTION AND RAPID RESPONSE													
D1.1	Establish communications between focal points/Biosecurity Officers and ports of call.	H	✓	✓	✓	✓	✓	✓		2009	Ongoing	UKOTs	N/A
D1.2	Train Biosecurity officers to access existing databases, info systems, expert registers.	M	✓	✓	✓	✓	✓			2010	Ongoing	UKOTs	€30k
D1.3	Develop/expand and regularly update Watch (Alert) Lists for high risk IS	L	✓	✓	✓	✓	✓	✓		2010	Dec 2010	UKOTs	€25k
D1.4	Establish links to international early warning systems (e.g. GB)	L	✓	✓	✓	✓	✓	✓			2010	UKOTs, UK orgs	N/A
D1.5	Set up external Advisory group/individuals to assist with broad identification (not just invasives)	L	✓	✓	✓	✓	✓	✓	✓		2010	UKOTs, UK Orgs	N/A
D2.1	Identify sites for targeted monitoring	M	✓	✓	✓	✓	✓			ASAP	Ongoing	UKOTs	N/A
D3.1	Train staff for active monitoring programmes	M	✓	✓	✓	✓	✓			ASAP	Ongoing	UKOTs	€50k
D3.2	Use posters, identification sheets, local media to engage communities in monitoring	M	✓	✓	✓	✓	✓			ASAP	Ongoing	UKOTs	€20k
D4.1	Create a reporting system to be run by Biosecurity Officer/focal point	L	✓	✓	✓	✓	✓	✓		ASAP	April 2010	UKOTs	€5k
D4.2	Feed information back into Regional databases	L	✓	✓	✓	✓	✓			2010		UKOTs	N/A
D5	Put enabling legislation, plans and mandates in place so can respond quickly	M	✓	✓	✓	✓	✓			ASAP	Sept 2010	UKOTs	N/A
D6.1	Establish contingency plan and lines of decision making.	M	✓	✓	✓	✓	✓			ASAP	June 2010	UKOTs	€5k
D6.2	Establish rapid response 'kill kits' (up-front supply of equipment and products)	M	✓	✓	✓	✓	✓			ASAP	Ongoing	UKOTs	€30k
D6.3	Set up 'hit squad' of trained responders (identifying individuals across departments and NGOs)	M	✓	✓	✓	✓	✓	✓		2010		UKOTs	€300k
D6.4	Engage with military (assist with rapid response and voluntary efforts)	L	✓			✓	✓	✓	✓	ASAP	Ongoing	UKOTs, UK orgs	N/A
D6.5	Lobby UK/local Government to link to or establish contingency fund.	M				✓	✓	✓	✓	2010	Ongoing	UK orgs, UKOTs	N/A
D6.6	Introduce a regional levy.	L							✓	2011	Ongoing	UKOTs	N/A

KEY ACTION	TASK	PRIORITY	ASI	SH	TDC	FLK	SG	REGION	UK/EU/etc	START DATE	END DATE	LEAD/ LEAD/ SUPPORT	COST £/€
E: CONTROL, MANAGEMENT, AND RESTORATION													
E1.1	Provide regional backing for decision support scheme, training and knowledge exchange programme between Territories	M						✓	✓	mid-2010	Ongoing	UK & other orgs	Unknown
E1.2	Research, develop and promote appropriate methods for control of priority species	M	✓	✓	✓	✓	✓	✓		ASAP	Ongoing	UKOTs	Unknown
E2.1	Identify political champion for invasive species control and develop portfolio	L	✓	✓	✓	✓	✓	✓	✓		2010	UKOTs, UK orgs	N/A
E2.2	Develop a formalised volunteer programme	M	✓	✓	✓	✓		✓		2010		UKOTs	N/A
E3	Ongoing public awareness programme that fosters buy-in to specific control measures	M	✓	✓	✓	✓	✓			ASAP	Ongoing	UKOTs	Unknown
E4.1	Adopt/adjust legislation to strengthen legal basis for control	M	✓	✓	✓	✓	✓				2011	UKOTs	N/A
E4.2	Provide incentive programme to promote IS control or eradication	L	✓	✓	✓	✓					2012	UKOTs	Unknown
E5.1	Review existing policies, programmes, operations to determine appropriate points to integrate control measures into local programmes.	M	✓	✓	✓	✓	✓			ASAP	2010	UKOTs	N/A
E5.2	Work with military stakeholders to provide continuity of control measures on military bases	H	✓			✓			✓		Ongoing	MoD, US Air Force	N/A
E6.1	Produce list of prioritised invasive species for control	H	✓	✓	✓	✓	✓	✓		ASAP	Ongoing	UKOTs	€30k
E6.2	Establish and train Task Force Teams (local people)	M	✓	✓	✓	✓		✓		2010	Ongoing	UKOTs	€1.5mil
E6.3	Prioritise key sites, develop and implement management plans to halt the spread of key invasive species	H	✓	✓	✓	✓	✓				On-going	UKOTs	N/A
E6.4	Identify site/develop strategy for Field/ Research Centre	L	✓	✓	✓	✓				2011		UKOTs	N/A
E6.5	Set up Field/Research Centre(s)	L	✓	✓	✓	✓					2014	UKOTs	€300k
E6.6	Develop intra-island cooperation through demonstration projects (eg rodents, drylands)	M	✓	✓	✓	✓	✓	✓	✓	2009	Ongoing	All	Unknown
E6.7	Undertake demonstration projects to show link between invasive species clearance, habitat restoration and reduced re-invasion	M	✓	✓	✓	✓				By Apr 2010		UKOTs	€50k
E6.8	Evaluate fire risk of invasive plants (eg Mexican thorn, fountain grass)	M	✓	✓				✓		2011		ASI, SH	€10k
E6.9	Explore options for commercial use (eg charcoal from Mexican Thorn/Wild Mango, compost, cattle feed, medicinal)	L	✓	✓						2012		ASI, SH	€10k

KEY ACTION	TASK	PRIORITY	ASI	SH	TDC	FLK	SG	REGION	UK/EU/etc	START DATE	END DATE	LEAD/ SUPPORT	COST £/€
E: CONTROL, MANAGEMENT, AND RESTORATION													
E6.10	Undertake/revise/update/coordinate feasibility studies for rat control and assess multi-species impacts (eg guava on ASI)	M	✓	✓				✓		2010		ASI, SH, UK orgs	€80k
E6.11	Invasive plant eradication / control programmes (various species targeted)	H	✓	✓	✓	✓	✓			2009	Ongoing	UKOTs	€1.5mil
E6.12	Rodents – region-wide issue – control/eradication (mouse eradication on Gough is highest priority)	M	✓	✓	✓	✓	✓	✓		2009	Ongoing	UKOTs	€2 mill
E6.13	Vertebrate control: feral dogs/cats; rabbits/hares; goats; foxes; birds (feral geese, mynas); reindeer	M	✓	✓	✓	✓	✓			ASAP	By 2015	UKOTs	£2.5 mill
E6.14	Invertebrate control: eg assess impacts of earwigs on native invertebrates; Ichneumon wasps on endemic flightless moths on TDC	M			✓	✓				2010		FLK, TDC	£50k
E6.15	Fish: Minimize impact of brown trout on endemic zebra trout in Falklands (limit spread)	M				✓					Ongoing	FLK	£20k
E6.16	Feasibility of marine invasive control options	H	✓	✓	✓	✓	✓			2010	Ongoing	UKOTs	£50k
E7.1	Set up native plant nurseries to support habitat restoration and reduce imports of exotics	H	✓	✓	✓	✓				2009	Ongoing	UKOTs	£80k

Annex 2: Participants at the South Atlantic Invasive Species Regional Meeting

Falkland Islands

Brian Summers (SAIS, RSPB)
Craig Dockrill (Falklands Conservation)
Pierre Pistorius (Falklands Conservation)
Ann Brown (Falklands Conservation)
Mac MacArthur (Department of Agriculture, FIG)
Nick Rendell (Environmental Planning Department, FIG)
Sally Poncet (Island owner and manager of Beaver Group Restoration Project)

South Georgia

Darren Christie (Government of South Georgia and the South Sandwich Islands)

Tristan da Cunha

Chris Bates (Tristan's UK Representative)

St Helena

Andrew Darlow (SAIS, RSPB)
Mandy Anthony (Pest Control, ANRD, SHG)
Darren Duncan (ANRD, SHG)
Isabel Peters (Environment Officer, SHG)
Lourens Malan (ANRD, SHG)
Katrine Herian (Volunteer)

Ascension

Stedson Stroud (Conservation Officer, AIG)
Charles Williams (Environmental Health, AIG)
Lawson Henry (Port Security, AIG)
Phil Lambdon (Botanist, AIG)
Olivia Renshaw (Assistant Conservation Officer, AIG)
Nathan Fowler (Seabird Monitoring, AIG)
Raymond Benjamin (Seabird Monitoring, AIG)
Keith Leo (Invasive Species Worker AIG)
Lorna Close (Invasive Species Worker AIG)
Natasha Williams (Conservation Assistant AIG)

Other stakeholders

John Parkes (Landcare Research, New Zealand)
Anna Ballance (DFID)
Niall Moore (GB NNSS)
Piero Genovesi (ISSG)
Tara Pelembe (JNCC)
Anton Wolfaardt (JNCC, ACAP)
Nikki Chapman (JNCC)
Clare Stringer (RSPB)
Sarah Sanders (RSPB)
Tess Murray (RSPB)
Colin Clubbe (RBG Kew)
Alan Grey (CEH)
Clare Shine (Facilitator, IAS Expert)

Annex 3: List of abbreviations

ACAP	CMS Agreement on the Conservation of Albatrosses and Petrels
ASI	Ascension Island
BAS	British Antarctic Survey
CBD	Convention on Biological Diversity
CBFSAI	Commander British Forces South Atlantic Islands
CMS	Convention on the Conservation of Migratory Species of Wild Animals
Defra	UK Department of Environment, Food and Rural Affairs
DFID	UK Department for International Development
EIA	Environmental impact assessment
ExCo	Executive Council
EU	European Union
FC	Falklands Conservation
FCO	UK Foreign and Commonwealth Office
FI	Falkland Islands
GB NNS Strategy	Invasive Non-Native Species Framework Strategy for Great Britain
HMG	Her Majesty's Government
IAATO	International Association of Antarctica Tour Operators
JNCC	Joint Nature Conservation Committee
LegCo	Legislative Council
MOD	UK Ministry of Defence
NGO	non-Governmental organisation
OCTA	Overseas Countries and Territories Association
OTEP	UK Overseas Territories Environment Programme
RSPB	Royal Society for the Protection of Birds
SG	South Georgia
SH	Saint Helena
TDC	Tristan da Cunha
UK	United Kingdom
UKOT	United Kingdom Overseas Territory
UKOTCF	UK Overseas Territories Conservation Forum