

BERMUDA BIODIVERSITY ACTION PLAN

A blueprint for conservation in Bermuda

March 2003

ACKNOWLEDGEMENTS

The development of the Bermuda Biodiversity Strategy and Action Plan was generously sponsored by the U.K. Government's Darwin Initiative, the Bermuda Government, the Kenridge Fund, the Ernest E. Stempel Foundation, the Bay Foundation and the Bermuda Zoological Society. The following people were instrumental in the development of the planning process and production of the resulting Biodiversity Action Plan.

BSAP Management Team

Anne Glasspool
Jack Ward
Heather De Silva
Joseph Furbert
Lynda Johnson
Susan McGrath-Smith
Wolfgang Sterrer

BSAP Steering Committee

Peter Adwick
Anthony Aguire
Joan Blades
Toni Daniels
Andrew Dobson
Estlyn Harvey
Michelle Khaldun
Linda O'Brien
Amanda Outerbridge
Ralph Richardson
Andrew Vaucrosson
Joan Ward

International Team

Abigail Entwistle
Nigel Coulson

BSAP Working Groups

Jamie Bacon
John Barnes
Kenneth Bartrum
Geoffrey Bell
Mark Bothello
Charles Brown
Kathryn Coates
Heather De Silva
Andrew Dobson
Fiona Doe
Peter Drew
Joseph Furbert
Anne Glasspool
Cathy Gosling
Jennifer Gray
Dale Hines
Lorraine Huinick
Clare Jessey
David Lang
Heidi Leitzenburger
Brian Lightbourn
Jeremy Madeiros
Sarah Manuel
Julie Marshall
William Mitchell
Thaddeus Murdoch
Amanda Outerbridge
Mark Outerbridge
Andrew Pettit
Ralph Richardson
Struan R. Smith
Brian Rowlinson
Craig Simmons
Jack Ward
Richard Winchell
David Wingate

Other BSAP Stakeholders

Chrystal Anderson
Lorne Bean
Patricia Begeman
Ann Boykin-Smith
Jane Brett
Walton Brown
Llewellyn Burgess
Alan Burland
Wayne Carey
Graeme Carruth
Diana Chudleigh
Eric Clee
Judie Clee
Lauren Critchley
Madeline Daisley
Frances Eddy
Edward Edelson
Keanya Francis
Maryellen Goodwin
Lisa Greene
Matthew Hammond
Stuart Hayward
Corey Hill
Penny Hill
Holly Holder
Susan Howard
Gordon Jones
Malcolm Kirkland
Lisa Kitson
Robert Kurtz
Ayo Johnson
Brian Luckhurst
Kelly Massa
Joseph Morley
Sarah Northcott

Other BSAP Stakeholders

Nicola O' Leary
Lisa Outerbridge
Jennifer Paradine
Joanna Pitt
David Raine
Grace Rawlins
Lisa Rodrigues
Philip Rouja
Norwood Saleem
Samia Sarkis
Chrystal Schultz
Craig Selley
Eugene Simmons
Thomas Sinclair
John Paul Skinner
Thomas Sleeter
Stuart Smith
Neil Stempel
Larry Sticca
Lloyd Telford
Lynn Thorne
Craig Trott
Tammy Trott
Wendy Tucker
Sarah Vallis
Valerie Wallace
Keith Wassall
Joy Williams
Mary Winchell

Introduction

The Bermuda Biodiversity Action Plan (BAP) is the result of a three-year, community-wide initiative to develop a blueprint for conservation for the Island. This 5-year Plan provides a framework for focussing resources and addresses the most pressing conservation issues facing Bermuda's biodiversity, by setting out clearly defined, but realistic conservation targets as well as a series of prioritised, practical approaches for achieving these.

An integral part of the development of the BAP was the recognition that conservation of our unique island environment could not be achieved in isolation from social and economic activities, so the BAP has incorporated other sectors of the community, including those that have not traditionally taken responsibility for biodiversity conservation. In this way, a collective, and realistic vision for biodiversity conservation has hopefully been conceived. As a result, the Biodiversity Action Plan has been more than just the publication of a document listing a series of actions. Rather, it has been a process in which people from a wide range of backgrounds have come together to exchange ideas, develop solutions grounded in reality, and provide a clear, step-by-step approach for ensuring that our conservation targets can be met.

To this end, the development of the BAP has involved several stages. With input from many local sources, the first stage was an audit of what we know about Bermuda's biodiversity, what measures are in place to protect it, and hence where the gaps lie. This audit was collated and published by the Bermuda Biodiversity Project team in the form of the Bermuda Biodiversity Country Study, a colourful 103-page document which provides an overview of the status of Bermuda's biota, identifies the most critical issues facing the conservation of the Island's biodiversity and attempts to place these in the context of the social and economic needs of the community. With this information in hand, stakeholders from across the community were invited to participate in a series of workshops to help define the overall strategy for the planning process by outlining an aim and objectives within a set of guiding principles. The principles that were adopted take recognition of the importance of biodiversity both to Bermuda and its people, and globally, and established guidelines for the planning process. These principles are listed below. Once the strategy was defined, the Biodiversity Action Plan (BAP), was detailed, with each action supported by specific, and prioritised activities, or discrete practical tasks that must be undertaken in order to fulfil the action. These objectives, actions and activities represent inter-related approaches to biodiversity conservation. They were developed in an integrated fashion, so that adoption of a single approach to tackle a conservation issue will likely be unsuccessful. The Convention on Biological Diversity (CBD) was used as a framework for developing these various approaches. Not only has this ensured full consideration of the various requirements of the CBD, an internationally agreed framework for biodiversity conservation, but it has also ensured more straightforward reporting of our progress in the future.

It is hoped that the BAP will stimulate a more focussed, and coordinated approach to biodiversity conservation. Certainly it is an opportunity to strengthen existing partnerships and projects, as well as to establish new ones beyond the suite of those currently concerned with conservation. However before such opportunities are pursued, it is essential that there is a commitment from all the partners in the process to take responsibility for implementing the activities identified in the plan. Each

activity within the BAP has been assigned to a lead agency, which has agreed to coordinate activities with other partners to achieve the targets. These lead agencies have an essential role to play in ensuring that the momentum of the Plan is not lost, and that activities are encouraged which truly support the aims of the Plan. Wherever appropriate, activities have been linked to other projects currently being implemented or planned. To this end, the BAP does not occur in isolation, but rather complements existing programmes so as to avoid duplicating or conflicting with them. This includes Development Plans, local Agenda 21, the UK Overseas Territories Environmental Charter, management plans for nature reserves and parks, and so on. The BAP, should also not preclude action towards the same goal by another group not specifically mentioned. One of the central tenets of the BAP is that it allows for greater transparency. With quantifiable targets, progress can be followed and accounted for. Lead agencies will be charged with collating data on the progress and achievements for activities under their responsibility. However, the Biodiversity Coordinating Unit will assume overall responsibility for coordinating and monitoring the implementation of the BAP.

Reports for the implementation of the BAP will be required by several different audiences. An annual progress report for implementing agencies, and decision-makers will detail all activities undertaken, including successes and outputs. A public report will ensure that the wider community is kept informed of progress. And finally, an annual report on the extent of implementation will be submitted to the CBD Secretariat. As targets are met and new priorities emerge, the BAP can be updated, making it in effect, a continually evolving document that prioritises conservation activities according to the most pressing issues at any period in time.

A public-friendly summary document of the BSAP has been published and distributed throughout the community. This digital document represents the detailed BAP itself. It includes the overall aim and guiding principles of the BAP, and the objectives and underlying action. It is intended essentially as a working manual for the lead agencies and key stakeholders. The specific actions required in order to satisfy the 12 defined objectives A – L are detailed. Each action has a suite of prioritised ‘line-item’ activities (I = highest priority; III = lowest). Lead agencies have been identified, a target date and cost estimate have been proposed and measured outputs and related activities detailed for cross-referencing.

AIM OF THE BIODIVERSITY ACTION PLAN (BAP)

“To conserve Bermuda’s natural diversity through the care of our unique island environment in order to enhance the quality of life for present and future generations.”

GUIDING PRINCIPLES

The principles for the development and implementation of the Bermuda BAP were developed and adapted by local participants after consideration was given to the principles of the Convention on Biological Diversity, and after a review of some of the principles adopted in other jurisdictions. It is hoped that this will ensure that the approaches that we take will meet international acceptance, but at the same time will reflect Bermuda's unique situation.

Principles recognising the importance of biodiversity.

1. We recognise that biodiversity and its associated natural processes have ecological, economic, social, cultural, spiritual, educational and intrinsic values.
2. We recognise that humans are just one part of the wider, interconnected web of life, but that we have significant impacts on other species and therefore hold a moral imperative to protect them and the habitats in which they live.
3. We recognise that we have a responsibility to the global community to conserve Bermuda's unique biodiversity, and other globally threatened species that occur here.
4. We recognise that the conservation of Bermuda's biodiversity is of critical importance for the continued social and economic wellbeing of present and future generations, and contributes to the wider goal of sustainable lifestyles and quality of life.
5. We recognise that everyone in Bermuda depends on our biodiversity and has a shared responsibility to contribute to biodiversity conservation and to consider our personal use of biological resources.
6. We recognise the inherent incompatibility between over-population, highly consumptive lifestyles and the overall aim of non-interventionist biodiversity conservation.
7. We recognise that across all faiths there is a link between spirituality or spiritual teachings and the need to protect the natural environment.

Principles for biodiversity planning.

8. Decision-making for biodiversity conservation should be based on the best available knowledge, taking into account social, cultural and economic issues.
9. Successful biodiversity conservation and sustainable use can only be achieved through integrated and realistic approaches to the planning and implementation of activities, with the full participation of all stakeholder groups.
10. Effective biodiversity conservation requires a holistic approach – involving a set of wide-ranging disciplines and approaches to stem the loss of species and habitats.
11. We recognise the need to anticipate, prevent and address the root causes of biodiversity loss rather than just the symptoms.
12. Wherever possible proposed biodiversity conservation activities should build on existing programmes, projects, institutions and organisations, rather than create new processes.

13. Wherever possible and appropriate, biodiversity planning should be integrated with any pre-existing plans.
14. The biodiversity planning process should be ongoing, adaptive and cyclical, allowing plans to be refined on the basis of back from monitoring and evaluation and as new knowledge is gained.
15. Biodiversity planning should be compatible with international conventions, most importantly the Convention on Biological Diversity.
16. We recognise that the effective conservation of Bermuda's biodiversity and biological resources requires community-wide understanding and appreciation of their value.
17. We recognise that the fundamental requirement for the conservation of biodiversity is the in-situ protection of ecosystems and natural habitats, and that in Bermuda active intervention is essential for the maintenance and recovery of native species and habitats.
18. Whilst protected areas are vital to in-situ conservation, we recognise the need to extend biodiversity conservation throughout Bermuda.
19. Ex-situ measures may be required to support the conservation of particular species or populations.
20. We recognise the importance of our endemic and native species and the threat posed by the introduction of exotic and invasive species to them, and to our fragile natural environment.
21. Where a threat of significant reduction or loss of biodiversity is posed from certain activities, but the link has not been established conclusively, the precautionary principle will be adopted – i.e. the assumption will be that such activities should be avoided.
22. In cases where environmentally harmful activities cannot be avoided, they should be transferred to those locations where their impacts on biodiversity can be minimised or should be managed when relocation is not possible.
23. We believe that wherever possible, research for biodiversity should be designed and conducted in order to promote informed decision-making for conservation action.
24. There is a need for the benefits (including the economic benefits) arising from the use of Bermuda's biodiversity and its components (including genetic resources), to be shared equitably at both local and international levels.
25. The conservation of Bermuda's biodiversity and the sustainable use of our biological resources require local, regional and international co-operation, including the sharing of information and expertise.
26. We recognise the need for biodiversity conservation to be conducted in such a way that we are accountable and transparent with regard to our activities, information and financial dealings.
27. We recognise that substantial investments and commitments are required to conserve our biodiversity and that there is an expectation that these will lead to a broad range of environmental, economic and social benefits.

OBJECTIVE A: To ensure effective coordination, improved collaboration and ongoing communication in support of efficient biodiversity conservation such that all key stakeholders are engaged throughout the implementation of this plan.

Code	Activity	Priority	Lead agency (+who else involved)	Time-frame	Cost Estimate	Measurable Outputs	Related activities
ACTION A.1: Set up and maintain a co-ordinating body to oversee and support delivery of the BAP implementation.				MEASURABLE IMPACT: Co-ordinating unit established and BAP implementation given 100% support resulting in more effective biodiversity conservation.			
A.1.1	In consultation with BAP stakeholders, establish and maintain a BAP Co-ordinating Unit (BCU) within government, including personnel, office and equipment, to promote and share information on BAP activities, form active partnerships and support fundraising.	I	Permanent Secretary, Ministry of Environment; (<i>Director, Dept. of Conservation Services, Bermuda Biodiversity Project, all other stakeholders</i>)	2003 - ongoing	\$60,000 per year, new funds	Co-ordinating unit established; information disseminated; partnerships established; fundraising promoted	All
A.1.2	Work with stakeholders to establish oversight and co-ordination committees for biodiversity research and public awareness activities.	I	BCU; (<i>Dept. of Conservation Services, Dept. of Environmental Protection, all other relevant stakeholders</i>)	2003	Included in BCU budget	Co-ordination committees for research and public awareness established	D.1.3, K.1.1
A.1.3	Agree Terms of Reference for the BSAP Steering Committee to oversee progress of implementation of the BAP.	II	BCU, BSAP Steering Committee	2003	Included in BCU budget	TOR agreed and oversight provided	All
A.1.4	Establish and maintain a website and list server such that information updates on BAP implementation are readily available and widely disseminated.	I	BCU; (<i>all implementing organizations</i>)	2003 - ongoing	Included in BCU budget + \$2,000 new funds	Website and list server established and maintained; updates provided	All
A.1.5	Hold a quarterly review meeting of key stakeholders (including government and NGO) to update on progress, celebrate successes, identify areas for future collaboration and to assess the effectiveness of this coordinating mechanism.	II	BCU, all implementing organisations; (<i>other stakeholders</i>)	2003 – ongoing (each quarter)	\$500 per meeting, new funds = \$10,500 total	Responses to survey; changes made accordingly	All

The Bermuda Biodiversity Action Plan

A.1.6	Conduct an annual review and assessment of the BAP implementation activities, including progress against targets, as well as the work of the BCU.	I	BCU; <i>(all implementing organisations, BSAP Steering Committee)</i>	2003 - annually	Included in BCU budget	Annual review conducted and assessment produced	All
A.1.7	Produce and disseminate to all key stakeholders an annual report on BAP implementation.	I	BCU; <i>(all implementing organisations, BSAP Steering Committee, other stakeholders)</i>	2003 - annually	Included in BCU budget	Annual report produced and disseminated	All
A.1.8	Conduct annual revisions to the BAP to incorporate changes, which take account of updated priorities.	II	BCU; <i>(all implementing organisations, BSAP Steering Committee, other stakeholders)</i>	2003 - annually	Included in BCU budget	BAP revised	All
A.1.9	Produce and disseminate to all key stakeholders a full report on the implementation process at the end of 5 years.	III	BCU, all implementing organisations, BSAP Steering Committee; <i>(other stakeholders)</i>	2007	Included in BCU budget	5 year report produced and disseminated	All
A.2.0	Hold workshops with key stakeholders to develop the next five year BAP in 2007.	III	BCU, all implementing organisations, BSAP Steering Committee; <i>(other stakeholders)</i>	2007	\$5,000 new funds	Workshops held; next stage of BAP developed	All
ACTION A.2: Develop mechanisms to continue to communicate with, and engage all key stakeholders currently involved in biodiversity conservation, and to foster links between government and NGOs, in order to promote more effective coordination, communication and collaboration.				MEASURABLE IMPACT: All key stakeholders engaged through improved local biodiversity communication, coordination and collaborative conservation initiatives.			
A.2.1	Update and maintain existing databases of stakeholders to ensure that all key stakeholders are registered and their activities/interests detailed.	I	BCU; <i>(stakeholders)</i>	2003 - ongoing	Existing funds	Database expanded; stakeholders and their interests registered	All
A.2.2	Maintain the biodiversity website to ensure that biodiversity information is easily accessible.	I	BCU; <i>(stakeholders)</i>	2003 - ongoing	Included in BCU budget	Website maintained; information accessible	A.1.4, A.2.1, C.1.5, C.2.3
A.2.3	Communicate news through list server	I	BCU; <i>(stakeholders)</i>	2003 - ongoing	Included in BCU budget	News communicated.	A.1.4, A.2.1, C.2.3
A.2.4	Hold regular lectures and workshops on identified topics to keep key stakeholders abreast of new developments, research findings, policies, legislation and emerging technologies.	II	BCU, Department of Environmental Protection; <i>(all other relevant agencies and interested stakeholders)</i>	2003 - ongoing	\$5,000 annually, new funds	Workshops held; participants attend; stakeholders aware of new developments	A.2.1, A.3.4, B.1.3, B.3.1, B.4.5, B.4.7, B.4.8, B.4.11 C.7.3, D.3.1, E.10.3, E.11.1, G.4.1 G.4.2, H.4.1, J.3.8, K.1.7

The Bermuda Biodiversity Action Plan

A.2.5	Organise social events to foster better communication between key stakeholders.	II	BCU; (<i>ECO, stakeholders</i>)	2003 - ongoing	\$2,000 annually, new funds	Participants attend; partnerships strengthened; information shared	D.1.5
A.2.6	Review and strengthen opportunities for NGO involvement in government decision-making.	II	Director, Dept. of Conservation Services; (<i>other relevant Government departments, NGO's, ECO, BCU</i>)	2003 - ongoing	Existing funds	Opportunities reviewed and strengthened	I.2.1, I.3.2, I.3.4, I.5.1, I.5.3
A.2.7	Promote access for key stakeholders to central libraries where print resources are held.	III	BAMZ/ Botanical Gardens libraries; (<i>public libraries, BCU</i>)	2003 - ongoing	Existing funds	Stakeholder access improved	A.2.7, C.1.1, C.2.3, D.2.6
A.2.8	Review and strengthen mechanisms for public access to government-held biodiversity information.	III	BCU, Bermuda Biodiversity Project, BAMZ library	2004	Existing funds	Public access reviewed and strengthened	A.2.6
ACTION A.3: Promote improved biodiversity information exchange and collaboration within the wider Caribbean, with other small island states, and internationally.				MEASURABLE IMPACT: Increased regional and international biodiversity information exchange and collaborative ventures resulting in better-informed biodiversity management.			
A.3.1	Identify and register with existing electronic media serving the region to facilitate the exchange of pertinent information; ensure incoming information transferred to local stakeholder groups.	I	BCU; (<i>regional and global list server hosts, UKOTCF</i>)	2003	Included in BCU budget	Databases and list servers identified and registration completed	A.2.1, A.3.4, A.4.3
A.3.2	Host or participate in established workshops/conferences which address specific issues threatening regional biodiversity including invasive species, sea level rise and the impacts of tourism.	II	Ministry of Environment personnel, all relevant NGO's; (<i>other Government representatives</i>)	2003 - ongoing	\$500,000 new funds	Conferences hosted and/or attended	B.4.4, B.4.7, B.4.8, K.6.1, K.6.2
A.3.3	Develop, or ensure that Bermuda is represented in appropriate regional and international agreements regarding the management of shared biological resources.	II	Ministry of Environment; (<i>Government House/Foreign and Commonwealth Office, regional authorities</i>)	2003 - ongoing	Existing funds	Regional agreements signed; resource management improved	G.2.1, G.4.3
A.3.4	Develop and expand collaborative initiatives and exchange programmes to promote the sharing of information, technology transfer and staff development as it relates to biodiversity conservation, building on existing programmes where possible.	II	Dept. of Environmental Protection, Dept. of Conservation Services, all NGO's; (<i>BCU, UKOTCF, other overseas agencies</i>)	2003 - ongoing	\$50,000 new funds	Initiatives developed; information shared; relevant experience gained	A.2.3, A.3.1, B.1.5, B.1.6, B.2.1, C.7.2, E.10.1 J.3.4, J.3.5, J.3.6

The Bermuda Biodiversity Action Plan

A.3.5	Ensure that Bermuda is represented at international conferences and workshops of relevance to biodiversity, particularly CITES, RAMSAR and CBD COP's.	III	Ministry of Environment; <i>(Government House/Foreign and Commonwealth Office)</i>	2003 - ongoing	Existing funds	Representation at international conferences	G.1.3, I.4.7
ACTION A.4: Organise the repatriation of biodiversity information, including specimens held overseas.				MEASURABLE IMPACT: Repatriation of local specimens and information from overseas and the establishment of access rights for future research resulting in increased knowledge about Bermuda's biodiversity.			
A.4.1	Develop and implement protocols to regulate the collection and removal of specimens by foreign institutions or individuals from overseas.	I	Dept. of Environmental Protection; <i>(all local museums, research facilities, visiting scientists)</i>	2003	Existing funds	Information and specimens repatriated	A.4.3, E.3.9, G.4.1
A.4.2	Develop and implement protocols requiring visiting researchers to submit copies of research findings from work conducted in Bermuda or on Bermuda's biodiversity.	I	Dept. of Environmental Protection; <i>(visiting researchers)</i>	2003	Existing funds	Protocols developed and implemented; copies of research submitted; findings assimilated into local conservation	A.4.3, K.1.8
A.4.3	Submit requests for repatriation of information and specimens of Bermuda's biodiversity currently held by individuals or institutions overseas.	III	Dept. of Conservation Services (Bda Aquarium, Museum and Zoo); <i>(Bda Biological Station for Research, Bda Underwater Exploration Institute, overseas institutions)</i>	2003 - ongoing	Existing funds	Information and specimens repatriated; information assimilated into local conservation	A.4.1, A.4.2, A.3.1

OBJECTIVE B: To ensure that biodiversity conservation is integrated into all Government policies, programmes and plans by 2007.

Code	Activity (how it will be done.)	Priority	Lead Agency (+who else involved)	Time-frame	Cost Estimate	Measurable output	Related Activities
ACTION B.1: Engage all Government personnel and boards in supporting biodiversity conservation by highlighting the critical importance of conservation to the preservation of our quality of life and how this may relate to the policies and roles of their respective ministries.				MEASURABLE IMPACT: Increased awareness and support for biodiversity conservation throughout Government resulting in a decline in Government-sponsored damage to biodiversity.			
B.1.1	Conduct a survey of Ministers, Government boards, senior civil servants and technical officers to determine the current level of sensitivity to environmental issues and to establish a baseline.	I	CPU, Ministry of Environment; <i>(all Government Ministries)</i>	2003	\$20,000 new funds	Surveys completed; current baseline of level of sensitivity established; report produced	B.1.2, D.1.6, D.1.7
B.1.2	Conduct biennial follow-up surveys to determine the impact of the programmes outlined below.	I	CPU, Ministry of Environment; <i>(all Government Ministries)</i>	2004 - biennial	\$10,000 per survey, new funds	Surveys completed; % increase in level of sensitivity measured	B.1.1, D.7.1, D.7.2, D.7.3, D.7.4
B.1.3	Organise a series of workshops with invited local and overseas speakers for: a) Ministers and their Permanent Secretaries, b) other Senior Civil Servants, and c) Technical Officers which highlight the relevance of biodiversity conservation to Government and opportunities to integrate biodiversity within policies	I	BCU, Ministry of Environment, Department of Personnel Services; <i>(invited speakers, Ministers and senior civil servants)</i>	2004 - ongoing	\$100,000 new funds	Workshops held; participants attend; feedback of participants received	A.2.3, D.7.1
B.1.4	Provide briefing sheet to the workshop participants with examples of success stories and other impacts from other jurisdictions to put local conservation efforts into the international context.	III	BCU, Ministry of Environment; <i>(Ministers and senior civil servants)</i>	2004 - annually	Existing funds	Materials provided	D.7.2, G.3.2, B.1.3
B.1.5	Organise annual training programmes (through the UK Civil Service College) to explain how Government officials can deliver policies which take due consideration of biodiversity conservation.	II	Ministry of Environment; <i>(UK Civil Service College, Department of Personnel Services)</i>	2004 - annually	\$10,000 annually, new funds	Workshops held; participants attend; feedback of participants received	A.3.4

The Bermuda Biodiversity Action Plan

B.1.6	Use community programmes such as the Community Areas Programme as models for the development of further initiatives that provide opportunities for inter-ministerial collaboration.	III	Ministry of Environment; <i>(BCU, all Government Ministries)</i>	2004 - ongoing	Existing funds	Programmes identified and promoted	A.3.4
ACTION B.2: Develop a mechanism whereby all Government policy is systematically assessed to ensure conformation to the principles of biodiversity conservation.				MEASURABLE IMPACT: Government policy assessed for its impact on biodiversity resulting in a reduction in the number of environmentally insensitive policies.			
B.2.1	Review (learning from processes from other jurisdictions) all relevant Cabinet papers (both new and revised) to ensure that due consideration has been given to environmental costs and benefits.	I	Ministry of Environment; Central Policy Unit	2003 - ongoing	Existing funds	Cabinet papers revised	A.3.4, B.2.2
B.2.2	Incorporate recommendations for improvements along with statement of commitment to biodiversity conservation in Cabinet Papers.	II	Ministry of Environment	2003 - ongoing	Existing funds	Recommendations incorporated; statement included in cabinet papers	B.2.1, B.3.1
B.2.3	Monitor adoption and incorporation of recommendations.	II	Ministry of Environment; Central Policy Unit	2003 - ongoing	Existing funds	Recommendations adopted	B.2.2, B.3.1, B.3.2, B.5.3
ACTION B.3: Encourage each Ministry within the Government to develop and share its vision for how it will incorporate best practice programmes with regards to biodiversity conservation into its organisational culture.				MEASURABLE IMPACT: Plans to support biodiversity conservation developed by every Ministry resulting in more biodiversity-friendly outputs.			
B.3.1	Hold workshops and invite all Ministries to present their plans for incorporating considerations of biodiversity conservation into their programmes (both in-house and to the public).	I	Ministry of Environment; <i>(all Government Ministries)</i>	2003 - ongoing	\$5,000 per workshop new funds	Workshops held; Ministries participate	B.2.2, B.4.1
B.3.2	Develop and implement a monitoring system to assess the extent to which plans have incorporated consideration of biodiversity conservation.	III	Ministry of Environment; <i>(all Government Ministries)</i>	2004 - ongoing	\$10,000 new funds	Monitoring system implemented; plans incorporated	B.2.3, B.4.3
ACTION B.4: Engage the support of all Government departments in the development of guidelines to ensure that they are equipped to give due consideration to biodiversity conservation when planning activities relevant to their mandate; including the impacts of invasive species, land use planning, pollution and global climate change.				MEASURABLE IMPACT: Biodiversity considerations incorporated into all Government departmental plans resulting in less negative impact on biodiversity through Government activities.			

The Bermuda Biodiversity Action Plan

B.4.1	Identify all relevant Government departments and conduct an audit of their activities to identify areas where these interface with biodiversity (including invasive species, land use, pollution and climate change) and explore opportunities to modify practices.	I	Ministry of Environment; (<i>all Government Ministries</i>)	2003	\$20,000 new funds	Audit completed; relevant activities identified and detailed and practices modified	B.4.2, B.3.1, B.4.3, K.6.1, K.6.2, K.6.4
B.4.2	Organise inter-ministerial meetings with all relevant ministries to discuss impacts of current activities on biodiversity (including invasive species, land use, pollution and climate change).	I	Ministry of Environment; (<i>all Government Ministries</i>)	2003 - ongoing	Existing funds	Meetings held; recommendations circulated to all staff	B.4.1, K.6.1, K.6.2
B.4.3	Draft guidelines to ensure incorporation of due consideration of biodiversity conservation into departmental planning (including the issues of invasive species, land use, pollution and climate change).	I	Ministry of Environment; (<i>all Government Ministries</i>)	2003	Existing funds	Guidelines drafted	B.3.2, B.4.1, B.4.4, K.6.1, K.6.2, B.4.13
B.4.4	Hold meetings within Ministries to discuss guidelines and discuss their implementation with technical officers.	II	All Government Ministries	2004	Existing funds	Meetings held; technical officers understand implications of guidelines	B.4.3, K.6.1, K.6.2
B.4.5	Hold workshop with customs officials to raise awareness of invasive species and provide training in species recognition.	II	Dept. of Conservation Services (Applied Ecology), Bda Biodiversity Project; (<i>BCU, Customs officials, local technical experts</i>)	2003	\$1,000 new funds	Workshops held; staff trained	A.2.3, A.3.2, K.6.1
B.4.6	Hold workshop with police, other enforcement officers and the judiciary to reinforce the significance of wildlife crime.	II	Dept. of Environmental Protection; (<i>BCU, all enforcement officers and judiciary</i>)	2004	\$1,000 new funds	Workshops held; staff trained	H.3.2, H.3.4
B.4.7	Hold workshops with Planning, Works and Engineering and other relevant departments highlighting the impacts of land development.	II	BCU, Dept. of Conservation Services (Applied Ecology); (<i>all relevant Government personnel, especially Planning and Works and Engineering officials</i>)	2004	\$1,000 new funds	Workshops held; staff understand relationship between their activities and biodiversity	A.2.3, A.3.2
B.4.8	Hold workshops with Transport, Health, Defense, Immigration, and Tourism identifying how their activities affect biodiversity.	II	Dept. of Conservation Services (Applied Ecology); (<i>BCU, officials from Transport, Health, Defense, Forward Planning, Immigration and Tourism</i>)	2003 - ongoing	\$1,000 per workshop new funds	Workshops held; staff understand relationship between their activities and biodiversity	A.2.3, A.3.2,

The Bermuda Biodiversity Action Plan

B.4.9	Hold a workshop with Finance to explore the economic opportunities relating to biodiversity.	II	Ministry of Environment; <i>(BCU, Finance personnel)</i>	2003	\$500, new funds	Workshops held; economic opportunities identified	L
B.4.10	Produce, distribute throughout government, and maintain a list of resources and personnel to be contacted for environmental advice.	III	CPU, BCU; <i>(all Government personnel)</i>	2003 - ongoing	Existing funds	List produced and distributed	A.2.1, D.3.2
B.4.11	Generate and keep updated a list of all invasive and potentially invasive species and circulate to all relevant departments, ensuring that these are added to the list of prohibited importations.	I	Dept. of Environmental Protection; Bda Biodiversity Project; <i>(all relevant Government personnel, BCU)</i>	2003 - ongoing	Existing funds	List generated and circulated; prohibited list updated	A.2.3, K.6.1
B.4.12	Develop or support existing emergency response plans and practice these in the case of catastrophic events threatening biodiversity (including pollution, hurricanes, fire).	II	Dept. of Environmental Protection; <i>(all relevant Government personnel)</i>	2003 - ongoing	Existing funds	Emergency response plans produced; practices held	K.6.2
B.4.13	Development, production and distribution of guidelines for appropriate environmental impact assessment procedures for all projects likely to affect biodiversity.	I	Dept. of Environmental Protection; <i>(all relevant Government personnel)</i>	2004	\$10,000, new funds	EIA procedures developed	B.4.3, C.7.5
ACTION B.5: To Secure the support and commitment of the Government for implementation of the Biodiversity Action Plan.				MEASURABLE IMPACT: BAP recommendations pertaining to Government adopted, resulting in enhanced biodiversity protection.			
B.5.1	Present final BAP to Cabinet for adoption.	I	Ministry of Environment; <i>(Cabinet)</i>	2003	Existing funds	Cabinet adopts BAP	B.5.3, G.1.1
B.5.2	Progress reports on BAP implementation presented to Cabinet.	II	BCU, Ministry of Environment; <i>(Cabinet)</i>	2003 - ongoing	Included in BCU budget	Progress reports presented	A.1.1, A.1.4, A.1.6, A.1.7, A.1.8, A.1.9
B.5.3	Parliamentary attendance at launch.	I	Ministry of Environment; <i>(Cabinet)</i>	2003	Existing funds	Parliamentary attendance	B.2.3, B.5.1, D.1.2

OBJECTIVE C: To improve and strengthen environmental education and training programmes for every age group by 35% over the next 5 years.

Code	Activity	Priority	Lead agency (+ who else involved)	Time-frame	Cost Estimate	Measurable Outputs	Related activities
ACTION C.1: Expand and improve materials for biodiversity education and include more interactive and accessible forms.				MEASURABLE IMPACT: Public better educated about biodiversity due to an increase in educational materials and an improvement in accessibility.			
C.1.1	Conduct an audit and build a collection of current education materials relating to biodiversity used in Bermuda.	I	Bda Zoological Society (Education Team), Libraries; <i>(Dept. of Conservation Services; Ministry of Education, Bda Underwater Exploration Institute, Bda National Trust, Bda Biological Station for Research, teachers)</i>	2003	\$5,000 new funds	Audit conducted and current materials collated	C.1.2
C.1.2	Review gaps in existing materials and share this information with all relevant stakeholders.	I	Bda Zoological Society (Education Team), Libraries; <i>(Ministry of Education, Dept. of Conservation Services, Bda Underwater Exploration Institute, Bda National Trust, teachers, BCU)</i>	2004	Existing funds	Gaps in materials identified and shared	A.2.2, C.1.1, C.2.2
C.1.3	Develop printed materials and/or resource packs focusing on biodiversity issues in Bermuda, not covered by existing materials.	I	Dept. of Conservation Services (Applied Ecology); <i>(Ministry of Education (Curriculum), NGO's, teachers)</i>	2004	\$75,000 new funds	New materials produced covering all aspects of Bermuda's biodiversity	C.1.2, C.1.4, C.3.4, C.3.5, C.3.7, C.8.2
C.1.4	Put together a CD profiling Bermuda's biodiversity and make available to students.	I	BBP; <i>(NGO's; IT specialist)</i>	2004	\$20,000 new funds	CD produced	C.1.3
C.1.5	Provide information to web accessible Bermuda biodiversity database	I	BBP; <i>(all other relevant stakeholders)</i>	2003 - ongoing	Included in BCU budget	Website active	A.2.2
C.1.6	Develop, publish and distribute flyer to advertise biodiversity education resources.	II	Ministry of Environment; <i>(Ministry of Education, NGO's, teachers)</i>	2004	\$5,000 new funds	Flyers produced and distributed	C.2.3

ACTION C.2: Extend the network of environmental groups for young people, through schools and existing youth clubs and provide ongoing opportunities for young people to engage directly with biodiversity and environmental issues.				MEASURABLE IMPACT: More young people engaged with biodiversity issues through the development of an extended network of environmental groups.			
C.2.1	Appoint a full time co-ordinator to facilitate co-ordination of environmental education activities.	I	Director, Dept. of Conservation Services, Ministry of Education	2005 - ongoing	\$60,000 - annually	Full-time coordinator appointed; activities coordinated	C.2.3, C.2.2, E.8.1
C.2.2	Develop a localised network of environmental educators, drawn from a wide range of backgrounds.	I	Appointed Coordinator, BCU; <i>(Ministry of Education; NGO's, teachers)</i>	2003	Existing funds	Network of educators established	A.2.1, C.2.1, C.2.3
C.2.3	Co-ordinate and provide materials and ongoing support to network of environmental educators.	I	BCU, Appointed Coordinator; <i>(Ministry of Education; NGOs; teachers)</i>	2003 - ongoing	Existing funds	Network maintained and co-ordinated	C.1.3, C.1.6, C.2.1, C.2.2, C.2.5, C.3.4, C.3.5, C.3.6, C.3.7, C.3.8, D.5.3, D.5.4
C.2.4	Hold an annual teacher's workshop to promote environmental clubs in each school.	II	BCU, Appointed Co-ordinator; <i>(Ministry of Education; NGOs; teachers)</i>	2003 - annually	\$1,000 per workshop new funds	Workshops held; clubs established	C.3.2, C.3.3, C.3.10, E.8.2
C.2.5	Hold training workshop for youth club leaders.	II	BCU, Appointed Co-ordinator; <i>(Youth club leaders)</i>	2003 - ongoing	\$1,000 per workshop new funds	Workshops held	C.2.3, E.8.2
C.2.6	Put together a series of support materials for environmental/youth clubs in the form of environmental "action packs".	II	Bda Zoological Society (Education Team), Appointed Co-ordinator; <i>(Youth club leaders)</i>	2003	\$5,000 new funds	Resource kit produced	C.2.3
C.2.7	Continue to hold a programme of environmental education camps for young people, with a regularly updated curriculum.	I	Bda Zoological Society, Dept. of Conservation Services (Bda Aquarium, Museum and Zoo), Bda Audubon Society, Bda National Trust, Bda Botanical Society, Bda Underwater Exploration Institute, Bda Biological Station for Research, Waterstart Ltd	2003 - ongoing	Existing funds	Camps held; module updated	C.2.8

The Bermuda Biodiversity Action Plan

C.2.8	Broadly publicise and promote the camps to ensure wide attendance.	II	Bda Zoological Society, Dept. of Conservation Services (Bda Aquarium, Museum and Zoo), Bda Audubon Society, Bda National Trust, Bda Botanical Society, Bda Underwater Exploration Institute, Bda Biological Station for Research, Waterstart Ltd	2003 - ongoing	Existing funds	Camps promoted and attended	C.2.7
C.2.9	Continue to hold a biennial Environmental Youth Conference.	I	Bda Zoological Society (Education Team); (<i>delegates, Ministry of Education, teachers</i>)	2004, 2006	\$35,000 per event, new funds	Conference held	E.8.4
ACTION C.3: Improve and extend the teaching of biodiversity issues in schools, using Bermudian examples wherever possible to ensure that every graduate from the Bermuda school system is “biodiversity literate”.				MEASURABLE IMPACT: All resident school graduates biodiversity literate through improved teaching of biodiversity issues.			
C.3.1	Develop and disseminate a commonly held and understood definition of biodiversity and biodiversity literacy.	I	Bda Biodiversity Project; (<i>BCU</i>)	2003	Existing funds	Definitions established	All
C.3.2	Build upon the review of school/college curricula and develop further materials to integrate biodiversity education within the existing frameworks.	I	Ministry of Education (Curriculum); (<i>Bda Zoological Society (Education Team), teachers</i>)	2003 - ongoing	\$50,000 new funds	Module developed	C.2.4, C.3.4, C.3.5, C.3.6, C.3.7, C.3.8, C.3.9, C.3.11
C.3.3	Hold workshops to train educators in biodiversity conservation lessons.	I	Bda Zoological Society (Education Team), Bda Biological Station for Research; (<i>Ministry of Education, schools, teachers</i>)	2003 - ongoing	\$2,000 per workshop new funds	Workshops held; teachers trained	C.2.4
C.3.4	Develop and produce new Bermuda school text book on biodiversity issues.	III	Ministry of Education, Dept. of Conservation Services; (<i>NGOs; teachers</i>)	2004	\$100,000 new funds	Text published	C.1.3, C.2.3, C.3.2
C.3.5	Produce and distribute a children’s biodiversity colouring book with key messages to all school starters.	II	Bda Zoological Society (Education Team)	2004	\$10,000 new funds	Colouring books distributed to all P1 & 2 students	C.1.3, C.2.3, C.3.2, D.2.1,
C.3.6	Produce and distribute environmental play for use in drama classes.	III	Bda Zoological Society (Education Team)	2005	\$5,000 new funds	Play distributed and used	C.2.3, C.3.2
C.3.7	Produce and distribute biodiversity poster to all school classes.	III	Bda Biodiversity Project; (<i>Ministry of Education, schools</i>)	2003	\$5,000 new funds	Poster distributed and mounted	C.1.3, C.2.3, C.3.2
C.3.8	Establish annual biodiversity essay contest for a scholarship.	II	Bda Zoological Society (Education team)	2003 - annually	\$1,000 annually, new funds	Essay contests held; scholarships awarded	C.2.3, C.3.2

The Bermuda Biodiversity Action Plan

C.3.9	Continue to support school biodiversity displays at the Exhibition and Eden Project.	II	Exhibition Committee, Eden Project Committee; (<i>schools, Bda Biodiversity Project</i>)	2003 - annually	Existing funds	Contest held	C.3.2, D.9.2, E.8.2
C.3.10	Build on the Learning Through Landscapes programme to promote opportunities for outside teaching in order to enhance appreciation of the environment.	I	Learning Through Landscapes; (<i>Ministry of Education, Ministry of Works and Engineering, schools</i>)	2003 - ongoing	Existing funds	Outdoor education promoted	C.2.4
C.3.11	Continue to support the role of Bda Zoological Society, Bda Underwater Exploration Institute and Bda Biological Station for Research, in providing formal environmental education to school groups.	II	Ministry of Environment, Ministry of Education; (<i>Bda Zoological Society, Bda National Trust, Bda Underwater Exploration Institute, Bda Biological Station for Research</i>)	2003 - ongoing	Existing funds	Support continued; educational programmes provided	C.3.2
ACTION C.4: Provide biodiversity training as part of adult education programmes.				MEASURABLE IMPACT: Adult population better educated on biodiversity issues through expanded adult education programmes.			
C.4.1	Develop curriculum for modules on biodiversity for adult learners.	I	Bermuda College, Bda Biological Station for Research, Bda Zoological Society; (<i>Dept. of Conservation Services</i>)	2004	\$5,000 new funds	Modules developed	C.6.2
C.4.2	Continue to promote and expand biodiversity courses for adults such as the Bda Natural History Course and the Elderhostel programme.	II	Bda Zoological Society, Bda Biological Station for Research, Bda College	2004 - annual	Existing funds	Course held and attended	C.8.1, C.8.4
C.4.3	Establish a subsidized/free Biodiversity course, with sponsorship from government or business.	III	Bermuda College; (<i>Government, private sector</i>)	2004	\$10,000 new funds	Course offered	L
ACTION C.5: Increase the awareness of landscape gardeners to environmentally sensitive approaches to landscaping.				MEASURABLE IMPACT: More environmentally sensitive landscaping through increased awareness and training of landscapers.			
C.5.1	Expand existing horticultural and landscaping programmes and encourage landscape gardeners to gain accreditation.	I	Bermuda College; (<i>Environmental Science Occupation Advisory Committee; National Training Board, Careers Training Board</i>)	2003 - ongoing	\$1000 per course, new funds	Improved/sympathetic landscaping	C.5.3, C.5.2
C.5.2	Translate existing course materials and develop multi-lingual examination procedures.	III	Bermuda College; (<i>Portuguese Society</i>)	2005	\$10,000 new funds	Course materials translated; multi-lingual examination procedures implemented	C.5.1

The Bermuda Biodiversity Action Plan

C.5.3	Develop proposal and secure support for accreditation of landscape businesses and their workers.	II	Dept. of Parks, Bermuda College; <i>(Horticulturalists)</i>	2003	Existing funds	Licenses required	C.5.1
ACTION C.6: Raise awareness and promote training for career opportunities in environmentally related fields.				MEASURABLE IMPACT: Opportunities promoted resulting in more locals entering environmentally-related fields.			
C.6.1	Produce reference guide of careers linked to the environment and post on school web sites.	I	Ministry of Education, Bda College; <i>(environmentalists)</i>	2003	\$5,000 new funds	Reference guide produced	C.6.3
C.6.2	Develop key course modules, which build vocational skills linked to career opportunities.	I	Ministry of Education, Bda College; <i>(environmentalists)</i>	2003	Existing funds	Modules developed	C.4.1, C.8.1
C.6.3	Set up meetings with guidance counselors, career centres and the National Training Boards to promote awareness of career opportunities in the environment and circulate reference guide.	II	Ministry of Education; <i>(Guidance counselors; National Training Board, Careers Training Board, environmentalists)</i>	2003	Existing funds	Meetings held; career opportunities promoted; reference guide circulated	C.6.1, C.6.4, C.6.5
C.6.4	Meet with environmental employers and businesses to develop recruitment packages, which promote environmental careers.	III	Ministry of Education; <i>(Employers)</i>	2004	\$10,000 new funds	Meetings held; recruitment packages developed	C.6.3
C.6.5	Organise stalls at existing careers fairs to promote working in the environment.	I	Ministry of Education; <i>(organisers of fairs)</i>	2003 - ongoing	Existing funds	Stalls set up; environmental job opportunities promoted	C.6.3
ACTION C.7: Support ongoing career development and vocational training for environmentalists.				MEASURABLE IMPACT: Better-trained environmentalists as a result of improved training programmes.			
C.7.1	Support ongoing training and postgraduate study among conservationists through in-kind support, supervision, funding and sabbatical or secondment schemes.	I	Ministry of Environment; Bda Zoological Society, Dept. of Conservation Services (Bda Aquarium, Museum and Zoo), Bda Audubon Society, Bda National Trust, Bda Botanical Society, Bda Biological Station for Research, Friends of Bda Aquarium	2003 - ongoing	Existing funds	Training and postgraduate study opportunities provided; students trained	A.3.4, A.3.5

The Bermuda Biodiversity Action Plan

C.7.2	Identify and establish relationships with overseas educational institutions and develop exchange programmes for students	II	Bda Zoological Society, Dept. of Conservation Services, Bda Biological Station for Research, Friends of Bda Aquarium, Dept. of Environmental Protection	2003 - ongoing	Existing funds	Exchange programmes established; staff/students participate in exchange	A.3.5
C.7.3	Provide ongoing opportunities for conservationists to develop and update skills in land management.	II	Ministry of Environment	2003 - ongoing	Existing funds	Opportunities provided; staff trained	C.7.4
C.7.4	Hold annual workshops to transfer skills in GIS and related technologies as tools for biodiversity conservation.	I	Dept. of Conservation Services, ITO; <i>(all relevant stakeholders)</i>	2003 - ongoing	\$1,000 per workshop new funds	GIS skills transferred to key stakeholders	A.2.3, C.7.3
C.7.5	Develop and hold participatory training workshops to establish common standards for EIA's, policy and guidelines	II	Dept. of Environmental Protection, Dept. of Planning, overseas consultants; <i>(all relevant stakeholders)</i>	2005	\$3,000 per workshop new funds	Workshops developed and held; standards understood by key stakeholders	B.4.13
C.7.6	Continue to update standards for EIA's and post on BSAP website	III	Dept. of Environmental Protection, Dept. of Planning, BCU; <i>(all relevant stakeholders)</i>	2003 - ongoing	Included in BCU budget	Standards updated and posted	A.1.4
ACTION C.8: Promote environmental education of guides and others working in the tourist industry.				MEASURABLE IMPACT: Environmental guides better informed and formally certified through established training programmes.			
C.8.1	Develop a curriculum for a certification scheme for trained tour guides using the Bermuda Natural History Course as a framework	I	Dept. of Conservation Services; <i>(Dept. of Tourism, Tour guides)</i>	2003 - ongoing	\$5,000 new funds	Curriculum established; tour guides certified	C.4.2, C.8.4, E.11.6
C.8.2	Advertise training programmes in collaboration with Dept. of Tourism and Tourism Associations to profile opportunities for training through the Department's website.	I	Dept. of Conservation Services; <i>(Ministry of Tourism; Tourism Associations)</i>	2003	Existing funds	Programmes advertised; training opportunities profiled	C.6.2
C.8.3	Develop educational materials and packages and distribute training programme participants.	II	Dept. of Conservation Services (Applied Ecology); (tour guides)	2003	\$5,000 new funds	Educational packages developed and distributed	C.1.3
C.8.4	Work with Tourism Associations to encourage participation in the Bermuda Natural History Course.	II	BZS; <i>(Ministry of Tourism)</i>	2003 – ongoing	Existing funds	Tourism professionals attend Bermuda Natural History Course	C.4.2, C.8.1

ACTION C.9: Assess impacts of environmental education initiatives in Bermuda.				MEASURABLE IMPACT: Impact of environmental education initiatives assessed and used to develop future educational initiatives.			
C.9.1	Collect information on uptake of biodiversity course modules and relevant test results, and conduct trend analysis to be used for future curriculum development in schools.	I	Ministry of Education (Evaluation); (<i>Educators, students</i>)	2004 – ongoing	\$20,000 new funds	Information collected; trend analysis conducted and used in modification of future training courses	D.1.7
C.9.2	Collect information on the numbers and skills base of employees engaged in environmental careers through the annual job survey.	I	Dept. of Statistics; (<i>environmental employers, employees</i>)	2004 – ongoing	\$1,000 new funds	Information collected and used to develop training programmes	A.2.1
C.9.3	Collect information indicating trends in environmentally acceptable behaviours among school children exposed to environmental education	II	Ministry of Education (Evaluation); (<i>school children, educators</i>)	2004 - ongoing	\$20,000 new funds	Information collected and used in modification of future course curriculum development	C.2.4, C.2.6, D.1.6, D.1.7

OBJECTIVE D: To increase public awareness of biodiversity, its inherent values and conservation activities throughout the community by 100% over the next five years.

Code	Activity	Priority	Lead agency (+who else involved)	Time-frame	Cost Estimate	Measurable Outputs	Related activities
ACTION D.1: Promote, and expand existing public awareness initiatives regarding biodiversity conservation.				MEASURABLE IMPACT: Acquired knowledge of present level of awareness for use as baseline in future assessments.			
D.1.1	Review current capacity for public awareness across all BAP implementation groups, and identify and fill further personnel needs.	II	PAC; (BCU; Director, Dept. of Conservation Services)	2004	New funds as needed	Current capacity reviewed	
D.1.2	Use outputs from 2001 Environmental Awareness survey as a basis to develop directed biodiversity awareness materials	I	Dept. of Conservation Services, Bermuda Biodiversity Project; (media)	2003 - ongoing	\$75,000 new funds	Media engaged; biodiversity issues given T.V., radio and print coverage	D.1.4, D.1.5, D.2.1, D.2.2, D.2.6
D.1.3	Hold a public launch of the BAP with appropriate media coverage in order to highlight biodiversity issues.	I	Bda Biodiversity Project; (BSAP Steering Committee; Ministry of Environment, BCU, media)	2003	Existing funds	BAP launched	B.5.3
D.1.4	Set up a steering group to co-ordinate public awareness activities (PAC) relating to biodiversity, linked to the BCU.	I	BCU; (Bda Biodiversity Project, BSAP Steering Committee; Dept. of Conservation Services (Applied Ecology, Bda Aquarium, Museum and Zoo), NGO's)	2003	Existing funds	Steering group established	A.1.2, D.1.1, D.1.5
D.1.5	Hold biennial questionnaire, interview and focus group surveys on biodiversity issues as a means of engagement and source of data on impact of awareness programmes.	I	BCU; (consultant)	2004, 2006	\$20,000 new funds biennially	Surveys conducted; public engaged; data collected	B.1.1, C.9.4
D.1.6	Produce and circulate an annual report on the state of biodiversity awareness in Bermuda.	I	BCU, Dept. of Conservation Services (Applied Ecology), Bda Biodiversity Project; (PAC)	2004 - annually	Included in BCU budget	Report produced and circulated	B.1.1, C.9.1, C.9.4, D.1.5
ACTION D.2: Develop a series of novel and interesting biodiversity related activities, which promote awareness among the general public.				MEASURABLE IMPACT: Mass media used to disseminate clear ecological messages based on sound science resulting in greatly expanded public awareness.			
D.2.1	Publish biodiversity articles in appropriate local magazines.	I	Bda Biodiversity Project; (NGO's; Dept. of Conservation Services; BSAP team; local magazine publishers)	2003 - ongoing	Existing funds	Articles published in magazines	D.1.1

The Bermuda Biodiversity Action Plan

D.2.2	Disseminate concise biodiversity information by publishing articles in a monthly newspapers series.	I	Bda Biodiversity Project; <i>(NGO's; Dept. of Conservation Services; BSAP team; PAC; local newspapers, BCU)</i>	2004 – ongoing	Existing funds	Weekly series on biodiversity in press	D.1.1
D.2.3	Hold a contest to create a biodiversity logo among graphic design and art groups.	III	Bda Biodiversity Project; <i>(designers)</i>	2003	\$2,000 new funds	Contest held; logo designed and adopted	E.5.2
D.2.4	Publish a series of action-related sheets focused on flagship species and key habitats.	I	BSAP team, Bda Biodiversity Project, Dept. of Conservation Services <i>(Applied Ecology)</i>	2003	Existing funds	Species action plans produced	J.1.1, J.2.1, J.2.2
D.2.5	Regularly update BAP website with accessible and interesting elements.	I	BCU; <i>(Bda Biodiversity Project, NGO's, Dept. of Conservation Services, PAC)</i>	2003 - ongoing	Existing funds	Website updated	A.2.2
D.2.6	Put biodiversity messages on milk cartons and grocery bags.	III	Bda Biodiversity Project; <i>(local grocery stores/dairy)</i>	2004	Existing funds	Messages put on cartons and bags	D.1.1
D.2.7	Develop media articles, which explain the role of consumer choice in driving environmentally sustainable practices.	III	Dept. of Conservation Services; <i>(PAC, media)</i>	2004 - ongoing	Existing funds	Media articles written and published	E.11.18
D.2.8	Create a permanent public biodiversity display and information center in a public building (BAMZ, Botanical Gardens).	I	Bda Aquarium, Museum and Zoo, Bda Botanical Society	2003	Existing funds	Display completed; visitors view it	D.10.5
D.2.9	Participate in regular radio and TV talk shows to promote biodiversity awareness	I	BCU; <i>(NGO's; BSAP Steering Committee, PAC, talk show hosts)</i>	2003 - ongoing	Existing funds	Talk shows hosted/received	E.11.18
D.2.10	Make use of public service announcements /other to continually provide short key messages as 'fillers' between programming.	I	Bda Biodiversity Project, Dept. of Conservation Services, Dept. of Environmental Protection; <i>(Dept. of Cultural Affairs)</i>	2003 - ongoing	Existing funds	Messages provided and used for “fillers”	E.11.18
D.2.11	Create a Bermuda Biodiversity screen saver.	II	Bda Biodiversity Project	2004	\$3,000 new funds	Screen saver published and distributed	
D.2.12	Hold meetings and workshops with key business leaders and offer biodiversity information to be included in company materials.	II	PAC; <i>(local business managers & PR departments)</i>	2004 - ongoing	Existing funds	Meetings held; messages incorporated into company materials	E.11.5
D.2.13	Identify a series of key messages, which emphasize our dependence upon, our impact on and our ability to protect biodiversity, and incorporate these wherever possible into ongoing awareness campaigns and materials.	I	Bda Biodiversity Project; PAC	2003	Existing funds	Key messages developed and incorporated	E.11.18

ACTION: D.3: Develop a comprehensive awareness campaign to ensure the public is fully appraised of all environmental legislation and their role in environmental protection.				MEASURABLE IMPACT: Awareness campaign generates better public understanding of the need for environmental legislation in protecting biodiversity.			
D.3.1	Meet with associations who represent key resource user groups within the community to promote better understanding of the environmental legislation.	I	Dept. of Conservation Services (Applied Ecology), Bda Biodiversity Project; (<i>relevant associations</i>)	2003	Existing funds	Meetings held; awareness raised	D.6.3, D.10.4
D.3.2	Specify and advertise the roles of all responsible Govt. authorities/agencies through media opportunities and internal listings.	I	Dept. of Communication and Information	2003	Existing funds	Roles advertised	A.2.1, B.4.9
D.3.3	Translate current legislation into layman terminology and other languages and incorporate in newspaper and magazine articles, public service announcements and through other media opportunities.	I	Dept. of Conservation Services (Applied Ecology); (<i>translators; media, BCU</i>)	2004	\$10,000 new funds	Legislation translated and advertised	D.4.4, D.4.5, E.11.18, H.1.2
D.3.4	Reiterate the citizens individual right to report violations (and where appropriate enforce environmental laws) in existing media opportunities.	II	Dept. of Communication and Information; (<i>ECO, NGO's, media</i>)	2003	Existing funds	Citizens rights reiterated	D.3.5
D.3.5	Promote use of the Police hotline to report environmental infractions.	III	Police, Ministry of Environment; (<i>public</i>)	2004	Existing funds	Hotline established	D.3.4, H.4.3
D.3.6	Develop press releases and/or work with the media to publicise environmental infractions and/or convictions as they occur.	II	ECO, NGO's; (<i>media</i>)	2003 - ongoing	Existing funds	Press releases posted	E.18.11
D.3.7	Identify and incorporate conservation success stories and instances of individual action into ongoing public awareness activities.	I	Dept. of Conservation Services, NGO's; (<i>media, public, BCU</i>)	2004 - ongoing	Existing funds	Success stories promoted	F.6.1, F.6.2, F.6.3, F.6.4
D.3.8	Meet with landowners to explain the reasoning behind land management decisions and how it may affect their land.	III	Dept. of Planning; (<i>landowners</i>)	2004 - ongoing	Existing funds	Meetings held; greater understanding amongst landowners	I.1.1, I.1.2, I.2.4
ACTION D.4: Provide information on the threat of invasive species and feral animals to biodiversity.				MEASURABLE IMPACT: Mass media used to disseminate information on the threats posed by invasive species resulting in improved public awareness.			
D.4.1	Develop a series of posters for allocation in key spots (do not feed feral animals/do not release terrapins etc.).	I	Dept. of Environmental Protection	2003	\$5,000 new funds	Posters published and erected	

The Bermuda Biodiversity Action Plan

D.4.2	Use press articles, radio and TV broadcasts to put across the scientific case for feral and invasive animal control.	I	Dept. of Environmental Protection (Animal Control, Veterinary Office); (<i>Bermuda Feline Assistance Bureau, Bda Poultry Fanciers Association, Bda Pigeon Fanciers Association, media</i>)	2003	Existing funds	Media reports produced;	E.18.11, K.6.1
D.4.3	Meet with pet store owners to encourage responsible sales practices.	I	Dept. of Environmental Protection (Animal Control, Veterinary Office); (<i>pet store owners, pet owners</i>)	2003	Existing funds	Meetings held; responsible sales practices increase	
D.4.4	Place posters at immigration points reminding incoming residents and visitors to hand over any plant material from abroad.	II	Dept. of Environmental Protection (Plant Protection); (<i>Dept. of Immigration, residents and visitors</i>)	2004	Existing funds	Posters installed	D.3.3
D.4.5	Write biodiversity articles for inflight airline magazines	III	Bda Biodiversity Project	2004	Existing funds	Articles written; visitor awareness of issues raised; unwanted importations reduced	D.3.3
ACTION D.5: Provide information on biodiversity and relevant regulations to all children in Bermuda.				MEASURABLE IMPACT: Novel characters developed and used to disseminate biodiversity messages to children.			
D.5.1	Produce a children's biodiversity colouring book with key messages and distribute through schools.	II	Bda Zoological Society (Education Team); (<i>Ministry of Education, schools</i>)	2004	\$10,000 new funds -see C.3.2	Colouring books distributed to students	C.2.3, C.2.6, C.3.5
D.5.2	Produce a biodiversity character (using flagship species) and create a cartoon strip for the newspaper.	II	Bda Zoological Society (Education Team); (<i>newspapers</i>)	2003	\$10,000 new funds	Character designed and approved	C.2.3, C.2.6
D.5.3	Use above created character to produce short educational video cartoons for use as TV fillers.	I	Dept. of Cultural Affairs; (<i>T.V. stations</i>)	2004	\$10,000 new funds	Cartoon published	C.2.3, C.2.6
D.5.4	Produce biodiversity related activities for use in Sunday schools, guides, and scouts, youth groups.	II	Youth group leaders; (<i>NGO's, youth group leaders</i>)	2004 - ongoing	\$10,000 new funds	Activities developed and packaged	C.2.3, C.2.6
ACTION D.6: Provide information on biodiversity and relevant regulations to all tourists, visitors and temporary residents.				MEASURABLE IMPACT: Visitors and overseas residents understand their impact on biodiversity through mass media campaign.			
D.6.1	Develop pamphlets on biodiversity and environmental information and distribute for placement in hotel rooms.	I	Dept. of Conservation Services (Applied Ecology); (<i>Hoteliers, BCU</i>)	2004	\$5,000 new funds	Pamphlets produced and distributed in hotels	

The Bermuda Biodiversity Action Plan

D.6.2	Produce a biodiversity and natural treasures video for show at all ports of entry in Bermuda.	III	Dept. of Conservation Services (Applied Ecology); (<i>Dept. of Immigration, Dept. of Airport Operations, Dept. of Marine and Ports</i>)	2004	\$10,000 new funds	Video produced; shown at ports of entry	
D.6.3	Interpret appropriate sections of environmental legislation and include on flyer with work permit for guest workers.	I	Dept. of Conservation Services (Applied Ecology); (<i>Dept. of Immigration, guest workers</i>)	2003	\$10,000 new funds	Legislation interpreted; flyers produced and distributed with work permits	D.3.1, D.3.3
ACTION D.7: Engage and inform politicians on ongoing biodiversity issues.				MEASURABLE IMPACT: Improved understanding amongst politicians as a result of a tailored promotional approach.			
D.7.1	Develop a powerpoint presentation aimed at politicians for use at inter-ministerial workshops.	II	Bda Biodiversity Project, BCU; (<i>PAC; politicians</i>)	2003	Existing funds	Powerpoint presentations developed and shown	B.1.3
D.7.2	Write and circulate a series of briefing sheets on biodiversity issues for politicians	II	Bda Biodiversity Project, BCU; (<i>politicians</i>)	2003	Existing funds	Briefing sheets written and circulated	B.1.4
D.7.3	Set up a standing committee to oversee and promote biodiversity issues within parliament.	I	Ministry of Environment; (<i>PAC</i>)	2004	Existing funds	Standing Committee established; biodiversity issues promoted	D.7.4, H.1.3
D.7.4	Provide regular reports (hard copy and powerpoint) to standing committee on biodiversity issues, status and activities undertaken.	II	Bda Biodiversity Project, BCU; (<i>PAC, Standing Committee; politicians</i>)	2004 - ongoing	Existing funds	Reports produced; politicians informed	D.7.3
ACTION D.8: Improve provision of information about biodiversity for key government departments.				MEASURABLE IMPACT: Improved awareness amongst elected officials, planners and their staff though the provision of pertinent information and acknowledgement of demonstrated ecological sensitivity.			
D.8.1	Produce and disseminate posters with strong biodiversity messages to all key government offices.	I	Bda Biodiversity Project, BCU; (<i>Government depts.</i>)	2004	\$5,000 new funds	Materials produced and disseminated	
D.8.2	Host ecological tours for officials as part of their team development.	II	Dept. of Conservation Services (Applied Ecology); (<i>NGO's, Government officials</i>)	2003 - ongoing	\$5,000 new funds	Ecological tours conducted	

The Bermuda Biodiversity Action Plan

D.8.3	Honour ecological sensitivity/responsibility or action by decision makers in letters to the editor or other media.	I	Public	2003 - ongoing	Existing funds	Decision maker honoured	F.6.1, F.6.2, F.6.3, F.6.4
ACTION D.9: Use public events to raise public awareness of biodiversity conservation and to encourage direct involvement.				MEASURABLE IMPACT: Exposure at public events used to promote awareness and direct involvement amongst the public and expand the number of individuals reached.			
D.9.1	Promote the continuance of the annual biodiversity photo contest.	I	Bda Zoological Society; (<i>local photographers, sponsors</i>)	2003 - annually	Existing funds	Photo contest held; entries submitted	
D.9.2	Build on existing street festivals (including Harbour Nights and Heritage Day Parade), sporting events and exhibitions (including The Annual Exhibition and the Eden Project) to incorporate biodiversity messages – including biodiversity-themed costumes, floats and vendors.	II	Dept. of Conservation Services (Bda Aquarium, Museum and Zoo); (<i>Chamber of Commerce, Eden Project</i>)	2004 - annually	\$8,000 new funds	Street festival held and attended	C.3.9
D.9.3	Organize a radio treasure hunt based around biodiversity theme.	I	Bda Biodiversity Project; (<i>Radio stations</i>)	2004	\$5,000 new funds	Successful biodiversity treasure hunt held	E.18.11
ACTION D.10: Ensure that key biodiversity awareness messages are incorporated on interpretative signs in nature reserves and elsewhere.				MEASURABLE IMPACT: Interpretive signs used to disseminate important biodiversity messages.			
D.10.1	Meet with reserve owners to discuss signage plans and needs.	I	Dept. of Conservation Services (Applied Ecology), Dept. of Parks; (<i>Bda National Trust, Bda Audubon Society; private landowners</i>)	2003	Existing funds	Meetings held; signage needs agreed	D.10.2, D.10.3, D.10.5, D.10.6, D.10.7, I.4.8
D.10.2	Write standardised information to be incorporated into signs across organizations.	I	Dept. of Conservation Services (Applied Ecology), Dept. of Parks, Dept. of Environmental Protection; (<i>Bda National Trust, Bda Audubon Society; private landowners</i>)	2003	Existing funds	Information written and incorporated	D.10.1, D.10.3, I.4.8
D.10.3	Design, produce and put signs in place.	I	Dept. of Conservation Services (Applied Ecology), Dept. of Parks; (<i>Bda National Trust, Bda Audubon Society; private landowners</i>)	2004	\$25,000 new funds	Signs designed and installed	D.10.1, I.4.8

The Bermuda Biodiversity Action Plan

D.10.4	Where appropriate, ensure translation of key messages is incorporated onto signage.	I	Dept. of Conservation Services (Applied Ecology), Dept. of Parks; <i>(Bda National Trust, Bda Audubon Society, private landowners)</i>	2003	\$5,000 new funds	Signage translated and incorporated into signs	D.3.1, I.4.8
D.10.5	Develop interpretation centres and interactive kiosks in public spaces and nature reserves.	III	Dept. of Conservation Services (Bda Aquarium, museum and Zoo), Dept. of Parks, Dept. of Environmental Protection; <i>(Bda National Trust, Bda Audubon Society; private landowners)</i>	2005	\$75,000 new funds	Interpretation centers established	D.2.9, D.10.1, I.4.8
D.10.6	Develop a series of ‘take your trash home’ signs for placement in key threatened habitats, nature reserves, beaches and docks.	II	Dept. of Parks; <i>Bda National Trust, Bda Audubon Society; private landowners)</i>	2005	\$5,000 new funds	Signs developed and installed	D.10.1, I.4.8
D.10.7	Develop and install at key sites posters showing which species and/or areas are protected and defining illegal or regulated activities.	I	Dept. of Conservation Service (Applied Ecology)	2003	\$10,000 new funds	Signage posted; illegal activities decline	D.10.1, I.4.8

OBJECTIVE E: To increase the active participation of the community & the private sector in ecologically responsible behaviours by 25% by 2007.

Code	Activity	Priority	Lead agency (+who else involved)	Time-frame	Cost Estimate	Measurable Outputs	Related activities
ACTION E.1: Promote community-driven projects to encourage the protection and restoration of threatened habitats.				MEASURABLE IMPACT: Habitats protected and restored through community-driven projects.			
E.1.1	Organise biennial seminars and workshops on habitat restoration, focusing on critical habitats, including mangroves, seagrasses, and upland hillsides.	I	Dept. of Planning, Dept. of Conservation Services (Applied Ecology), Dept. of Parks, Bda National Trust, Bda Audubon Society; (<i>landowners, BCU</i>)	2003 - biennial	\$2,000 per workshop new funds	Workshops held; participants attend; area of habitats restored	E.1.2, E.10.2
E.1.2	Publish and distribute an accompanying set of guidelines on habitat restoration for critical habitats using existing educational materials where possible.	II	Dept. of Planning, Dept. of Conservation Services (Applied Ecology), Dept. of Parks; (<i>landowners, BCU</i>)	2005	Existing funds	Guidelines produced and requested	E.1.1
E.1.3	Identify areas suitable for habitat restoration, provide management guidelines and encourage community ownership for restoration, building on existing programmes.	I	Dept. of Conservation Services (Applied Ecology), Bda Biodiversity Project, Bda National Trust, Bda Audubon Society; (<i>Heydon Trust, Dept. of Parks, other landowners, community groups</i>)	2003 - ongoing	Existing funds	Areas identified; management guidelines produced	E.1.4, E.2.9, I.1.5
E.1.4	Organise community and neighborhood groups on an annual basis to cull invasive plants and replant with natives and endemics at suitable sites.	I	Dept. of Conservation Services (Applied Ecology), Bda Biodiversity Project, Heydon Trust, Dept. of Parks, Save Open Spaces, Bda Botanical Society, Garden Club of Bda, Bda National Trust, Bda Audubon Society; (<i>other landowners, community groups</i>)	2003 - ongoing	\$2,000 per event, new funds	Culling and planting carried out in upland hillside areas; increase in area of land restored	E.1.3, E.2.8, E.9.2, E.9.4
E.1.5	Develop and expand existing annual clean-up programmes for mangroves, beaches, rocky shores, marine areas, railway trail and nature reserves.	I	Keep Bermuda Beautiful; Ministry of Works and Engineering; (<i>community groups, volunteers</i>)	2003 – ongoing	\$2,000 new funds per clean-up	Annual clean ups held; sites cleaned	E.2.1
E.1.6	Organise community day events on an annual basis (e.g. picnics) that focus on tree planting	II	Save Open Spaces; (<i>Bda Botanical Society, Garden Club of</i>	2003 - annually	\$2,000 per event,	Events held; trees planted	E.9.2

The Bermuda Biodiversity Action Plan

	activities.		<i>Bda, Bda National Trust, Bda Audubon Society, Heydon Trust, Dept. of Parks, other landowners)</i>		new funds		
E.1.7	Develop and expand existing campaigns to encourage the boating public to adopt environmentally-responsible boating practices.	I	Dept. of Environmental Protection (Marine Monitoring & Protection), Keep Bermuda Beautiful; (<i>Dept. of Marine and Ports</i>)	2003 - ongoing	\$2,000 new funds	Reduction in injured/dead animals brought to BAMZ; reduction in seagrass scars and reported oil spills.	
E.1.8	Develop and expand the Marine Moorings Initiative to include participation by private mooring holders.	II	Dept. of Conservation Services (Applied Ecology) and Friends of Fish; (<i>Bda Zoological Society, Dept. of Marine and Ports, Marine Resources Board</i>)	2005 - ongoing	\$30,000 new funds	Environmentally-friendly moorings installed	I.4.8
ACTION E.2: Encourage community-driven projects to promote the conservation of native and endemic species.				MEASURABLE IMPACT: Community-driven projects developed to conserve native species.			
E.2.1	Organise specific cleanups in areas where skinks have been observed.	II	Keep Bermuda Beautiful, Ministry of Works and Engineering; (<i>Bda Biodiversity Project, volunteers</i>)	2003 - ongoing	Existing funds	Cleanups held; trash removed	E.1.5, E.9.2
E.2.2	Organise a series of workshops on backyard conservation practices including how to grow native and endemic plants; eradication of invasives; use of organic practices and alternative methods of pest control; creating wildlife habitats (including ponds); pest management and composting.	I	Save Open Spaces, Bda Audubon Society, Bda Zoological Society, Bda Biodiversity Project, (<i>NGO's, private nurseries, farmers</i>)	2003 - ongoing	\$1,000 per workshop new funds (\$5,000 total)	Workshops held; backyard projects implemented	E.2.3, E.2.4, E.2.5, E.10.2
E.2.3	Publish and distribute a set of guidelines on backyard conservation, using existing materials where possible.	II	Bda Biodiversity Project; (<i>public</i>)	2005	\$3,000 new funds	Guidelines produced and requested	E.2.2
E.2.4	Organise a network of gardeners and private greenhouse owners to cultivate and distribute native and endemic seedlings for sale to the public.	I	Bda Botanical Society, Bda National Trust; (<i>Save Open Spaces, Garden Club of Bda, local nurseries, BCU</i>)	2003 - ongoing	Existing funds	Native and endemic seedlings supplied and distributed	E.2.2, E.11.12
E.2.5	Develop a series of recommendations and pictorial models for use of native and endemic species as the basis for landscaping themes.	III	Dept. of Planning; (<i>Landscape Gardeners</i>)	2005	Existing funds	Recommendations developed and used	E.2.2

The Bermuda Biodiversity Action Plan

E.2.6	Set up a “pet retirement home” for unwanted terrapins and other species.	III	Dept. of Environmental Protection, RSPCA,	2005	\$50,000 new funds	“Pet retirement home” established	
E.2.7	Set up licensing scheme for cats, and provide information on responsible cat ownership (e.g. use of bells).	I	Dept. of Environmental Protection; (<i>RSPCA, Bda Feline Assistance Bureau</i>)	2003	Existing funds	Licensing scheme implemented; information provided	G.2.1
E.2.8	Set up volunteer programmes to install artificial longtail blue bird nests.	I	Bda Audubon Society, Dept. of Conservation Services; (<i>Landowners</i>)	2003 - ongoing	\$5,000 new funds	Successful installations; nests monitored	E.1.4, E.3.2, E.10.4
ACTION E.3: To involve the community in collecting data to support monitoring of Bermuda’s biodiversity.				MEASURABLE IMPACT: Increased community participation in biodiversity data collection leading to an increase in research outputs resulting in improved biodiversity conservation.			
E.3.1	Organize a community based patrol for great land crabs and land hermit crabs to evaluate their status and monitor their populations	II	Bda Biodiversity Project; (<i>Landowners</i>)	2003 - ongoing	Existing funds	Patrols established; crabs reported	K.3.5
E.3.2	Coordinate walking groups and individuals to monitor bluebird boxes.	I	Save Open Spaces; (<i>Rock Ramblers, Bda Walking Club, schools, youth groups</i>)	2003 - ongoing	Existing funds	Bluebird trails adopted	E.2.8, K.3.5
E.3.3	Host an annual series of workshops to expand the number of recreational divers participating in REEF fish surveys	I	Bda Biodiversity Project (REEF); (<i>recreational divers</i>)	2003 - annually	Existing funds	Workshops held; surveys completed	K.3.5
E.3.4	Update and redistribute a public survey requesting information on sightings of the Bermuda Skink	II	Bda Biodiversity Project; (<i>Public</i>)	2004	Existing funds	Surveys distributed and completed surveys returned	E.9.2, K.3.5
E.3.5	Meet with local photographers and request them to take photographs of species which have not previously been photographed.	I	Dept. of Conservation Services (Bda Aquarium, Museum and Zoo); (<i>Photographers</i>)	2003 - ongoing	Existing funds	Photographs taken and catalogued	E.3.7, E.5.2
E.3.6	Develop a list of key species and design and implement a procedure for reporting species sightings.	I	Bda Biodiversity Project; (<i>Public</i>)	2003 - ongoing	Existing funds	Species sightings reported	K.1.10
E.3.7	Continue to advertise the role of the Natural History Museum as a repository for unusual specimens and images deposited by the general public	I	Dept. of Conservation Services (Bda Aquarium, Museum and Zoo); (<i>Public</i>)	2003 - ongoing	Existing funds	Advertisements placed; specimens deposited	E.3.5
E.3.8	Advertise in the local press to promote wider participation in the annual Bird Count	II	Bda Audubon Society; (<i>Press</i>)	2003 - annually	Existing funds	Number of participants reporting	E.9.2, E.18.11

The Bermuda Biodiversity Action Plan

E.3.9	Liaise with visiting scientists to encourage them to involve the local community in collecting data, and to provide feedback to the local community on their research and results	I	Dept. of Conservation Services (Bda Aquarium, Museum and Zoo), Bda Biological Station for Research, Bda Underwater Exploration Institute, Dept. of Conservation Services; Dept. of Environmental Protection; (BCU)	2003 - ongoing	Existing funds	Public assist visiting scientists with specimen collection	A.4.1
ACTION E.4: Promote increased membership of, and volunteering for, environmental organizations, particularly among under-represented racial, ethnic, social economic and age groups.				MEASURABLE IMPACT: Concerted effort to expand NGO memberships resulting in a broader cross-section of the community accepting responsibility for the environment.			
E.4.1	Conduct a survey to identify reasons for lack of involvement in environmental organizations.	I	ECO, NGO marketing officers	2003 - 2004	\$20,000 new funds	Surveys conducted; people respond	E.4.2, E.4.3, E.4.6
E.4.2	Meet with associations representing under-represented groups to identify opportunities for engagement.	I	NGO marketing officers; (<i>representatives from under-represented associations</i>)	2003 - 2004	Existing funds	Meetings held; opportunities identified; groups engaged	E.4.1, E.4.3
E.4.3	Develop specific activities to encourage membership of local NGO's for these underrepresented groups.	I	NGO's	2003 - ongoing	Existing funds	New activities developed targeting under-represented groups	E.4.1, E.4.2, E.8.1
E.4.4	Advertise opportunities for, and advantages from, volunteering for local environmental groups.	II	NGO's; (<i>Volunteers</i>)	2003 - ongoing	Existing funds	Opportunities advertised; volunteers recruited	
E.4.5	Conduct an annual review of membership of environmental NGO's to assess any changes in representation.	I	NGO's	2004 - annually	\$5,000 new funds	Membership review conducted; changes evaluated and used in the development of future initiatives	E.4.1
ACTION E.5: Promote the maintenance of traditional practices which protect or sustainably use biodiversity.				MEASURABLE IMPACT: Traditional practices which sustainably use biodiversity resources encouraged and promoted.			
E.5.1	Document and promote traditional home remedies derived from native species.	I	Bda Botanical Society	2004	\$5,000 new funds	Remedies documented	
E.5.2	Work with local artists to document the importance of Bermuda's biodiversity through art.	I	Bda National Trust; (<i>Bda Society of Arts</i>)	2003 - ongoing	\$10,000 new funds	Relationship developed with local artists; artwork reflects	D.2.4, E.3.5

The Bermuda Biodiversity Action Plan

						importance of biodiversity	
E.5.3	Work with fishermen to maintain fishing practices which do not directly damage or over-exploit stocks.	III	Dept. of Environmental Protection (Marine Monitoring and Protection); (<i>Fishermen, Marine Resources Board</i>)	2003 - ongoing	Existing funds	Fishing practices maintained; stocks not over-exploited	J.5.1, J.5.2, H.4.2, K.3.3
E.5.4	Produce a booklet that celebrates the use of biodiversity as cultural symbols in Bermuda (including coins, stamps and architectural moldings).	II	Bda National Trust, Bda Underwater Exploration Institute	2005	\$10,000 new funds	Booklet produced; cultural symbols celebrated	E.5.6
E.5.5	Investigate and re-develop new or traditional cottage industries based on the sustainable use of local resources (bee keeping, woodcraft, palmetto craft, farmers market).	II	Dept. of Community & Cultural Affairs; (<i>Bda Farmers Market, Bda Society of Arts</i>)	2003 - ongoing	\$10,000 new funds	Key cottage industries supported	
E.5.6	Promote wider participation in home gardening through seminars.	II	Dept. of Conservation Services (Horticultural and Botanical Services); (<i>the Agricultural Board</i>)	2005 - ongoing	\$1,000 per workshop	Seminars held; more home established and gardens maintained	
E.5.7	Promote sustainable agriculture using environmentally-friendly techniques.	II	Dept. of Conservation Services (Horticultural and Botanical Services); (<i>the Agricultural Board</i>)	2005 - ongoing	Existing funds	Environmentally-friendly techniques adopted	
ACTION E.6: Encourage religious leaders to promote the values of biodiversity conservation.				MEASURABLE IMPACT: Value of biodiversity recognized and celebrated by island's religions.			
E.6.1	Continue regular meetings with inter-denominational religious leaders.	I	Bda Biodiversity Project; (<i>Bda. Ministerial Association</i>)	2003 - ongoing	Existing funds	Meetings held; relationships strengthened	J.1.3
E.6.2	Provide materials for inclusion in church newsletters, as requested.	I	Bda Biodiversity Project; (<i>Churches, other NGO's</i>)	2003 - ongoing	Existing funds	Materials provided and included	E.6.4
E.6.3	Develop and circulate guidelines on management of church lands for biodiversity, as requested.	II	Dept. of Planning; (<i>Churches, other NGO's</i>)	2003 - ongoing	Existing funds	Guidelines circulated; requests received; land managed	E.1.2, E.1.3, J.2.4
E.6.4	Provide relevant materials, which relate biodiversity and religious references.	I	Bda Biodiversity Project; (<i>Churches, other NGO's</i>)	2003 - ongoing	Existing funds	Materials provided	E.6.2
ACTION E.7: Foster the active involvement of Bermuda's youth in efforts to protect Bermuda's biodiversity.				MEASURABLE IMPACT: Increase in youth sponsored biodiversity conservation resulting in decreased threat to biodiversity.			

The Bermuda Biodiversity Action Plan

E.7.1	Identify practical and achievable biodiversity projects suitable for young people, and maintain an up-dated list of these.	I	Bda Zoological Society (Education Team), Youth Education Coordinator; (<i>Bda National Trust, Bda Underwater Exploration Institute, Bda Audubon Society; (other NGO's)</i>)	2003 - ongoing	Existing funds	Projects identified and undertaken	C.2.1, E.4.3
E.7.2	Work with and support youth groups and environmental clubs in conducting specific biodiversity projects.	I	Bda Biodiversity Project, Youth Education Coordinator; (<i>Bda Zoological Society; Bda National Trust, Bda Underwater Exploration Institute, other NGO's, youth clubs</i>)	2003 - ongoing	Existing funds	Projects undertaken	C.2.4, C.2.5, C.2.6, C.3.9
E.7.3	Document and celebrate successful youth involvement in biodiversity conservation projects through the media, public events and the Environmental Youth Conference.	III	Bda Zoological Society, Youth Education Coordinator; (<i>Bda National Trust, Bda Biodiversity Project, other NGO's, youth clubs</i>)	2004 - ongoing	\$1,000 annually new funds	Successful projects celebrated	E.8.4, E.11.18
ACTION E.8: Promote community participation in biodiversity conservation through local and international action days for the environment.				MEASURABLE IMPACT: Increased awareness and participation in biodiversity conservation through promotion of specific action days for the environment.			
E.8.1	Identify international dates for environmental action and advertise them widely in the Bermuda calendar.	I	BCU	2003 - annually	\$1,000 new funds	Suitable dates/events identified	
E.8.2	Coordinate activities, including tree planting, clean-ups, bird counts, turtle counts, leaving cars at home, etc., building on existing programmes wherever possible, in support of each international action day to encourage wide community participation.	I	ECO, NGO's; (<i>BCU</i>)	2003 - annually	Existing funds	Activities promoted and people participate	E.1.4, E.1.6, E.2.1, E.3.4, E.3.8
E.8.3	Develop an annual "Round Up Day" for the culling of invasive plants on private land and nature reserves.	II	Dept. of Parks, Dept. of Conservation Services (Applied Ecology & Botanical & Horticultural Services); (<i>Bda National Trust, Bda Audubon Society, Save Open Spaces</i>)	2003 - annually	Existing funds	Number of registrants	E.1.4
ACTION E.9: Encourage golf courses to use more biodiversity-friendly management techniques.				MEASURABLE IMPACT: Golf course management improved to support biodiversity conservation.			
E.9.1	Meet with golf course owners and encourage them to register and complete the BAS Cooperative Sanctuary Program.	II	Bda Biodiversity Project, Save Open Spaces; (<i>Bda Audubon Society, Golf course</i>)	2004	Existing funds	Golf courses sign on and complete course	A.3.4

The Bermuda Biodiversity Action Plan

			<i>superintendents and general managers)</i>				
E.9.2	Adapt the BAS Cooperative Sanctuary Program Develop where necessary to focus on Bermuda.	I	Dept. of Conservation Services, landscape architects; (<i>Save Open Spaces, Bda Audubon Society, Golf course superintendents and general managers)</i>	2004	Existing funds	Management guidelines developed and adopted on golf course	
E.9.3	Hold workshops on culling of invasive species, landscaping with native species, and on reducing pesticide use for golf courses.	I	Dept. of Conservation Services (Applied Ecology); (<i>Dept. of Parks, Dept. of Environmental Protection, Pesticide Focus Group, Golf course superintendents and general managers)</i>	2003	Existing funds	Workshops held; culling and planting carried out on Golf Courses	E.1.1, E.2.2, F.3.3
E.9.4	Extend the installation and monitoring of bluebird trails on golf courses.	I	Save Open Spaces, Bda Audubon Society ; (<i>Golf course superintendents and general managers)</i>	2003 - ongoing	\$2,000 new funds	Boxes erected; number of fledglings	E.2.8
E.9.5	Work with Golf course superintendents to undertake improved management schemes for Government golf courses, including use of native species and pesticide applications.	II	Dept. of Parks, (<i>Dept. of Conservation Services, Dept. of Environmental Protection, Pesticide Focus Group, Golf course superintendents and general managers)</i>	2004 - ongoing	Existing funds	Improved management schemes implemented	I.3.1
ACTION E.10: Engage the private sector and businesses in adopting more sensitive practices in order to promote biodiversity conservation.				MEASURABLE IMPACT: Increase in the number of businesses adopting more environmentally-sensitive practices resulting in less impact on biodiversity.			
E.10.1	Organise and hold seminars for architects, developers and construction companies to illustrate more ecologically sensitive development and construction practices.	I	Dept. of Planning; (<i>architects, construction companies, BCU)</i>	2004 - ongoing	\$1,000 per seminar, new funds	Seminars held and attended	A.2.3
E.10.2	Publish and distribute a set of supporting documents to promote ecologically-friendly building standards and construction practices.	I	Dept. of Planning; (<i>Landscapers, Gardeners, BCU)</i>	2004 - ongoing	\$5,000 new funds	Documents produced and requested by local businesses	A.2.3
E.10.3	Provide biodiversity presentations to landscape businesses to illustrate how native species can be used as a basis for landscaping, using pictorial examples.	II	Dept. of Parks, Dept. of Planning; (<i>Landscapers, Gardeners)</i>	2004 - ongoing	Existing funds	Presentations held; gardens improved	E.2.5

The Bermuda Biodiversity Action Plan

E.10.4	Contact key local and international business associations to encourage them to promote programmes supporting environmentally-friendly practices within their member organizations.	I	Dept. of Conservation Services (Applied Ecology); (<i>Bermuda International Business Association, Bermuda Chamber of Commerce</i>)	2003	Existing funds	Businesses appointing 'Green Teams'	E.6.1
E.10.5	Contact local and international businesses to include biodiversity messages within their existing public relations mechanisms and in-house newsletters.	II	Dept. of Conservation Services (Applied Ecology); (<i>Bermuda International Business Association, Bermuda Chamber of Commerce</i>)	2004	Existing funds	Businesses promoting biodiversity conservation	D.2.13
E.10.6	Meet with tourism associations to persuade operators to promote ecofriendly practices to their clients.	II	Dept. of Conservation Services (Applied Ecology); (<i>Tourism associations, Hotel Employers</i>)	2004	Existing funds	Increased level of awareness; number of environmentally friendly practices	C.8.4
E.10.7	Meet with retailers associations to promote the stocking of larger capacity containers, use of non-plastic packaging and sale of less environmentally-damaging products.	III	Keep Bermuda Beautiful; (<i>Chamber of Commerce, Retailers</i>)	2004	Existing funds	Plastic packaging reduced; bulk supplies more widely available	
E.10.8	Continue to support Ambassador Awareness for tour operators and develop codes of practice.	II	Bda Zoological Society, tour operators	2003 - ongoing	Existing funds	Ambassador Awareness events continued and codes of practice developed and adopted	
E.10.9	Lobby balloon suppliers to stop importing and selling helium balloons.	I	Bda Audubon Society; (<i>Chamber of Commerce, Retailers, BCU</i>)	2003	Existing funds	Helium balloons banned	
E.10.10	Lobby retailers to participate in a bottle return programme.	I	Keep Bermuda Beautiful; (<i>Chamber of Commerce, Retailers, BCU</i>)	2003	Existing funds	Retailers supporting bottle returns	F.2.2
E.10.11	Meet with farmers association to develop a set of guidelines on soil management practices (e.g. chemical use).	I	Dept. of Conservation Services (Botanical & Horticultural Services); (<i>farmers, Board of Agriculture</i>)	2004	Existing funds	Farmers practicing healthy soil management	
E.10.12	Meet with garden centre owners to encourage the stocking of native and endemic species.	I	Dept. of Parks; (<i>Bda Botanical Society, Nurseries</i>)	2003	Existing funds	Increase in availability of plants supporting biodiversity conservation	E.2.4

The Bermuda Biodiversity Action Plan

E.10.1 3	Meet with horticultural businesses to promote on-site composting, and reduced use of herbicides.	III	Botanical and Horticultural Services; Dept. of Parks; (<i>Horticulturalists</i>)	2004	Existing funds	Reduction in use of herbicides and increase in amount of on-site composting	F.2.4
E.10.1 4	Meet with Bda Hotel Association to promote the management of hotel grounds for biodiversity, and use of this in the marketing and presentation of their hotel.	III	Dept. of Tourism, Dept. of Conservation Services (Applied Ecology); (<i>Bda Hotel Association</i>)	2004	Existing funds	Hotels promoting the native biodiversity of their grounds	
E.10.1 5	Contact local garages and paint shops to encourage them to install on-site waste chemical facilities.	III	Dept. of Works and Engineering; (<i>garages and paint shops</i>)	2004	Existing funds	Waste chemical facilities installed	
E.10.1 6	Contact beach vendors to encourage them to reduce use of straws and replace packaged condiments with squirt bottles.	II	Dept. of Parks (Beaches); (<i>Works & Engineering, Dept. of Environmental Health, Beach food vendors</i>)	2003	Existing funds	Amount of ecologically unfriendly material at beaches reduced	
E.10.1 7	Support existing programmes, to work with local oil companies and marine service stations to promote mechanisms to reduce the spillage of fuel into the sea.	I	Keep Bermuda Beautiful; (<i>Esso & Shell Marine Fill Stations</i>)	2003 - ongoing	Existing funds	Improved filling procedures, reducing spillage	
E.10.1 8	Meet with key representatives from the media to encourage them to improve the coverage of biodiversity issues.	I	BCU; (<i>media</i>)	2003 - ongoing	Existing funds	Improved coverage of biodiversity issues	D.2.8, D.2.10, D.2.11, D.2.14, D.3.3, D.3.6, D.4.2, D.9.3, E.3.8, E.8.3

OBJECTIVE F.
To provide appropriate economic, and other incentives, to effectively encourage people to protect and enhance biodiversity.

Code	Activity	Priority	Lead agency (+who else involved)	Time-frame	Cost Estimate	Measurable Outputs	Related activities
ACTION: F.1. Promote existing economic incentives, fines or deterrents which favour biodiversity protection.				MEASURABLE IMPACT: Biodiversity protection strengthened as a result of greater economic incentives or deterrents.			
F.1.1	Review existing economic incentive and disincentive mechanisms, which favour biodiversity, and identify possible improvements and gaps in these.	I	Dept. of Environmental Protection, Dept. of Planning, Dept. of Parks; (<i>Other Govt. Depts, NGO's, private sector</i>)	2003	Existing funds	Review completed; gaps identified and improvements suggested	
F.1.2	Review structure and procedures for fines relating to environmental damage or degradation - review all penalties pertaining to environmental infractions and increase/strengthen where necessary.	I	Dept. of Environmental Protection, Dept. of Planning, Dept. of Parks; (<i>Attorney General's Chambers</i>)	2003	Existing funds	Review completed; penalties strengthened where necessary	F.1.3
F.1.3	Develop legislative procedures to administer additional/incremental fines when appropriate for failure to comply with enforcement directives within specified time frames.	I	Dept. of Environmental Protection, Dept. of Planning, Dept. of Parks; (<i>Attorney General's Chambers</i>)	2005	Existing funds	Legislative procedures developed; fines administered	F.1.2
F.1.4	Develop promotional programmes for existing and proposed economic incentives and disincentives.	I	Dept. of Communications and Information; (<i>Dept. of Conservation Services, other Govt. Depts, NGO's, private sector</i>)	2004	Existing funds	Promotion programmes established	F.1.1, F.1.2, F.1.3
F.1.5	Collect data to assess impacts of existing and new incentive measures.	II	Ministry of Environment; (<i>Dept. of Environmental Protection, Dept. of Planning, Dept. of Parks</i>)	2004 - ongoing	Existing funds	Data collected; impact assessed and information integrated into development of future programmes	
ACTION F.2: Develop economic incentives to promote environmentally responsible behaviours.				MEASURABLE IMPACT: Public adopt more environmentally responsible behaviours through economic encouragement.			

The Bermuda Biodiversity Action Plan

F.2.1	Work with local retailers to develop cash back schemes for re-use of plastic bags and bottles.	I	Keep Bermuda Beautiful; <i>(Ministry of Works and Engineering, private sector)</i>	2003	Existing funds	Cash-back schemes developed	
F.2.2	Develop systems for implementation of the bottle bill; including deposits on bottles and cans; convenient recycling drop off points; fines for misuse of recycling points).	I	Keep Bermuda Beautiful; <i>(Ministry of Works and Engineering; private sector)</i>	2003	New funds	Deposit system set up	E.11.10
F.2.3	Secure support from Government, NGO's and the private sector to sponsor provision of compost bins to encourage wider composting.	II	Ministry of Works and Engineering; <i>(private sector)</i>	2004	\$20,000 new funds	Programme sponsored, bins in distribution	E.11.13
F.2.4	Review and revise import duty structure to encourage use of eco-friendly products where necessary.	II	Dept. of Environmental Protection; <i>(Dept. of Finance; Dept. of Customs and Immigration)</i>	2004	Existing funds	Duty rates revised; increase in use of eco-friendly products	
ACTION F.3: Develop economic incentives to promote native species.				MEASURABLE IMPACT: Native species more widely adopted and restored through the provision of incentive schemes promoting them.			
F.3.1	Develop and advertise a support mechanism offering free advice to landowners for woodland management projects.	II	Dept. of Conservation Services (Botanical and Horticultural Services); <i>(Dept. of Parks, NGO's, landowners)</i>	2004 - ongoing	\$50,000 new funds	Support mechanism established; advice offered	
F.3.2	Review, improve and advertise the native plant coupon system so that it is available to all landowners and ensures planting.	I	Dept. of Planning, Dept. of Parks (Tulo Valley); <i>(landowners)</i>	2003 - ongoing	Existing funds	Coupon system revamped; used by landowners	
F.3.3	Secure the support of Government, NGO's and the private sector for sponsorship of projects such as native plantings, woodland restoration, bluebird box installation by private landowners.	I	Ministry of Environment; <i>(NGO's, private sector; landowners)</i>	2003 - ongoing	\$100,000 per year new funds	Support secured; projects completed	E.10.3, E.10.4 L7.1, L.8.1
ACTION F.4: Develop economic and other incentives to protect/enhance open spaces and specific habitats.				MEASURABLE IMPACT: Compensation to landowners encourages the protection of more open space.			
F.4.1	Review the options available to government to reduce or reverse current development pressures on undeveloped land and develop a political and financial strategy to pursue these options.	I	Ministry of Environment	2003	Existing funds	Review completed; options identified	

The Bermuda Biodiversity Action Plan

F.4.2	Develop a proposal demonstrating to government the longterm benefits of offering compensation for property owners to relinquish their development rights and/or restore open spaces, with a covenant to guarantee the future preservation of the designated areas. (These would be legally supported and irreversible by act of parliament).	I	Ministry of Environment, Ministry of Finance	2003	Existing funds	Proposal developed; compensation offered; land restored	I.4.3
F.4.3	Review existing, and if necessary develop new tax break incentives for transferring open space to NGO's.	I	Bda National Trust, Bda Audubon Society; (<i>Ministry of Finance, other NGO's</i>)	2003	Existing funds	Tax breaks reviewed and developed; land transferred	I.2.3, I.4.3
F.4.4	Secure Government support for the implementation of a tax rebate to encourage redevelopment over new development.	I	Ministry of Environment; (<i>Ministry of Finance</i>)	2004	Existing funds	Tax rebate established; redevelopment increased	
F.4.5	Review and increase if necessary the budget (including that from land tax/sales of property) for the fair purchasing of open space.	II	Ministry of Environment, Ministry of Finance	2004	New funds depending on review outcome	Review completed; open space purchased	
F.4.6	Review the options available to government to encourage use of public transport, encourage use of quieter vehicles and reduce impacts of traffic on biodiversity, and develop a political and financial strategy to pursue these options.	III	Ministry of Transport; (<i>Ministry of Finance, Ministry of Environment,</i>)	2005	Existing funds	Review completed; political and financial strategy developed; options implemented	
F.4.7	Review and revise the options available to the international business sector for housing of overseas workers to minimise the current pressures on housing and undeveloped land and secure support to apply these.	II	Ministry of Environment	2004	Existing funds	Review completed; housing pressures minimised	
ACTION: F.5: Investigate, develop and promote sustainable and environmentally responsible businesses that protect and enhance biodiversity.				MEASURABLE IMPACT: Negative impacts on biodiversity reduced by the establishment of more environmentally-responsible businesses.			
F.5.1	Develop criteria for the definition of sustainable industry and set up additional inspections, and a certification scheme.	I	Ministry of Environment, Ministry of Finance	2006	Existing funds	Sustainable industry classification criteria established	F.5.2

The Bermuda Biodiversity Action Plan

F.5.2	Identify suitable criteria for tax breaks to favour sustainable and environmentally responsible business, and secure government support to apply these.	I	Ministry of Environment, Ministry of Finance	2005	Existing funds	Criteria identified; tax rebated provided	F.5.1
F.5.3	Secure the support of the Small Business Development office, banks etc. to offer incentives for sustainable industries (arrange sliding scale interest rate on loans, free business advice etc.)	I	Ministry of Environment; <i>(Banks, Small Business Development Office)</i>	2003	Existing funds	Incentives identified and offered	L
F.5.4	Secure the support of BLDC to offer incentives for sustainable industries (reduced leasing fees/rents etc.)	II	Ministry of Environment, BLDC	2004	Existing funds	Incentives identified and offered	L
F.5.5	Conduct and publicise a long-term cost-benefit analysis of sustainable vs. immediate resource use of caves and quarrying and develop and implement an appropriate strategy according to the findings.	I	Dept. of Conservation Services (Applied Ecology)	2004	\$25,000 new funds	Analysis conducted; strategy implemented	
ACTION F.6: Promote recognition of good environmental practice as an incentive to improvement.				MEASURABLE IMPACT: Good environmental practices adopted through the public recognition of deserving individuals/groups.			
F.6.1	Support annual competitions for nationally recognized awards for environmentally responsible behavior/activities by government departments and businesses, supported by wide media coverage.	I	Dept. of Conservation Services (Applied Ecology); <i>(Media NGO', Dept. of Community & Cultural Affairs, BCU)</i>	2003 - annually	\$25,000 annually, new funds	Competitions held; wide participation	D.3.7, D.8.3
F.6.2	Support and promote awards of recognition schemes for organizations that strive to protect and enhance biodiversity through their normal operational activities or special programs.	I	Dept. of Conservation Services (Applied Ecology); <i>(Media NGO's, Dept. of Community & Cultural Affairs)</i>	2003 - ongoing	Existing funds	Awards Program established; organizations recognised	D.3.7, D.8.3
F.6.3	Continue, and expand support for the provision of awards of recognition, which recognise individual's contributions to biodiversity conservation through their outstanding efforts or innovations.	I	Keep Bda Beautiful, Bda National Trust; <i>(Dept. of Conservation Services (Applied Ecology), Media, other NGO's, Dept. of Community & Cultural Affairs, BCU)</i>	2003 - ongoing	Existing funds	Awards Program established; individuals recognised	D.3.7, D.8.3
F.6.4	Prepare and publicise lists of businesses, government departments and individuals, which have had positive impacts on biodiversity, in the mass media.	I	NGO; <i>(Media NGO's, Dept. of Community & Cultural Affairs)</i>	2003 - ongoing	Existing funds	List published	D.3.7, D.8.3

The Bermuda Biodiversity Action Plan

F.6.5	Establish free promotional initiatives for environmentally-friendly businesses (Best of Bermuda - for the Environment, Bermuda Green Awards, Environmental Audits)	I	Dept. of Conservation Services (Applied Ecology); (<i>Media NGO's, Dept. of Community & Cultural Affairs, BCU</i>)	2003 - ongoing	\$1,000 per year	Awards program established	
-------	--	---	--	----------------	------------------	----------------------------	--

OBJECTIVE G: To revise and develop laws that address all key identified gaps in existing environmental legislation for implementation by 2007.

Code	Activity	Priority	Lead agency (+who else involved)	Time-frame	Cost Estimate	Measurable Outputs	Related activities
ACTION G.1: Secure governmental support and clarify international obligations for revising existing and developing new legislation concerning biodiversity.				MEASURABLE IMPACT: Improved governmental buy-in for biodiversity conservation resulting in 100% support for legislative revisions			
G.1.1	Secure Government approval to pursue revisions to the legislation through consultation with Cabinet.	I	Permanent Secretary, Ministry of Environment	2002	Existing funds	Government approval	B.5.1
G.1.2	Submit necessary requests to appropriate sources to secure legal counsel.	I	Permanent Secretary, Ministry of Environment, <i>Attorney General's Chambers</i>	2002	Existing funds	Legal counsel provided	
G.1.3	Continue with process to ratify CBD through government and the Convention secretariat.	I	Director, Dept. of Conservation Services; (<i>Attorney General's Chambers, FCO</i>)	2003	Existing funds	CBD ratified by Bermuda	A.3.6
ACTION G.2: Review gaps in legislation and identify key legislative amendments and new legislation needed in relation to biodiversity management.				MEASURABLE IMPACT: Strengthened biodiversity legislation through the identification and elimination of all existing legislative loopholes.			
G.2.1	Set up and appoint members to working groups to prepare reports on legislative reform needed in the areas of (i) protected areas; (ii) protection of species; (iii) control of feral animals; (iv) land development and planning permission; (v) environmental impact and liability; (vi) pollution and waste management; (vii) import of invasive and genetically modified species; and (viii) corporate responsibility for the environment, as required for effective biodiversity management and to conform to the CBD.	I	Permanent Secretary, Ministry of Environment; (<i>Directors of Dept. of Environmental Protection, Dept. of Planning, Dept. of Parks, Dept. of Conservation Services, Dept. of Works and Engineering, NGO's, Corporate leaders</i>)	2003 - 2006	Existing funds	Groups established; reports prepared	E.2.7, I.4.1, I.4.4, I.4.5
G.2.2	Consult with enforcement personnel regarding proposed legislative reforms.	I	Group coordinator; (<i>Enforcement officers</i>)	2003 - 2006	Existing funds	Reports circulated; department reviews	G.2.3, I.4.1

The Bermuda Biodiversity Action Plan

G.2.3	Circulate reports from each working group to the Directors of Depts. of Conservation Services, Environmental Protection, Planning, Parks and other key individuals.	I	Group coordinator; (<i>Directors of Dept. of Environmental Protection Dept. of Planning, Dept. of Parks, Dept. of Conservation Services, Environmental Engineer, other relevant personnel</i>)	2003 - 2006	Existing funds	Reports circulated	G.2.2
G.2.4	Provide ongoing input to the review of legislation relating to pesticide use.	II	Ministry of the Environment	2003	Existing funds	Input provided	
ACTION G.3: Facilitate the amendment of existing legislation and the adoption of new legislation.				MEASURABLE IMPACT: Strengthened biodiversity legislation resulting in all threatened species being afforded protection.			
G.3.1	Prepare and submit a brief of needs (as recommended by technical working groups) to Cabinet for support to direct to the Attorney General's Chambers.	I	Permanent Secretary, Ministry of Environment; (<i>Cabinet, Attorney General's Chambers</i>)	2003 - 2006	Existing funds	Brief produced	
G.3.2	Identify, secure copies and review model legislation from other jurisdictions.	II	Attorney General's Chambers; (<i>Foreign and Commonwealth Office</i>)	2003 - 2006	Existing funds	Copies of model legislation secured	B.4.1
G.3.3	Draft legislation.	I	Attorney General's Chambers; (<i>Foreign and Commonwealth Office</i>)	2003 - 2006	Existing funds	Legislation drafted	
G.3.4	Prepare and present Cabinet paper detailing revised legislation.	I	Ministry of Environment	2003 - 2006	Existing funds	Government approval	
G.3.5	Table and approve legislative changes in the House.	I	House of Assembly	2003 - 2006	Existing funds	Legislation approved	
G.3.6	Adopt and then publish revised legislation.	I	Senate; (<i>Attorney General's Chambers; Royal Gazette</i>)	2003 - 2006	Existing funds	Legislation passed and made public	
G.3.7	Direct a working group to review legislation and propose amendments as required.	III	Permanent Secretary of Ministry of Environment	2006	Existing funds	Legislation reviewed and amended	G.2.1, G.2.2, G.2.3
ACTION G.4: Ensure that Bermuda has measures in place to prevent future risks from biotechnology, and can gain appropriate benefits from the application of its own genetic resources.				MEASURABLE IMPACT: Risks from biotechnology reduced and benefits from genetic resources increased.			
G.4.1	Develop and implement protocols to establish rights, ownership and/or accessibility to specimens, genetic material and benefits or derivatives thereof, including that extracted for biotechnology.	I	Ministry of Environment; (<i>Attorney General's Chambers</i>)	2003	Existing funds	Protocols implemented	A.4.1

The Bermuda Biodiversity Action Plan

G.4.2	Develop and implement protocols that ensure the safe transfer and use of genetically modified organisms.	I	Ministry of Environment; <i>(Attorney General's Chambers, Dept. of Conservation Services (Botanical & Horticultural Services, Bda Biological Station for Research)</i>	2003	Existing funds	Protocols implemented	A.2.3
G.4.3	Ensure that protocols on biotechnology and access/benefit sharing are incorporated within relevant legislation.	I	Ministry of Environment; <i>(Attorney General's Chambers, Dept. of Conservation Services (Botanical & Horticultural Services, Bda Biological Station for Research)</i>	2003	Existing funds	Protocols incorporated into legislation	

OBJECTIVE H: To ensure that enforcement effectively deters infractions against legislation such that violations decline by 50% by 2007.

Code	Activity	Priority	Lead agency (+ <i>who else involved</i>)	Time-frame	Cost Estimate	Measurable Outputs	Related activities
ACTION: H. 1: Give greater empowerment to all authorized environmental enforcement officers.				MEASURABLE IMPACT: Strengthened protection afforded biodiversity through greater enforcement powers.			
H.1.1	Ensure that a ticketing system is introduced for enforcement with fixed fines for offences.	I	Ministry of Environment; Attorney General's Chambers; (<i>All enforcement officers</i>)	2003	Existing funds	Ticketing system introduced	
H.1.2	Develop public awareness materials to ensure that the public is fully aware of the powers of arrest assigned to environmental enforcement officers.	I	Ministry of Environment	2003	\$10,000 new funds	Public awareness materials developed; greater public respect for environmental enforcement officers	D.3.3
H.1.3	Review and revise current loopholes to minimize opportunities for political interference with enforcement issues.	II	Ministry of Environment	2004	Existing funds	Loopholes identified; interference minimised	D.7.3
H.1.4	Review and revise current procedures and policies to include penalties for retroactive submission of planning applications.	II	Dept. of Planning (Enforcement), Attorney General's Chambers	2004	Existing funds	Procedures reviewed; penalties applied	
ACTION: H.2: Secure adequate resources for authorised environmental enforcement officers.				MEASURABLE IMPACT: Greater commitment of resources ensuring better protection of biodiversity.			
H.2.1	Undertake a review of existing resources (including manpower, equipment, funding) and the areas of responsibility of staff, to identify gaps and areas of overlap and make recommendations to improve effectiveness.	I	Dept. of Environmental Protection (Marine Enforcement & Animal Control), Dept. of Planning (Enforcement), Dept. of Parks (Park Rangers); (<i>Police</i>)	2003	Existing funds	Review undertaken; recommendations made and integrated	H.2.2, H.2.3, H.2.4, I.4.2
H.2.2	Where necessary, as defined in H.2.1, develop mechanisms and review working procedures such that enforcement officers can be compensated for overtime and hours spent on-call at night.	I	Dept. of Environmental Protection (Marine Enforcement & Animal Control), Dept. of Planning (Enforcement), Dept. of Parks (Park Rangers); (<i>Police</i>)	2003	New funds as identified in H.2.1	Procedures implemented to ensure appropriate payment of overtime	H.2.1, I.4.2

The Bermuda Biodiversity Action Plan

H.2.3	Where necessary, as defined in H.2.1, recruit more environmental enforcement officers.	II	Dept. of Environmental Protection (Marine Enforcement & Animal Control), Dept. of Planning (Enforcement), Dept. of Parks (Park Rangers); (<i>Police</i>)	2004	New funds as identified in H.2.1	Environmental enforcement offices recruited as needed	H.2.1
H.2.4	Where necessary, as defined in H.2.1, provide the necessary equipment for environmental enforcement officers to carry out their duties.	II	Dept. of Environmental Protection (Marine Enforcement & Animal Control), Dept. of Planning (Enforcement), Dept. of Parks (Park Rangers); (<i>Police</i>)	2004	New funds as identified in H.2.1	Equipment provided as needed	H.2.1
H.2.5	Review and revise existing mechanisms for impounding equipment confiscated as a result of an environmental infraction.	III	Dept. of Environmental Protection (Marine Enforcement); (<i>Police</i>)	2003	Existing funds	Mechanisms revised	
H.2.6	Identify opportunities to engage the Bermuda Regiment in environmental enforcement.	II	Ministry of Environment; (<i>Police; Bermuda Regiment</i>)	2003	Existing funds	Opportunities identified; Regiment engaged	
ACTION: H.3: Provide appropriate training for all authorised environmental enforcement officers and the judiciary.				MEASURABLE IMPACT: Greater awareness promoted better training of enforcement officers resulting in more thorough environmental enforcement.			
H.3.1	Research and assess existing training programmes and assess training needs for all relevant personnel.	I	Ministry of Environment; (<i>Dept. of Environmental Protection (Marine Enforcement & Animal Control), Dept. of Planning (Enforcement), Dept. of Parks (Park Rangers), Police</i>)	2003	Existing funds	Training programmes assessed and needs addressed	
H.3.2	Where necessary, develop and deliver training programmes for all environmental enforcement officers in law, judicial processes and report writing.	I	Dept. of Environmental Protection (Marine Enforcement & Animal Control), Dept. of Planning (Enforcement), Dept. of Parks (Park Rangers); (<i>Police</i>)	2004	\$10,000 annually, new funds	Training programmes developed and delivered	B.4.6
H.3.4	Develop and deliver an education program for the judiciary focused on the social and cultural effects and economic impacts of environmental infringements and the financial incentives for people to break the law.	I	Ministry of Environment; Supreme Court Registrar; (<i>Judiciary</i>)	2004	\$5,000 new funds	Training programmes developed and delivered	B.4.6
ACTION: H.4: Identify appropriate technologies and methods for detection of environmental infractions.				MEASURABLE IMPACT: Employment of better methods of detection ensuring more effective policing of environment.			

The Bermuda Biodiversity Action Plan

H.4.1	Survey and assess current procedures and technologies employed for the detection of environmental infractions and research alternate, proven methodologies that hold promise in the local context and recommend improvements.	I	Dept. of Environmental Protection (Marine Enforcement & Animal Control), Dept. of Planning (Enforcement), Dept. of Parks (Park rangers); (<i>Police, Harbour Radio</i>)	2003	Existing funds	Current procedures assessed; new technologies researched; recommendations made and incorporated	A.3.2
H.4.2	Institute a satellite based vessel monitoring system on all commercial boats that allows for continuous surveillance.	II	Dept. of Environmental Protection (Marine Enforcement); (<i>Police, Harbour Radio</i>)	2004	\$100,000 new funds	Monitoring system instituted; boats surveyed	E.5.3, K.3.3
H.4.3	Develop and promote an eco-crime stoppers program and a rewards system for information leading to the arrest of environmental legislation violators.	II	Police; (<i>Dept. of Environmental Protection (Marine Enforcement & Animal Control), Dept. of Planning (Enforcement), Dept. of Parks (Park Rangers),</i>	2005	\$25,000 new funds	Programme implemented; reward system established; crimes reported	D.3.5
H.4.4	Develop an integrated communication system for all environmental enforcement officers and police, to ensure an accurate and up to date record of events.	I	Police; (<i>Dept. of Environmental Protection (Marine Enforcement & Animal Control), Dept. of Planning (Enforcement), Dept. of Parks (Park Rangers),</i>	2003	\$50,000 new funds	Communication system established; events recorded	
ACTION: H.5: Develop and strengthen relationships between the various agencies involved with protecting the environment.				MEASURABLE IMPACT: Improved communication amongst enforcement officers resulting in strengthened biodiversity protection.			
H.5.1	Establish effective means of communication and liaison (through regular briefings, workshops etc) between the relevant government departments including the Police, the judiciary and all environmental enforcement officers within the Ministry of the Environment.	I	Ministry of Environment; (<i>Dept. of Environmental Protection (Marine Enforcement & Animal Control), Dept. of Planning (Enforcement), Dept. of Parks (Park Rangers), Police, Supreme Court</i>)	2003	Existing funds	Regular briefings held; communication improved	
E.2.9	Create an environmental rehab program for environmental law breakers involving them in restoration projects.	II	H.M Prisons, Dept. of Environmental Protection; (<i>Dept. of Planning; Dept. of Parks; Police</i>)	2004	\$20,000 new funds	Rehab programme implemented and restoration projects completed	E.1.3

OBJECTIVE I.
To strengthen the level of protection, where appropriate, through the re-designation of existing protected areas, and to increase the area of fully protected nature reserves and marine protected areas through land acquisition or marine designation by 25% and 10% respectively; and to ensure the effective management of the protected areas network by 2007.

Code	Activity	Priority	Lead agency (+who else involved)	Time-frame	Cost Estimate	Measurable Outputs	Related activities
ACTION I.1: Identify existing and potential protected areas, including marine and terrestrial parks in public and private management.				MEASURABLE IMPACT: Comprehensive documentation of protected areas produced enabling more effective management.			
I.1.1	Conduct a participatory assessment to define protected area status, criteria for protection (including threatened or high biodiversity sites, sites required for migratory species, sites of social, cultural or scientific value, sites which are unique or associated with key biological processes), levels of protection, and to standardise nomenclature and share information on existing protected areas.	I	Dept. of Conservation Services (Applied Ecology); (<i>Bda Biodiversity Project, Bda National Trust, Bda Audubon Society, other landowners</i>)	2003	Existing funds	List of guidelines and definitions produced and shared	D.3.8, I.1.3
I.1.2	Collate all information on each protected area and produce a report assessing the current level of protection for public dissemination (via website).	I	Dept. of Conservation Services (Applied Ecology); (<i>Bda Biodiversity Project, Dept. of Parks (Park Rangers), Bda National Trust, Bda Audubon Society, other landowners</i>)	2003	Existing funds	Report produced and publicised	I.1.1, A.2.2
I.1.3	Set up a database specific to the protected areas system in Bermuda, storing information on species, habitats and management relating to each site, along with status and level of protection.	II	Bda Biodiversity Project; (<i>Dept. of Conservation Services (Applied Ecology), Dept. of Planning (Forward Planning), Dept. of Parks, landowners</i>)	2003	Existing funds	Database set up; data input	I.1.1, I.1.4, I.1.6, I.1.7, I.1.8
I.1.4	Assess habitats supporting high biodiversity in Bermuda and identify any of these not currently incorporated within the protected area system.	I	Bda Biodiversity Project; (<i>Dept. of Conservation Services (Applied Ecology), Dept of Planning (Forward Planning), landowners</i>)	2003	Existing funds	Assessment undertaken; gaps identified	I.1.3

The Bermuda Biodiversity Action Plan

I.1.5	Undertake gap analysis on the current network of protected areas, and compare data with the Bda Biodiversity Project, to verify habitat estimates and to identify new potential areas of protection.	I	Dept. of Conservation Services (Applied Ecology), Bda Biodiversity Project; (<i>Dept. of Planning</i>)	2004	Existing funds	Analysis undertaken; new areas identified	E.1.3, I.1.3, I.1.6
I.1.6	Review and update a protected areas system plan for Bermuda.	I	Dept. of Planning, Dept. of Conservation Services (Applied Ecology); (<i>Dept. of Parks, Bda National Trust, Bda Audubon Society, other landowners</i>)	2004	Existing funds	Zoning plans revised	I.1.5
I.1.7	Conduct regular aerial photo surveys of the island (every 5 years) and surrounding marine platform (every 10 years), and enter the information collected to the protected areas database.	III	Ministry of Works and Engineering; (<i>Dept. of Conservation Services (Applied Ecology)</i>)	2003, 2008	\$50,000 new funds	Aerial photographic survey undertaken	I.1.3
I.1.8	Regularly update the database with any new information or changes in status/management.	II	Dept. of Conservation Services (Applied Ecology); (<i>Bda Biodiversity Project, Bda National Trust, Bda Audubon Society, other landowners</i>)	2003 - ongoing	Existing funds	Database updated	I.1.3
ACTION I.2: Increase the coverage of the protected areas system in both terrestrial and marine habitats.				MEASURABLE IMPACT: Increase in the amount of protected land and the amount of protected marine environment by end of 2008.			
I.2.1	In consultation with non-governmental landowners, continue to expand the list of important areas proposed for acquisition or designation (based upon the findings from I.1.4)	I	Ministry of Environment; (<i>Bda National Trust, Bda Audubon Society, other landowners</i>)	2003 - ongoing	Existing funds	List of proposed areas produced	A.2.5
I.2.2	Meet with relevant Government departments to secure their commitment to the acquisition of lands such that the governmental protected areas system contains viable and representative areas of all key habitat types on Bermuda	I	Ministry of Environment; (<i>Bda National Trust, Bda Audubon Society, other landowners</i>)	2003 – ongoing	New funds as identified	New land acquired	
I.2.3	Continue to secure the support of NGO's, individuals and the private sector to put aside land for conservation, within the wider context of a protected areas system plan.	I	Ministry of Environment; (<i>Bda National Trust, Bda Audubon Society, other landowners</i>)		Existing funds	Land set aside	F.4.3

The Bermuda Biodiversity Action Plan

I.2.4	Review and update existing zonings under 1992 Bermuda Plan (maps and statement), rezone areas according to grading system (see I.1.1) and identify new areas (including marine protection areas).	I	Dept. of Planning (Forward Planning); (<i>Dept. of Conservation Services (Applied Ecology), Dept. of Parks, Bda National Trust, Bda Audubon Society, other landowners</i>)	2003 - 2004	Existing funds	Zoning plans revised	D.3.8, I.4.5
ACTION I.3: Improve the management of terrestrial and marine protected areas.				MEASURABLE IMPACT: Greater protection of protected areas.			
I.3.1	Develop a manual for management planning across the protected areas system.	I	Dept. of Conservation Services (Applied Ecology); (<i>Dept. of Planning, Dept. of Parks, Bda National Trust, Bda Audubon Society, other landowners</i>)	2004-2005	Existing funds	Manual produced	A.2.5, E.10.5
I.3.2	Review existing and develop new management plans for every protected area (public and private) using participatory process wherever possible.	I	Dept. of Conservation Services (Applied Ecology); (<i>Dept. of Planning, Dept. of Parks, Bda National Trust, Bda Audubon Society, other landowners</i>)	2003 - ongoing	Existing funds	Management Plans developed and implemented	A.2.5, J.1.1, J.1.2, J.1.3, I.3.4
I.3.3	Review existing staffing levels and recruit new staff as needed.	II	Ministry of Environment; (<i>Dept. of Personnel Services</i>)	2003 - 2005	\$60,000 per post, per annum, new funds	New staff appointed as identified	H.2.3
I.3.4	In consultation with landowners, review management plans on a regular basis, and provide recommendations where necessary for improved management practices and the potential for novel management techniques.	III	Dept. of Conservation Services (Applied Ecology); (<i>Dept. of Planning, Dept. of Parks, Bda National Trust, Bda Audubon Society, other landowners</i>)	2003 - ongoing	Existing funds	Management plans reviewed; new techniques incorporated	A.2.5, I.3.2
ACTION I.4: Strengthen the level of protection for protected areas.				MEASURABLE IMPACT: Decrease in illegal activity within protected areas.			
I.4.1	Review the application of environmental enforcement mechanisms (including penalty systems) within the protected areas system, and identify gaps requiring further legislation, training or staffing	I	Ministry of Environment; (<i>Dept. of Parks, Dept. of Planning, Dept. of Conservation Services, Dept. of Environmental Protection</i>)	2003 – 2004	Existing funds	Applications reviewed; gaps identified and addressed	G.2.1, G.2.2
I.4.2	If necessary from I.3.1, recruit further staff to manage and patrol protected areas	II	Ministry of Environment; (<i>Dept. of Personnel Services</i>)	2005	New funds as identified	New staff recruited as necessary	H.2.1, H.2.3

The Bermuda Biodiversity Action Plan

I.4.3	Review the application and monitoring of legislation set out to protect habitats from development, and identify novel means to use this to protect lands in perpetuity	I	Dept. of Planning	2004	Existing funds	Effectiveness of legislation assessed; land protected in perpetuity	F.4.2, F.4.3
I.4.4	Review planning application and appeal decisions, and the effectiveness of planning conditions in relation to protected areas, and recommend changes in legislation and/or procedures as appropriate	I	Dept. of Planning	2003	Existing funds	Process reviewed; recommendations adopted and changes made	G.2.1
I.4.5	Develop new procedures for the establishment of buffer zones; corridors; landscape protection and tree pruning standards within the Development Plan and produce recommendations for incorporation into legislative review process	I	Dept. of Forward Planning, Ministry of Works and Engineering; (<i>landowners</i>)	2003	Existing funds	Procedures developed and standards adopted in Development Plan	G.2.1, I.2.4, K.2.3
I.4.6	Review the implementation of the Woodland Management Plan policy and enforcement of Woodland Management planning conditions, and include recommendations in the Bermuda Development Plan	II	Dept. of Planning, Dept. of Conservation Services (Applied Ecology), Dept. of Parks	2003	Existing funds	Recommendations made and incorporated	
I.4.7	Continue to protect existing, and identify new areas, which meet the criteria for protection under international agreements such as RAMSAR.	II	Dept. of Conservation Services (Applied Ecology); Dept. of Planning; (<i>Foreign and Commonwealth Office/Government House</i>)	2003 – ongoing	Existing funds	Existing areas protected; new areas identified and application process for inclusion in Agreements initiated	A.3.6
I.4.8	Maintain integrated signage and moorings system for public and private protected areas (both terrestrial and marine)	I	Dept. of Parks, Dept. of Conservation Services (Applied Ecology); (<i>landowners</i>)	2003 - ongoing	Existing funds	Signs/moorings erected/installed and maintained	D.10.1 – D.10.7, E.1 8
ACTION I.5: Identify and designate for protection areas with promise for habitat restoration.				IMPACT: Improvement of other areas worthy of protection.			
I.5.1	Conduct a participatory assessment to define criteria for rehabilitation of lands and marine areas.	I	Dept. of Conservation Services (Applied Ecology); (<i>Dept. of Parks; Bda National Trust, Bda Audubon Society, other landowners, BCU</i>)	2003	Existing funds	Assessment conducted; criteria established	A.2.5

The Bermuda Biodiversity Action Plan

I.5.2	Identify areas which may need rehabilitation based on criteria in I.5.1, and areas currently undergoing rehabilitation but not yet protected.	I	Dept. of Conservation Services (Applied Ecology); <i>(Dept. of Planning; Dept. of Parks; Bda National Trust, Bda Audubon Society, other landowners)</i>	2004	Existing funds	Areas identified	I.5.1
I.5.3	Develop management and/or rehabilitation plans for each proposed site, including details of costs, manpower and equipment needs, and potential sources of such (including volunteer inputs).	I	Dept. of Conservation Services (Applied Ecology); <i>(Dept. of Planning; Dept. of Parks; Bda National Trust, Bda Audubon Society, other landowners)</i>	2004 - 2005	Existing funds	Management plans developed	J.1.1, J.1.3
I.5.4	Co-ordinate the implementation of management/rehabilitation plans.	I	Dept. of Conservation Services (Applied Ecology); <i>(Dept. of Planning; Dept. of Parks; Bda National Trust, Bda Audubon Society, Bda Biodiversity Project, other landowners, BCU)</i>	2005 - ongoing	\$60,000 new funds per annum	Plans implemented	J.1.2

OBJECTIVE J: To develop new and revise existing management plans for all key species and habitats and to ensure their implementation by 2007.

Code	Activity	Priority	Lead agency	Time-frame	Estimated cost	Measurable Outputs	Related activities
ACTION J.1: Develop and implement management plans for all key species and habitats, including invasive species and habitats requiring restoration.				MEASURABLE IMPACT: Better orchestrated management of key habitats and species through the development of structured plans.			
J.1.1	Formalize and adopt a set of criteria to define key species and habitats for which actions plans should be developed.	I	Bda Biodiversity Project, BSAP stakeholders	2003	Existing funds	Criteria developed; key species and habitat defined	D.2.5, I.3.2, I.5.3
J.1.2	Identify individuals and organizations to coordinate the implementation of specific plans, and identify possible sources of support (including awareness and funding).	I	Bda Biodiversity Project; BSAP stakeholders	2003	Existing funds	Individuals identified; plans coordinated; sources of support identified	I.3.2, I.5.4
J.1.3	Implement and assess the effectiveness of each plan.	II	Dept. of Conservation Services (Applied Ecology); <i>(implementing organizations)</i>	2003 - 2007	New funds as budgeted in plans	Plans implemented; effectiveness assessed	E.7.3, I.3.2, I.5.3, K.3.1
J.1.4	Adapt BBP database to incorporate feedback from plan implementation.	III	Bda Biodiversity Project; <i>(implementing organizations, BCU)</i>	2003 - 2007	Existing funds	BBP database adapted; feedback incorporated	
J.1.5	Update and adapt plans as necessary, with regular review.	II	Dept. of Conservation Services; <i>(implementing organizations, BCU)</i>	2003 - 2007	Existing funds	Plans reviewed and updated/adapted	
J.1.6	Regularly reassess which species and habitats require plans, and produce new plans as necessary.	II	Dept. of Conservation Services (Applied Ecology); <i>(BSAP stakeholders, BCU)</i>	2003 - 2007	Existing funds	Reassessment undertaken; new plans produced	
ACTION J.2: Produce and disseminate species and habitat plans to engage wide community support for their implementation.				MEASURABLE IMPACT: More effective, community-wide approach to species and habitat protection as a result of initiative to secure community-buy in.			
J.2.1	Publish plans in an appropriate and accessible format, ensuring availability over the web.	I	Bda Biodiversity Project	2003	Existing funds	Plans published; availability over web	D.2.5
J.2.2	Produce a poster/package to advertise the targeted species and habitats.	II	Bda Biodiversity Project	2003	\$2,000 new funds	Poster produced; species advertised	D.2.5

The Bermuda Biodiversity Action Plan

J.2.3	Secure the support of relevant government departments to adopt the plans.	I	Dept. of Conservation Services, BSAP team; (<i>Relevant Government departments</i>)	2003	Existing funds	Support secured and plans adopted and implemented	
J.2.4	Develop a campaign encouraging individuals, business and NGOs to 'adopt a species or habitat plan'.	II	Dept. of Conservation Services (Applied Ecology); (<i>NGO's, private sector</i>)	2003 – 2007	\$5,000 new funds	Campaign developed; species/habitats adopted	E.6.2, E.7.7
J.2.5	Produce annual reports on plan implementation for BCU and Stakeholder meetings.	I	Dept. of Conservation Services (Applied Ecology); (<i>all relevant implementing agencies, BCU</i>)	2003 – 2007	Existing funds	Annual reports produced	A.1.6, A.1.7
ACTION J.3: Expand ex-situ programmes both locally and with partner organizations overseas for key species, including the establishment of captive breeding and propagation programmes.				MEASURABLE IMPACT: Establishment of captive-bred/propagation populations to safe-guard against declines in the wild.			
J.3.1	Develop a set of guidelines for collection, husbandry or propagation, and reintroduction of native and endemic species bred in captivity.	I	Dept. of Conservation Services (Bda Aquarium, Museum and Zoo, Applied Ecology), Dept. of Environmental Protection (Veterinary Office)	2003	Existing funds	Guidelines developed and adhered to	K.4.1, K.4.3
J.3.2	Set up captive breeding programmes at BAMZ, as indicated in species action plans.	I	Dept. of Conservation Services (Bda Aquarium, Museum and Zoo)	2004	New funds as identified	Captive breeding programmes established; species bred	A.2.3, J.4.1, K.4.1
J.3.3	Set up protocols for the export of locally endangered species to overseas zoos for breeding, such that Bermuda retains ownership of these individuals and their offspring.	III	Dept. of Conservation Services (Bda Aquarium, Museum and Zoo), Dept. of Environmental Protection (Veterinary Officer)	2005	Existing funds	Protocols established and implemented; species bred overseas	A.3.4
J.3.4	Liaise with the AZA and EARZ to set up studbooks and overseas breeding programmes for Bermudian species.	III	Dept. of Conservation Services (Bda Aquarium, Museum and Zoo); (<i>AZA, EARZ</i>)	2005	Existing funds	Studbooks set up; overseas breeding programmes established	A.3.4, K.4.1
J.3.5	Continue to maintain captive breeding populations of globally threatened species not native to Bermuda.	III	Dept. of Conservation Services (Bda Aquarium, Museum and Zoo);	2003 – 2007	Existing funds	Captive breeding programmes ongoing	A.3.4, J.4.1
J.3.6	Develop protocols for the export of seeds of Bermudian plants species for inclusion in overseas seed banks.	II	Dept. of Parks (Tulo Valley & Botanical Gardens)	2003	Existing funds	Protocols developed; seed exported and banked	A.3.4

The Bermuda Biodiversity Action Plan

J.3.7	Set up, or expand existing propagation programmes at the Botanical Gardens, Tulo Valley, or elsewhere, as indicated in species action plans.	I	Dept. of Parks (Tulo Valley & Botanical Gardens)	2003 – 2007	Existing funds	Programmes established/expanded; plants successfully propagated	J.4.2
J.3.8	Develop procedures and protocols to ensure that local plant nurseries propagate native and endemic plants in such a way as to maintain their genetic diversity and local adaptations.	I	Dept. of Parks (Tulo Valley & Botanical Gardens); Dept. of Conservation Services (Botanical & Horticultural Services)	2003	Existing funds	Protocols developed; diversity maintained	K.4.1
J.3.9	Develop guidelines on the care and re-establishment of native plants.	I	Dept. of Parks (Tulo Valley & Botanical Gardens)	2003	Existing funds	Guidelines developed; native plants re-established	
J.3.10	Ensure that all native plant species are represented at the Botanical Gardens.	III	Dept. of Parks (Botanical Gardens)	2003 – ongoing	Existing funds	Natives represented	J.4.2
J.3.11	Identify areas suitable for the reintroduction of key plant and animal species, as indicated in the action plans, and undertake controlled reintroductions.	I	Dept. of Conservation Services (Applied Ecology); Dept. of Parks; (<i>Bda National Trust, Bda Audubon Society, other landowners</i>)	2004 - ongoing	Existing funds	Areas identified; successful reintroductions	
ACTION J.4: Improve facilities at BAMZ and the Botanical Gardens / Government nurseries for rehabilitation, captive breeding or propagation of threatened species.				MEASURABLE IMPACT: More successful captive breeding/propagation as a result of improved facilities.			
J.4.1	Expand the veterinary facilities at BAMZ.	I	Bda Aquarium, Museum and Zoo; (<i>Bda Zoological Society</i>)	2004	\$100,000, new funds	Veterinary facilities improved and expanded; better animal care	J.3.2, J.3.5
J.4.2	Improve facilities as needed at Tulo Valley and the Botanical Gardens	I	Dept. of Parks (Botanical Gardens, Tulo Valley)	2004	\$50,000, new funds	Facilities improved at Tulo Valley; better plant care	J.3.7, J.3.10
ACTION J.5: Promote adaptive management of economically important marine species.				MEASURABLE IMPACT: Harvested species maintained at sustainable levels through adaptive management.			
J.5.1	Continue to support ongoing monitoring programmes for harvested species and make recommendation regarding management status.	I	Dept. of Environmental Protection (Marine Monitoring & Protection); (<i>fishermen</i>)	2003 - ongoing	Existing funds	Monitoring continued; recommendations made	E.5.3, K.3.3

The Bermuda Biodiversity Action Plan

J.5.2	Where appropriate, re-open fisheries, update quotas or legislation.	I	Dept. of Environmental Protection (Marine Monitoring & Protection); <i>(fishermen)</i>	2003 - ongoing	Existing funds	Appropriate management action taken; stocks harvested	E.5.3, K.3.3
-------	---	---	--	----------------	----------------	---	--------------

OBJECTIVE K: To increase research and monitoring by 25% by 2007, as demonstrated by outputs, so as to support the management of Bermuda's biodiversity.

Code	Activity	Priority	Lead agency (+ <i>who else involved</i>)	Time-frame	Cost Estimate	Measurable Outputs	Related activities
ACTION K.1: Establish a mechanism for coordinating management-oriented biodiversity research and monitoring.				MEASURABLE IMPACT: More efficient use of resources directed at management-oriented biodiversity research due to improved coordination.			
K.1.1	Appoint a Biodiversity Research Advisory Council (BRAC), a scientific non-political committee, to coordinate biodiversity research and monitoring with management needs.	I	Ministry of the Environment	2003	Existing funds	BRAC appointed	A.1.2
K.1.2	Create a directory of existing management-oriented research programmes, personnel (including overseas experts), and available physical resources (including laboratories, equipment, boats, library resources).	I	Ministry of Environment, BRAC; <i>(Bda Biological Station for Research, Dept. of Conservation Services (Applied Ecology & Natural History Museum), Bda Biodiversity Project, Dept. of Environmental Protection (Marine Monitoring & Protection & Plant Protection, visiting scientists, resource managers)</i>	2003	Existing funds	Directory created; resources listed	A.2.1
K.1.3	Identify gaps in the current information required for informed conservation management and recommend appropriate research programmes to address these.	I	Ministry of Environment, BRAC; <i>(Bda Biological Station for Research, Dept. of Conservation Services (Applied Ecology & Natural History Museum), Bda Biodiversity Project, Dept. of Environmental Protection (Marine Monitoring & Protection & Plant Protection, visiting scientists, resource managers)</i>	2003 – ongoing	Existing funds	Gaps identified; recommendations made and research programmes designed to address gaps	

The Bermuda Biodiversity Action Plan

K.1.4	Identify management-oriented areas of research and monitoring in which current capacity (human resources, facilities and programmes) is lacking and make recommendations to address this by directing resources as necessary.	I	Ministry of Environment, BRAC; <i>(Bda Biological Station for Research, Dept. of Conservation Services (Applied Ecology & Natural History Museum), Bda Biodiversity Project, Dept. of Environmental Protection (Marine Monitoring & Protection & Plant Protection, visiting scientists, resource managers)</i>	2003 – ongoing	Existing funds	Gaps in current capacity identified; recommendations made to address these	K.1.3
K.1.5	Direct the allocation of Government funds and logistical support for research and monitoring programmes towards prioritised biodiversity issues.	I	Ministry of Environment, BRAC; <i>(Bda Biological Station for Research, Dept. of Conservation Services (Applied Ecology & Natural History Museum), Bda Biodiversity Project, Dept. of Environmental Protection (Marine Monitoring & Protection & Plant Protection, visiting scientists, resource managers)</i>	2003 – ongoing	New funds as identified	Prioritised monitoring programmes funded	K.1.4, K.1.6
K.1.6	Implement an ongoing review process to ensure that research and monitoring is directed towards current biodiversity management issues and gaps in the knowledge on a prioritised basis.	II	Ministry of Environment, BRAC; <i>(Bda Biological Station for Research, Dept. of Conservation Services (Applied Ecology & Natural History Museum), Bda Biodiversity Project, Dept. of Environmental Protection (Marine Monitoring & Protection & Plant Protection, visiting scientists, resource managers)</i>	2004 – ongoing	Existing funds	Review process implemented; research and monitoring remains focused on current biodiversity and management issues	K.1.5
K.1.7	Provide a regular forum for researchers, conservationists, resource managers and decision-makers to communicate current priorities and share information.	II	Ministry of Environment, BRAC; <i>(Bda Biological Station for Research, Dept. of Conservation Services (Applied Ecology & Natural History Museum), Bda Biodiversity Project, Dept. of Environmental Protection (Marine Monitoring & Protection & Plant Protection, visiting scientists, resource managers)</i>	2004 – annual	\$1,000 per annum	Forum established; stakeholders attend; information exchanged	A.2.3

The Bermuda Biodiversity Action Plan

K.1.8	Implement a regular (biannual) reporting procedure to monitor progress of all management-oriented biodiversity research and monitoring activities.	I	Ministry of Environment, BRAC; <i>(Bda Biological Station for Research, Dept. of Conservation Services (Applied Ecology & Natural History Museum), Bda Biodiversity Project, Dept. of Environmental Protection (Marine Monitoring & Protection & Plant Protection, visiting scientists, resource managers)</i>	2004 - biannual	Existing funds	Reporting procedure implemented; reports submitted; progress monitored	A.4.2
K.1.9	Continue to develop and maintain the Bermuda Biodiversity database to ensure up-to-date documentation of species occurrence (including the production of distribution maps), status and threats, as well as accurate digitised habitat maps of both the terrestrial and marine environments.	I	BBP; <i>(all scientists)</i>	2003 – ongoing	Existing funds	Database maintained	
K.1.10	Establish a protocol for recording species information so that new data can readily be incorporated into the Bermuda Biodiversity database.	II	BBP; <i>(all scientists)</i>	2003	Existing funds	Protocol established; new data incorporated	E.3.6
ACTION K.2: Ensure that research and monitoring of critical habitats is undertaken where appropriate in order to support management needs.				MEASURABLE IMPACT: Critical habitats better managed as a result of targeted research and monitoring programmes.			
K.2.1	Conduct surveys of critical habitats (including coral reefs, seagrasses, mangroves, caves, woodlands and wetlands) to assess their condition and identify biodiversity hotspots, building on existing programmes where possible.	I	Bda Biological Station for Research, Dept. of Conservation Services (Applied Ecology & Natural History Museum), Bda Biodiversity Project, Bda Cave Association; <i>(visiting scientists)</i>	2003 - ongoing	\$100,000 new funds required	Surveys conducted	
K.2.2	Identify key sites in critical habitats, suitable as permanent locations for monitoring, including sites (both marine and terrestrial) within protected areas, and implement appropriate monitoring, building on existing programmes where possible.	I	Bda Biological Station for Research, Dept. of Conservation Services (Applied Ecology & Natural History Museum), Bda Biodiversity Project; <i>(visiting scientists)</i>	2003 - ongoing	\$50,000 new funds required	Monitoring programmes established in identified sites	

The Bermuda Biodiversity Action Plan

K.2.3	Assess the need for the establishment of ecological corridors for terrestrial species in order to assist land-planning decisions.	II	Dept. of Conservation Services (Applied Ecology), Bda Biodiversity Project; (<i>visiting scientists</i>)	2004	Existing funds	Need assessed and corridors planned for as required	I.4.5
K.2.4	With regard to Bermuda's protected areas, conduct surveys (expanding on existing research where possible) to assess their use and current public perception and include an estimate of violations, in order to support management decisions and to clarify whether there is benefit in designating new protected areas for identified hotspots.	II	Bda Biological Station for Research, Dept. of Conservation Services (Applied Ecology)	2003 – ongoing	Existing funds	Surveys conducted; new protected areas designated as appropriate	
ACTION K.3: Ensure that research and monitoring of proritized species is undertaken where appropriate in order to support management needs.				MEASURABLE IMPACT: Management of prioritized species improved through directed research efforts.			
K.3.1	Conduct research on poorly studied taxa in order to determine their distribution, status, and current threats, in order to promote more effective management as outlined in species management plans.	I	Bda Biological Station for Research, Dept. of Conservation Services (Applied Ecology & Natural History Museum), Bda Biodiversity Project, Dept. of Environmental Protection (Marine Monitoring & Protection & Plant Protection); (<i>visiting scientists</i>)	2003 - ongoing	Existing funds plus \$100,000 new funds	Research conducted; research findings incorporated into management strategies	J.1.3
K.3.2	Monitor species introduced as biological controls to assess their impact on local biodiversity other than the target species.	II	Bda Biological Station for Research, Dept. of Conservation Services (Applied Ecology & Natural History Museum), Bda Biodiversity Project, Dept. of Environmental Protection (Plant Protection); (<i>visiting scientists</i>)	2004 - ongoing	Existing funds	Species monitored; impact assessed	
K.3.3	Develop and expand on existing research to monitor the status of populations of economically important, or formerly economically important species, and implement management responses accordingly.	I	Dept. of Environmental Protection (Marine Monitoring & Protection); Dept. of Conservation Services (Applied Ecology & Botanical & Horticultural Services), Bda Biodiversity Project; (<i>visiting scientists</i>)	2003 - ongoing	Existing funds	Research expanded; management responds	E.5.3, J.5.1, J.5.2, H.4.2

The Bermuda Biodiversity Action Plan

K.3.4	Conduct research to identify and monitor distributions of invasive species and their impact on biodiversity.	I	Dept. of Environmental Protection (Plant Protection); Dept. of Conservation Services (Applied Ecology & Botanical & Horticultural Services), Bda Biodiversity Project; (<i>visiting scientists</i>)	2003 - ongoing	Existing funds	Invasive species monitored; impact assessed	K.6.1
K.3.5	Identify new, and expand on existing monitoring programmes that engage community volunteers in the collection of data of key species.	III	Dept. of Conservation Services (Applied Ecology, Natural History Museum & Botanical & Horticultural Services), Bda Biodiversity Project; (<i>visiting scientists</i>)	2003 - ongoing	Existing funds	Monitoring programmes expanded; public participate	E.3.1, E.3.2, E.3.3, E.3.4
ACTION K.4: Implement the necessary research and monitoring to ensure that prior consideration is given to potential problems arising from species considered suitable for restoration programmes as proposed in the species action plans.				MEASURABLE IMPACT: Potential problems from species reintroductions/restoration programmes minimized through prior research.			
K.4.1	Conduct research on the genetics of target species and populations to ensure that proposed reintroductions are 'risk free'.	I	Bda Biological Station for Research, Dept. of Conservation Services (Applied Ecology, Natural History Museum & Botanical & Horticultural Services), Bda Biodiversity Project; (<i>visiting scientists</i>)	2003 - ongoing	\$100,000 new funds	Species genetics determined; reintroductions safe-guarded	J.3.1, J.3.2, J.3.4, J.3.8
K.4.2	Conduct research on the ecological requirements of target species and communities, including habitat requirements and interactions with other species, to support restoration plans.	I	Dept. of Conservation Services (Applied Ecology & Natural History Museum), Bda Biodiversity Project; (<i>visiting scientists</i>)	2004 - ongoing	Existing funds	Ecological requirements assessed; data incorporated into development of restoration plans	
K.4.3	Conduct appropriate investigations to ensure that individuals identified for reintroductions are disease-free.	II	Dept. of Conservation Services (Applied Ecology), Dept. of Environmental protection (Plant Protection); (<i>visiting scientists</i>)	2004 - ongoing	Existing funds	Disease-free introductions	J.3.1
ACTION K.5: Investigate anthropogenic impacts on Bermuda's biodiversity in order to support more effective environmental management.				MEASURABLE IMPACT: Improved management of anthropogenic activities through directed research initiatives.			

The Bermuda Biodiversity Action Plan

K.5.1	Expand existing research programmes using amphibians as an indicator species to assess the risk of pesticides, fertilisers and metals and other contaminants to Bermuda's biodiversity.	I	Bda Biodiversity Project (Amphibian Project); (<i>Ministry of Environment, visiting scientists</i>)	2003 - 2005	\$100,000 new funds	Risks determined; data used to develop appropriate policy	
K.5.2	Monitor the fauna of deep extraction wells as they correlate with the distribution of deep sealed bore holes and interstitial water quality to determine the possible effects of contaminated groundwater on Bermuda's biodiversity.	I	Bda Biodiversity Project (Bda Cave and Karst Project)), Bda Cave Diving Association; (<i>Ministry of Environment, visiting scientists</i>)	2003 – 2005	Existing funds	Studies conducted; impacts realised	
K.5.3	Implement a study to investigate the effects of trash on endangered species and threatened habitats.	III	Dept. of Conservation Services (Applied Ecology, Bda Aquarium, Museum and Zoo), Keep Bda Beautiful	2005	Existing funds	Study implemented; effects determined; data used to formulate policy	
K.5.4	Implement a monitoring programme of stored chemical and industrial wastes and undertake risk assessments for their potential impact on biodiversity.	II	Ministry of Environment; (<i>Ministry of Works and Engineering, Bda Biological Station for Research</i>)	2005	\$20,000 new funds	Risk assessment undertaken; appropriate mitigation measures applied	
K.5.5	Continue monitoring programmes of sewage outfalls and the solid waste dump to assess any potential risk to biodiversity.	I	Bda Biological Station for Research; (<i>Dept. of Environmental Protection</i>)	2003 - ongoing	Existing funds	Risks assessed; appropriate mitigation measures applied	
K.5.6	Assess the impact of recreational users on critical marine and terrestrial habitats.	I	Bda Biological Station for Research; (<i>Dept. of Conservation Services (Applied Ecology)</i>)	2004	Existing funds	Impacts assessed; data used to raise awareness and develop legislation where necessary	
K.5.7	Assess the affects of beach raking and tractor movements on beach habitats.	III	Dept. of Conservation Services (Applied Ecology); (<i>Dept. of Parks</i>)	2005	Existing funds	Affects assessed; activity stopped where necessary	D.8.4
K.5.8	Continue monitoring the extent of silting from cruise ships to assess any potential risk to biodiversity.	I	Bda Biological Station for Research; (<i>Dept. of Environmental Protection</i>)	2003 - ongoing	Existing funds	Risk assessed; appropriate mitigation measures applied as necessary	

ACTION K.6: Research and monitor local and global trends in processes which may impact Bermuda's biodiversity so as to facilitate forecasting of potential threats.				MEASURABLE IMPACT: Improved forecasting of threats so as to facilitate more effective actions to protect Bermuda's biodiversity.			
K.6.1	Collate data from overseas and through local observations, in order to monitor trends in invasive species both locally and overseas so as to anticipate potential threats.	I	Dept. of Environmental Protection (Plant Protection), Dept. of Conservation Services (Applied Ecology & Botanical & Horticultural Services), Bda Biodiversity Project; (<i>visiting scientists</i>)	2003 - ongoing	Existing funds	Trends monitored; threats anticipated	A.3.2, B.4.1, B.4.2, B.4.3, B.4.4, B.4.5, B.4.11, K.3.4
K.6.2	Continue to monitor forecasts in climate change and associated impacts (including coastal erosion, coral bleaching and changes in species distribution patterns) so as to direct management responses to protect Bermuda's biodiversity.	I	Bda Biological Station for Research; (<i>Dept. of Environmental Protection (Marine Monitoring & Protection & Plant Protection), Dept. of Conservation Services (Applied Ecology & Botanical & Horticultural Services)</i>)	2003 - ongoing	Existing funds	Forecasts monitored; management responses directed	A.3.2, B.4.2, B.4.1, B.4.3, B.4.4, B.4.12
K.6.3	Conduct surveys of the local and international business community so as to predict future demands on Bermuda's infrastructure as it impacts on Bermuda's biodiversity.	I	Ministry of Environment; (<i>Bda International Business Association, international business community</i>)	2004	Existing funds	Surveys conducted; predictions made; management responses applied	
K.6.4	Liaise with the Department of Forward Planning to assess trends in land development and direct management responses accordingly so as to conserve critical habitats.	II	Dept. of Planning (Forward Planning), Dept. of Conservation Services (Applied Ecology & Botanical & Horticultural Services)	2004	Existing funds	Impacts assessed; management responses directed	B.4.1
K.6.5	Collate international data regarding new chemicals (such as pesticides and antifouling paints) being introduced into the local market and assess their potential for impacting on Bermuda's biodiversity.	III	Dept. of Environmental Protection (Environmental Engineer); (<i>Bda Biological Station for Research</i>)	2004 - ongoing	Existing funds	Products monitored; management responses directed	
K.6.6	Collate international data in order to monitor trends in genetically modified organisms and assess their potential threat to Bermuda's biodiversity.	II	Dept. of Environmental Protection (Plant Protection), Dept. of Conservation Services (Botanical & Horticultural Services); (<i>Bda Biological Station for Research</i>)	2003 - ongoing	Existing funds	Trends monitored; threat assessed and necessary mitigation applied	

OBJECTIVE L: To secure from both public and private sources the financial commitment and other investment necessary for full implementation of the BSAP as required.

Code	Activity	Priority	Lead agency (+ <i>who else involved</i>)	Time-frame	Cost Estimate	Measurable Outputs	Related activities
ACTION L.1 Secure a commitment from all lead agencies to undertake their assigned activities and confirm existing resources and outstanding financial needs.				MEASURABLE IMPACT: BAP fully implemented.			
L.1.1	Meet with all lead agencies to confirm their commitment to their assigned activities within the BAP and identify any challenges.	I	BSAP management team; (<i>Lead agencies</i>)	2003	Existing funds	Commitments confirmed; challenges identified	L.1.1,L.2.2
L.1.2	Generate a list of activities for which new funds are needed and source possible funding opportunities.	I	BCU	2003-ongoing	Existing funds	Activities listed; funds sourced	L.1.1
ACTION L.2 Promote more effective coordination of local fundraising for biodiversity to avoid duplication of effort.				MEASURABLE IMPACT: Wider distribution of funds for biodiversity projects.			
L.2.1	Disseminate the Biodiversity Action Plan (BAP) to local fundraising bodies	I	BCU; fundraising bodies	2003	Existing funds	BAP disseminated	
L.2.2	Set up a process through the web site for implementing agencies to update the status of their project funding, and identify new projects for which they require support.	I	BCU; lead agencies	2003 - ongoing	Existing funds	Funding status updated	A.1.4, L.1.1
ACTION L.3 Establish and manage endowment funds to finance biodiversity conservation projects.				MEASURABLE IMPACT: Long-term funding for biodiversity secured.			
L.3.1	Appoint an administrative committee to establish the endowment and manage it.	I	Director, Dept. of Conservation Services	2003 - ongoing	Existing funds	Committee appointed; endowment established	
L.3.2	Engage a fundraising committee to communicate the establishment of the fund to potential donors and secure funds through programmes such as planned giving.	I	Director, Dept. of Conservation Services	2003 - ongoing	Existing funds	Committee engaged; funds secured	L.2.1, L.3.1

The Bermuda Biodiversity Action Plan

L.3.3	Develop an application procedure for groups wishing to submit proposals for support from this fund.	I	Fundraising Committee;	2005	Existing funds	Procedures developed	L.3.4, L.3.5
L.3.4	Advertise endowment and application procedure in local media.	I	Fundraising Committee; (<i>media</i>)	2005 - ongoing	\$500 per year	Application process advertised; applications received	L.3.3
L.3.5	Review proposal submissions and award grants.	I	Fundraising Committee; (<i>potential grant recipients</i>)	2005 - ongoing	Existing funds	Proposal reviewed; awards disbursed	L.3.3
ACTION L.4 Source financing for biodiversity conservation through international grants.				MEASURABLE IMPACT: Increased funds available for biodiversity conservation			
L.4.1	Engage counterparts in other jurisdictions in order to identify funding opportunities.	I	Ministry of Environment, NGO's, principal researchers	2003 - ongoing	Existing funds	Counterparts engaged; funding opportunities identified	L.4.2, L.4.3
L.4.2	Generate a database of international grants for which Bermuda is eligible.	I	BCU	2003 - ongoing	Existing funds	Database generated	L.4.1
L.4.3	Identify opportunities for collaboration with overseas counterparts eligible for funding that is not directly available to Bermuda.	I	Ministry of Environment, NGO's, principle researchers	2003 - ongoing	Existing funds	Collaborative opportunities identified	L.4.1
L.4.4	Post and update overseas funding information on a local biodiversity website	II	BCU	2003 - ongoing	Existing funds	Funding information posted	A.1.4
L.4.5	Conduct training workshops for conservationists in developing projects and grant applications suitable for international donors	II	Dept. of Conservation Services	2004 - annually	\$1,000 per workshop	Workshops held; successful proposals submitted	L.4.1, L.4.2
ACTION L.5 Develop mechanisms to stimulate external investment in biodiversity conservation.				MEASURABLE IMPACT: Increased funds available for biodiversity conservation			
L.5.1	Identify and engage key individuals in the business community in the need to support biodiversity conservation.	I	BCU; Business leaders	2004	Existing funds	Individuals engaged	
L.5.2	Meet with the lending agencies to encourage the establishment of interest-free or sliding scale loans for biodiversity-friendly development.	II	BCU; (<i>Business leaders</i>)	2004	Existing funds	Interest-free/sliding scale loan system established	
ACTION L.6 Promote innovative funding mechanisms for biodiversity conservation.				MEASURABLE IMPACT: Increased funding available for biodiversity conservation			

The Bermuda Biodiversity Action Plan

L.6.1	Conduct a workshop with business leaders to identify areas for alternative funding opportunities, such as pledge programmes, adopt a turtle programme etc.	I	BCU; (<i>Business leaders</i>)	2003	\$2,000	Workshops held; alternatives identified	
L.6.2	Survey potential sponsors to determine their areas of interest in biodiversity conservation and match this with appropriate projects requiring funding.	I	BCU	2004 - ongoing	Existing funds	Surveys conducted; sponsors matched to funding requests	L.1.6
ACTION L.7 Review and revise if necessary Government's budget for biodiversity conservation.				MEASURABLE IMPACT: Improved targeting of funds for priority conservation activities			
L.7.1	Review the budget and revise if appropriate	I	Ministry of Finance	2003-annually	Existing funds	Budget reviewed and revised as necessary	F.3.3
ACTION L.8 Develop and implement a system of small grants for specific biodiversity conservation initiatives.				MEASURABLE IMPACT: Community groups encouraged to take action and initiate conservation activities through increased availability of funds.			
L.8.1	Submit a budget proposal to Government for funds for a grant scheme.	I	Ministry of Environment	2003	New funds	Funding secured	F.3.3
L.8.2	Advertise grant scheme and solicit applications.	I	Ministry of Environment; (<i>media, community groups, NGO's</i>)	2003 - annually	Existing funds	Grant scheme advertised; applications received	L.8.2, L.8.3
L.8.3	Appoint committee to review applications	I	Ministry of Environment;	2003 - annually	Existing funds	Applications reviewed	L.8.2, L.8.4
L.8.4	Review applications and disburse grants	I	Appointed Committee; Ministry of Environment;	2003 - annually	Existing funds	Funds disbursed	L.8.3
L.8.5	Develop and implement a reporting structure for grant recipients to determine impact of grant scheme	II	Appointed Committee; Ministry of Environment; (<i>grant recipients</i>)	2003	Existing funds	Reporting structure developed; reports from grant recipients received; impact of fund assessed	L.8.2, L.8.3

