Review of performance by 2016 of UK Overseas Territories and Crown Dependencies in implementing the 2001 Environment Charters or their equivalents and moving towards the Aichi Targets and Sustainable Development Targets

Edited by:
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UK Overseas Territories Conservation Forum

April 2016

This is the third review, following the first in 2007 and the second in 2010.

UK OVERSEAS TERRITORIES
CONSERVATION FORUM

Measures of performance by 2016 of UK Overseas Territories and Crown Dependencies in implementing the 2001 Environment Charters or their equivalents and moving towards the Aichi Targets and Sustainable Development Targets
Edited by: Sarah Barnsley, Emma Cary, Mike Pienkowski and Catherine Wensink, UK Overseas Territories Conservation Forum
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Front cover: masked boobies shelter from the sun under bush with noddy, Ducie Island, Pitcairn Group (Dr Mike Pienkowski).

Rear cover: morning view eastward from Sage Mountain over parts of Tortola and, beyond, some of the other British Virgin Islands (Dr Mike Pienkowski).

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Summary

This project aimed to collate information from the UK Overseas Territories and Crown Dependencies on progress towards implementing the 2001 Environment Charters signed by the Territories and the UK Government (or the equivalent international commitments for those territories without Charters). At the same time, we tried to assess progress towards the Aichi Targets, internationally agreed by the Parties to the Convention on Biological Diversity and other Conventions. Late in the year-long process of collecting and checking information, the UN Sustainability Goals became available, and we have tried to relate to the relevant ones of these also; however, for reasons of timing outlined above, it was not practicable to relate directly to these in all parts of this report. Tables linking the Goals, Targets and Commitments of these three international agreements are provided.

To minimise the loading on very busy colleagues in the territories, UKOTCF personnel (working most of the time in an unpaid voluntary capacity) gathered the initial drafts using published material, information gathered by UKOTCF and the working knowledge of the UKOTCF network. Clearly, it was important that those working on-the-ground should check this and so, for 9 months, we have undertaken several rounds of consultations, by email, remote communications and using the gathering of the Gibraltar conference in July 2015. We are grateful for this input. However, we have to acknowledge that limitations on time available to territory partners mean that this report will include some errors and omissions despite best efforts to minimise these.

There is a great deal of information to summarise. We do it here at three levels. To keep as full a set of information as possible openly available, the Appendix shows our working tables. These are organised in relation to the Environment Charter Commitments, with some subdivisions to relate also to the Aichi Targets. This structure, and also its relation to the related Sustainable Development Goals, are explained in the main part of the report.

The main part of the report includes also: some background to this review and its predecessors; the derivation of another way of summarising the results, based on the Environment Charter/Aichi Targets classification, together with the structure of the conclusions and recommendations of the UKOTCF/ Gibraltar *Sustaining Partnerships* conference July 2015, and areas of shared interest identified by a series of meetings between NGOs and UK Government in 2014-5. The main part of the report then goes on to summarise the results for each territory using this classification. The territories are taken in a geographical sequence. This is followed by a summary of cross-territory results on main further needs, an analysis requested by some of the territories to aid future common planning. We do not attempt a formal analysis of progress by UK Government in meeting its own Commitments under the Environment Charter. This is because, in both previous reviews, UK Government found it difficult, partly because of the structure of those Commitments, to assemble information on progress. Instead, we hope that this review, and the discussions that it will assist, will help UK Government to support the priority needs that are identified.

In the Table on the following pages, we attempt an even more condensed version of the results. This is structured on a selection of the Environment Charter Commitments/ Aichi Targets used in the working tables shown in the Appendix. This is not complete but we hope that it gives an overview and also provides another way to identify some general patterns of progress made and areas where common opportunities to progress further could be made. To aid visual impressions, a simple colour-coding is used, as explained at the top of the Table.

Some aspects are apparent from this summary, including:

1. Most elements have shown at least some progress in most territories in the nearly 15 years since the Environment Charters were signed between UK Government and most UKOTs.

2. Almost all cases of progress have depended on cooperation between UKOT governments and UKOT NGOs, in many cases with support from UK NGOs and UK Government.

3. A few isolated aspects in a few territories have seen significant set-backs but, for some of these, there has been some recovery since.

4. For some aspects, spread unevenly across all territories, work is effectively complete; for most it is in progress; a few have yet to start.

5. The scarcity of progress on some aspects which would have little cost and could even have short- or long-term cost-savings was unexpected. Examples include: polluter-pays principle; the need for best-international-practice environmental impact assessments and strategic environmental assessments, and environment funds based on tourism taxes.

(continued on page 10, after the Table)

Table: Environment Charter (EC) Commitments/ Aichi Biodiversity Targets (AT)/ Sustainable Development Targets (SDT)

Achieved	Progress	No progress	Set-back	Recovery from set-back

EC Commitments/ AT & SDT Targets [See footnote to Table for full texts.]	**Mont-serrat**	**Anguilla**	**BVI**	**TCI**	**Cayman**	**Ber-muda**	**Ascen-sion**	**St Helena**	**Tristan**	**Falk-lands**	**SGSSI**	**BAT**	**Pitcairn**	**BIOT**	**Cypr us SBA**	**Gibral-tar**	**Isle of Man**	**Jersey**	**Guern-sey**	**Alder-ney**	**Sark**
EC1. Bring together stakeholders in a forum.	Law passed Reg. & forum awaited	Forum not yet in place.	Forum not yet in place, except for climate-change.	Forum set up & operated for several years; needs re-activating or replacing, perhaps by National Biodiversity Committee in draft Wildlife & Biodivers. Bill 2010	New law sets up fora – being set up	BSAP group established 2003	Not formalised but good collaboration.	Forum set up before Env Ch strategy. Current revisions. Env. Protection Ordinance (EPO) & Nat.Env. Mgmnt Plan (NEMP) in place.	Various groups cover this function.	Group set up	Annual stakeholder meeting.	Not really applicable.	Informal groups as well as Council	No such forum	Group set up but no longer active.	Consultation in place up to Minister level.	Good collaboration in BSAP process	Jersey Biod Parnership (gov, NGOs, others) at least annual	Not applicable in same way.	Govt/ NGO team in Living Islands project	Not applicable in same way.
AT17. By 2015, commence implementing an effective, participatory biodiversity strategy & action plan. (Relates also to **EC5**)	Law passed Plan awaited	Has BSAP	BSAP needed.	Strategy for Env Charter agreed but not fully implemented. BSAP needed	BSAP in place, with stake-holder group	2003 BSAP needs update	BAP in place & updated.	BSAP in development by SH Nat Trust	BSAP in place	BSAP in place	Draft BSAP produced	Not really applicable.	Env Mgmt Plan needs updating	Cons Mgmt Plan 2012	Not yet in place.	Env Action & Mgmt Plan 2013	Biod Strategy agreed by Parl. BAPs being devel. & impl.	Bio Strat from 2000, Coastal 2008, APs annual	BioStr 2015	Living Islands; Strat Plan in review; Env Charter in draft	Some elements
EC1. **AT20.** By 2020, mobilise financial resources to implement effectively Strategic Plan for Biodiversity 2011-2020, increased substantially from current levels. **SDT1.a**. **SDT10.b.** & **SDT17.3.** all refer also.	Law & fund needed. Signif. Project funding in recent years from UK Govnmt, UKOTCF, UKNGOs.	Signif. funding in recent years from UK Govnmt, JNCC, UK NGOs etc. Is there a territory fund?	Funding from EU, UK, UK NGOs etc. Looking to self-funding of NPT. BVI set up major climate-change fund.	Conservation Fund (from tourism tax) set up but later funds removed. Needs reinstating. Signif. funding in recent years from EU, UK Govnmt, JNCC, UK NGOs etc.	Env Fund (from visitor tax) not deployed. New law rectifies. Being set up. Funds from EU, UK Govt, UK NGOs	Bermuda NGOs raise major funding for cons & res. Govt fund Cons Serv	Funding from AI Govt, UK Govt, UK NGOs.	Funding from Govt, UK Govt, UK & local NGOs, & public.	Mismatch between tiny economy and huge biodiversity. Funding from Govt, UK Govt, UK & local NGOs, but inadequate.	Funding £1.8m pa FIG (incl fisheries); £2.4m 1999-2015 from UK Govt.Some resourcing from NGOs.	3% of 2014 Territory spend to Environment (plus fisheries 59%). 2010-5: £1.5m Darwin. Major funding via NGO SGHT, & other NGOs.	Research budget of BAS part of NERC.	Funding & other resourcing will continue to depend on UK Govt & NGOs	Funding of current cons initiatives depends heavily on major NGO-sourced funds.	MoD spend figures not availabl e. Some additional suppose from Darwin, NGOs, & volunteers.	Env now relatively well resourced & Govt Gib recognises that investment in env is generally cos-effective	Biodiversity Fund under consideration	Projects & costs on website. Funds nat cons improved since 2013. Dept Env receives 0.9% Govt income.	In States of Guernsey annual budget.	Resourcing to be developed more fully.	Some local funding & help from NGOs

EC Commitments/ AT & SDT Targets [See footnote to Table for full texts.]	Mont-serrat	Anguilla	BVI	TCI	Cayman	Ber-muda	Ascen-sion	St Helena	Tristan	Falk-lands	SGSSI	BAT	Pitcairn	BIOT	Cypr us SBA	Gibral-tar	Isle of Man	Jersey	Guern-sey	Alder-ney	Sark
EC2. Ensure the protection and restoration of key habitats, *species [see lower row]* and landscape features, *and attempt the control and eradication of invasive species [see lower row].* **AT5.** By 2020, rate of loss of all natural habitats, is at least halved and where feasible brought close to zero, and degradation/fragmentation is significantly reduced. (Relates also to **EC4**) **AT11.** By 2020, at least 17% of terrestrial and inland water, and 10% of coastal & marine areas, are conserved effectively.	Some conservtn needs identified. Some reserves exist. Apart from Centre Hills, need relisting under new laws. Working on marine mgmt & ocean govern-ance	ANT done much restor-ation New law needs Regs. Sombrero I being listed as Ramsar Site	Network of protected areas managed by dedicated body. Further sites proposed. Law in prep for conservati on outside reserves.	On paper, TCI close to targets for site protection, but resources & will to enforce are lacking. A public consultation on protected areas in progress, but this includes proposals for losses as well as gains.	About 5% of land protected by govt or NTCI, with others targeted under new law. Some PAs added;	Land PAs man-aged by Govt & NGOs. More needed.	Generally good env condition. Several land PAs listed; more needed.	National Parks Ordinance 2003 not yet in force; will permit establish ment of parks.	44% of Tristan's land area is PA. Nightin-gale I needs Ramsar listing. Marine PAs not designate d	Some PAs.	>10% of EEZ is PA. New law enables PAs;	S Orkney Is South-ern Shelf Marine PA design-nated in 2010; covers 94,000 km^2	Hender-son I WHS means that the numeric land target is met, and the MPA will for sea.	New MPA of all EEZ. 1 Ramsar site; (other major site of Chagos Bank needed) plus some sanctuary areas.	Work in prog-ress on wetland restore. 1 Ramsar Site & (under laws analog-ous to EU) 5 SACs & 3 SPAs listed. Mgmt plan Akrotiri Pen in place.	Gib NR extende d 2013 & South-ern waters SPA/ SAC mean that land & sea Aichi area targets met. Water catch-ment slope restored to nature.	1 Ramsar Site listed; others propose d	4 Ramsar Sites & 22 Ecol SSIs designat ed.	Govt & NGOs all own & manage PAs. Good liaison on mgmt.	Ramsar Site. Include s 10% sea area. Land PAs about 25% land area.	Gouliot Caves and Head-land Ramsar Site. Tradit-ional farm-land convert ed to vine-yard by absente e landlord.
	Some statutory protected areas have been damaged by poor development and even government-supported projects.	some earlier PAs de-listed	Update of marine system needed.	Plan for large marine PA announce d. Land area target reached and sea will be.	14 'natural' National Conserv-ation Areas estab-lished, equating to about 23% of the island.	although marine mgmt plan being worked on. Gough & Inaccess-ible Is are WHS & Ramsar, with mgmt plans.	Mainstr eaming identifie d need for new laws & better PA network on land & sea (where none). More mgmt plans & other action plans needed.	need to designate & make mgmt plans.	Arguabl y, the whole Antarcti c is a PA.	Oeno & Ducie needed as Ramsar Sites.	Continued invasives removal needed.		4.7% of land & 2.6% of sea protect-ed; & others in consult-ation. Island desig-nated 2016 as UNESC O Bio-sphere Reserve	Plans for Prot Area Strat & Nat Park. NTJ restorin g heathla nd site.	2 Ransar Sites listed.	MPA prop-osed. New manage -ment plans in prep. Comm-unity wood-land planting in place.	some slight halting of this recently.
	Last lowland wetland infilled	Enforce needed of land-use & marine policies. Sci site-selection criteria, mgmt plans & coastal restoratio n needed	Mgmt plans needed for some sites.	Some sites clearly needing inclusion still not listed. Protection not available for critical habitats outside protected areas or activities in adjacent areas.	Enhanced system for marine PAs awaited.											Gorham 's Cave prop-osed WHS.					

EC Commitments/ AT & SDT Targets [See footnote to Table for full texts.]	Mont-serrat	Anguilla	BVI	TCI	Cayman	Ber-muda	Ascen-sion	St Helena	Tristan	Falk-lands	SGSSI	BAT	Pitcairn	BIOT	Cypr us SBA	Gibral-tar	Isle of Man	Jersey	Guern-sey	Alder-ney	Sark
AT12. By 2020 the extinction of known threatened species has been prevented and their conservation status has been improved and sustained.	SAPs in place & being prepared. Orioles stable. Mountain Chicken recovery still blocked by fungal infection. Both have captive breeding pops.	New law in place but imple-ment needed. Research on some key species under-taken. Long-term morat-orium on turtle hunting.	Some SAPs in place but more & monitor-ing needed. Enacting draft Nat Resources & Climate Change Bill will address protection of endanger-ed spp.	New laws waiting since 2012 for drafting time. SAPs need preparing and implementing. Some improved marine regs, partly through help of NGO working with fishers.	Some SAPs in place but need updating under new law. Orders & SAPs needed under new law. Blue Iguana moves from CrEn to En.	Success on cahow, Prog-ress on others. Needs review.	Seabird & turtle restor-ation successful. Laws updated and CITES-compliant. SAPs in action; more needed.	SAP for Wirebird; others needed. Endemic invert-ebrates assessed Millenn-ium Forest advancing well. Recently enacted EPO includes spp measures.	Good laws. Fishery & penguins hit by wreck. Much of sea area beyond patrol boat range.	Good monit-oring fishe-ries & birds. Survey & training starts for plants, inverts, shallow marine.	Pipit & probably seabirds & plants recover-ing. By-catch reduced to neglible levels in EEZ. Other APs needed.	BAS monitor s petrel, penguin , seal, krill.	Work continues on endemic plants, soil erosion & wood-lands.	Extensive research on range of taxa taken place, and some restor-ation (see below).	Work in progres s on illegal song-bird-catchin g and turtle losses. Larger fines needed. Other SAPs need imple-menting	SAPs in prog-ress. Barbary Part-ridge & other reintro-duction s. Spp & habitat trans-location s to avoid damage. Mac-aques manag-ed	Work in prog-ress on basking sharks, insects, plants & others, incl BAPs. Legis-lation to be review-ed.	Habitat restor-ation led to recover of spp. Reintro projects (with habitat restore) for others. Res-earch on others.	Good survey, monitor-ing data-hand-ling (Biol Records Centre, also working in other Ch Is) and integrat ed SAPs.	Monitor ing prog-rammes , studies & APs in place for several spp. Data-hand-ling & law-revision develop ing.	Mixed decid-uous trees to be planted in March 2016
EC2. **AT9.** By 2020, invasive alien species are identified, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment. **SDT 15.8**	Work in progress on feral animals in Centre Hills, and also initial studies on invasive plants. Feral animals in Exclusion Zone remain major problem.	Dog Island rat eradic-ation done (major seabird & turtle site). Feasibility invest-igated for Scrub I. & Prickly Pear Cays	Several island AIS eradicatio ns done or in progress; others needed.	Major problems from feral animals, invasive plants and diseases. Lack of continuity has impeded & set back several programmes. The Caicos Pine recovery project has progressed well.	Pilot on removing green iguana from Gr Cayman & prevent spread to C Brac & L Cayan. Weekly lionfish cull on L Cayman. Law improved	Major problem s of feral animals & plants. Some good projects by govt & NGOs, but many more needed.	Work continues on others. Many feral animals & plants. Success against cats (re seabirds).	SHNT does pest control at key sites. National Bio-security Policy needs imple-menting. Major invasive spp threats to inverts & plants.	Eradic-ation of mice from Gough & probably new spp from wrecks needed. Invasives major problem, incl. from wrecks. Eradic-ation of flax from Gough & Inaccasibl e Is progress-ing.	Close gaps in bio-security and noxious weed laws. Develo p & implem ent inv spp plans. Over 70 small islands now rat-free.	Rodent eradic-ation probably achieved (in largest island so far) by SGHT. Reindeer removal achieved by GSGSSI, with Norw help	Under conside ration. Guide-lines in place. 2011 attempt on Hender-son I unsuccess-ful & needs repeating. Plant work needed. Bio-security in progress. Feral goats removed. Ducie & Oeno now rat-free.	Limited work on coconut removal & restor-ation of native trees, and rat removal on a few islands. Needs extending to other islands & spp.	Work in prog-ress on invasio n acacia in ESBA. Study of other needs needed.	Many invasive plants, but this now regulat-ed, & control prog-rammes started.	Marine strategy near com-plete, for imple-menting. Terrest-rial next, but already some effectiv e bee meas-ures & others via plan-ing.	Project with public partic-ipation on Japan-ese knot-weed. Invasiv Spp Strategy in draft. Collab-orating with France & other Ch Is.	New law on invas-ion control & erad-ication in prep. Survey of invas-ives & threats needed.	AWT prog-ramme in place but limited by lack of resourc es.	Volunte er work on invasive plants.

EC Commitments/ AT & SDT Targets [See footnote to Table for full texts.]	Mont-serrat	Anguilla	BVI	TCI	Cayman	Ber-muda	Ascen-sion	St Helena	Tristan	Falk-lands	SGSSI	BAT	Pitcairn	BIOT	Cypr us SBA	Gibral-tar	Isle of Man	Jersey	Guern-sey	Alder-ney	Sark
EC3. Ensure that environmental considerations are integrated within social and economic planning processes, promote sustainable patterns of production and consumption. **EC4.** Ensure that environmental impact assessments are undertaken before approving major projects and while developing our growth management strategy. **EC5.** Commit to open and consultative decision-making on developments and plans which may affect the environment; ensure that environmental impact assessments include consultation with stakeholders. **AT2.** By 2020, at the latest, biodiversity values have been integrated into national and local development and planning processes and are being incorporated into national accounting & reporting systems.	Previous-ly, envir-onment not effective-ly taken into account in planning.	Greening the economy analysis done, though some difficulty in deploying this info into actions. Value for tourism & damage of sand-mining noted. Soil-mgmt training done.	Targeting 100% renewable energy. Law changed to allow renewable. Waste mgmt proced-ures improving Ghost- & other fishing issues being addressed. Greening the economy analysis done,	Set early example as pilot UKOT implementing Environment Charter; since set back.	New law good EIA/ SEA measures	EIA/ SEAs need conduct-ing & to inter-national best practice. Political account-ability needs strength-ening in areas.	No Develop-ment Control Frame-work or EIA or SEA guide-lines. Beach mining needs to stop.	Land Develop-ment Control Plan 2012-2022 underwent strategic social & environ-mental assess-ment process. Renew-able energy invest-ment. Policies on access & licensing, of commer-cial and tourism-related fishing activities being reviewed.	Limited Develop-ment Control Frame-work & EIA or SEA proced-ures. Waste systems needed. but illegal fishing a problem. Fisheries well regulated Main-streaming practiced. Harbour repair again & deepening in progress 2016, but more basic work may be needed.	EIA legislati-on now in place; not yet really tested. Waste mgmt strateg-ies also needed.	EIAs open but policy needs develop-ment to best practice. Further work to be done on tourism & bio-security. Primary power is hydro.	EIA in place, & UK has propos-ed improve-d proced-ures. Tour-ism well regulat-ed.	Work in progress on waste-mgmt, fisheries, agricul-ture, energy, water tourism & repopul-ation strategies.	No dev or planning laws. Needs these & best practice EIAs, as well as account-ability of US Base. Energy inefficient. Future of marine protection vessel needs clarifying. (Replace-ment being arranged)	Imple-ment best practice EIA & plan-ing. Energy policy needs develop-ing. Fishery, agric, water laws need enforce-ing.	Dev Plan being revised to stress environ-ment. Renew-able energy, recyc-ling & green suppl-ying plans in place. Plann-ing & EIA process-es open & improve-ing. "Green filter" in place for govt plans. Marine (incl fisher-ies) policy revised in light of scientif-ic conserv-ation evid-ence.	EIAs required for majot devs on land & sea. Details in devel. Work on bog-restorati-on re carbon/ wildlife; Env conside-ration in new laws, agric, forestry, waste (toward zero), energy (offshor-e wind, possibly tidal). 80% red in greenho-use gases from 1990 to 2050 target. Co-op approac-h with fisherie-s	EIAs required for certain types of dev. Work in prog-ress to improve proced-ures. Cross-compli-ance in agric. Assist-ance for busin-esses re environ-ment. Waste-mgmt systems. Researc-h in prog-ress re energy. Fisher-ies meas-ures in nego-tiation. Sewage systems being upgrad-ed.	EIAs required for certain types of develop-ment. Waste-mgmt & farming policies in place. Renew-able energy options (incl wind, tidal, wave) policy being review-ed. Fishing method-s improve-d.	Propos-als in place to adopt suitable plann-ing & EIA. Tidal energy being develop-ed. Agric & fishery have envir. policy. Waste-mgmt policy being develop-ed.	Sark design-ated Dark Sky Comm-unity 2011 Trans-port sustaina-ble, as no cars. Renew energy option under study (with Guern-sey). Marine as Guern-sey.
	New law & policy changes, and training started, but imple-mentation needed.			Later greening economy exercise noted need for an effective environmental NGO, as well as the ineffective and secretive planning process without adequate EIA or SEA, this having resulted in losses to domestic and international protected areas. Important conch, lobster & fin fisheries damaged by over-fishing as well as by illegal dredging for resort development. Sand-dunes (& flood resilience) lost to built development, even bordering marine Protected Areas, & beaches to illegal sand-mining.																
	Env valued for tourism. Work in progress on geo-	Land Develop-ment Control basic with no	Identify-ing need to develop best practice SEA	NGO studies have identified better approaches, which need implementing involving local users. Renewable (and	need imple-menting. Climate change policy	2014, several govts signed Hamilto-n	Much of energy wind renewable	EIA legislation adopted 2008. EIA regulation 2013		40% domesti-c, % 90% farm energy	Fisheries MSC-certified.	Mineral extract-ion banned.	Need to imple-ment best EIA practice.	Waste-mgmt improved.							Plannin-g/EIA system needs develop-ing.

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	thermal energy, sustain-able fisheries, potential forestry. Water from forest veg & soil as reservoir.	strategic planning, SEA or EIA proced-ures. Political account-ability also lacking. Fisheries legislation needed.	proced-ures and update EIA proced-ures. Yachting strategy needs clarifying.	cheaper) energy still delayed because of monopoly. Joined Carbon War Room initiative but actions not yet apparent. TC Reef Fund, TC National Museum, UKOTCF & MCS, with DEMA, have developed some sustainable approaches in marine, water/vegetation/ crops, and reserve visiting but all under-resourced relative to urgent need.	needs imple-menting. Ocean thermal energy being investi-gated. Renew-able energy materials duty-free. Various green schemes being run. Some marine protection s stronger.	Declar-ation on the Collab-oration for the Conserv-ation of the Sargass o Sea. New sust dev unit in govt. Good fishery regs.		guides. Land Planning & Devel-opment Control Ordinance 2013 requires planning & appeal decisions are made in public. NEMP: all new policies will include public consult-ation.		renewa ble. Farm-ing moving to sustain-able. Mineral extract-ion with strong env aspect. Fisher-ies certified sustain-able.					working .		SEAs not yet requred.		SEA not require. Waste mgmt needs develop-ment Vine-yard mgmt causes pollut-ion.
EC6. Implement effectively obligations under the Multilateral Environmental Agreements already extended to the Territory and work towards the extension of other relevant agreements.	In Ramsar, CITES, CMS.	In Ramsar (listing first Site). Joined CITES.	In Ramsar (1 Site; others needed), CITES, CMS, CBD	In CMS & Ramsar. One Ramsar Site, but not managed and some damage.	In Ramsar 1 Site; others needed), CITES, CMS, CBD	In CMS, CITES, Ramsar (some Sites; others needed) .	In Ramsar, CITES, CMS, CBD.	In CBD, Ramsar, CITES, CMS.	WHS. In Ramsar (2 Sites; others needed), CITES, CMS, ACAP, CBD.	In Ramsar 2 Sites; others needed) CITES, CMS, ACAP; joined CBD in 2016.	In Ramsar, CITES, CMS, ACAP; CBD (since 2015) CCAMLR ,	Antarct-ic Treaty system	In Ramsar, CITES, CMS; Cetacean MOU.	In Ramsar (1 Site), CITES, CMS, Sharks MOU.	In Ramsar (1 Site), CMS.	In CBD, Ramsar, CITES, CMS, ACCOBAMS, Eurobats, EU Dirs; SPA/SAC listed .	In Ramsar (1 Site; others needed) CITES, CMS, CBD (since 2012).	In CBD, Ramsar (4 Sites), CITES, CMS.	In Ramsar (2 Sites), CITES, CMS.	In Ramsar (1 Site), CITES, CMS.	In Ramsar (1 Site), CITES, CMS.
	Not CBD. New CITES leg. & Ramsar Sites needed.	Not yet CBD, CMS.		Not CBD, CITES (laws waiting for draftsman since 2012		Not CBD.	Ramsar Site needed	Designate Ramsar Sites.			Ramsar Sites needed.		Not CBD. Ramsar Sites needed	Not, CBD. Chagos Bank Site needed	Not CBD, CITES	wants ICCAT & Barcelona. Ramsar Sites needed.	UNESCO Biosphere Reserve status awarded.	Interest joining IntPlant Prot Conv & Cartagena Proocol Biosafety	decided to begin work on joining CBD.	may be in Guern-sey process to begin work on joining CBD.	may be in Guern-sey process to begin work on joining CBD.

EC Commitments/ AT & SDT Targets [See footnote to Table for full texts.]	Mont-serrat	Anguilla	BVI	TCI	Cayman	Ber-muda	Ascen-sion	St Helena	Tristan	Falk-lands	SGSSI	BAT	Pitcairn	BIOT	Cypr us SBA	Gibral-tar	Isle of Man	Jersey	Guern-sey	Alder-ney	Sark
EC8. Ensure that legislation & policies reflect the principle that the polluter should pay for prevention or remedies; establish effective monitoring and enforcement mechanisms. **AT8.** By 2020, pollution has been brought to levels not detrimental to ecosystem function and biodiversity. (Relates also to **EC3&4**)	New laws address, to be imple-mented		Stronger pollution control needed.	Reduced resources, due to the ending of the Conservation Fund, ended some marine monitoring.	Law enables compens-ation income to Env Pr Fund.	Some develop-ment needed.	Laws not in place.	Polluter Pays principle incorpor-ated in NEMP. Pollution incident reporting system set up.	Whilst some compens-ation received re bulk carrier (& the oil-rig incident), it seems that these were in-adequate	Proced-ures in place re oil pollut-ion.	2003 shipwreck s & Grytviken cleaned-up.	In Treaty	Laws & fine levels targeted at internal incidents.	Open-ness needed in reporting of recovery work and proced-ures improve-ment following USN pollution.	Law not specific. Seas polluted . Litter a problem .	Monitor-ing & APs in place. Law on polluter-pays in prep.	Law based on polluter-pays.	Water law follows polluter-pay.	Laws restrict pollu-tion, incl agric,	Polluter-pays not yet in law.	Laws do not include polluter-pays princ-iple, giving problem in dealing with land-owners evicting tenant & convert-ing to vine-yard pract-ices.
				A brief period of effective legal enforcement (with compensation benefitting conservation) needs re-starting.													New law needed re seas.				
			Draft Nat Resources & Climate Change Bill would embed polluter-pays in waste-mgmt.	Laws & enforcement needed re terrestrial pollution. Sea-grass beds & coral reefs remain vulnerable to run-off from land-based activities as well as built development.	Better enforceme nt needed.		Monitorin g in place.	Pollution Policy needs to be completed .	to cover long-term monitor-ing or damage.	Not clear whether there is specific polluter-pays law.	Not clear whether there is specific polluter-pays law.						Has Water Pollut-ion & Oil Spill plans, river monitor-ing, & enforce-ment bodies.	Sea & ground water monitor-ing regular. Farm water pollut-ion plan in place; oil spill plan in develop-ment.	but do not include polluter-pays princ-iple.	Oil-spill plan in place.	
EC9. Encourage teaching to promote the value of our environment. **EC10.** Promote publications that spread awareness of the special features of the environment in the Territory; **AT1.** By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.	Good range of approach-es; more being developed .	Good range of approach-es; more adult education needed.	Some material, including interpret-ation funded by EU & others, but more needed.	Effective courses developed by Education Dept & UKOTCF.	Effective courses developed .	Many opport-unities for schools & for conserv-ation volunt-eering	Good materials & coop with school. Other interpret-ation material. More adult education needed.	Education , outreach & other facilities developed .	Local environ-ment teaching has varied but training & NGO-provided materials there again; Better info availabilit y needed.	Good mater-ials & activit-ies avail-able.	No schools in territory.	No schools in territory .	2012 educ policy does not mention environ-ment.	Interpret-ation material by NGOs. ZSL (with UK Govt support) has outreach prog-ramme for Chagoss-ians in UK.	Akrotiri Env Ed Cntr import-ant in SBA & Repub-lic, with courses etc. Also UKOT-CF & other material	Envir educ & aware-ness mate-rials & courses produc-ed by Govt & NGO.	Initia-tives in schools, and re marine amongs t others.	Good env engage-ment by schools, but curricul-um develop ment needed; & more citizen science scheme s.	Environ-ment central to school curricul-um. Other aware-ness material also avail-able.	NGOs & involve-ment projects as well as sustain develop theme in schools & outside.	Local adult & junior wildlife clubs.
				More could be done. Other facilities developed by local & UK NGOs & DEMA.	More could be done. Other facilities developed by Local & UK NGOs & EU.			More incorpor-ation into curricul-um & more opportune-ities needed for adults.			Improving public awareness .	Various public aware-ness mater-ials.	Range of education/ awareness material by UKOTCF, Pew, RSPB & others.							

EC1. Bring together government departments, representatives of local industry and commerce, environment and heritage organisations, the Governor's office, individual environmental champions and other community representatives in a forum to formulate a detailed strategy for action.
AT17. By 2015 each Party has developed, adopted as a policy instrument, and has commenced implementing an effective, participatory and updated national biodiversity strategy and action plan. (Relates also to **EC5**)
EC1. **AT20.** By 2020, at the latest, the mobilization of financial resources for effectively implementing the Strategic Plan for Biodiversity 2011-2020 from all sources, and in accordance with the consolidated and agreed process in the Strategy for Resource Mobilization, should increase substantially from the current levels. This target will be subject to changes contingent to resource needs assessments to be developed and reported by Parties. **SDT1.a.** Ensure significant mobilization of resources from a variety of sources, including through enhanced development cooperation, in order to provide adequate and predictable means for developing countries, in particular least developed countries, to implement programmes and policies to end poverty in all its dimensions. **10.b.** Encourage official development assistance and financial flows, including foreign direct investment, to States where the need is greatest, in particular least developed countries, African countries, small island developing States and landlocked developing countries, in accordance with their national plans and programmes. **17.3** Mobilize additional financial resources for developing countries from multiple sources.
EC2. Ensure the protection and restoration of key habitats, species and landscape features through legislation and appropriate management structures and mechanisms, including a protected areas policy, and attempt the control and eradication of invasive species. **AT5.** By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced. (Relates also to **EC4**) **AT11.** By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.
AT12. By 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.
EC2. **AT9.** By 2020, invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment. **SDT 15.8** By 2020, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species.
EC3. Ensure that environmental considerations are integrated within social and economic planning processes, promote sustainable patterns of production and consumption within the Territory. **EC4.** Ensure that environmental impact assessments are undertaken before approving major projects and while developing our growth management strategy. **EC5.** Commit to open and consultative decision-making on developments and plans which may affect the environment; ensure that environmental impact assessments include consultation with stakeholders. **AT2.** By 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems.
EC6. Implement effectively obligations under the Multilateral Environmental Agreements already extended to the Territory and work towards the extension of other relevant agreements.
EC8. Ensure that legislation and policies reflect the principle that the polluter should pay for prevention or remedies; establish effective monitoring and enforcement mechanisms. **AT8.** By 2020, pollution, including from excess nutrients, has been brought to levels that are not detrimental to ecosystem function and biodiversity. (Relates also to EC3&4)
EC9. Encourage teaching within schools to promote the value of our local environment (natural and built) and to explain its role within the regional and global environment. **EC10.** Promote publications that spread awareness of the special features of the environment in the Territory; promote within the Territory the guiding principles set out above. **AT1.** By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.

(continued from page 3)

6. The wide progress on sign-up to international conventions is encouraging, especially taken with the recent and current moves by remaining territories to sign-up to the Convention on Biological Diversity (and of the very few not yet signed up to CITES and the Convention on Migratory Species). Both UK Government and NGOs, including UKOTCF, remain ready to help with this and with the designation of Ramsar Convention Wetlands of International Importance.

7. Progress on environmental education and awareness is also good; this subject is given priority by many territories, with continued support from several organisations including UKOTCF. Much more progress could be made if UK Government re-instated eligibility of such projects for its funding to the UKOTs after removing it in 2010.

8. The start of opening up to a more environmentally sustainable approach within a wide range of economic activities has become evident. Some UKOT governments and several NGOs are taking a lead in this. The potential is great also for further empowering local communities and businesses of all sizes to assume responsibility to drive this forward, both for the good of society and for direct economic benefit.

This is just a first pass. Some examples of identified needs shared by several or all territories are identified in the relevant section of the main part of the report. We look forward to working with partners in governments and NGOs in UKOTs and elsewhere to build further on these analyses and opportunities.

Introduction

The Environment Charters signed in September 2001 between the UK Government and the Governments of UK Overseas Territories (UKOTs) are important documents, which encapsulate the shared responsibility of the UK Government and the Government of individual territories for the conservation of the environment in the UKOTs and international commitments to this. This is particularly important, for example for biodiversity, as most of the global biodiversity for which the UK family of countries is responsible resides in the UKOTs, rather than in Great Britain and Northern Ireland.

For Multilateral Environmental Agreements such as the UN Convention on Biological Diversity (CBD), it is the Government of UK, which lodges – and is accountable for – international commitments, but the legislature and executive of each territory, which are responsible for the local implementing legislation and its enforcement. This is why the Environment Charters were created, to reflect these responsibilities, but the point applies equally to the relationships between UK and those territories which do not have Environment Charters.

One of the core elements of the Charters is a set of Commitments by each territory government. These Commitments were not new with the Charters, but brought together existing commitments under other international measures. The other core was a set of corresponding Commitments by UK Government.

Not all territories signed an Environment Charter with UK Government, although most did. Gibraltar did not sign a bilateral agreement but later adopted an Environment Charter with almost identical wording as to its Commitments. Charters were not signed for the British Antarctic Territory or the Cyprus Sovereign Base Areas, but these two territories are under the direct management of UK Government, led respectively by the Foreign & Commonwealth Office (FCO) and the Ministry of Defence (MoD). The Crown Dependencies were not invited to sign Charters, although some have explored adopting them. However, whether Charters were adopted or not, similar relationships exist between territories and UK Government in respect of international conservation commitments.

UKOTCF (as a facilitator, but not a party to, the Environment Charter establishment) had been asked by the parties to undertake a review of progress in 2005-6. UKOTCF had addressed this by collating information from stakeholders in the territories (whether or not they had Charters), and made use of the 2006 conference it organised in Jersey in 2006 to supplement the remote consultations with territories (the report can be seen at www.ukotcf.org/pdf/charters/INDICATORS0707e.pdf). UKOTCF had repeated the review, linked to the 2009 conference in Cayman (www.ukotcf.org/pdf/charters/indicatorsrev0912.pdf). The present review has benefitted from the 2015 conference *Sustaining Partnerships* that UKOTCF and HM Government of Gibraltar organised in Gibraltar in 2015.

In both the earlier reviews, UKOTCF attempted to assess progress in the UK Government's Commitments as well as those of the territory governments. This proved very difficult because of the way in which the UK Government Commitments were worded, which is partly a consequence of them being supportive of UKOT Commitments, rather than actions on the ground. Indeed, although UK Government had requested the review by UKOTCF and Ministers had indicated to Parliament that it expected to use this to address some of Parliament's questions, UK Government officials had eventually concluded that they were not able to report progress in meeting the UK Government Commitments.

For these reasons, we have not attempted, in the present review, to assess in the same way progress in UK Government meeting its Commitments. Instead, we use a more narrative approach and look to how best the review can point to ways in which the UK Government's Commitments can be deployed most effectively to help the territories meet theirs. We know that this is a topic which territory governments are keen to explore further in the light of the present review.

In 2010, at the tenth meeting of the CBD Conference of the Parties, held in Japan, a revised and updated Strategic Plan for Biodiversity, including the Aichi Biodiversity Targets, for the 2011-2020 period was adopted, to support CBD and other MEAs. Soon after this, UKOTCF recognised that the Aichi Targets would be relevant to UKOTs and CDs as well as to Great Britain and Northern Ireland. Accordingly, on 28 June 2011, UKOTCF organised a workshop to explore these. This involved UK Government bodies, NGOs, territory personnel, either present or contributing via telecommunications, and other stakeholders. This started to look both at how reporting under the two systems could be combined effectively and what Aichi Target measures relevant to the territories might look like. Unfortunately, at the time, UK Government did not accept that the Aichi Targets would be applicable to UKOTs and CDs, so attempts to explore possible measures could not progress. (This view was changed later and reference to the Aichi Targets was then included, for example in the Darwin Initiative guidelines and in reports to CBD.) However, progress was made at the time in identifying linkages between Environment Charter Commitments and the Aichi Targets. The report of the workshop is at www.ukotcf.org/pdf/fNews/BiodivWorkshop1106.pdf .

The matching of Environment Charter Commitments

and Aichi Targets was pursued and forms the first two columns of the Table below, in Methods.

The UN Sustainable Development Goals (SDGs) signed in 2015 are a universal set of goals, targets and indicators that UN member states will be expected to use to frame their agendas and political policies until 2030. The Report of the *Ad Hoc* Technical Expert Group on *Indicators for the Strategic Plan for Biodiversity 2011-2020* (https://www.cbd.int/doc/meetings/ind/id-ahteg-2015-01/official/id-ahteg-2015-01-03-en.pdf) includes, at its Table 4, an analysis of links between the Aichi Biodiversity Targets and the targets of the relevant Sustainable Development Goals. This has been used to add the third column to the Table in Methods, below.

The present review has taken into account both the Environment Charters and the Aichi Biodiversity Targets as the framework for collating and reporting progress in biodiversity conservation in the UK Overseas Territories and Crown Dependencies. The links to the Sustainable Development Goals were not available when the consultations in the present exercise started, but the relationship was added later, via the linkage to the Aichi Targets.

The attempt made to link the Environment Charters and UN goals through this review aims to reflect on the achievements made already, but also provide the basis for ensuring that the Environment Charters remain relevant to UKOTs and CDs and are aligned with HMG's commitments as they move forward in their shared interest to protect and preserve global biodiversity.

Methods

The review recognises that not all UKOTs and Crown Dependencies have the same commitments, local legislation etc. However, in all cases, work is being carried out which does show progress. It is our intention to highlight the progress made towards these despite not all cases being similar. Each UKOT and CD is unique, with a unique set of actions towards the conservation of biodiversity and the ecosystem services they provide at various working levels. Whilst resources may dictate how this is managed, there are dedicated workers striving to protect what is special.

The Environment Charters and the Aichi Targets contain much the same commitments overall, but divide them in very different ways. Where possible, we have matched each commitment under the Charter to the corresponding Aichi target (based on our 2011 analysis) and later, via this, to the Sustainable Development Goals, in a Table (below). The first two columns of this Table (available at the start of our review) were then used as the basis for our data collection. (Because of this, and to keep the tables of results manageable, we do not include the SDG column in the details in the Appendix; the linkages can be seen in the Table below.)

Those who have looked through our earlier reviews will note that we have changed the reporting system. Although that system was based on a wide and supportive consultation, the relatively short times since the signing of the Charters meant that it was difficult to base these on ultimate targets, so that we had to use more interim, process ones. We can now switch to using measures more closely related to the objectives.

Previous reviews (2006 & 2009) were based on the initial inputs of partners in territory. However, knowing the heavy work-loading of our colleagues in the UKOT and Crown Dependencies, as well as wishing to avoid duplicating requests for information, we took an alternative approach. This depended on both the explosion of the world-wide-web since the 2009 review, meaning that many documents are available online, and UKOTCF's strong ongoing contacts with colleagues in the territories. We did, however require that local personnel check for errors and omissions.

Two of us (Sarah Barnsley and Emma Cary) conducted an initial desk review between January and June 2015. In June-July, forms summarising the results to date were sent out to contacts in the UKOTs and CDs for comment in the run up to the July 2015 conference *Sustaining Partnerships*, held in Gibraltar (see www.ukotcf.org). The conference was subsequently used as an opportunity to validate results further and gather more data from those directly involved in conservation in the UKOTs and CDs. In addition, this exercise has presented an opportunity to identify some of the gaps and needs in order to meet the commitments and targets.

The Table relating the different reporting systems is below.

Environment Charter Commitments by UKOT Governments	Aichi Biodiversity Targets (matched to nearest equivalent Env Ch commitment)	Sustainable Development Targets
1. Bring together government departments, representatives of local industry and commerce, environment and heritage organisations, the Governor's office, individual environmental champions and other community representatives in a forum to formulate a detailed strategy for action.	**17.** By 2015 each Party has developed, adopted as a policy instrument, and has commenced implementing an effective, participatory and updated national biodiversity strategy and action plan. (Relates also to EC5)	**15.9** By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts.
1.	**20.** By 2020, at the latest, the mobilization of financial resources for effectively implementing the Strategic Plan for Biodiversity 2011-2020 from all sources, and in accordance with the consolidated and agreed process in the Strategy for Resource Mobilization, should increase substantially from the current levels. This target will be subject to changes contingent to resource needs assessments to be developed and reported by Parties.	**1.a** Ensure significant mobilization of resources from a variety of sources, including through enhanced development cooperation, in order to provide adequate and predictable means for developing countries, in particular least developed countries, to implement programmes and policies to end poverty in all its dimensions. **10.b** Encourage official development assistance and financial flows, including foreign direct investment, to States where the need is greatest, in particular least developed countries, African countries, small island developing States and landlocked developing countries, in accordance with their national plans and programmes. **17.3** Mobilize additional financial resources for developing countries from multiple sources.
2. Ensure the protection and restoration of key habitats, species and landscape features through legislation and appropriate management structures and mechanisms, including a protected areas policy, and attempt the control and eradication of invasive species.	**5.** By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced. (Relates also to **EC4**)	**15.2** By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally. **15.5** Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species.

Environment Charter Commitments by UKOT Governments	Aichi Biodiversity Targets (matched to nearest equivalent Env Ch commitment)	Sustainable Development Targets
2.	**11.** By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.	**11.4** Strengthen efforts to protect and safeguard the world's cultural and natural heritage. **14.5** By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information.
2.	**12.** By 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.	**15.5** Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species. **15.7** Take urgent action to end poaching and trafficking of protected species of flora and fauna and address wildlife products.
2.	**9.** By 2020, invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment.	**15.8** By 2020, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species.
2.	**15.** By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 per cent of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.	**15.1** By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements. **15.3** By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world.

Environment Charter Commitments by UKOT Governments	Aichi Biodiversity Targets (matched to nearest equivalent Env Ch commitment)	Sustainable Development Targets
3. Ensure that environmental considerations are integrated within social and economic planning processes, promote sustainable patterns of production and consumption within the Territory. **4.** Ensure that environmental impact assessments are undertaken before approving major projects and while developing our growth management strategy. **5.** Commit to open and consultative decision-making on developments and plans which may affect the environment; ensure that environmental impact assessments include consultation with stakeholders.	**2.** By 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems.	**15.9** By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts
3.	**3.** By 2020, at the latest, incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed in order to minimize or avoid negative impacts, and positive incentives for the conservation and sustainable use of biodiversity are developed and applied, consistent and in harmony with the Convention and other relevant international obligations, taking into account national socio economic conditions.	**14.6** By 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies, recognizing that appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of the World Trade Organization fisheries subsidies negotiation.
3, 4, 5.	**4.** By 2020, at the latest, Governments, business and stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and consumption and have kept the impacts of use of natural resources well within safe ecological limits.	**8.4** Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-year framework of programmes on sustainable consumption and production, with developed countries taking the lead. **9.4** By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities. **12.2** By 2030, achieve the sustainable management and efficient use of natural resources.

Environment Charter Commitments by UKOT Governments	Aichi Biodiversity Targets (matched to nearest equivalent Env Ch commitment)	Sustainable Development Targets
2, 3.	**6.** By 2020 all fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem based approaches, so that overfishing is avoided, recovery plans and measures are in place for all depleted species, fisheries have no significant adverse impacts on threatened species and vulnerable ecosystems and the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits.	**14.4** By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics. **14.7** By 2030, increase the economic benefits to Small Island Developing States and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism.
3.	**7.** By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.	**2.4** By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality. **12.2** By 2030, achieve the sustainable management and efficient use of natural resources.
3, 4, 5.	**14.** By 2020, ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable.	**6.6** By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes. **15.4** By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development.
6. Implement effectively obligations under the Multilateral Environmental Agreements already extended to the Territory and work towards the extension of other relevant agreements.	(Issues which cross many Aichi Targets)	

Environment Charter Commitments by UKOT Governments	Aichi Biodiversity Targets (matched to nearest equivalent Env Ch commitment)	Sustainable Development Targets
7. Review the range, quality and availability of baseline data for natural resources and biodiversity.	**19.** By 2020, knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends, and the consequences of its loss, are improved, widely shared and transferred, and applied.	**17.18** By 2020, enhance capacity-building support to developing countries, including for least developed countries and Small Island Developing States, to increase significantly the availability of high-quality, timely and reliable data disaggregated by income, gender, age, race, ethnicity, migratory status, disability, geographic location and other characteristics relevant in national contexts. **17.6** Enhance North-South, South-South and triangular regional and international cooperation on and access to science, technology and innovation and enhance knowledge sharing on mutually agreed terms, including through improved coordination among existing mechanisms, in particular at the United Nations level, and through a global technology facilitation mechanism.
8. Ensure that legislation and policies reflect the principle that the polluter should pay for prevention or remedies; establish effective monitoring and enforcement mechanisms.	**8.** By 2020, pollution, including from excess nutrients, has been brought to levels that are not detrimental to ecosystem function and biodiversity. (Relates also to EC3&4)	**14.1** By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution.
8.	**10.** By 2015, the multiple anthropogenic pressures on coral reefs, and other vulnerable ecosystems impacted by climate change or ocean acidification are minimized, so as to maintain their integrity and functioning. (Relates also to EC3)	**14.2** By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans. **14.3** Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels.

Environment Charter Commitments by UKOT Governments	Aichi Biodiversity Targets (matched to nearest equivalent Env Ch commitment)	Sustainable Development Targets
9. Encourage teaching within schools to promote the value of our local environment (natural and built) and to explain its role within the regional and global environment. **10.** Promote publications that spread awareness of the special features of the environment in the Territory; promote within the Territory the guiding principles set out above.	**1.** By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.	**4.7** By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development. **12.8** By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature.
11. Abide by the principles set out in the Rio Declaration on Environment and Development and work towards meeting International Development Targets on the environment.	(Issues which cross many Aichi Targets)	
Not matched specifically	**13.** By 2020, the genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives, including other socio-economically as well as culturally valuable species, is maintained, and strategies have been developed and implemented for minimizing genetic erosion and safeguarding their genetic diversity.	**2.5** By 2020, maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional and international levels, and promote access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge, as internationally agreed.
	16. By 2015, the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization is in force and operational, consistent with national legislation.	**15.6** Promote fair and equitable sharing of the benefits arising from the utilization of genetic resources and promote appropriate access to such resources, as internationally agreed.

Environment Charter Commitments by UKOT Governments	Aichi Biodiversity Targets (matched to nearest equivalent Env Ch commitment)	Sustainable Development Targets
	18. By 2020, the traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention with the full and effective participation of indigenous and local communities, at all relevant levels.	**1.4** By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance. **16.7** Ensure responsive, inclusive, participatory and representative decision-making at all levels.

Consultations and Acknowledgements

As we note above, this review has necessarily depended heavily on information, and particularly checking in several rounds of consultation, with partners in territory. For each territory, the conservation department of government or administration was invited to comment, as were all the territory conservation NGOs or knowledgeable individuals with whom we could make contact. Of course, UKOTCF had no control over whether these responded, although most did. In all cases several invitations were issued (and often encouragement through other routes). In a small number of cases, a few differences remained unresolved, and we have tried to reflect that in the wording.

It is not practicable here to list every source, but we would like to thank the following for their help, information and particularly contributions to the checking.

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Farah Mukhida (Anguilla National Trust)

British Virgin Islands:
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Pitcairn Islands:
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British Indian Ocean Territory:
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Isle of Man:
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Jersey:
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Summary of results on progress

The full results of the project as well as how they relate to each commitment and/or target are available in the Appendix. Below, we first summarise some main items for each territory and then take a cross-territory view of further needs.

In these sections, we use headings to group information in a convenient way, based on common groupings of the Environment Charters and the Aichi Targets. These headings are shown in the first column of the Table below.

Most classifications are somewhat asymmetric simply because of the ways that they evolve. Additionally, in such an inter-related and holistic subject area as conservation and sustainability, most items will potentially fall into several possible headings. For convenience, in the table below we relate these to two other recent classifications, that from the Conclusions and Recommendations emerging from the *Sustaining Partnerships* conference in Gibraltar in July 2015 and the areas of priorities emerging from the series of joint meetings in 2014-5 between UK Government's Joint Nature Conservation Committee and NGOs concerned with UKOTs/CDs.

Sustaining Partnerships was a conference on conservation and sustainability in the UK Overseas Territories, Crown Dependencies and other small island communities. It was organised by UK Overseas Territories Conservation Forum and HM Government of Gibraltar's Department of the Environment and Climate Change, with the support of Gibraltar Ornithological & Natural History Society. It followed five earlier conferences over the previous 16 years. The conference provided a forum for government environmental bodies, NGOs and commercial organisations to discuss key conservation issues, to highlight success stories, exchange ideas, and to forge partnerships. It is hoped that Overseas Territories, Crown Dependencies and

other small island communities that share similar environmental problems benefit from learning about one another's history and experience of planning and conservation initiatives. The overall aim was to draw on similarities and differences in experience across the territories, to provide insights into common challenges, leaving participants better equipped to address local needs. The proceedings of the conference, the recommendations and conclusions and various other outputs are available at www.ukotcf.org/confs/gibraltar2015.htm .

During 2014, conservation NGOs worked with UK Government's Joint Nature Conservation Committee to attempt to identify common priorities for the deployment of British resources in support of the needs and requests of the UKOTs and CDs. Progress was made in identifying some key areas, and these are listed in the third column below.

The following headings are used here to summarise information gathered under each Environment Charter commitment and Aichi Target:	***Sustaining Partnerships* conference conclusions & recommendations, Gibraltar 2015**	**JNCC/NGOs group on UKOTs/CDs: Proposed areas of common/shared interest**
1. Protected Areas	L (part). Other aspects of conservation & sustainable use of marine resources	1 (part). Restoring ... ecosystems 2 (part). Marine Conservation, including both protected areas and ...
2. Species Protection	L (part)	1 (part). Restoring threatened species ...
3. Monitoring and Baseline data	K. Biodiversity Data	4. Improving, collating and sharing evidence and knowledge
4. Invasive Species	J. Invasive Species	1 (part). ..., including by addressing Invasive Alien Species.
5. Planning, EIA & Legislation	F. Development & EIA H. Legislative Framework	3 (part). Terrestrial Planning...
6. Pollution		
7. Climate-change, Renewable Energy and Waste Management	D. Renewable Energy	
8. Environment Education	C. Environment Education and Awareness	5. Environmental education and awareness
9. International Agreements	E. International Agreements	
10. Stakeholder Stewardship	G. Stakeholder Stewardship	2 (part). ... and making sustainable users champions for conservation 3 (part). ... and complementing/reinforcing this by getting businesses depending on the natural resources to become champions
11. Economic Value of Sustainable Use	I. Economic Value of Sustainable Use	6. Ecosystem Services and Natural Capital (see also 2 and 3)
12. Funding and other resourcing	M. Capacity and resource issues	7. Resource Mobilisation [and capacity building]

In the following sections, the results from each territory are summarised, with fuller details at Appendix 1. Please note that there will be errors and omissions in these results, as eventually, after nine months of consultations, we had to draw a line so that results could be finalised. Not all expected respondents had replied by this time despite reminders.

(For each territory, some aspect is highlighted either at the start or in the body of the chapter, in a sub-section headed in ***bold italics*** and in blue text.)

Montserrat

Exceptionally biodiverse forest of several types covers the Centre Hills, Montserrat (Dr Mike Pienkowski)

New Act to conserve and manage natural environment and action plans for some endemic species

In 2010, a Species Action Plan was produced for the Montserrat galliwasp *Diploglossus montisserrati* (a lizard). This covers the needs to protect existing habitat, reduce invasive species impacts through both population control and predator proof fencing, and initiate an *ex situ* breeding programme.

Action plans have been developed with partners Royal Botanic Gardens, Kew, to cover the three endemic plant species, and training given in skills needed to build on this (see also below).

The Montserrat Conservation and Environmental Management Act (CEMA) 2014 (passed by the Legislative Assembly on 22nd July 2014) is an Act to provide for the administration, conservation and sustainable use of biological diversity, natural resources and the natural heritage of Montserrat; the designation and management of protected areas; pollution control; the regulation of activities; the incorporation of international obligations with respect to the environment into national Law; and related matters. A National Conservation and Environmental Advisory Council is to be established under CEMA 2014.

Under CEMA, a National Environmental Management Strategy (NEMS) will be prepared which shall include a description of the environment in Montserrat, an analysis of environmental issues of national significance, and the environmental management strategies, to be prescribed to address the environmental issues. A National Strategy for the Conservation of Biological Diversity in accordance with the overall policy of the NEMS and the St. Georges Declaration will be prepared and submitted to the Council for review.

In early 2015, at Montserrat's request, UKOTCF organised training in the use of Environmental Impact Assessment and related strategic planning, to aid dealing with an environmentally sustainable way with the development pressures and needs.

Protected Areas

Under CEMA, a Forestry, Wildlife and Protected Areas Standing Committee will be established, one function of which is to advise the Council on matters pertaining to policy, strategies, guidelines, standards, objectives and regulations for the protection and management of the environment.

In 2014, the Organisation of the Eastern Caribbean States (OECS), of which Montserrat is a member, commenced a Hydrographic Scoping Study aimed at assessing maritime/marine spatial data that exists in OECS countries as part of its Ocean Governance Initiative.

In 2015, an initiative commenced to begin recording and monitoring fishing activity around the waters of Montserrat. In partnership with Succorfish, a UK-based, world-leading provider of global GPS tracking systems and marine and maritime vessel monitoring systems (VMS), the Government of Montserrat aims to promote responsible and sustainable fisheries resource management, development and conservation within the local marine environment. Succorfish VMS technology was designed to allow small scale, 3-10m fishing vessels, like those operating in Montserrat, to

record accurately, monitor and map their exact location to within two metres from every minute to every hour. It enhances significantly fisheries management activities by supporting legal frameworks for spatial planning, protecting areas of conservation by deterring illegal, unreported and unregulated (IUU) fishing and improving safety at sea for inshore and offshore fishing vessels.

In 2015, the Fisheries Department (working with UKOTCF and other partners) became a partner in the Blue Halo Project with the Waitt Institute which aims to "ensure ecologically, economically, and culturally sustainable use of ocean resources". In February, the Waitt Institute announced that they would be working in 2 new sites: Montserrat and Curaçao. The project aims to take steps to manage coastal resources sustainably, undertaking activities to support the Initiative, by working collaboratively to develop and codify the Montserrat Sustainable Ocean Policy, including ocean zoning, sanctuary zones, and fisheries laws and regulations by January 2017.

Under CEMA, a draft Protected Areas Systems Plan for the establishment of a system of protected areas which is both consistent with NEMS, and which takes into consideration the National Physical Development Plan will be prepared in accordance with section 5 of the Physical Planning Act. A management plan for each protected area will also be prepared.

Species Protection

See also some information included at the start of the Montserrat chapter.

The *Enabling Montserrat to Save the Critically Endangered Mountain Chicken (2010-2013)* project aimed to provide an evidence base for the restoration of the mountain chicken *Leptodactylus fallax* and mitigation of the impacts of the chytrid fungus. This included a trial re-introduction of mountain chickens into Montserrat, and development and agreement with regional partners of long-term restoration strategy and Species Action Plan for the mountain chicken.

Action plans have been developed with partners Royal Botanic Gardens, Kew, to cover the three endemic plant species: *Rondeletia buxifolia*, *Epidendrum montserratense* and *Xylosma serrata*. Training was given to Montserratian partners in the skills needed to prepare, publish and implement SAPs. Seeds from *Rondeletia buxifolia* and *Epidendrum montserratense* have been incorporated into the Millennium Seed Bank and horticultural protocols for germination and cultivation have been developed.

CEMA states that the species of fauna and flora specified in Schedule 2 are designated as protected species with sub-section 3 stating that any actions against protected species may be deemed an offence.

Monitoring and Baseline data

Under CEMA, the Director shall prepare and submit annually to the Minister a stewardship report which shall include e.g. a description of the environmental management activities undertaken by the Department during the period under review. This is done as part of the work programme report.

Forestry staff, from the Department of Environment, conduct an annual bird monitoring exercise to determine the bird populations in the Centre Hills of Montserrat including the population of Montserrat oriole *Icterus oberi*.

Invasive species

Enabling the People of Montserrat to Conserve the Centre Hills (2005-2008) project funded by the Darwin Initiative confirmed that populations of feral animals posed a significant threat to the values of the Centre Hills. *Reducing the Impact of Feral Livestock in and Around the Centre Hills (2009-2011)* was a post-project, funded by the Darwin Initiative.

BEST Initiative Project: *Conserving Species and Sites of International Importance by the Eradication of Invasive Alien Species in the Caribbean UK Overseas Territories* project aimed to protect sites and species of conservation importance through the eradication of Invasive Alien Species (IAS) across 5 UKOTs (including Montserrat) in the Caribbean, sharing best practice for the prevention, control or eradication of IAS and building local capacity. In Montserrat, feral livestock control in the Centre Hills Forest Reserve has been undertaken in partnership with the DOE and support of Animal and Plant Health Agency (APHA). Camera traps have also been deployed into the Centre Hills to track movement of feral livestock.

RSPB's study *Eradication of invasive alien vertebrates in the UK Overseas Territories* reported the number of confirmed or suspected invasive alien vertebrate species for Montserrat. Key invasive alien vertebrate species are the feral pig, goat, cow, feral cat, black rat, and cane toad. The study also identified that biosecurity should be a high priority for Montserrat, to prevent the establishment of more invasive alien vertebrate species.

In 2012, a brochure on *Invasive Red Fire Ants* (first identified in 2007) was published by the Department of Environment. . The brochure provides useful information on how to recognise the fire ants and their nest and what precautionary actions one can take to avoid being stung. The brochure outlines the impact the ants can have on agriculture, health, infrastructure etc. Public service announcements are aired annually as well.

In 2014/15, the Fisheries Department began working with local fisherman and restaurants to establish lionfish as a food source, also providing a way to help manage this Caribbean-wide invasive.

Planning, EIA and Legislation

Regarding EIA and sustainable development, there are a number of measures set out in the CEMA:

- Development must be socially, environmentally and economically sustainable.
- If there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.
- The Planning and Development Authority shall not approve or give permission for the development of Crown or private land within a protected area, under the Physical Planning Act, unless the applicant holds a Certificate under section 17 with regard to the development.
- Where the Director is satisfied that an activity poses an environmental threat which could not have been reasonably foreseen at the time of the issuance of a Certificate or the information or data given by the holder in support of the application for a Certificate was false, inaccurate or intended to mislead, he may either direct the holder of the Certificate to submit further information/data or recommend to the Planning and Development Authority that the holder of the Certificate be required to submit an environmental impact assessment.
- Actions to be taken regarding Environmental Auditing, e.g. the Governor may establish or adopt appropriate standards and procedures for the carrying out of an environmental audit. The Director may also require a person to submit for approval an environmental management plan to manage the environmental impacts of a new or existing activity.

In 2013, The Department of Environment participated in the two workshops in Saint Lucia to address a harmonized reporting mechanism, and the use of Integrated Environment Assessment (IEA) tools for mainstreaming Multilateral Environmental Agreements (MEAs) into national policy development.

At the request of local interests and FCO, UKOTCF organised and resourced an EIA workshop in Montserrat in January 2015 attended by government Ministers, several government departments and non-government organisations, private sector and civil society.

Following this, Montserrat is seeking to address some earlier problems regarding lack of adequate EIAs. Regulations are being prepared. In the meantime, developers are being encouraged to follow best practice.

CARICOM is now exploring the possibility of having a harmonised Environment and Natural Resources Management Policy Framework. Montserrat, as a full member of CARICOM, has participated in the consultations.

One medium-term objective under the Sustainable Development Plan (SDP) is to develop a transparent and effective accountability framework for Government and the public sector. The SDP itself was developed out of a consultative, consensus building process. CEMA also states that decisions must be taken in an open and transparent manner, and access to information must be provided in accordance with the law. For example under CEMA, in preparing a NEMS, the Director shall seek and consider comments from stakeholders including governmental entities, civil society, non-governmental organisations and members of the public. Furthermore, before an area is designated as a protected area, the Director shall publish a notice of intention to designate the protected area and submit the notice for public comment by stakeholders.

Pollution

Principle (9) of CEMA indicates that the costs of remedying pollution, environmental degradation and consequent adverse health effects and of preventing, controlling or minimising further pollution, environmental damage or adverse health effects must be borne by those responsible for harming the environment. Furthermore, under Principle 57 (6), after a spill or accidental release of a pollutant or hazardous substance or hazardous waste, the Principal Environmental Health Officer may undertake emergency response measures as he thinks necessary or expedient to protect human health and the environment. In this situation, he may recover the actual costs from the person who owns or controls the premises from where the spill or accidental release of a pollutant or hazardous substance or hazardous waste originated. (Although CEMA falls under the remit of DOE, this area is cross-cutting and involves other Ministries and departments.)

Climate-change, Renewable Energy and Waste Management

The Government of Montserrat, with the aid of DFID, the EU and other sources, embarked on the development of geothermal energy in 2013, with the drilling of two wells to a maximum depth of 2800m, at 250-270 degrees Celsius, each producing 3 MW of power. It is anticipated that the two geothermal wells will produce environmentally friendly, long-lasting energy, sufficient to power the island in the near future.

Montserrat National Trust received approval from EU/ OECS Climate Change Adaptation Programme to do a pilot demonstration Project using Solar Energy for irrigation and lighting of the Botanic Garden.

The Ministry of Agriculture, Trade, Land, Housing and the Environment is leading the collective effort to

prepare a revised National Climate Change Policy and Action Plan for Montserrat. This is being supported under the Climate Change Adaptation and Sustainable Land Management Project in the Eastern Caribbean, which is managed by the Organisation of Eastern Caribbean States (OECS) on behalf of participating members. The Caribbean Natural Resources Institute (CANARI) is facilitating the process. A recent workshop on 18th June 2015 was the second in the consultation process allowing stakeholders to analyse impacts and decide on priorities. The Policy and Action Plan are drafted but not yet submitted to Cabinet.

Environmental Education

Centre Hills Project implemented an outreach programme targeting diverse audiences, including politicians, teachers, students, farmers, tourists, and the general public. In 2012, the Department of Environment released a Mountain Chicken Awareness Poster, which was widely circulated. The DoE has employed an education and outreach person.

Montserrat National Trust created a new botanic garden in 2005. This provides an educational and recreational resource for schools, residents and visitors. There is a link between what is showcased in the garden and what is found in the wilds of the Centre Hills.

The National Museum of Montserrat, which is managed by the National Trust, re-opened in a new site (the previous one now being in the volcano exclusion zone) in 2012.

The National Trust and the Ministry of Environment regularly take part in Radio shows to talk about their work.

UKOTCF resourced and worked with MNT and GoM to produce *Birding in Paradise: the Caribbean Emerald Isle of Montserrat – a guide to bird-watching, nature and heritage sites*, and is working on other material, video-based.

Through the Montserrat Reef Ball Project, a new artificial reef is being designed as an educational snorkel trail, accessible by dive tour businesses, locals and tourists.

The Montserrat Volcano Observatory provides information on the volcano to the general public. The MVO Interpretation Centre has poster displays explaining the techniques used in monitoring seismic (earthquake) activity, gas emissions, ground deformation and environmental impacts.

A National Tree Planting Day involved the distribution of plants from the nursery of the Department of Environment and its Forestry Division.

A brochure was produced on the possible impacts of climate change on Montserrat.

International Agreements

Montserrat is included in UK's ratification of the Ramsar Convention on Wetlands (but has not yet designated any Wetlands of International Importance), the Convention on Migratory Species (Bonn), and the Convention on International Trade in Endangered Species (CITES, Washington) – but not yet the Convention on Biological Diversity. New CITES legislation, to make Montserrat (and therefore UK) fully compliant stalled due to lack of legal drafting capacity.

Still to do

Funding needed to take forward galliwasp species action plan.

In terms of areas requiring further information gathering, little is known about the Montserrat galliwasp lizard and more scientific research into habitat (and funding for this) are necessary.

Convention on Biological Diversity sign-up and funding for this needed.

New CITES legislation (and staffing resources for this) needed to make Montserrat fully compliant

Establish National Conservation and Environmental Advisory Council and prepare regulations under CEMA 2014.

Update the National Environmental Management Strategy (NEMS).

Develop frameworks/action plans for meeting the principles under CEMA.

More resourcing is needed for implementing CEMA effectively, and for almost all the actions in this section.

Develop frameworks for meeting the goals and objectives under the Sustainable Development Plan.

Is there a joint Government/NGO group to take an overview of forward conservation planning and review progress?

The Government of Montserrat and the Montserrat National Trust have identified, with UKOTCF, the need for investigations, planning and conservation management work in the southern area, and for work engaging the community more widely in conservation work in the north. Applications have been made to Darwin and BEST, the former successfully.

Drafting legislation or adding regulations that would deal with fees and trust funding. As there has been a change in financial regulations worldwide, a trust fund mechanism must be handled under a separate legislation as listed in the text regarding Public Finance (Management and Accountability Act).

Either incorporate all objectives under the Centre Hills management plan into the DoE's annual work programme, or obtain funding that allows the management plan to be implemented separately. At

present, only critical core management activities of this Management Plan are being carried out, absorbed as part of the work programme of the DoE.

Substantial work remains to be done on long-term solving of the invasives issue, management of remaining good habitat in the southern area, and involving the community. However, note that the South has restricted access issues. Safety is paramount and this must be taken into consideration.

In addition to the Montserrat Centre Hills Feral Livestock Action Plan, develop additional invasive species Action Plans for those species which have been identified as an issue, including means to fund these.

Implement biosecurity legislation.

As noted, the current plans for dealing with invasives concentrate on the Centre Hills, rather than total island eradication – because of accessibility difficulties in the south. Although the complexity of the habitat may prevent rat eradication, the current easing of volcanic activity may allow for investigation and potential planning of ambitious plans for eradication of the damaging feral animals across the island, subject to access clearance.

Both black and brown rats were highlighted as an environmental threat by a wide cross-section of stakeholders. With current technology, eradication of rats on a well populated island is next to impossible. A targeted control programme to keep numbers manageable is preferable but is expensive in the short to medium term. With education and public awareness, the cost will go down over time, but would still require some sort of injection of funds from the government.

Understanding the interactions of rats with tree regeneration and on the breeding capacity of species, would require a follow up longer-term project.

Prepare a Protected Areas Systems Plan and Management Plans for each protected area. Prepare a monitoring framework for protected areas. Note that under CEMA only 1 protected area has been designated so far, and significant funding would be required to designate more.

Designate protected areas under international and regional agreements, including Ramsar sites, and secure capacity (staff and funding) to manage.

Carry out further survey work for identifying other wetland features of interest.

Investigation is needed on the potential reinstatement of Foxes Bay Swamp Nature Reserve, partly to compensate for the artificial total loss of lowland wetlands, due to the human infilling of Piper's Pond. Subject to investigation, this might require significant resourcing.

Protect further ghauts through designation of Ramsar Sites, etc.

Obtain additional resources (human and financial) for implementing environmental legislation and management plans.

Implement strategic physical planning and best-practice environmental impact assessment procedures. This should include consultative processes.

Obtain adequate funds for MNT to provide appropriate signage and publicity for trails in the Centre Hills and north of the Island.

Montserrat may wish to consider joining the international whale sanctuary initiative in respect of its EEZ.

Investigate and develop management for conservation of remaining forest in Exclusion Zone (see above for MNT/GoM/UKOTCF initial proposal). These plans need to bear in mind that safety access constraints need to be built into the plans and relevant agencies need to be part of the feasibility planning team.

Still a need for a whole island biodiversity assessment. Funding and expertise needed.

Have statistician on staff. Funding is needed for this.

More summer camp/activity groups for children

Environmental courses for adults.

More educational materials for use in schools. Environmental information must be included in the school curriculum.

Maximising the use of radio in environmental and cultural education.

Secure funding for implementing the environmental education, as well as the conservation, activities.

Anguilla

Protected Areas

3 Marine Important Bird Areas identified.

The National Trust manages several sites donated to it (Seafeathers and Little Harbour).

Dog Island restoration and first Ramsar Site

After an intensive programme of work, which involved the eradication of rats, large colonies of seabirds, including sooty terns (pictured) are recolonising Dog Island. Efforts involved many partners and have highlighted the potential for rapid recovery following the removal of introduced species.

Sombrero Island (94 acres) has been approved for designation as Anguilla's first Ramsar Convention Wetland of International Importance. It is a remote, flat-topped rocky outcrop 65 kilometres northwest of Anguilla. The cliffs and rocky areas are home to a large seabird colony including internationally important numbers of masked booby *Sula dactylatra*, brown booby *Sula leucogaster*, bridled tern *Sterna anaethetus* and brown noddy *Anous stolidus,* as well as the endemic ground lizard *Ameiva corvine*. The surrounding reefs are important for corals, sea-grass beds and foraging hawksbill turtles.

The island was formerly mined for phosphate, leaving the surface pitted with craters up to 10 metres deep. A few stark buildings from the phosphate industry remain alongside those from Sombrero's long time use as a lighthouse station. Until recently, the island was permanently inhabited by a small number of lighthouse staff who were transported by small boat across the 65km from mainland Anguilla. A new unmanned lighthouse was installed in 2002, limiting visitors to the occasional fisherman and biologists engaged in fieldwork.

A Ramsar National Committee established and a National Wetlands Plan completed.

Species Protection

Protection (mainly via site-management) for 11 species of seabirds.

Development and implementation of the Sea Turtle Recovery Action Plan.

Conservation Action Plan for Lesser Antillean Iguana *Iguana delicatissima.*

Sooty terns landing at their nesting colony, Dog Island, Anguilla (Dr Mike Pienkowski)

Anguilla Bank racer snake re-assessed and identified as Critically Endangered.

A nursery for native trees, shrubs, and herbs established.

Monitoring and Baseline data

Birds: Monitoring of terrestrial birds at 16 sites on the mainland and 10 on Dog Island. Monitoring of wetland birds on 25 mainland ponds and Dog Island's Stoney Bay Pond. Monitoring of seabirds on Anguilla's offshore cays – annually on Dog Island and every 2 to 3 years on the other offshore cays.

There is an on-going trial of BirdLife International's Framework for Monitoring Important Bird Areas.

As well as on-going monitoring for:

- Sea turtles (leatherback, hawksbill, green): nesting and foraging populations
- Land reptiles: iguanas (native lesser Antillean, invasive green); snakes (Anguilla Bank racer snake)
- Lizards on Dog Island
- Beaches and sand dunes
- Landscapes (on Dog Island)
- Heritage sites,

there is collection and dissemination of baseline data for the following ecosystems/habitats:

- Wetlands (Anguilla Wetland Inventory; Anguilla BirdLife Wetland Assessment): on-going monitoring.
- Coastal habitats (Anguilla Coastal Assessment Report Card 2013)
- Marine Important Bird Areas

- Important Bird Areas
- Sombrero site data collated into Ramsar Information Sheet
- Anguilla Key Biodiversity Areas in Environmental Profile Fact Sheet.

Invasive Species

A draft Alien Invasive Species Policy has been developed. Training was done with a range of sectors: hoteliers, Department of Customs and the Port Authority Staff. This is one method through which personnel at key entry points can recognise and act on any species being introduced to the country.

Rats have been eradicated from Dog Island and long-term monitoring sites established.

Involvement in the EU-funded BEST Initiative project *Conserving Species and Sites of International Importance by the Eradication of Invasive Alien Species (IAS) in the Caribbean UK Overseas Territories* included sharing of best practice and awareness raising.

A feasibility study has been carried out indicating that eradication of rats on Prickly Pear Cays is possible.

Planning, EIA and Legislation

The Biodiversity and Heritage Conservation Act 2009 includes public consultation procedures for establishing, disestablishing and altering protected areas.

Information produced through a Habitat Mapping (Terrestrial) project, for example the distribution of threatened species, was fed into a National GIS database which is used by the Land Development Control Committee (LDCC). This Committee is responsible for reviewing and approving development across the island. Whilst there is a Development Control Framework under the Land Development Control Act 2008, this is fairly basic and has no strategic planning and no SEA or EIA procedures. Political accountability is also lacking. There is also no comprehensive national development plan. The Physical Planning Bill 2001 would address some of the weaker areas. However, this is not yet enacted and it is currently under review.

The Beach Control Act allows people to appeal any of the Minister's decisions to the Executive Council, whose decision will be final. Which Minister depends on the portfolio assignment given to the various Ministers. It does not necessarily stay under the Minister of Environment.

The Anguilla National Trust has an active participation within the planning process through the review of Planning Applications, development of Terms of References for Environmental Impact Assessments, and the review of Environmental Impact Assessments.

2009/2010 Trade in Endangered Species Act and Trade in Endangered Species Regulations.

Biodiversity, Heritage and Conservation Act 2009 (BHCA) lists species of seabirds as well as all species of sea turtles.

Climate-change, Renewable Energy and Waste Management

The Anguilla National Energy Policy was approved in 2010.

Environmental Education

The Anguilla National Trust (ANT) Resource Centre is open to the public for usage.

ANT works with schools/provides environmental education:

- School presentations at primary and high school levels
- Primary and high school field trips to wetlands, forested areas, and coastal areas
- Primary and high school heritage tours (including to Big Spring Heritage Site)
- Hikes with summer camp students (externally-organised summer camps, including the Anguilla Tourist Board's Hello Tourist! Camp, Brownies' Camp, Valley Primary School Camp, Camp Destiny, Anguilla Red Cross Camp, Teacher Petal's Summer Camp)
- Department of Youth and Culture's Youth ESCAPE programme (2005 through 2014, summer) (graphic design, photography, natural heritage, national symbols, maritime heritage) (ages 4-16)
- Where The Wild Things Are summer camp (2015-ongoing, summer) (ages 4-7)
- Adventure Anguilla outdoors camp (2006-on-going, every December) (ages 12-18)
- Environment. Research. Action. Programme (2011-on-going, school year) (environmental education afterschool programme) (ages 12-18). This is done at all schools. It is an overall conservation lobbying initiative.
- Island In Focus (2013-on-going) (nature photography afterschool programme) (ages 10-12)

The Youth Environmental Society of Anguilla (YESA) gets involved with checking the permanent bait stations installed by rat eradication volunteers on Dog Island to ensure that there is no re-invasion.

ANT publishes many peer-reviewed journal articles, books, brochures and posters.

Other ANT awareness raising activities: ANT radio programmes, social media, lectures and documentaries series, press releases, experiential learning in schools (presentations and field trips, camps and afterschool

programmes), one-on-one/community meetings, e-newsletter, coastal and pond clean-up programmes, *adopt-a-beach* programme, memos to Government agencies and partners, providing updates and insights into on-the-ground action and activities.

International Agreements

In 2014, Anguilla joined UK's ratification of CITES. Anguilla is included in the UK's ratification to the Convention on Wetlands of International Importance (Ramsar Convention).

Stakeholder Stewardship

ANT community-based restoration activities on East End Pond Conservation Area (on-going tree planting initiatives with East End Community, private sector, and youth groups).

ANT have also facilitated an *ad hoc* community group *adopt-a-beach* programme.

Economic Value of Sustainable Use

In 2013, the *Anguilla National Ecosystem Assessment- A Foundation for a Green Economy* project was a scoping exercise, which looked at how the administrative, policy and legislative context encompassed Anguilla's ecosystems and whether it allowed for the development of a national ecosystem assessment and green economy strategy.

The JNCC *Greening the Economy* project, in 2013, found that there is an extensive body of knowledge available on natural resources management in Anguilla. However, the data are spread over multiple scientific studies, consultant reports, regional reports and approved and draft legislation, policies and plans. This makes it very difficult actually to use the information effectively in decision-making. The framework for natural resource management is made up of a range of policy documents and laws and regulations that have been developed in the absence of an approved integrated approach to environmental management.

A project, the *Tourism Value of Nature in Anguilla and the Impact of Beach Erosion* was completed in 2014. The project aimed to determine the (potential) monetary value generated by ecosystems on Anguilla by assessing the 'Willingness to Pay' (WTP) of tourists for various ecosystems and aspects of Anguilla's beaches, which may guide future policy-making in terms of environmental and tourism management.

Still to do

Enact the draft Environmental Protection Bill.

Develop framework for National Development Plan and NDP itself.

Better coordination is needed of science information, policies, and legislation relating to the environment/ biodiversity.

Regulations are needed for the Biodiversity, Heritage and Conservation Act (under development).

Restore coral reef, develop coastal management plans.

Produce Alien Invasive Species Policy (in draft).

Develop framework for designating sites through the Biodiversity and Heritage Conservation Act and the Marine Parks Act based on scientific criteria.

Update/develop site management plans.

Designate further protected areas based on the results of the Darwin Plus Project being carried out at present.

Obtain funding to support the eradication of rats from Prickly Pear Cays.

Create additional Action Plans for other priority species.

Legislation and policy reforms need revision to contribute towards Aichi Target 15 (under way).

Develop a plan/guidelines for hoteliers to implement sustainable practices in their businesses, based on the outcomes of the *Towards a Green Economy* project.

Develop a plan for implementing the short, medium and long term actions identified as being required through the *Greening the Economy* project.

Incorporate strategic planning, political accountability, and SEA and EIA procedures into planning legislation.

Review and enact Physical Planning Bill 2001.

Provide greater access to information regarding policy and legislation, e.g. through a portal on the Government of Anguilla website which allows you to keep track of the status of legislation.

Develop and enact fisheries legislation and management plans.

Join CBD and CMS.

Make further protected areas designations, including Ramsar Sites (see 2005 review).

Educational tours are needed for raising awareness among adults.

British Virgin Islands

Various dated legislation available for species protection will be superseded by the draft Natural Resources Management and Climate Change Bill.

Protected Areas

The Protected Areas System Plan for the period 2007-2017 aims "to manage important natural and historical resources in ways that will contribute to an improvement of the quality of life of BVI residents". The Government has indicated that the Plan will be implemented in phases up to 2020.

The Government took steps to designate several areas on and around Virgin Gorda, Anegada and Jost Van Dyke as Protected Areas in 2015.

Activities in BVI under the EU-funded project *Management of Protected Areas Supporting Sustainable Economies* included: 3 visitor centres at Sage Mountain National Park, Copper Mine National Park and at the Anegada iguana headstart facility; and a patrol boat was provided, primarily for The Baths National Park.

Darwin Plus project *Conserving plant diversity and establishing ecosystem based approaches to the management of forest ecosystems in the British Virgin Islands (2013-2015)* aimed to map terrestrial ecosystems to inform gaps present within the proposed protected area network and inform the creation of a draft management plan for forests, based upon the IUCN ecosystem-based approach. This will lead to the identification of new areas for inclusion in the BVI Protected Areas System Plan and provide baseline data that will inform the creation of a dynamic decision support tool for conservation management.

Species Protection

The Environmental Profiles prepared by Island Resources Foundation for each of the four main islands contain detailed accounts of BVI species and make a note of Species Conservation Priorities according to whether they are high, medium, or low priority. They detail also threats to particular species, and identify species and habitats of special concern, e.g. Anegada has approximately 50 plant Species of Special Concern. Many are local and regional endemics, as well as plants that have been severely reduced in numbers and distributions by feral and free-roaming livestock. On Anegada, there are 17 Animals of Special Concern, while Habitats of Special Concern include beaches and dunes. During field studies carried out for the Environmental Profile of Anegada, a new plant species was discovered. The Island Resources Foundation team collected and photographed *Sideroxylon horridum*. (Note that this is one of many new plant records for BVI.) For different issues, conflicts or areas of concern described in the Environment Profiles, the Profiles state also the impacts of not taking any action/making any changes, and provide short-term options and long-term recommendations for addressing these.

Machaonia woodburyana – *a Critically Endangered plant found only in the British and US Virgin Islands (National Parks Trust of the Virgin Islands)*

Other species conservation initiatives carried out in BVI include the following:

- The National Parks Trust created a recovery plan for the Critically Endangered Anegada rock iguana *Cyclura pinguis*. To save this species from extinction, the NPT and the IUCN Iguana Specialist Group launched a "headstart programme" in 1997 to boost populations and help ensure the species' survival in the wild. In 2012, there was a rock iguana species recovery plan meeting.
- The National Parks Trust carried out a mangrove replanting programme. This is ongoing and is focused on Tortola's southern coastline where the majority of mangroves have been removed for coastal development.
- RBG Kew and NPTVI propagated threatened plants from BVI, and built up a collection of BVI

threatened endemic plants. They carried out also red-listing work, including a workshop in 2013.

- Following a Plant Conservation Workshop in Puerto Rico in 2012, a Plant Conservation Task Force was set up for Puerto Rico and the Virgin Islands. This task force was to be involved with plant species red-listing and the facilitation of communication and information sharing. This involved also recording and mapping locations of rare plants in BVI, and identifying threats and dangers. The project had also contributed plants for the Botanic Garden. The *Building systems and capacity to monitor and conserve BVI's flora* is a follow-on two-year project.
- RBG Kew conducted seed collection in BVI. Its work involved seed-collecting workshops for the J.R. O'Neal Botanic Garden. They obtained also the first plant records from the privately owned island, Little Thatch Island. Since the Anegada Darwin Project, NPTVI and Kew have been involved in three additional Darwin Projects that are mapping endangered plant species using GIS.
- Geographical Information Systems are being used and data shared with the National GIS Committee to promote better understanding of the remaining distribution and condition of threatened habitats and species through the NPTVI Darwin Plus project. This is the most recent Darwin Project on plant mapping (2015-2017). NPTVI had another Darwin Project (2013-2015).

The Fisheries (Protected Species) Order of 2014 now makes it illegal to fish commercially for, sell or have for sale any shark or ray species. (A licensed fisher may kill a shark for personal subsistence only, excluding any shark listed as Critically Endangered or Endangered under the IUCN). It is also illegal to harass, feed or mutilate sharks.

Annually, the NPTVI distributes free native trees to schools and the general public and also has tree-planting ceremonies around the Territory.

Monitoring and Baseline data

Monitoring of sea turtle populations through a tagging programme.

The Darwin Plus project *Using Seabirds to Inform Caribbean Marine Spatial Planning* involved tagging frigate birds to observe their range.

Greater flamingo population monitored by National Parks Trust.

The Darwin Plus project *British Virgin Islands MPA and hydrographic survey capacity building* will result in the transfer of skills in mapping marine habitats using modern acoustic survey tools from UK organisations with proven expertise to the stakeholders in BVI. This in turn will provide essential information for spatial planning, sustainable use of marine resources, marine conservation and ensure safe navigation at sea.

New Darwin Plus project *Seabird Recovery Planning Programme* began on 1 April 2015. Fieldwork involves surveying and ground-truthing of the islands, including an assessment of each island, e.g. invasive species survey, breeding birds survey, in addition to some trapping for rats.

The Darwin Plus project *Building Systems and Capacity to Monitor and Conserve BVI's Flora* also commenced in April 2015. Mapping and GIS are to be key tools.

There were plans for studies to commence on tropic-birds and boobies in March 2016.

Conch habitat survey completed for some areas and on-going.

Invasive Species

There was a mongoose control programme on Little Jost Van Dyke and a rat eradication programme on Sandy Cay National Park.

The Environmental Profiles have compiled information on alien invasive species. They identify known invasive species, in addition to those that have been identified as potentially invasive. Those species that are of immediate concern because of the conservation challenges they pose now, or may pose in the future are also described.

Other projects that have been initiated to address invasive species in BVI are listed below:

- GIS mapping of invasive plant species across the BVI through NPTVI Darwin Plus Project.
- Lionfish *Pterois volitans* eradication project was initiated in 2009 after the Conservation and Fisheries Department received funding from JNCC. This project provides a framework to coordinate activities among government and non-governmental agencies and local businesses and organisations. An NGO (Reef Guardians) was created specifically to target lionfish population control.
- The OTEP-funded Caribbean UKOTs regional project on invasive species involved the transfer of information on UKOTs to the Global Invasive Species Database, in addition to awareness-raising posters.
- NPTVI, RSPB and JVDPS are currently involved in a BEST-funded project to eradicate goats from the Tobagos and undertake a rat eradication feasibility study. This project also looks at developing a biosecurity protocol.

Planning, EIA and Legislation

In 2012, a new planning database was handed over to the Premier's Office and the Department of Town

and Country Planning Department. This provides for the collection and monitoring of all development applications by linking government departments involved in the review of development proposals, while also allowing developers and individual applicants to track their proposals in real time.

Protection of local endangered species will be covered under the draft Natural Resources Management and Climate Change Bill (NRMCC).

Draft Forest Management Plan initiated under the NPTVI and Kew Darwin Plus vegetation-mapping project (2013-2015); development is ongoing.

Pollution

A Memorandum of Understanding was signed with major grocery stores with the agreement that, from 11 March 2013, a charge of 15 cents per plastic bag will be charged at the till if customers do not bring their own bags.

Pollution control needs to be strengthened. This is particularly critical given the BVI's high population density, rapid paced development, and geographical and geological challenges for pollution control. Pollution and associated environmental risks are described in the Environment Profiles. The draft Natural Resources Management and Climate Change Bill would establish a regulatory framework for waste management and embed the polluter pays principle.

The issue of anchor damage from mega-yachts, with anchor-zones and possible mega-yacht moorings, is being discussed – but this is all in development. The main anthropogenic threats to coral reefs in the BVI are anchor damage and sedimentation. The National Parks Trust maintains a system of mooring buoys at National Parks and popular dive sites to reduce anchor damage to coral reefs. The draft Natural Resources and Climate Change Bill will significantly increase protections of reefs from anchor damage; the existing legal framework on this is very weak.

Climate-change, Renewable Energy and Waste Management

Leading voice in the Caribbean region on Climate Change and gaining greater understanding of natural resources

BVI has been a leading voice in the region on climate change- recognising that its economy will be hit hard by its predicted impacts.

It hosted the Caribbean Challenge Initiative leadership summit in 2013, bringing together heads of government, ministers of the environment, chief executive officers of major corporations and donor agencies to take forward the management and preservation of the region's marine and coastal environment.

The Climate Change Trust Fund Act 2015 & Electricity Ordinance Amendment Act 2015 show that the Government is moving fast to turn its commitments in to a legal framework, under which, future actions will be taken.

The Environment profiles and work on collecting baseline data on flora of BVI have led to a greater understanding of the natural environment.

An independent Board of Trustees will manage the funds of the Virgin Islands Climate Change Trust Fund, established by the passage of the Virgin Islands Climate Change Trust Fund Act which was enacted in March 2015. The Act provides the framework for raising and administering local and international resources to fund activities that confront the impacts of climate change and help the Territory transition to a low-carbon economy. The sources of local funding will be established separately by regulations to support the Act.

Non-profit organisation Green VI's vision is "a green, clean, healthy, and prosperous BVI, in which a balance is maintained between development and conservation of the natural environment". Its mission is to demonstrate the principles and benefits of sustainable living in BVI - through education and practical projects - along the themes of waste, education, energy and water.

In 2014, tenders were invited for solid waste collection services on Tortola, Jost Van Dyke and Virgin Gorda. Private, as opposed to public, operators for waste collection are now in place.

A report, entitled *A Comprehensive Solid Waste Management Strategy for the British Virgin Islands* was submitted to the Ministry of Health and Social Development in August 2013 and the House of Assembly in April 2014. The report recommends the creation of a new Solid Waste Management Authority to oversee the development of waste facilities and to improve collection, storage and disposal of waste through cost recovery methods. The report said the Authority will see to the implementation of a National Solid Waste Policy and the creation of an environment for the disposal of all waste types in an environmentally sound manner.

The draft Natural Resources Management and Climate Change Bill would regulate the dumping of all wastes in the environment.

The BVI Electricity Ordinance Amendment Act 2015 was passed in March, which allows consumers to produce energy from renewable sources, and the creation of private renewable-energy power plants.

The *Future of Reefs* project looked at new ways to manage reefs in the context of climate change, specifically, interactions of three communities in BVI with nearby coral reefs, documenting changes to the reef and how the human communities reacted. Some of the threats perceived by communities in the BVI include sewage, lack of awareness, education and

understanding, rubbish and pollution, etc. In general, communities had a good understanding of local threat to reefs, but were less clear about potential global impacts, such as climate change. Ecological surveys revealed that reefs were generally healthy in the BVI in the context of the Caribbean. Coral cover was greater than that of algae cover. Fish surveyed revealed that near shore stocks were affected by fish-trap practice as numbers were lower. Important grazer (e.g. parrotfish) numbers were generally low, but sea urchin populations were quite healthy.

Environmental Education

The Conservation & Fisheries Department coordinates the celebration of Environment Month every June with a series of themed environmental awareness activities. The Department coordinates also Fisherman's Day, to celebrate the local fishery, and runs an environmental summer programme for school children. An annual coastal clean-up is also organised by the Department. The National Parks Trust organises annual Arbour Day activities. Activities for the 2012 Arbor Day included planting trees on land and mangroves.

Education initiatives have been developed also by the Department of Waste Management, using the media of television, radio and print, and centred on teaching residents how to dispose of their waste correctly.

An interactive environmental atlas was developed by the NPTVI and the Conservation & Fisheries Department.

Local schoolchildren took part in the release of Anegada Rock Iguanas from the NPTVI headstart facility in November 2013.

The Jost Van Dykes Preservation Society launched the Sloop *Endeavour II* on 5 November 2013, with goals (among others) of :

-Using the construction as a teaching opportunity for island youth in the use of modern construction methods.

-To serve as a unique platform for educational programmes in sailing and marine environmental protection.

International Agreements

BVI is currently working on legislation to comply with CITES, and on the extension of the United Nations Framework Convention on Climate Change.

The following regional and multilateral environmental agreements have been extended to BVI: the Convention on Biological Diversity, the St George's Declaration of Principles for Environmental Sustainability in the OECS, the International Commission for the Conservation of Atlantic Tunas (ICCAT), the Convention on the International Trade in Endangered Species, the Convention on Migratory Species, the Cartagena Convention, the Ramsar Convention on Wetlands, the Protocol Concerning Pollution from Land-Based Sources and Activities, and the United Nations Convention on the Law of the Sea.

Stakeholder Stewardship

The Conservation and Fisheries Department through its work on educating the youth about the natural environment and the importance of conserving it, has over the years seen the programme gain the support of the local community with over 50 organisations taking the Green Pledge (http://www.bvidef.org/1/). The Green Pledge Programme was launched in 2012. This is an ongoing voluntary programme in which organisations pledge to make various changes in their operations to reduce their environmental impact. The programme launch was very successful, with over 50 organisations registering in the first year. The Department is currently working on further enhancing and formalising the programme.

The Guana Island Science Programme has pioneered methods to replant broken-off pieces of elkhorn and staghorn corals. This was done in partnership with dive shops and tourists. BVI has an extensive tourism-based yachting industry, with associated anchoring and reef damage problems. The project with the dive shops not only restored coral, but also contributed towards raising awareness.

Economic Value of Sustainable Use

In 2012, a study was undertaken to understand the economic value of BVI's natural environment, the threats posed and options available for managing these threats, and to enable environmental issues to be integrated into strategic decisions.

Again in 2012, a Sustainability Network Committee was established (*The Natural Step*). A British Virgin Islands Sustainability Capacity Building Programme was initiated following *The Natural Step*. This was a joint initiative between Green VI and the BVI Government (Conservation & Fisheries Department). The Natural Step is an internationally known process for building sustainability into communities. Consultants from the Natural Step offices in Canada facilitated a series of workshops with participants from Government agencies and private agencies. Following this, the private sector implemented some of the actions identified. For instance the supermarket chains have essentially eliminated plastic grocery bags, an initiative coordinated and led by a local NGO Worldhouse Caribbean.

A further study in 2014, *The Tourism Value of Nature in the British Virgin Islands*, aimed to attach an economic value to the services provided by the natural environment of the BVI to its visitors. The study concluded that BVI's beaches are their prime ecological

asset. In addition, they indicated a willingness to pay for the management of the coral reefs for their quality to be maintained. The Ministry intends to build upon this work with a study that assesses the total economic value of the environment of the Territory.

Still to do

Develop a National Biodiversity Strategy and Action Plan.

Update, approve and implement the National Environmental Action Plan.

Approve the funding sources for the Climate Change Trust Fund.

Finalise and enact the draft Natural Resources Management and Climate Change Bill.

Develop a National Physical Development Plan.

Establish an environmental NGO on the islands of Anegada and Virgin Gorda.

Very little is known about invertebrates in BVI. This is therefore an area requiring further research.

Develop invasive species action plans for those species identified, e.g. in Environment Profiles, as a threat.

Develop biosecurity protocol.

Eradicate goats on Prickly Pear National Park, rats from the Seal Dogs (a roseate tern nesting site) and control rats at Green Cay (previously the most popular roseate tern nesting site in the BVI).

Implement formal environmental monitoring regime.

Incorporate into the protected areas system the additional areas of national significance identified under the Protected Areas System Plan 2007-2017.

Continue revision of the Protected Areas System Plan (2007-2017).

Update Protection of Endangered Animals, Plants, and Articles (Removal and Possession) Ordinance 1981.

Enact Forest Management Plan. Build capacity within restructured department responsible for environmental management to deal with the specific forestry needs.

Other proposed Ramsar Sites need to be designated and the list of proposed Sites extended in the light of further information.

In the past few years there has been an increasing trend in large coastal developments (e.g. the Mega Yacht Marina and Hotel) and it is important to make sure that any large developments such as these are following strict EIA procedures, e.g. by implementing the Regulations to go with the Physical Planning Act 2004. The NGO Virgin Islands Environmental Council has been initiating legal action to seek judicial review of Government's approval for the Beef Island Development Project.

Whilst there is not a formalised Territory-wide programme, there are a number of *ad hoc* projects to repurpose and reuse glass. Plastics, especially water -bottles, continue to be a huge problem.

One area that needs to be reinforced in the Regulations is the applicability of the EIA requirement for government-sponsored projects as well as those in the private sector.

Lack of approved water quality standards. While this affects enforcement it does not hinder the actual monitoring. The main constraints relate to resources to extend the programme.

Publish digital environmental atlas.

Re-establish a Fisheries Advisory Committee to develop the industry's infrastructure and unify local fishermen.

Implement legislated Environmental Health Standards.

Recruit and train BVI nationals in the area of Environmental Health.

Economic evaluation of marine and coastal ecosystems was carried out for marine reserve in Martinique. Complete a similar evaluation in BVI. The main aim of the project is to increase fishermen support of marine protected areas (MPAs) and to get them involved in conservation actions and sustainably using the marine resources of Caribbean MPAs.

Turks & Caicos Islands

Protected Areas

A small part of the internationally important but unprotected Salinas (salt pans) of Grand Turk (part of Red and Town Salinas at Grand Turk) and Salt Cay was listed as an additional area of historic interest in 2012. It should also be listed as a nature reserve, and extended to the rest.

The UK Government listed the "Turks and Caicos Islands" (actually Salt Cay, the small cays of the Turks and South East Caicos Banks, and parts of Grand Turk and South Caicos) on the World Heritage Tentative List under the State Party of the United Kingdom of Great Britain and Northern Ireland, for its outstanding natural value.

There have been several instances in the last few years of yachts anchoring outside of designated zones but in protected areas where this is forbidden, for which action has been taken.

Coral reef damage from yachts and large cruise ships is a familiar story in many of the Caribbean territories. There is often debate over the blame, but the damage sustained cannot be ignored, principally because this is what visitors come to see. Turks and Caicos has successfully prosecuted some of those responsible for the damage through the courts. Although coral reef damage cannot be reversed, restoration is possible and by working with non-government organisations that can focus on this, much can be achieved.

In the *Management of Protected Areas for Sustainable Economies* (MPASSE) project. TCI (as well as Cayman Islands and BVI) had the opportunity to benefit from major EU funding. The implementing body in TCI proposed to develop facilities for visitors at the following sites: Bird Rock Point, Little Water Cay, Wades Green and Cheshire Hall. The European Commission procedures, and failings in the Commission's implementation of these procedures and internal difficulties, gave major challenges to the implementing bodies and only a small part of the proposed work was achieved in TCI.

The Turks and Caicos Reef Fund (founded in 2010) are the leading non-governmental organisation for the installation and maintenance of dive boat, snorkel boat and yacht moorings throughout TCI under the terms of a Memorandum of Understanding (MOU) with the Department of Environment and Maritime Affairs. By April 2015, 62 proper sea floor anchors and mooring lines had been installed for dive boat moorings, in addition to 10 snorkel boat moorings and 5 yacht moorings. Unfortunately, in some areas moorings have been repeatedly cut free from their anchors. The Reef Fund has been replacing them but cannot do so indefinitely. The culprits and motivation remain unknown.

UKOTCF, at the request of DEMA, provided and published guidance for visiting Big Sand Cay, in an attempt to reduce unwitting damage.

Species Protection

Parts of the legal framework for species protection are in place, largely for marine and bird species, although such protections are not considered adequate. The proposed Wildlife & Biodiversity Conservation Bill would provide some greater protections, but is stalled at draft stage, due to lack of priority allocated on it by government re legal draftsman. Protection for key marine species has improved with closed seasons or bans introduced for Nassau groupers, turtles, stone crab and conch. Fishing on spawning aggregations has also been banned. The Bill, when passed, will protect endemic and threatened animals and plants, and threatened ecosystems. Recovery plans would be required for endangered and threatened species.

Originally written in 2012, a draft Endangered Species Act is under review. This would ratify and implement CITES. The draft Endangered Species Act (Trade, Collection, Removal and Transport) needs to return to the House of Assembly.

There is a gap when it comes to species action plans and also monitoring and review procedures. However, a Conservation and Management Plan (2005-2009), was produced for the Turks and Caicos Iguana *Cyclura carinata*, but implementation has been problematic.

A Caicos pine recovery programme is being undertaken by DEMA and Royal Botanic Gardens, Kew (see below).

DEMA and the local volunteer TCI Environmental Club group operate a project to rescue endemic and endangered plant species from built development activities to re-establish them elsewhere.

Fisheries Protection Amendments Regulations 2015 came into effect on 1 June 2015.

As part of the Reef Coral Preservation and Restoration Program, an 'adopt a coral' programme has been established by the Turks and Caicos Reef Fund. This allows an individual to adopt a coral reef fragment, which is cared for in a special coral nursery until it is large enough to be transferred on to one of the reefs.

Policy guidelines for the protection of humpbacks and other cetaceans are in place, but these focus on whale watching operators and vessels. The Marine Mammal Protection Ordinance was unilaterally amended by the Governor during Direct Rule to allow for the development of captive dolphin attractions; these were

previously illegal, and the laws against them were the result of a great deal of effort by several NGOs and TCIG staff over the last 20 years.

The most significant commercial fisheries stocks (e.g. Caribbean spiny lobster *Panulirus argus* and queen conch *Strombus gigas*) have suffered from severe degradation due to habitat degradation and overfishing in recent years, and it is reported that near-shore finfish stocks are also in decline. Limited steps have been taken to address this problem.

There are restrictions on where and when wild conch can be collected, although work is needed on the real impacts of this fishing. A conch visual survey was conducted in 2013-2015; however, the results of this study have not been translated into conservation initiatives, and the export quota remains unchanged for this species since 2012. The existing legislative framework for queen conch conservation is also largely biologically irrelevant and is based on now-defunct maximum sustainable yield (MSY) targets rather than comprehensive management approaches. There are National Parks where no fishing is allowed, although enforcement is an issue. Lobster fishing is regulated by size of catchable lobsters and a rigorously enforced closed season when possession of a lobster is illegal. A Caribbean spiny lobster artificial habitat project, sponsored by the FCO, trained local fisherfolk to create artificial juvenile habitat. The project was successful; however, ongoing encouragement and funding to continue the initiative is needed.

RBG Kew and FERA studied insects and fungi. Both are still underway under auspices of Caicos Pine Recovery Project, with publications coming forth when identifications are complete.

A conference to review the flora of the Bahamas archipelago was carried out in October 2012. The definitive work *Flora of the Bahama Archipelago* (1982) had significant gaps and errors. The revision is being led by Miami University of Ohio and their team visited TCI in 2012.

A JNCC-funded project was carried out to assess and monitor Nassau grouper *Epinephelus striatus* populations and spawning aggregate locations. A habitat mapping project was also funded by JNCC. The entire terrestrial area of TCI was mapped for vegetative habitats. A complete description of vegetative habitats with a numeric code was created. Unfortunately, knowledge on data manipulation and overlay with map programs is very limited within DEMA, so its use is not widespread.

A project is being carried out with funding from the Mohamed bin Zayed Species Fund. The overall aim of this project is to gather basic natural history and ecological information for the Turks Island Boa, in addition to any anthropogenic threats to the species. This information can then be considered in relation to conservation of the species. Most of the research was conducted on Ambergris. Some conservation challenges were identified in addition to long-term goals, such as getting more accurate population estimates, current range and abundance across the archipelago, and preventative measures such as invasive predator control, especially on Ambergris.

The Marine Conservation Society continues to carry out research in TCI to improve the management of the traditional turtle fishery. Satellite tracking of green *Chelonia mydas* and hawksbill turtles *Eretmochelys imbricata* is used to learn more about their movements and use of TCI's waters.

Monitoring and Baseline data

UKOTCF bird monitoring expeditions have been carried out, including for important breeding sites on outer cays. This work complements the bird monitoring programme of the Department of Environment and Maritime Affairs. Some counts have also been supported by Big Blue Unlimited and Salt Cay Divers ecotour operators.

A rapid ecological assessment and evaluation of biodiversity and ecosystem service values was conducted for East Caicos in association with RSPB. Preliminary results indicate that East Caicos is one of the most significant conservation concerns in the Caribbean Region. Further study to define rare, threatened and endangered (RTE) species population sizes and characteristics, ecosystem characteristics of coral reefs, population characteristics of migratory and RTE bird populations, characteristics of nesting sea turtle populations are needed.

Invasive species

Caicos Pine Recovery Programme

Following identification of this serious problem during a field work project by UKOTCF, Turks and Caicos conservation bodies (now led by DEMA) and Royal Botanic Gardens Kew, ran a project to look for solutions to the problem of the native pine-yards being devastated by an invasive insect. It involved various elements including: setting up and operating a pine nursery; related projects by Imperial College students for their theses; successful burns of plots in pine-yards on Middle Caicos to restore a more natural ecosystem; and other elements.

A successful burn of pilot plots was carried out in pine-yards on Middle Caicos, as part of the Caicos pine recovery programme. There were multiple reasons for the burn including to see whether there was any effect on invasive pine scale insect that was killing the trees. Note that, effects on scale insect were not the primary reason for the controlled burns; it is an ecosystem management tool. The long-term effects of the burns on the scale population will need to be monitored

Top: the Caicos Pine Recovery Programme nursery; Lower: damage to pines caused by the invasive pine scale insect. (Dr Mike Pienkowski)

over decades though. The pine tortoise scale insect is believed to have been introduced with imported Christmas trees. A few strains of the Caicos pine have shown resistance to the scale. Seedlings from surviving trees are grown at the Government Farm on North Caicos and have been transplanted back to the original environment on Pine Cay, and seem to be doing well. In 2015, a trail was opened in the Middle Caicos pine yard to provide information on the programme.

Funding for this effort ended in March 2016 and TCIG has not yet firmly responded on the request to continue funding on the programme.

Several expert groups, including the Caribbean iguana specialist group, and others, have facilitated meetings and development of plans with local partners to address the eradication of feral cats and dogs etc., but unfortunately local bodies have not been able to implement these.

Other actions carried out to address threats/issues posed by invasive species include the following:

The BEST Initiative project *Conserving Species and Sites of International Importance by the Eradication of Invasive Alien Species in the Caribbean UK Overseas Territories* is currently working in this area.

The new Department of Agriculture introduced legislation (Plant and Animal Health Bills) which outline the phytosanitary and plant health and quarantine laws for TCI, as well as those for animal imports. Although the legislation is strong, political interference with implementation is stronger.

The draft Endangered Species Act would regulate the import of invasive species.

When passed, the Wildlife and Conservation Bill will provide for improved management of invasive alien species.

Planning, EIA and Legislation

TCI has a weak development control legal framework, with EIA needed only for proposed commercial or industrial development within conservation areas. There are currently no established criteria that trigger an EIA, and no legal requirement for no net loss mitigation exists.

A stated key output of the Department of Environment and Coastal Resources Corporate Plan (2009-2010) is 'Environmentally Sustainable Development', e.g. through 'effective and active participation of DECR at all stages of development proposals'.

The Physical Planning Ordinance 1998 provides only that the Director of Planning may require environmental impact assessment or an economic feasibility study for a proposed development; it is not a general requirement. There is no current national development plan in place, and the relationship of other

legislation with the Encouragement of Development Ordinance (1998), is unclear. This Ordinance makes no reference to environmental or conservation concerns and seems to give the Governor great freedom to issue Development Orders. There is also a minimal capacity for enforcement and monitoring. There is a lack of accountability in decision-making.

Development Plan processes did require consultation and clear processes (Part IV Physical Planning Ordinance); however, the House of Assembly has recently (2015) overturned this requirement, in violation of the Environment Charter and international standards. Final approval/modification rests with Governor who has no duty to give reasoning (s23 PPO). Advertising applications is only mandatory for certain types of development; for the rest it is in the Director's discretion. Reasons for decisions need to be notified to applicants.

Regarding the ability to appeal decisions:

-There is a general right of appeal against Board decisions to the Minister, who can deal with appeal, e.g. by public inquiry, with final appeal to Governor.

-Decisions on public developments are made by the Governor and cannot be appealed.

-Decisions on industrial/commercial developments in a Conservation Area are made by Governor and cannot be appealed.

The Integrity Commission Ordinance, Procurement Ordinance and Public Service Ordinance, designed to strengthen accountability and integrity in public life, were introduced in 2012; however, the functionality of these in practice is as yet unclear.

The building code s109.5 states the need for a building permit, for which the Board may require an EIA or feasibility study. The Development Manual (2014) contains standards for the implementation of EIA studies and chapter 4 in particular focuses on ecology.

Pollution

The Marine Pollution Ordinance (2010) is there to 'protect the marine environment by minimising intentional and negligent discharges of pollutants into the marine environment'; however, this ordinance deals largely with discharges made from vessels at sea and does not regulate land-based sources of pollutants.

Climate-change, Renewable Energy and Waste Management

In 2014, the TCI joined the Carbon War Rooms Initiative, the Carbon War Rooms being an organisation which aims to support Government's long-term plan to change to renewable energy. The territory joined as part of the "Ten Island Challenge" as part of its commitment to move closer to renewable energy sources. The first specific project in TCI, which the Carbon War Rooms will advise on, is the new development at West Caicos. This major development project affecting much of a previously uninhabited island has been suspended on various occasions due the financial failure of a series of international companies.

At present, there is excessive dependence on diesel generation and monopoly constraints on generation.

Environmental Education

TCI Department of Education and UKOTCF established (initially with OTEP support) a curriculum and course development project on water. The 'Wonderful Water' project involved the development of curriculum-linked materials on the theme of water. This was targeted to upper primary and lower secondary schools, but has been found to be applicable to a wider range of age groups. The materials include information about TCI wetland ecosystems, including mangroves and subsequently a module on the theme of vital water, linked also to the wise-water-use garden project.

Luke Clerveaux from TCI undertook a placement at RBG Kew, during a scholarship to study Applied Ecology & Conservation at the University of Reading.

The TCI Environmental Club was formed by DEMA in 2010 as a possible new NGO. Regular meetings were held but no funding was allocated and already-overworked staff, of the understaffed department, were expected to work longer hours to manage the Club. With further loss of staff, this became impracticable and the Club was shifted to a Facebook Group, which has worked better. The Club still meets occasionally for plant rescues and clean-ups as well as special environmental events. Essentially, it has become a clearinghouse of TCI environmental information to raise awareness and recruit volunteers.

The Turks and Caicos Reef Fund has a Reef Action Team which works with a teacher at the British West Indies Collegiate to help introduce middle and high school children to the marine world. Last period each Friday is devoted to special "clubs", which the students choose to participate in. The Reef Action Team meet and snorkel, do beach clean-ups, scuba dive, and conduct various other activities to increase knowledge and appreciation for the TCI marine environment.

The Turks and Caicos National Museum botanic garden on Grand Turk is used by residents, local schools and cruise ship visitors. The garden showcases a variety of native plants as well as those brought in by settlers. The TC National Museum is also proceeding with phase 2 of development of the botanic garden, with the aims of encouraging greater involvement of the local community, especially children, and demonstrating that fruit, vegetables and herbs can be grown locally. Phase 2 was completed; unfortunately severe drought and several westerly storms have had devastating effects on this part of the garden. The Botanical and Cultural Garden has bounced back due to a higher amount of rain since November 2015. Most of the fruit trees were

lost, so those need to be replaced. Three trees were lost - only the pomegranate survived the drought, and then westerlies that caused salt damage. The trees will be replaced in the autumn 2016, when the weather is milder. There is also additional signage that needs to be placed within the garden, but funds are limited, so they have not been put in the garden.

Furthermore, UKOTCF and TCI National Museum opened a Wise-Water-Use Garden on Provo in June 2014. The project aims to help TCI decrease dependence on water that is produced by expensive and environmentally costly diesel-powered desalination and promote awareness of the environment, as well as to use local traditional plants and methods to make the best use of this water. The new wise-water-use garden demonstrates rainwater harvesting from roofs, garden irrigation and use of native and other medicinal plants adapted to local conditions. This project is linked to the 'Wonderful Water' curriculum and course.

The Turks & Caicos National Museum replicated a section of the reef "wall", allowing non-diving visitors to experience the reef, and giving diving visitors a new perspective.

In 2013-4, TCNM and UKOTCF produced a set of booklets for: Providenciales, North & Middle Caicos, Grand Turk, Salt Cay and South Caicos. Launched in 2014, they describe where to watch birds, with some driven and walked trails, and view some of the other heritage features. Support for the production of these guides was sought from local businesses, who help sell them and create a market for low-impact ecotourism activities which they can also benefit from and hence generate more support for conservation.

In 2014, the *Caicos Pine Recovery Project* with DEMA and RBG Kew completed the Native Plant Garden in the Kew Settlement Government Offices compound, having removed several dead, damaged, or invasive trees and replaced them with marked native plants including the three National Plant Symbols of TCI.

In 2014, the *Caicos Pine Recovery Project* with DEMA and RBG Kew completed the trail into the Diamond Jubilee Pineyard on Pine Cay, a restored habitat planted with nursery-grown pine and interpreted with signage.

In December 2015, the *Caicos Pine Recovery Project* with DEMA and RBG Kew officially opened the Caicos Pineyard Trail: National Tree Ramble in Middle Caicos. This trail will allow for public, student, and eco-tour visits to the pineyards to see the National Tree in its natural habitat. It is fully interpreted and marked.

UKOTCF has produced a series of Virtual Tours of the UKOTs. These are available on the UKOTCF website and aim to increase awareness of the UKOTs and their natural heritage. A Virtual Tour has been created for TCI.

International Agreements

TCI is included in the UK's ratification of the Ramsar Convention and Convention on Migratory Species. All but one of the proposed Ramsar Sites still require designation.

When passed, the Wildlife and Conservation Bill will implement a number of international conventions.

CITES and CBD still need extending to TCI.

Stakeholder Stewardship

Turks and Caicos National Museum and UKOTCF established a series of bird watching trails on Grand Turk with marker signs linked to interpretive cards. They also provided training for local people to benefit from this facility. Any money raised by marketing the tours and the guide cards would be used to maintain the trails and re-stock trail cards. DEMA, the TC Reef Fund and UKOTCF have explored also other initiatives.

Economic Value of Sustainable Use

Through the *Greening the Economy* project, in 2014 an action plan review was developed which identified actions needed on priorities for establishing TCI as a Green Economy following consultations in TCI. Funding for implementation of the action plan is needed.

Still to do

Continue to implement the strategy prepared for the implementation of the Environment Charters and review and revise if necessary.

DEMA to obtain resources in order to expand and meet the level of enforcement responsibilities required.

The Department of Environment and Coastal Resources/Department of Environment and Maritime Affairs Corporate Plan is still updated each year, but it is more protocol than substance.

Pass the draft Wildlife and Biodiversity Conservation Bill and the draft Endangered Species Act.

Establish a Scientific Authority and National Biodiversity Committee.

Establish a sustainable funding mechanism for conservation.

Build capacity and sustainable funding mechanisms into the Turks and Caicos Reef Fund (TCI's only locally based environmental conservation NGO).

The illegal clearance of land for development prior to Planning Permission being granted must be addressed. It would help if fines were levied against heavy equipment operators and contractors who do the clearing, as well as landowners.

Take account of wide consultation and incorporate in the proposed Protected Areas Act.

Establish further Protected Areas and expand existing Protected Areas that are currently under review.

List all Salinas (salt pans) and estuarine and palustrine wetland mosaics of Grand Turk, Salt Cay and South Caicos as Nature Reserves.

Only three Protected Areas have Management Plans (Princess Alexandra National Park, Columbus Landfall National Park and West Caicos National Park), plus another with a Plan in a different form (Ramsar site & surroundings). Management Plans for all protected areas need to be produced, and existing plans updated, implemented and monitored. Obtain funds and other resources to do this.

Obtain additional resources to carry out implementation effectively.

Designate further Ramsar Sites, Important Birds Areas, Important Plant Areas (including Tropical Important Plant areas) and Key Biodiversity Areas.

Carry out appropriate planning control and EIA procedures for all lands, particularly with regard to allowing development on Protected Areas.

Develop a national EIA policy. EIA and development policies must involve openness and best international practice, and include a requirement of EIA for all government-backed developments.

Develop safeguards to prevent spillage at the fuel station that has been established on land infilled in Red Salina, Grand Turk.

Develop a comprehensive national sustainable development plan, which includes quantitative environmental evaluations of all upland, wetland and marine ecosystems, with appropriate, enforceable planning for sustainable development and use. It needs to include a strong framework outlining political accountability, appeals procedures, public consultation and enforcement and monitoring procedures.

Create and implement sustainable invasive species action plans to address each invasive species. Prioritise the creation of the action plans according to impact of the species.

Further research needed into the impact of some invasive species.

Put in place effective arrangements for restriction of live material, inspection and quarantine.

Conduct quantitative ecological assessment of all underwater ecological assets in order to establish conservation priorities.

Establish landscape-level management priorities.

Develop and implement watershed management plans.

Species and ecosystem-level conservation action plans should be produced. A list should be drawn up prioritising conservation targets.

Develop a framework for the monitoring and review of species/recovery action plans.

The population size and characteristics of many of TCI's Rare, Threatened and Endangered (RTE) species is unknown, making conservation prioritization difficult. Quantitative assessment of TCI's RTE species populations therefore needs to be conducted.

Further study is needed also to define ecosystem characteristics of coral reefs, population characteristics of migratory and RTE bird populations and the characteristics of nesting sea turtle populations.

A proposal developed by DEMA, UKOTCF and local commercial organisations working on a non-profit basis was to safeguard native tropical dry forest from illegal clearance for charcoal making by replacing this supply with wood from alien invasive species thereby also providing a control measure for the latter. Unfortunately, funding bodies have not been attracted to enable start-up funding to allow this project to move rapidly to a self-funding basis. Therefore, resourcing is still sought to start the programme.

Implement the water quality standards that have been established.

The Encouragement of Development Ordinance (1998) needs to be updated to include provisions for the environment/conservation.

Moorings have been installed but in some areas they have been repeatedly cut free from their anchors. The culprits and motivation for this action remain to be determined.

The new Ordinances designed to strengthen accountability and integrity in public life need to be effectively implemented, monitored and reviewed.

Funding for implementation of the *Greening the Economy* action plan is needed.

Tourism strategies should include provisions for the environment/conservation.

Strengthen regulation of sand mining.

A renewable energy strategy needs to be drawn up.

Pass the energy conservation policy.

The Minerals (Exploration and Exploitation) Ordinance (revised edition 2009) needs to be updated to consider EIA, sustainability and biodiversity concerns.

Establish a biologically relevant, comprehensive management approach legislative framework for sustainable management of fisheries species.

Obtain funding to continue the spiny lobster artificial habitat project.

Work is needed to assess the real impact of fishing on current conch stocks and to re-assess current conch status.

Resources needed for proper patrolling for national parks.

Reinstitute the Blue Flag rating system for beaches (although this rating is largely symbolic.) Actual watershed management plans would have a greater real impact on coastal water quality.

The Marine Mammal Protection Ordinance must be updated to reverse the legalisation of captive dolphin attractions.

Pass the draft Fisheries Act.

Introduce cetaceans and sharks reserve throughout TCI waters, including the Mouchoir Bank, and link to those of neighbouring countries.

The UK Government should take seriously its obligation to safeguard the national security of TCI's territorial waters. UK Coast Guard presence should be continuous, with training opportunities for DEMA and the Marine Branch of the Royal Police Force.

Complete and implement Agricultural Policy.

CITES and CBD still need extending to TCI.

Areas that need further research include the following:

- Cave ecosystems have not been studied extensively, but studies have discovered endemic invertebrates.

-The dry tropical forest ecosystem has not been studied extensively. Studies that have been done indicate that there will be many endemic invertebrates. This is one of the most threatened habitats in the world.

Develop air quality standards and a strategy for monitoring emissions.

Make the rare best practice in pursuing criminal and civil cases against polluters and others damaging the environment normal practice.

Develop and implement a legislative framework for land-based pollutant sources.

Develop and implement an environmental adaptation to climate change plan.

Explorations are needed to re-establish the work on trails, visitors centre, facilities for visiting scientists, facilities for local schools, training of local personnel and other material developed by UKOTCF and TCNT, but not maintained by local partners .

Development of further modules of *Wonderful Water*.

Find resources to expand TCI Environmental Club.

Restore TC National Museum botanic garden. Replace the fruit trees that were lost. Obtain funding to put up additional signage in the botanical garden.

Make environmental curriculum mandatory in the public and private schools at all levels.

Strengthen agricultural legislation to protect local crop varieties.

Encourage commercial ventures for development of landscaping applications for native floral species.

Develop and implement sustainable policy to encourage commercial aquaculture.

Update policies to facilitate the management of restricted fund projects.

Follow-up conclusions from November 2014 *Greening the Economy* workshop, including:

-Increasing stakeholder participation and community involvement to influence key decisions

-Embedding and establishing a green economy/ sustainability ethos in government and across sectors

-Staying engaged and drawing in others to maintain momentum

-Developing a new environmental professional and independent NGO.

Cayman Islands

Conservation Law and expansion of marine and terrestrial protected areas

The National Conservation Council was established by and to facilitate the goals of the National Conservation Law. Many of the activities carried out under the Law – issuing permits, species protection rules, national parks and other protected areas - will be conducted under the auspices, direction or permission of the National Conservation Council.

There are tremendous pressures on the natural environment in Cayman. The very existence of the Council is an achievement as it represents the interests of the natural environment.

The expansion of current protected areas to cover 40-50% of Cayman's marine habitats has been put forward by the Department of Environment to the National Conservation Council and a public consultation has been conducted. In the terrestrial environment, protected areas have been established for prime habitat for the blue iguana, which has (as well as enormous efforts by dedicated conservationists) seen its IUCN status go from Critically Endangered to Endangered.

Protected Areas

A review of the Marine Parks System has been completed and an enhanced system of marine parks has been developed which, if approved, will put between 40 and 50% of Cayman's shelf area under protection in 'no-take' reserves. The proposals for an enhanced system of marine parks went out for another round of public consultation which ended on 18 December 2015. The DoE amended its proposals based on public input and these amended proposals were approved by the NCC for onward transmission to Cabinet who have the final decision to approve them.

Expansion of Salinas reserve and Colliers Wilderness Reserve key habitat for Blue Iguanas.

The National Trust lands, in addition to the Cayman Islands Government's Animal Sanctuaries, bring terrestrial protection to approximately 5% of the total land mass including the purchase of one of the few remaining wetlands in Cayman Brac, The Marshes, which consists of 10 acres of wetland on the south side of Cayman Brac.

Grand Cayman blue iguana (F.J. Burton, Blue Iguana Recovery Programme)

Species Protection

In 2013, the National Conservation Law was passed. Under Schedule 1 which lists all protected species, conservation plans are required. Through the National Biodiversity Action Plan, Species Action Plans have been produced for 42 species and Habitat Action Plans have been produced for marine, shoreline and terrestrial habitats.

There has been a change in status for several species:

- In October 2012, the IUCN status for the Cayman blue iguana *Cyclura lewisi* was improved from Critically Endangered to Endangered, thanks to the efforts of the Blue Iguana Recovery Programme.

- The brown bat is present in 2 sub-species. Based upon smaller size and darker colour fur, Grand Cayman brown bat is considered to be an endemic sub-species but has not yet been named.

- A paper published in the Bulletin of the British Ornithologists' Club journal has proposed that the bullfinch native to Grand Cayman and Cuba, be recognised as 2 endemic species (The Cuban bullfinch on Cuba and Taylor's bullfinch *Melopyrrha taylori* on Grand Cayman).

Stingray Legislation: In 2012 the Marine Conservation Law was amended to provide total protection for three species of elasmobranchs deemed locally important for the tourism industry; (i) southern stingray *Dasyatis americana*, (ii) manta ray *Manta birostris*, and (iii) eagle ray *Aetobatus narinari*. Note: the Marine Conservation Law (2013 revision) is repealed under the National Conservation Law.

The Central Caribbean Marine Institute (CCMI) and DoE established a pilot coral nursery in 2012, the management of which served as the basis for the Coral Nursery Policy. Installation of coral nurseries and subsequent out-planting to natural reefs will help propagate and restore the endangered staghorn

Acropora cervicornis and elkhorn *A. palmata* corals.

Monitoring and Baseline data

The DoE has monitoring programmes in place and these are widely reported. Data are used to support legislative and policy recommendations.

The first step in the development of the National Biodiversity Action Plan (NBAP) for the Cayman Islands was the gathering together of existing information on the island's species and habitats, towards establishing baseline information on the status of the country's biodiversity, and determining key areas requiring action.

The National Trust of the Cayman Islands operates the Cayman Islands only herbarium, available internationally in digital form online. It also maintains an insectarium that includes both historic and recent collections.

Botanists have catalogued most of the wild plants of the Cayman Islands.

A Shark and Cetacean Project funded through OTEP investigated both the status and value of sharks and rays (elasmobranchs), and of whales and dolphins (cetaceans) in Cayman waters. Information outlining the results was produced for the public.

Field research (including tracking movements), captive breeding, public education, habitat protection and reintroductions continue through *Blue Iguana Recovery Programme.*

Triennial censuses of parrots are carried out on both Grand Cayman *Amazona leucocephala caymanensis a*nd Cayman Brac *Amazona leucocephala hesterna* Grand Cayman parrot by the National Trust with the help of Cayman Islands Bird Club. Both populations, which are endemic subspecies, appear to be stable for the time being.

A marine turtle monitoring programme has been carried out since 1998. The DoE also monitors and manages one of the largest populations of spawning Nassau groupers *Epinephelus striatus* remaining in the Caribbean.

Queen Conch *Strombus gigas* populations are monitored.

CCMI maintains a Coral Reef Early Warning System (CREWS) buoy in Little Cayman, one of four in the Caribbean which monitors environmental conditions which may cause wide-scale coral bleaching and issues alerts to the scientific community. CCMI also conducts field research related to biodiversity and conservation, shares its results with DoE, publishes in peer-reviewed journals, presents at scientific conferences, and disseminates its work to the general public through its outreach and education programs.

Invasive Species

Invasive Coastal Plants have a Habitat Action Plan.

The RSPB study *Eradication of invasive alien vertebrates in the UK Overseas Territories*, provided one strategic assessment to rank all of the UKOTs' islands according to the greatest biodiversity benefit resulting from technically feasible invasive vertebrate eradications (IAV). In the study, Cayman Brac was ranked 3rd, Grand Cayman 5th and Little Cayman 6th for Potential Conservation Value. For Actual Conservation Value, Little Cayman was ranked 3rd out of the top 25 islands for IAV eradication. Key IAV species on Little Cayman are the feral cat, dog, black rat, and green iguana. Note that this project does not list all current key IAV species, e.g. it does not include lionfish.

There is a Species Action Plan for lionfish. Various lionfish control efforts have been put in place, e.g. the DoE is continuing work with the Reef Environmental Education Foundation (REEF) to develop more effective methods of control.

There are threats to native species from green iguanas and lionfish. Additional non-natives include red corn snake, Brazilian pepper and Lobate Lac scale-insect.

Planning, EIA and Legislation

Section 43 under the NCL outlines the framework regarding EIA procedures. The National Conservation Council may require an environmental impact assessment to be carried out for a proposed action. Section 43 also states that all documents relating to an environmental impact assessment shall be available for public inspection and review. Regarding EIA, the DoE would not have control over the EIA process. However, they have produced a standard recommendation document based on currently recommended EIA processes.

There is the continued use and development of environmentally relevant GIS layers for the review of planning applications.

The NCL promotes a more open and transparent decision making process, e.g. the National Conservation Council shall meet in a place open to the public, adopted conservation plans will be published in the Gazette, etc. The public will be invited also to contribute to policy development. For example, before submitting a recommendation to the Cabinet to designate a protected area, the Council shall publish a notice of the proposal in at least two issues of a public newspaper in the Islands in each of two consecutive weeks, and take into account any written objection or representation. The Government's national environmental policy will also take into account the need to simplify and streamline decision-making procedures and to make them comprehensible and, whenever possible, open to the public.

Pollution

The Port Authority has a Zero Discharge Policy for all shipping. There is a Water Quality Monitoring Programme for North Sound and George Town Harbour.

Public moorings are located around each of the Islands to reduce anchor damage to coral. It is an offence to anchor so as to damage coral anywhere in Cayman waters.

There have been several instances in the last few years of yachts anchoring outside of designated zones, for which action has been taken.

Climate-change, Renewable Energy and Waste Management

Aluminium recycling is available in the Cayman Islands. Cayman BECOME supports this through their Corporate Green Team Network (CGTN) which have been recycling cans within their businesses.

A paper has been completed which formed the basis for the development of a draft Climate Policy by the joint public/private sector Climate Change Working Group.

Renewable energy components and materials remain "duty-free" as an incentive for private and commercial uptake of renewable energy technology. A National Energy Policy has been developed, one goal of which is to increase environmental sustainability. The draft Energy Policy (2013) is being revised and a committee has recently been established to drive this forward.

Following discussions with Cayman Islands Government and power provider Caribbean Utilities Company Ltd, a private company, OTEC International, is set to commence an EIA for a project that proposes the phased implementation of 25mW of power, produced through ocean thermal energy conversion technology. The proposed first phase is a 6.25 mW floating power platform with an anticipated operational date of 2017.

The major supermarkets in the Cayman Islands are working with the Corporate Green Team Network to reduce single-use plastic bag waste by gradually replacing single-use plastic bags with biodegradable alternatives, and at the same time supporting the Network in their campaign to encourage the community to bring their own reusable bags when they shop.

Environmental Education

Work funded by grants from Disney Wildlife Conservation Fund and Deutsche Offshore (Cayman) includes the development of a series of school curriculum modules surrounding the blue iguana. These will illustrate concepts of endangerment, extinction and conservation management. The production of a professional quality documentary film about the blue iguana, is also well on its way to completion.

The National Trust has provided teacher resources tailored to the National Curriculum, e.g. "National Symbols" and "Mangroves" education packs, which together with Department of Environment's "Coral Reefs" resources, now make up a substantial resource set for local teachers.

DoE and National Trust public education programmes include DoE local TV network 'Environment Break', school visits, targeted campaigns, social media, websites and newsletters. There is ongoing public education surrounding the red lionfish, as well as the Grouper Moon project, sharks, and stingrays.

The National Trust's Heritage Heroes Youth Conservation Club (sponsored by PwC) teaches students the importance of protecting the natural environment, history and culture of the Cayman Islands.

The Ramsar approach to 'Wise Use' in the case of Little Cayman's Booby Pond and Rookery includes facilitating visitor access at selected areas in the form of observation towers on the pond's periphery for people to watch birds come in to roost.

The National Trust runs a Summer Camp which includes activities to expand the camper's knowledge of Cayman's natural and cultural heritage. Thanks to a new collaboration with the DoE, two valuable educational components were added to the 2014 programme. Campers were taught the importance of conducting reef surveys and were given the opportunity to survey a Marine Park. The DoE also invited campers to observe and record information about a recently hatched turtle nest.

CCMI offers 3-day Marine Ecology Courses to grades 4-12 whereby Caymanian students stay at the field station on Little Cayman and learn about the environment. CCMI also runs a week-long Caribbean Marine Ecology Camp for teens and a Young Environmental Leadership Course (Year 11) for students who may pursue careers in water-sports, tourism, or other marine- and environment-based jobs. CCMI has citizen science programs through Earthwatch whereby the general public can participate in research activities related to coral reef ecosystems.

Strong elements of the EU-supported (and UKOTCF-facilitated) MPASSE project (*Management of Protected Areas to Support Sustainable Economies*) were concerned with environmental education.

International Agreements

The NCL 2013 is stated as being "a law to give effect to the provisions of the Protocol concerning Specially Protected Areas and Wildlife to the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region; to give effect to related provisions of the Convention on Wetlands of International Importance especially as

waterfowl habitat, the Convention on the Conservation of Migratory Species of Wild Animals, the Global Convention on Biological Diversity and the United Nations Framework Convention on Climate Change". Cayman is included in UK's ratification of these and also included in the UK's ratification of CITES.

Stakeholder Stewardship

The Governor's Conservation Awards (started in 2012) include a Corporate Conservation Award and a Tourism Conservation Award.

The DoE, working with interested members of the private sector, formed the Corporate Green Team Network in 2009. Together they started the Cayman BECOME initiative, encouraging Cayman to become more environmentally aware both corporately and individually. Cayman BECOME promotes a "green" lifestyle and partnerships with the Corporate Green Team Network (CGTN) and their many initiatives, which include becoming a 'smarter consumer', 'eco-friendly', and becoming 'green'.

The Cayman SeaSense is a sustainable seafood education programme for helping restaurants and their customers make informed seafood choices that are positive for the environment. The project helps local chefs and restaurant owners reduce the number of non-sustainable food items on the menu.

CCMI is sharing the lessons learned from the pilot programme with the five dive operators who have been granted provisional approval to install nurseries on Grand Cayman and Cayman Brac. Installation of coral nurseries and subsequent out-planting to natural reefs will help propagate and restore the endangered staghorn *Acropora cervicornis* and elkhorn *A. palmata* corals.

Still to do

Set up system to monitor whether National Conservation Law (2013) is being adhered to.

Monitor where money from the Environmental Protection Fund is going.

Revise the National Sustainable Development Framework and have Government endorse it.

Revise the Development Plan for Grand Cayman and create Development Plans for the Sister Islands.

Set up system to monitor whether National Environmental Framework Policy (2002) is being adhered to.

Set up system to ensure that environmental strategies under Vision 2008 are adhered to.

Commence Parts 5 and 7 of the NCL.

Designate Barkers area as a National Park.

Continue acquiring environmentally-important areas of land in Reserves.

Develop further invasive Species Action Plans based on priorities that have been identified.

Implement the Endangered Species Trade and Transport Law (2004).

Need project to investigate further the feasibility of eradicating key IAV species on Little Cayman.

IAV control programmes for the Cayman Islands where complete eradication is unfeasible, e.g. Cayman Brac and Grand Cayman.

Further research into impact of invasive green iguanas on native biodiversity and prevent further establishment on Cayman Brac and Little Cayman.

Research into impact of red corn-snakes on native fauna and programme to prevent further spread.

Research into Brazilian pepper and programme to prevent further spread.

Enact legislation to prevent de-designation of Animal Sanctuaries.

Achieve Ramsar designation for the proposed sites.

Approve enhanced system of marine parks.

Complete management plans for each protected area.

Complete conservation plans for each protected species whose range includes the Cayman Islands.

Designate further protected areas according to National Trust Report that was carried out and which investigated potential protected areas in the Cayman Islands.

Adopt Climate-Change Policy.

Finish revising and adopt the draft Energy Policy (2013).

Produce framework to monitor whether National Energy Policy is being adhered to.

Framework to monitor whether EIA procedures outlined under the National Conservation Law are being adhered to.

Complete school curriculum modules and documentary about blue iguana.

Keep extending educational resources for schools-design new education packs etc.

Implement more environmental awareness-raising activities for adults.

Monitor fish overspill from MPAs.

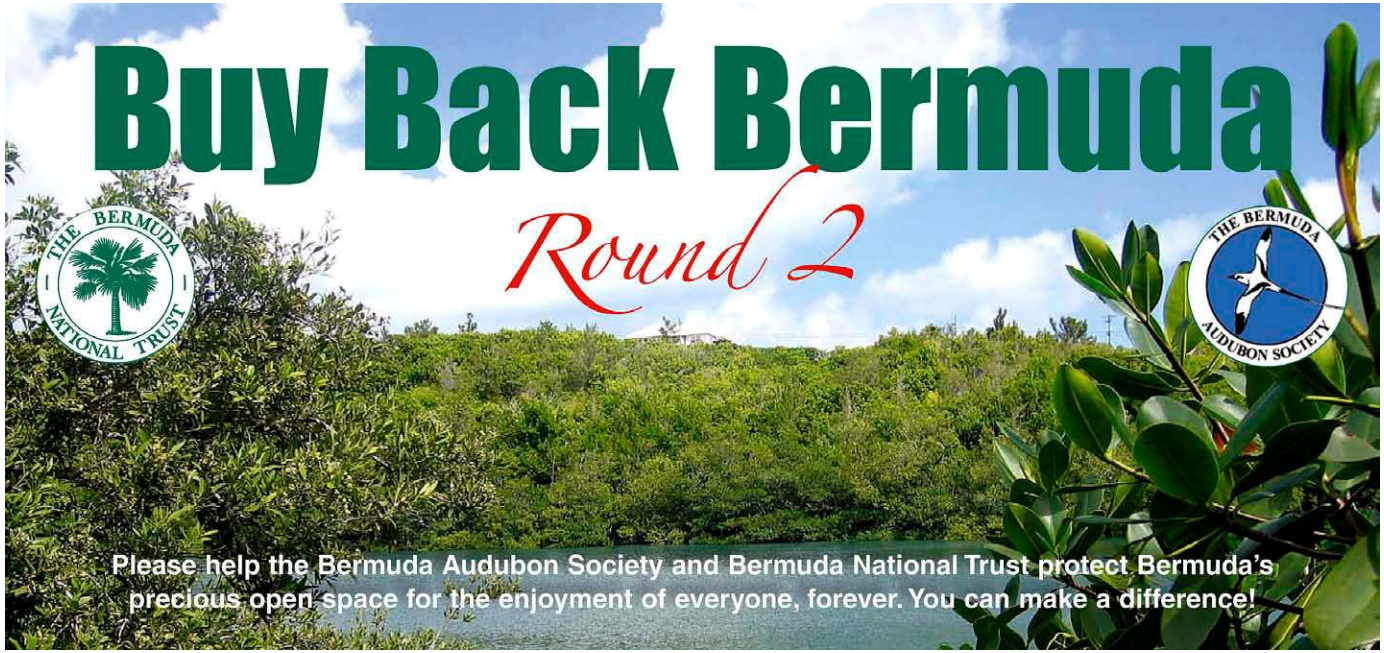
Bermuda

Protected Areas

Champions of the environment: Ombudsman & Buy Back Bermuda

Buy Back Bermuda was envisaged as a way of ensuring green spaces, particularly wetland habitat, could be protected in perpetuity for the people of Bermuda as places to educate and enjoy the outdoors. *Buy Back Bermuda* is a community-wide fundraising campaign to purchase and save open space in Bermuda. A joint initiative of the Bermuda National Trust and the Bermuda Audubon Society, it has raised $4.2 million since the beginning of the campaign and is ensuring the conservation of 14 acres of open space in total. This includes Somerset Long Bay Nature Reserve (opened in 2007), Vesey Nature Reserve in Southampton (2007) and Eve's Pond, Hamilton Parish (2012).

In 2010, the Bermuda Government granted a Special Development Order for development at Tucker's Point, a protected woodland and open space of cultural and historical interest, saying that it was in the national interest as the resort is important to Bermuda's tourism product. In 2011, The Bermuda Ombudsman published a report, which looked at the legal status of the Environment Charters. The report states that, by signing the Environment Charters in 2001, Bermuda is legally obliged to conduct Environmental Impact Assessments (EIAs), with public consultation, prior to approving developments that are likely to have an adverse impact on the environment. Furthermore, Bermuda's obligations are also reinforced by other commitments made under the UK Environment Charter and Rio Declaration, responsibilities imposed by the Convention on Biological Diversity, common law doctrine of legitimate expectation, recent case-law and international best practices.



Buy Back Bermuda poster – Bermuda National Trust and Bermuda Audubon Society

Following several challenges from Bermuda Government and responses by the Ombudsman, the Supreme Court of Bermuda, ruled that domestic legislation and policies should be consistent with treaty obligations and general international law. Accordingly, future Development Plans should abandon the notion of discretionary rather than mandatory EIA. No reasons had been advanced to depart from general international law, Charter obligations and global best practice.

At present Bermuda has no marine parks under the Parks Act, but this is set to happen in an upcoming revision.

In 2013, a consultation document produced by the Ministry of Environment and Planning *Bermuda's Exclusive Economic Zone and its Future (2013)*, sought residents' views on the possibility of creating a large marine reserve in offshore waters around Bermuda. This document outlined the threats to the Sargasso Sea, e.g. the impacts of fishing and over-fishing. The consultation resulted in significant participation from the public who expressed support for establishing a marine reserve as well as strong support for more information that explored and evaluated the economic potential of various proposals. Interests stretched from "protect and preserve" as much of the asset as practical to "fully explore" the commercial value of the resources within the EEZ.

Currently the four major options available for Bermuda's consideration on the EEZ's future are: (i) establish a large no-take marine reserve in about 80% of the EEZ; (ii) pursue an offshore commercial fishery; (iii) explore the seabed for precious minerals; and (iv) extract precious minerals from the seabed. However, there are no sound economic profiles available for

any of these options and thus the evidence base for future decision on any of them does not exist. A comprehensive economic analysis of each should be the next step and the outcome of that work should form the basis of the second phase of stakeholder consultation.

On 11 March 2014, Governments from across the world travelled to Bermuda to sign the Hamilton Declaration on the Collaboration for the Conservation of the Sargasso Sea. The March Meeting was spearheaded by the Government of Bermuda, which leads the Sargasso Sea Alliance. It is a non-binding political statement that indicates signatories' interest in voluntarily collaborating on efforts to conserve the Sargasso Sea.

The Sargasso Sea Alliance (SSA) was founded in 2010. It is led by the Government of Bermuda and aims to find protection measures for this open ocean ecosystem through the bodies which already have regulatory authority for areas beyond national jurisdiction. These bodies include the International Seabed Authority, International Maritime Organization, the regional fisheries bodies and the Convention on Migratory Species.

Several Ramsar Sites have been designated and more proposed.

Species Conservation

The Protected Species Act 2003 provides for the protection and recovery of threatened species. There has since been Protected Species Orders 2012 and 2016. The Protected Species Act gives the power to make orders declaring any species of plant or animal to be a protected species, based on the IUCN Red List classifications. It also provides for review of classifications. In 2015, the new Protected Species Order proposed to add the following as protected species: Kemp Ridley turtle *Lepidochelys kempii* (N)(CR) and Bermuda land snail *Poecilozonites bermudensis* (E)(CR) as well as some other additions and reclassifications.

A management plan has been produced for Bermuda's resident green *Chelonia mydas* and hawksbill *Eretmochelys imbricata* sea turtles.

There are additional recovery and management plans which have been published for the following, as well as two that are in final draft versions:

- Management Plan for Bermuda's Critically Endangered Cave Fauna
- Diamondback Terrapin *Malaclemys terrapin* Recovery Plan
- Killifish *Fundulus bermudae* Recovery Plan
- Bermuda Land Snail *Poecilozonites circumfirmatus* Recovery Plan
- Fern Recovery Plan (six fern species included Governor Laffan's fern *Diplazium laffanianum*, Bermuda shield fern *Goniopteris bermudiana*, Bermuda cave fern *Ctenitis sloanei*, long spleenwort *Asplenium heterochroum*, toothed spleenwort *Asplenium dentatum*, ten-day or leatherleaf fern *Rumohra adiantiformis*)
- Skink *Plestiodon longirostris* Recovery Plan
- Flowering Plants Recovery Plan
- Queen Conch *Strombus gigas* Recovery Plan
- Cahow *Pterodroma cahow* Recovery Plan
- Yellow Wood *Zanthoxylum flavum* Recovery Plan (draft)
- Seahorse Recovery Plan (draft) (2 species longsnout seahorse *Hippocampus reidi* and lined seahorse *H. erectus*; 1 other presumed locally extinct).

Monitoring and Baseline data

There is a long-term *Cahow Recovery Programme* for the critically endangered cahow.

Following the natural re-colonisation of Southampton Island by the cahow (after assisted recolonisation of Nonsuch Island), future plans for the newly established colony include monitoring and attempts to catch and band the adult cahows nesting there. New artificial nest-burrows were also installed close to the existing nest-sites.

The primary goal of the *Bermuda Benthic Habitat Mapping, Monitoring and Assessment Programme* (BMMAP) is to obtain data that allow the recognition of, and possible causal association of, any ongoing changes in the benthic environment. Approximately 170 sites across the Bermuda Platform will be surveyed each summer for 5 years and then, in Year 6, sites from year 1 will be re-surveyed. Initial surveys were conducted in 2006, 2007 and 2008 and then the sites were resurveyed in 2012, 2013 and 2014. The results from the initial surveys have been published. The project allows the relative suitability of Bermuda's coastal areas for marinas, in terms of benthic composition and diversity, to be determined.

Sea-grass monitoring studies are being carried out. This involves a quarterly programme at 17 permanent sites. A study was also carried out with a focus on the damaging effects that old chain moorings could have on sea-grass growth.

A lot of ground work has been done on collecting data during the past decade, especially for endemic and native species (e.g. skink, killifishes, diamondback terrapin, sea turtles, land snails, marine snails, cahow, tropic-bird). Gathering baseline data is usually included in protected species recovery plans – however this is narrowly focused on one or just a few species (e.g. mapping of endemic plants has been ongoing

since 2013). Gathering of baseline data, like species lists, is also called for in some of the nature reserve management plans – but again, narrowly focused on one site.

Bermuda is in the process of making the biodiversity database of the Natural History Museum publically accessible through an online web portal.

Invasive Species

Currently, there is no legislation to deal with IAS once they have made it on to the island.

There are various on-going invasive species management programmes:

- Invasive bird control for feral pigeons, chickens and crows.
- Trapping of red-eared slider terrapins.
- Culling of lionfish. As the numbers of lionfish are growing, a new campaign has been set up which uses lionfish as a food fish. Note that this is more of a recreational fishery rather than a commercial one. The campaign licenses people to spear lionfish for their own use, and there is presently a pilot programme in which a limited number of recreational lionfish cullers have been permitted to sell their catch to restaurants and foodmarkets. The fish vendors have been selling lionfish as they get it from the cullers; typically as a 'special of the day'. The Bermuda Zoological Society was also awarded a Darwin Plus grant for a Bermuda Invasive Lionfish Control Initiative.
- The Vector Control section of the Department of Environmental Health undertakes control of mosquitoes and rats.
- The Department of Conservation Services controls rats in critical habitats, such as the cahow nesting islands.
- Invasive plants are continuously removed from Nature Reserves by the Terrestrial Conservation Crew, within the Department of Conservation Services.
- There is a Feral Chicken Management Plan 2013

Planning, EIA and Legislation

There is an obligation to conduct EIAs for development proposals that are "major" or "likely to have significant adverse effect on the environment". Bermuda has an international treaty obligation through the Environment Charters to require EIA for major development projects. Furthermore, EIA is now general international law. Domestic legislation (such as the 2008 Bermuda Plan) must therefore be consistent with these two sources of international legal obligations to require EIA. Significant changes were made following challenges to the Tucker's Point Special Development Order. It is at this point that it was decided that the Bermuda Environment Charter was a bilateral agreement creating an international legal obligation on the part of Bermuda. As well as the Bermuda Plan 2008, a City of Hamilton Plan 2001 was produced through a consultative process.

Special Development Orders also have no EIA requirement and substitute the Minister's discretion for compliance with the Bermuda Plan. Special Development Orders do not require public notice/ allow appeals (other than judicial).

A *Bermuda Marine Enhancement Structure Policy: Position Statement and Evaluation Guidelines* document was produced in February 2014. Its purpose is to guide the evaluation of marine habitat enhancement structure proposals, so that any such structure will enhance marine resources and recreational uses of Bermuda's platform and surrounding seamounts, without adversely affecting natural resources or impeding other beneficial uses. This policy is relevant to all seamounts within the 200nm limit of Bermuda's EEZ. The socio-economic and environmental costs are considered for proposals for marine habitat enhancement structures. Examples of the costs considered are: the primary objectives of the proposal including the target species for the habitat enhancement structure, site survey of proposed site including ecological communities and processes, biodiversity and threatened species and an environmental management plan that addresses environmental risk assessment, stakeholder needs, deployment and potential for decommissioning.

Bermuda has Fisheries Regulations 2010.

The Protected Species Act includes protection for endangered species and their habitats. Recovery or Management Plans need to be prepared for species listed under this Act, and a number of these have been done since 2007. The last update to this Act was in 2016, which included a review of the species list.

Environmental legislation in Bermuda allows the use of private acts to foster conservation of privately held land "in trust" for use by future Bermudians. The main examples of this form of legislative tool are the Walsingham Trust Act, the Bermuda Audubon Society Act, the Heydon Trust Act, and the Bermuda National Trust Act. Other than the Bermuda Government, the Bermuda National Trust is the largest owner of land and open spaces in the territory. This demonstrates the success of this conservation mechanism. Between them, the Bermuda Government, the Bermuda National Trust and the Bermuda Audubon Society are the principal nature reserve owners on the island.

Pollution

The Water Resource Act 1975 prohibits the interference or pollution of any public freshwater or seawater body, with penalties of up to $10,000 for infractions.

The Marine and Ports Authority (Berthing & Anchoring) Regulations 1967 prohibits the depositing or throwing of any ballast, rubbish or filthy water into waters of the harbour or near to the foreshore and the building of any wharf, pier, jetty or other structure below the high water mark of the harbours of Bermuda without permission of the Authority

After some well-publicised incidents of grease balls on the South Shore beaches summer 2014, the procedures for dealing with grease from restaurants and other businesses in the City have been reviewed. The roles and responsibilities with national government and city government are being ironed out. The Department of Health now has a rigorous beach monitoring programme (they had one before, but it has been strengthened).

There was a mock oil spill exercise in 2013 which was very useful for flagging areas where training and resources were needed.

Climate-change, Renewable Energy and Waste Management

Waste is incinerated now and the former landfill site at Pembroke Marsh is used for composting horticultural waste.

Sustainability and sustainable consumption are ideas that have become more widely acknowledged in the last 5 years. Government now has a Sustainable Development Unit within the Cabinet Office and there is an NGO, Greenrock, which is very active in promoting sustainable lifestyles (e.g. reduction in water, electricity use, reducing plastic waste etc.).

Environmental Education

Despite the lack of capacity, the Bermuda Audubon Society offers a wide range of educational programmes. Outreach to students includes an annual natural history camp (run jointly by BAS and BZS), guided field-trips, school talks, art competitions and bird nest-box construction. A varied programme of events is offered to members and the general public, including lectures, workshops for teachers, field-trips, and introductory bird-watching courses.

Bermuda Reef Application (or App) is a guide to the marine habitats and species of Bermuda's reefs. The Bermuda Audubon Society has also encouraged citizen science through eBird which records the bird observations of participants.

Bermuda Zoological Society has various camps for different age groups based at the Aquarium from June to the end of August, in addition to a scholarship for environmental science.

Amongst other environmental education activities, the Bermuda National Trust delivers a curriculum-linked education programme to all schools in Bermuda for teachers and students, focused on science concepts and ways to care for the environment.

The international programme of the Foundation for Environmental Education (FEE), Eco-schools, has the aim of empowering students to be the change needed for a sustainable world, through engaging them in fun, action-oriented learning. Greenrock is the FEE representative in Bermuda, therefore offering local schools the opportunity to become Eco-schools. Each school follows a seven step change process and empowers their students to lead processes and actions where they can.

International Agreements

Bermuda is included in the UK's ratification to the Convention on Migratory Species, the Ramsar Convention on Wetlands, and CITES.

CITES is enacted locally by the Endangered Animal and Plants Act 2006. This is currently being revised to meet obligations more effectively.

Bermuda is a member (and leading proponent) of the Hamilton Declaration on the Collaboration for the Conservation of the Sargasso Sea. Bermuda is also in the process of becoming a signatory of IAC (the Inter-American Convention for the Conservation and Protection of Sea Turtles).

Bermuda had the MOU on sharks extended to them in June 2012.

Stakeholder Stewardship

Buy Back Bermuda, the joint initiative between the National Trust and Audubon Society, raises funds to 'buy back' land to turn into nature reserves.

Opportunities are offered to volunteer on nature reserves and to participate in citizen-science projects through the work of the Bermuda Audubon Society.

Economic Value of Sustainable Use

A study to estimate the total economic value of Bermuda's coral reefs was carried out in 2010. This used a method developed by the Institute for Environmental Studies (IVM) of the Vrije University, Amsterdam.

Still to do

Update Bermuda Strategy and Biodiversity Action Plan 2003. Provide framework for monitoring implementation of the plan.

Prepare recovery/management plans for species listed under the 2003 Protected Species Act.

Complete draft recovery plans.

Continue identifying species in peril.

Grant marine parks protection under the National Parks Act.

Address legislation to deal with IAS once on Bermuda.

Develop Species Action Plans for invasive species that have been identified as an issue.

Publish management plans for pigeon and crow.

Research the impact of the introduction of red-eared sliders on other pond species.

Designate other Ramsar Sites. The Ramsar Information Sheet (RIS) was completed for the Castle Harbour Islands site in August 2015. Designation is not going ahead at this time for several reasons, but it will be easy to pick this up in the future, as the proposal is done.

Carry out further research into the possibility of creating a large marine reserve in offshore waters around Bermuda.

Improve EIA and SEA legislation to international best practice.

Require Special Development Orders to give public notice/ allow appeals.

In the Bermuda Strategy and Biodiversity Action Plan, provide more incentives aimed at biodiversity, and identify and remove any harmful ones.

Regulations need to be written for the Pesticide Safety Act 2009.

The threat of golf courses to water-lenses below the surface needs to be assessed.

Carry out disaster risk assessment and implement a disaster management framework to address erosion caused through tropical storms and storm surges.

Implement a Waste Management Strategy/Action Plan.

Expand lionfish food campaign and Bermuda Invasive Lionfish Control Initiative.

Include considerations of the environment in agricultural and/or forestry policy/legislation in more detail.

Join UK's ratification of CBD. Public consultation is needed to determine whether this is desired.

Finish revising the Endangered Animal and Plants Act 2006.

Carry out further baseline data studies at a wider level than individual/a few species or individual sites (e.g. ecosystem level such as the benthic habitat mapping project).

Ascension Island

Protected Areas

The National Protected Areas Order 2014, created seven new protected areas so as to conserve Ascension's wild and plant life, including the Island's endemic species. The six new Nature Reserves and one new Sanctuary, in addition to Green Mountain National Park, mean that 20% of Ascension's land is protected by measures for mitigating threats to vulnerable species.

Ascension Island does not have any specific marine protected areas, although approximately 0.45 km^2 of sandy, sublittoral habitat adjacent to major sea turtle nesting beaches are included in nature reserves designated under the National Protected Areas Order 2014 and National Protected Areas Regulations 2014.

A proposed Marine Protected Area covers 234,291 km^2, just over half of its EEZ.

Species Conservation

In 2015, Ascension published its National Biodiversity Strategy.

There are Species Action Plans for the following:

Plants: Ascension Parsley fern *Anogramma ascensioni*, *Asplenium ascensionis*, Ascension spurge *Euphorbia origanoides*, *Ptisana Purpurascens*, *Pteris adscensionis*, *Sporobolus caespitosus*, *Stenogrammitis ascensionensis*,

Seabirds: Ascension Island frigate-bird *Fregata aquila*, masked booby *Sula dactylatra*, sooty tern *Onychoprion fuscatus.*

Invertebrates: Land crab *Johngarthia lagostoma*, giant pseudoscorpion *Garypus titanius*

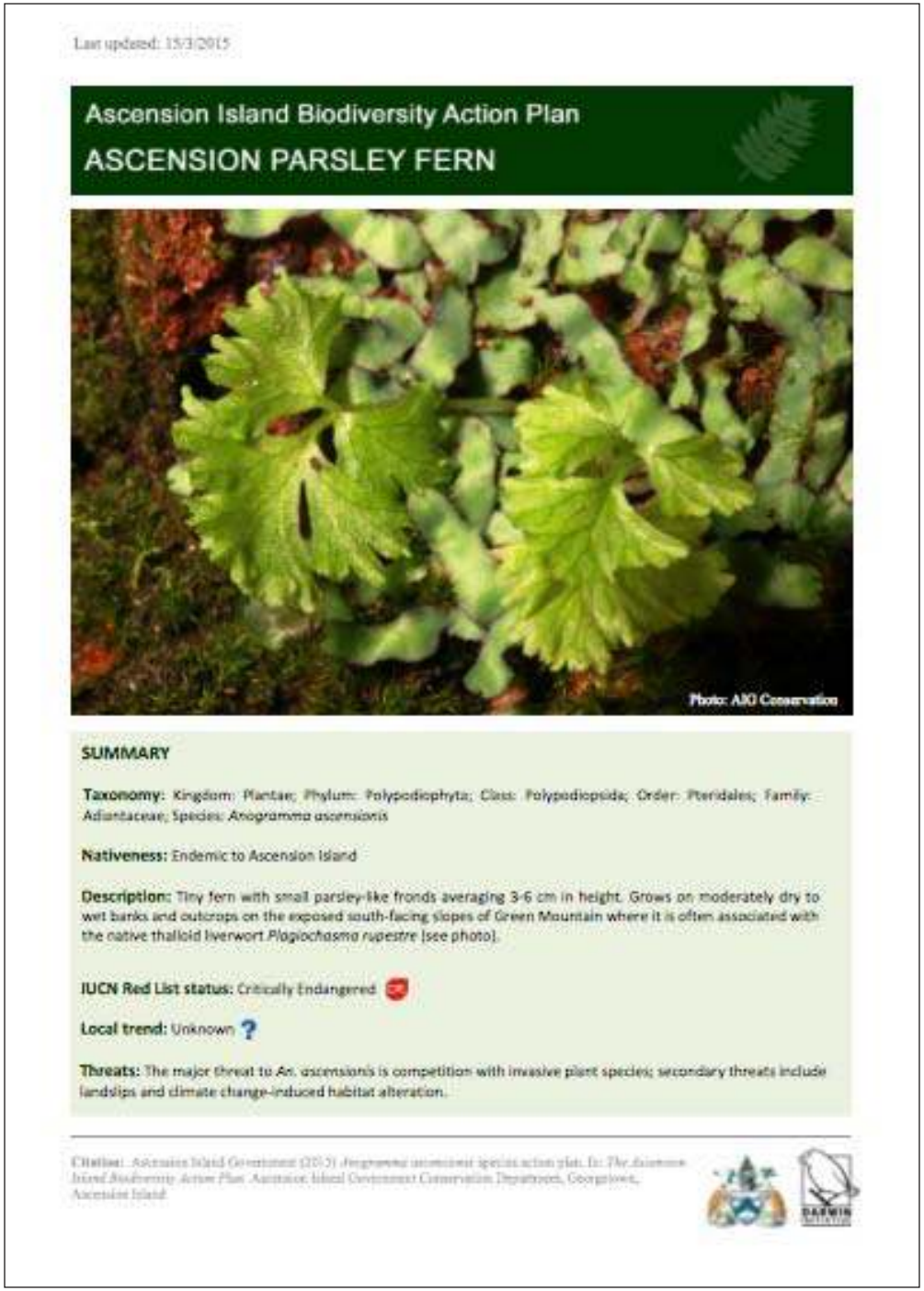
Sea Turtle: Green turtle *Chelonia mydas*

Other actions taken to research/protect/conserve species include: Bryophyte and invertebrate surveys

There are also invasive species and habitat action plans.

Biodiversity Action Planning

Much of the efforts of the Conservation Department are epitomised in the Island's Biodiversity Strategy and Action Plans for endemic species, habitats and invasive species. They have made strides in their work to protect the Island's terrestrial endemic flora and fauna as well as exploring how it can protect its rich marine environment. An example of one species which has an action plan is the Ascension Island parsley fern *Anogramma ascensionis*, thought to be extinct, but which was rediscovered in 2009. It is now protected under the Wildlife Protection Ordinance 2013, which prohibits the damaging, killing or possession of protected species without license. All four known sub-populations are contained



Last updated: 15/3/2015

Ascension Island Biodiversity Action Plan

ASCENSION PARSLEY FERN

Photo: AIG Conservation

SUMMARY

Taxonomy: Kingdom: Plantae; Phylum: Polypodiophyta; Class: Polypodiopsida; Order: Pteridales; Family: Adiantaceae; Species: *Anogramma ascensionis*

Nativeness: Endemic to Ascension Island

Description: Tiny fern with small parsley-like fronds averaging 3-6 cm in height. Grows on moderately dry to wet banks and outcrops on the exposed south-facing slopes of Green Mountain where it is often associated with the native thalloid liverwort *Plagiochasma rupestre* (see photo).

IUCN Red List status: Critically Endangered

Local trend: Unknown

Threats: The major threat to *An. ascensionis* is competition with invasive plant species; secondary threats include landslips and climate change-induced habitat alteration.

Citation: Ascension Island Government (2015) *Anogramma ascensionis* species action plan. In: *The Ascension Island Biodiversity Action Plan*. Ascension Island Government Conservation Department, Georgetown, Ascension Island.

within Green Mountain National Park designated under the National Protected Areas Order 2014. The National Protected Areas Regulations 2014 restrict all forms of development within the National Park. *In vitro* propagation protocols have been developed at Royal Botanic Gardens, Kew, with good germination success, sporophyte production and survival rates. A living collection has been established and a stock of spores from individuals is held in cryopreservation at the Conservation Biotechnology Unit. Cultivated plants have been repatriated from Kew to Ascension and some of these have been successfully introduced into wild populations.

This adds to the great success, frequently reported, of the seabird restoration programme, with the re-establishment on the main island of the endemic frigate-bird as well as several other species.

Monitoring and Baseline data

Seabirds: frigate-birds and sooty terns (monitoring of the latter by the Army Ornithological Society).

Reptiles: Green turtle monitoring carried out yearly for each of the main nesting beaches, with a complete census carried out every few years.

Invertebrates: Land crabs

Endemic plants

Marine: Monthly fish surveys

Ascension Environmental Information Operations Utility Project: allowed the synthesis of existing information from land jurisdiction, environmental mapping and monitoring, and geological and cultural data, with new land cover data into a single manageable framework. The project acted as a starting point for how spatial data, e.g. collected during the routine monitoring of animal or plant populations are stored, managed, displayed visually and analysed. This is now integrated with the SAERI / JNCC data management project.

Data to support allocation of a marine protected area is being collected as part of the current *Ascension Island Marine Sustainability* project, which is being led by the AIG Conservation Department with expert input from overseas partners. The purpose of this project is to increase the marine biodiversity knowledge and fisheries science capacity of Ascension.

Invasive Species

Action Plans produced for Mexican thorn (an invasive plant) and black rats, which have assessed threats to particular species through the Biodiversity Action Plan.

Ascension hosted a JNCC-led workshop in August 2015 - *Biosecurity in the South Atlantic UKOTs*. This resulted in the commissioning of a biosecurity review for Ascension Island, which is currently underway.

Planning, EIA and Legislation

The Ascension Island Council is an elected body that guides decision-making and new legislation on Ascension, subject to public consultation. There is a lack of Development Control Framework and no EIA or SEA guidelines in place. In certain limited circumstances, provisions of the National Protected Areas Ordinance might be used, e.g. the Governor may order restrictions on development, deposit or discharge of wastes or harmful matter in any area he/she considers would have a direct/indirect harmful effect on the natural ecology of a protected area or living organism.

There are National Protected Areas Regulations 2014.

The Wildlife Protection Ordinance 2013, prohibits the damaging, killing or possession of protected species without license. The Endangered Species (Ascension) Control Ordinance 1967 was highlighted as inadequate and was updated.

Pollution

While local threats from marine pollution are minimal to sooty terns, sub-toxic levels of polychlorinated biphenyls (PCBs) have already been detected in the tissues of sooty terns nesting at Ascension Island, demonstrating that even this remote population is not immune from global marine pollution issues.

Climate-change, Renewable Energy and Waste Management

Sustainable waste management systems are being developed and implemented. These will be complimented by adherence to ISO 14001 standards.

Section 41 of the 'Waste Management' section of the MOD Corporate Environmental Protection Manual, states that in addition to the Waste Shipments Regulation and the Transfrontier Shipment of Wastes Regulations, the UK has a statutory document entitled the UK Plan for Shipments of Waste. The Plan sets out Government policy on shipments of waste for disposal to and from the UK and covers the UK Overseas Territories including Ascension Island.

BBC previously transmitted its World Service from Ascension into Africa using electricity provided by a diesel power station. They commissioned AEA Technology to investigate renewable power options at the site. Following the recommendation by AEA Technology for a wind/diesel hybrid scheme, a detailed feasibility study was carried out including EIA. Five turbines on 36 m towers were constructed close to the transmission site. The site now delivers clean renewable energy and significantly reduces the carbon footprint associated with transmission into Africa. Annual carbon emissions have been cut by approximately 3,500 tonnes. Unfortunately, the turbines have become a small but consistent source of seabird mortality (30-40 annually).

Environmental Education

There is an Education and Visitor Centre in Green Mountain NP.

An educational nature trail was instituted along Elliot's Pass.

Pupils from Year 1 upwards in Two Boats School are represented on the school council and they are able to develop a broad general knowledge of the responsibilities of citizenship, locally, in the UK and internationally. This is supported by the school's good links with the local conservation department.

An international marine turtle internship programme has been set up in order to allow monitoring and conservation goals to be met.

Through the AEIOU Project, portals were made available to the school and for public use as a learning and information resource.

Environmental Education Project: aim was to raise environmental awareness in the Falkland Islands and Ascension. Environmental resources for schools were produced, some focusing on island-specific issues and native wildlife. This project also helped to initiate Ascension Explorers, a summer holiday club for schoolchildren. Also a campaign was launched to encourage local volunteers to take part in wildlife surveys and monitoring. The outputs have been incorporated into the education delivery system in both islands.

The Museum re-opened in 2015 with new displays celebrating Ascension's natural and historical features.

UKOTCF has a Virtual Tour of Ascension on www.ukotcf.org .

International Agreements

The Convention on Biological Diversity (CBD) is extended to Ascension. The recently passed Protected Areas Ordinance is in line with the CBD Aichi Targets 2011- 20. Note that Ascension is signed up as the territory of St Helena/ Ascension/ Tristan.

Ascension is included also in UK's ratification of the Ramsar Convention on Wetlands (although no Wetlands of International Importance have yet been designated), the Convention on Migratory Species (Bonn), and the Convention on International Trade in Endangered Species (CITES, Washington).

Stakeholder Stewardship

As above, a campaign was launched to encourage local volunteers to take part in wildlife surveys and monitoring. The outputs have been incorporated into the education delivery system in both the Falklands and Ascension.

Economic Value of Sustainable Use

AIG is looking to encourage a low level of high-end eco-tourism.

Still to do

Develop an implementation plan for reforming Ascension Island's fishing policies and marine protection legislation. Designate MPA.

Designate a Ramsar Site on Ascension Island (information is available in the 2005 review).

Complete habitat map (due to be completed by end March 2016).

Complete revision of Green Mountain National Park management plan. Complete management plans for new nature reserves/sanctuary.

Further prickly pear and Mexican thorn and rat control.

Plant new trees to replace ageing specimens and increase the area of epiphytic habitat for *Stenogrammitis ascensionensis.*

Prevent seabird mortality from wind turbines.

Exclude Mexican thorn and other woody invasives from traditional sooty tern nesting areas.

Robust biosecurity measures to be implemented following commissioned review (due to be completed April 2016).

Carry out regular monitoring of the diet and fledging success of nesting terns.

Implement key recommendations from reports relating to Ascension Island's inshore fishery.

Prevent over-fishing and preserve foraging associations between tuna and seabirds.

Digitise the bryophyte herbarium and create a field-guide. (The field-guide is currently [2016] with the publishers – will be printed in the next few months.)

Prevent further extraction of sand.

Develop and implement EIA legislation and policy (a priority for 2016).

Complete development and implementation of sustainable waste management systems.

Research:

Potential impacts of climate change.

Invertebrates of Ascension's Montane Mist region.

Impacts of rats on native species and the feasibility and benefits of control.

Determine whether hybridisation is occurring in Ascension spurge *Euphorbia origanoides*.

Reproductive ecology of *Ptisana purpurascens.*

Resolve taxonomic status of *Pteris adscensionis*.

Monitor frigate-bird fledging success; maintain the conditions for the continuing expansion of the mainland frigate-bird nesting colony.

Study impacts of rats on sooty tern breeding success.

Determine abundance and distribution of land crabs and develop robust population monitoring protocols and improve ecological understanding of this species.

Reassess status of the giant pseudoscorpion and composition of the invertebrate community of Boatswain-Bird Island (BBI).

Collect baseline abundance data for invertebrates on BBI. Prevent introduction of non-native predators to BBI.

Continue research into fish mortality events in waters surrounding Ascension.

Research further into physical characteristics of the anchialine system and the physiological tolerances of the species that inhabit it.

Obtain more baseline data and improve monitoring of biomass and fishing mortality of target species for the shallow marine sub-littoral habitat.

St Helena

St Helena's first comprehensive piece of environmental legislation, the Environmental Protection Ordinance 2016 was brought into force on 29 February 2016. This makes provision for the protection of the environment, including the conservation of biodiversity, the regulation of trade in endangered species and the control of pollution, hazardous substances, litter and waste.

St Helena is currently developing a Biodiversity Strategy/National Biodiversity Action Plan. It also has a *National Environmental Management Plan* (NEMP) that was developed to implement St Helena's 3rd National Goal - 'Effective Management of the Environment', as well as a *Sustainable Development Plan 2014-2017* (SDP).

Protected Areas

The total land area of St Helena is 121km^2 while the marine environment includes a 200nm EEZ. An MPA is to be designated shortly. Survey work for this is being carried out at present.

In 2012, UK Government placed St Helena on its Tentative World Heritage List for its outstanding natural environment.

A network of 14 'natural' National Conservation Areas has been established. These are believed to equate to approximately 23% of the island.

The National Environmental Management Plan (NEMP) includes Management Plans for the 14 'natural' National Conservation Areas.

The Land Development Control Plan (2012-2022) outlines an area of steep cliffs and sea extending half a kilometre offshore from Long Ledge to Dry Gut Bay as a Marine Biological Reserve (MBR).

The first management plan to be developed was the Peaks National Park Management Development Plan 2013-2023, which is now ready for final approval from the Land Planning and Development Board, after which it will become a legal document. Informal consultation with stakeholders has occurred also for the Sandy Bay National Park and Man and Horse Important Wirebird Area Development Management Plans, and drafts will be available soon. A draft of the Island's Nature Reserve plan has been composed, and consultation will be conducted with key stakeholders shortly.

Principle 2.15 of the Land Development Control Plan states that the development agenda in National Conservation Areas will be led by the Management Plans for the areas concerned. Criteria for NCA development and boundary revision will be included in the development of Management Plans and will form part of the work of the Conservation Areas Working Group under the Environmental Management Directorate.

NEMP includes a Target of creating and implementing a marine management plan. A marine biodiversity and mapping project has been carried out in order to generate a marine management plan which includes long-term monitoring and protected areas.

See above for information regarding St Helena's Environmental Protection Ordinance 2016.

St Helena has 0 designated Ramsar sites, although 3 have been proposed as St Helena meets a wide range of Ramsar criteria, e.g. priority wetland types of wet grass-lands and sea-grass beds:

- St Helena Central Peaks (because of cloud forest ecosystem)
- St Helena inshore waters, stacks and cliffs
- Fisher's Valley
- A fourth possible site was identified at Spring Gut – this is under further investigation.

Species Protection

Of St Helena's 502 unique species, only a fraction had been assessed, resulting in only 26 on the IUCN Red List, despite many needing to be. St Helena submitted some species assessments to IUCN Red List as part of the Darwin- and Buglife-funded *Bugs on the Brink (2012-2016)* project.

Project Manager David Pryce started sorting existing data in order to compile and submit accounts for the 416 known endemic invertebrates on St Helena. Due to the enormity of this task, the assessments were broken down into taxonomic groups and prioritised. As of July 2015, 15 accounts had been submitted and 90 were almost ready for submission. A first estimate indicated that ~83% of St Helena's endemic invertebrates were likely to fall within Threatened IUCN Red List categories ('Vulnerable', 'Endangered', and 'Critically Endangered' categories). Prosperous Bay Plain, an arid area which is where the airport has been built, and an area known as 'the Peaks', and which consists of isolated/fragmented sections of cloud forest, cabbage tree and fern thicket, are two particularly important areas for endemic invertebrates. 119 of the 416 endemic invertebrates are limited to the latter habitat – 26% of the endemic invertebrates on ~0.5km^2.

During the airport EIA process, three compensatory wirebird habitat areas were restored as part of advance mitigation works. Lessons learnt during the project included working around wirebird nesting seasons, monitoring wirebird activity, and managing actively the site through, e.g. tactics to prevent nesting in places

where construction was taking place, or was due to take place. This is because it is an offence to disturb nesting wirebirds, which on occasion, nested in active construction areas.

The area for the airport site was adapted to reduce impacts on rare lichens and invertebrate species and lichens were successfully translocated.

Various projects have been carried out/ are being carried out for species conservation (in addition to ones mentioned above):

- *Millennium Forest Initiative* has the goal of recreating up to 250 hectares of native forest on degraded wasteland. Since St Helena National Trust (SHNT) took responsibility in 2002, the Trust has coordinated the planting of 10,000 Gumwood trees and other endemic plants, covering 35 hectares of barren eroded ground. Since 2010 the Trust has increased species diversity and is recreating a functional ecosystem in the Millennium Forest. It continues to improve the nursery capacity and engage the community in activities including planting at the Millennium Forest.
- The EMD Terrestrial Conservation Section Species Team runs an endemic plant nursery and is responsible for safeguarding endemic species through wild seed collection, storage and propagation, and planting and maintenance of restoration sites around the island.
- *Supporting critical species recovery and horticultural needs on St Helena* Project- This was a capacity building programme that included specialist technical input from RBG Kew, recruitment of staff, upgrading of the nursery at the Agriculture and Natural Resources Department, and a skills development programme.
- *Mitigation for the impacts on the Wirebird Population on St Helena* project- over 150 hectares of habitat have been improved. The wirebird population has now increased to nearly 400 birds.
- *Bastard Gumwood Recovery Project*- aims to save the Bastard Gumwood from the brink of extinction.
- Research project to develop propagation techniques for rare threatened endemic ferns on St Helena. A climate-controlled propagation unit was to be set up in the Environmental Management Division nursery for long-term propagation. The project will aim to develop successful propagation protocols for St Helena's 14 native fern species, eleven of which are globally threatened.
- Clutches of turtle eggs incubated in surrogate nests.
- *Conservation of the spiky yellow woodlouse and black cabbage tree woodland on St Helena* project.

Hunting license system has been established.

Draft *Native and Endemic Plant Propagation, Collection and Distribution Policy* enables commercial growing of selected species both for habitat restoration purposes and to increase local awareness and enthusiasm of native flora.

In terms of species status:

- The endemic giant earwig *Labidura herculeana* and ground beetle *Aplothorax burchelli*, are thought to have been driven to extinction.
- She-cabbage *Lachanodes arborea* is extinct in the wild but survives in cultivation.
- Native Madeira storm-petrel *Oceanodroma castro* known to reside on Egg Island, may actually be a separate endemic species of storm-petrel found only on St Helena.
- *Bulbostylis neglecta*, a sedge endemic to St Helena, was rediscovered after having not been seen for 200 years.
- St Helena dragonfly thought to be extinct.
- Basilewsky's cranefly thought to be extinct was rediscovered very recently.

Various projects have been/ are being carried out relating to gathering of knowledge and baseline data. These include (among others):

- The *Enabling the people of St Helena to conserve the St Helena Wirebird Project* undertook research to better understand the wirebird's ecology and assessed the extent of threats to this species and identified and tested solutions to address these.
- Red-listing project is underway to assess species conservation status (Plants).
- Marine baseline survey is underway.
- Buglife has been carrying out a lot of invertebrate research on St Helena and lots of species new to science have been discovered.
- Ornithological surveys on Egg Island are researching population dynamics and behavioural ecology of seabirds.
- Island-wide botanical survey on St Helena is being undertaken through the South Atlantic Invasive Species Project.
- Existing baseline knowledge of invertebrates is being collated and reviewed through the *Laying the foundations for invertebrate conservation* project.

Monitoring and Baseline data

Long-term monitoring through *Marine Biodiversity and Mapping Project* (Nov 2012-Nov 2014) has expanded fish survey methods to include fish, invertebrates, and habitats.

Invasive Species

Through the RSPB *South Atlantic Invasive Species Project*, a review of the legislation related to invasive species was carried out for each territory. Capacity was also built within the 5 South Atlantic UKOTs for dealing with adverse impacts of invasive species in the region. However, the extent of invasive issues means that addressing these will require considerable financial and human resources. Following completion of the project, a South Atlantic Invasive Species Strategy and Action Plan (2010) was produced, which St Helena is signed up to.

RSPB study *Eradication of invasive alien vertebrates in the UK Overseas Territories*, provides one strategic assessment to rank all of the UKOTs' islands according to the greatest biodiversity benefit resulting from technically feasible invasive vertebrate eradications. The numbers of confirmed or suspected invasive alien vertebrate species, by taxonomic order, were calculated for each territory. For St Helena this was: 3 rodents, 1 predatory mammal, 1 ungulate, 1 other mammal, 9 birds, 1 reptile, and 1 amphibian.

A study by CABI for South Atlantic UKOTs identified the highest priority species for which biocontrol was likely to provide a cost-effective and sustainable management option. Preliminary evaluation was carried out for St Helena. Uptake of classical biological control (CBC) measures is provisionally highly recommended for the fast spreading *Asparagus densiflorus* and the scale insect *Pseudococcus viburni* currently threatening the endemic gumwood trees.

The pests and diseases of arable crops in St Helena can be seen in the *Arable and Fruit Pest and Disease Status Review*.

The *Heart Shaped Waterfall – public access and amenities* project involved the clearance and control of invasives from the approach to the heart-shaped waterfall and the cultivation of endemic plants.

The Pheasant Tail fern control programme involved the clearance of Pheasant Tail fern from priority areas in the Peaks National Park, the development of effective control techniques and the implementation of a public awareness programme.

Culling is used as a method to try to reduce the spread of grazers. There are attempts to do this in Millennium Forest on the northwest of the island.

The Trust currently (2016) carries out pest control (cat-trapping & rodent baiting) at key wirebird sites across the island. It is looking to expand on this. It forms part of a Weeds Management Stakeholder Group under the leadership of ANRD.

SHNT has identified significant invasive species threats to invertebrate fauna through the Darwin/BugLife *Bugs on the Brink* project.

The Trust manages invasive species at all of their restoration sites.

Integrated pest management (IPM) provides an effective framework for pest management on the Island. This is an approach to pest management based on prevention through integration of cultural, biological and chemical methods. A National Pesticide Policy was approved in 2014 with the purpose of providing the basis for promoting effective and sustainable pest, weed and disease management.

Protection against harmful introductions is given by the biosecurity system. In 2014, the Economic Development Committee formally approved the first National Biosecurity Policy for St Helena. An implementation plan is also in place for priority actions to be delivered by responsible agencies.

Planning, EIA and Legislation

Primary Policy under the Land Development Control Programme permits development which encourages, maintains, enhances and conserves the natural heritage and does not allow development which affects the natural heritage and does not encourage, maintain, enhance and conserve the natural heritage.

The Land Planning and Development Control Ordinance, 2013: stiffens the link between planning decisions and environmental impact and it places a duty on the Land Development Control Authority to make planning decisions in accordance with the adopted policies of the Land Development Control Plan. The Ordinance includes some improvements in terms of public accountability and strengthens public participation, transparency and access to justice.

One Strategic Objective under the SDP is to mainstream the environment across Government and the private sector while, similarly, an Objective under the NEMP is to 'address the underlying causes of environmental degradation by mainstreaming environment across government and society'.

St Helena pioneered work on wide consultations and what is now sometimes called "mainstreaming" when, in 2004-5, at St Helena's request and with the support of UK Government, UKOTCF facilitated the development of St Helena developing its Strategy to Implement the Environment Charter. This was the first UKOT pilot after the initial example territory. While St Helena has not yet participated in the follow-on JNCC environmental mainstreaming initiative, they are keen to do so.

Litter has been identified as a serious issue and public awareness, regulation and enforcement with respect to marine and terrestrial litter will be an important part of the implementation of the NEMP.

A key work area of the Environmental Risk Management Section of the EMD is Solid Waste Management. In order to determine what waste is being

managed at the landfill site, a compositional analysis called the 'Waste Wheel' is undertaken on a quarterly basis. A solid waste management strategy has also been produced.

St Helena Active Participation in Enterprise (SHAPE) is a social enterprise and a registered Charity founded in 2008, which hopes to reduce the carbon footprint on the island whilst providing meaningful employment for disabled and vulnerable people. The *Building capacity to develop and provide long term sustainability for St Helena's paper and card recycling unit* project aims to increase SHAPE's capability to process a significant percentage of recycled paper and card.

A water resources plan is currently being developed.

The Tourism Strategy is the overarching policy document for the development of tourism and an environmental review of the strategy has been carried out and will be fed into the development of tourism. NEMP identifies the need to consider the carrying capacity of National Conservation Areas and the Island as a whole. The National Trust supports expanding eco-tourism, improving tourism sites, developing 'voluntourism', and creating new attractions.

Through the *Increasing Local Capacity to Conserve St Helena's Threatened Native Biodiversity* project: research on the importance and potential socio-economic value of St Helena's natural resources will be produced and disseminated. The environment is also a key component of the National Economic Development Plan.

The core policy document on St Helena for land development is the *Land Development Control Plan 2012-2022*. This underwent a strategic social and environmental assessment process, and the LDCP therefore provides a policy framework for environmental considerations relating to land planning, which includes an Environmental Impact Assessment (EIA) process.

Two major developments on the island, including the major investor Shelco, both indicate a wish to abide by 'green' practices, although some other local parties have expressed concerns. An EIA was done (against the reference design) for the airport project. EIA for the airport resulted in an Environmental Statement (ES), detail of which formed the basis of an Airport Environmental Management Plan (EMP). The EMP turns the findings of the EIA into measures that must be carried out by the contractor to avoid, minimise or offset adverse environmental impacts. The EMP was first issued in 2007 and formed part of the Employer's Requirements of the Invitation to Negotiate. It went on to form part of the Employer's Requirements of the contractor, which meant that the contractor, Basil Read, could be forced to comply with everything within the EMP. The EMP therefore had to be consulted and acted upon for the duration of the project. A Contractors Environmental Management Plan (CEMP) was then developed. This is updated biannually and describes how the EMP will be implemented.

A resourced team of environmental staff was required for implementing and monitoring compliance to the EMP and CEMP. The team grew as the realisation of the volume of work progressed. The contractor has a Contractor's Environmental Control Officer (CECO) who ensures on site compliance with, and implementation of the CEMP. The team of the CECO has a range of responsibilities, e.g. environmental monitoring, clearance of invasives, rehabilitation and waste management. An Environmental Manager not present on the island has various responsibilities including overall environmental management and preparation of the annual environmental report.

The project is overseen by the Project Management Unit which includes an Environmental Monitor and Environmental Inspector who check on site CEMP compliance, and review designs to check that they meet environmental regulations and include environmental mitigation methods as listed in the ES. The Deputy Airport Project Director (Environment and Operations) in SHG is responsible for facilitating delivery of the Project, and in particular the environmental elements. The Chief Environment Officer plays a supporting role to this aspect of the work.

There is a Landscape and Ecological Mitigation Plan (LEMP) for the airport project, in addition to off-island technical support from DFID. Formal meetings are held each week to discuss current and upcoming issues.

Various processes have been used during the airport project to inform different groups of stakeholders regarding issues that affect them. The public is able to raise issues of concern and provide input into decision making where appropriate. The St Helena airport project has its own website which also has a webpage for information regarding public consultations. Regular airport updates were published here and in local newspapers. There were radio talks, Stakeholder Engagement Forums, door-to-door information and letter drops. There is also a Community Liaison Officer employed by the contractor, providing a line of contact for the public.

Conservation bodies (local and international) agreed not to oppose the airport because of the need and lack of alternative. (It is worth noting that they would have opposed development inevitably having such a negative impact almost anywhere in the world; this was on condition that every effort was made by the developers to minimise impact. This meant that plans for reducing impact and mitigating that which took place should have been in place and implemented long before construction work. In fact, the system was not in place until half-way through the construction and local and external experts noted that it remains under-resourced.)

The site of the airport on Prosperous Bay Plain raised

environmental issues. There was inevitably going to be the loss of habitats and species (total land area covered by the project is 200ha) but the project did also act as a catalyst for raising awareness of habitats and species previously not as well studied. Learning about what was present on site and developing mitigation against direct and indirect impacts was a key element of the project, both prior to and during construction. The project also drove the establishment of positive environmental management practices and procedures, e.g. the Environmental Impact Assessment process which is now required in the planning process by law. Following the airport EIA, EIA legislation was drafted and then adopted in 2008. EIA Regulation 2013 guides the process.

EMD set up an environmental hotline for out-of-hours and anonymous reporting.

SHG introduced, from 1 September 2014, a code of practice for public access to SHG information. The Land Planning and Development Control Ordinance (2013) requires that planning decisions and appeal decisions are made in public. NEMP states that all new policies will include public consultation, in line with the established SHG policy development processes. An environmental advisory group was established which brought in national and international expertise.

LDCP states that the development of NCA management plans will be a participatory process with all relevant stakeholders including land owners within the NCA. There will be a public consultation process before NCA management plans are agreed formally.

Some of St Helena's very special invertebrates (from left): spiky yellow woodlouse – (Ed Thorpe); blushing snail and golden sail spider (Roger Key)

Airport and baseline data and conservation measures

In 2016, the first commercial flights will land at the new St Helena airport (see above). From the outset, the site for the airport on Prosperous Bay Plain, an area of immense ecological value, raised a number of significant environmental issues. Sadly, loss of habitats and species was inevitable. However the opportunity to understand more about what was actually present on the site and designing mitigation to counteract the direct and indirect impacts became a key part of the project under the Landscape and Ecological Mitigation Plan (LEMP), both prior to and throughout the construction. This included: restoration of three compensatory habitat areas for the endemic St Helena wirebird outside of the airport construction footprint, translocation of rare lichens, designs based on reducing the area of development in sensitive habitat, particularly important for unique invertebrate species.

The St Helena National Trust (together with supporting NGO Buglife) are working on a project *Bugs on the Brink* to understand and conserve the Island's unique invertebrate fauna. 502 endemic species are found here, 416 being invertebrates. Part of the project involves assessing each species for entry in to the IUCN Red List of threatened species. To date, 15 are complete and 90 are in development. Long-term conservation planning has taken place with workshops on island and in the UK, and a strategy for invertebrate conservation over the next five years will be launched in early 2016.

Pollution

NEMP states that economic valuation of the environment will be considered as will the 'Polluter Pays' principle.

A pollution incident reporting system has been set up and pollution incidents are being followed up and addressed. Pollution policy is being developed.

NEMP Targets state that atmospheric, noise and light pollution policy will be created and implemented.

Salvage & Marine Operations (S&MO) organisation of Ministry of Defence (MOD) commissioned RPS Consultants Ltd to carry out marine environmental impact research on the wreck of oil tanker *RFA Darkdale*. This came about due to a larger leak of oil which occurred in 2010, which resulted in St Helena's Governor, and the Foreign and Commonwealth Office calling for the MOD as the owner of the wreck to take action.

Climate-change, Renewable Energy and Waste Management

More sustainable ways of building homes will be promoted via section 1.4 of the *Laying the foundation*

for future generations – A housing strategy for St. Helena 2012-2022.

Reduction in the creation and generation of waste will be encouraged through green guidelines for procurement, as will reduction in carbon footprint. (Support for the latter will also be encouraged through a'buy local' campaign.). Implementation of these guidelines will contribute to green certification. The St Helena Government Corporate Procurement Strategy contains a section that references sustainability.

St Helena Government and Connect Saint Helena (utility company) are working closely to increase significantly renewable energy supplies with an operational target of 50% by 2017. Wind power currently meets the Island's entire energy demand at times of high production and low consumption and the focus is now on increased solar generation. In July 2014, DFID approved an additional £1m for investing in renewable energy – this will be used for solar panels, estimated to provide 9-10% of the Island's current needs.

An MRes *Carbon Sequestration in Community Forests Project* investigated carbon sequestration of selected endemic tree species, in order to provide a scientific basis to register a carbon off-setting scheme. The project will allow calculations of current and future carbon capacity of restoration sites on the island. This project will enable global businesses and international travellers to offset their carbon footprint by funding tree-planting initiatives on Saint Helena. The MRes is now complete. The Trust is currently working with Tourism on a local volunteer offsetting scheme.

St Helena is developing a climate change policy. The following statement is included in NEMP: Climate Change adaptation and mitigation needs to be considered in all relevant policy, planning and decision-making. There will be a requirement for the reduction of greenhouse gas emissions and reduction in carbon footprint where feasible. Baseline data and regular weather monitoring data will need to be collected to feed into the development of the climate change policy.

Environmental Education

The St Helena National Trust carries out a range of education and outreach through the Community Forest Schools Officer and the Invertebrate Education Officer, including a Forest Schools programme.

The Trust – through the *Community Forest Project* – manages monthly community volunteer days and runs school holiday activity days and works with the schools to support endemic mini-forests – called *Kids tree club*.

The Director of Education and Employment Directorate is a member of the National Trust Council.

The Heart Shaped Waterfall public access and amenities project is now complete. St Helena National Trust opened access to the waterfall by creating a new footpath and installing six bridges, viewpoints, walkways and interpretation boards. Endemic plant species, including the rare bastard gumwood, were planted to allow visitors to be able to experience, one day, how the area might have looked to early settlers.

NEMP outlines that working with young people through the Education and Employment directorate will be an important part of the communications and stakeholder engagement strategy, as will collaboration with youth organisations such as New Horizons and the Youth Parliament. The Youth Parliament has coordinated youth input into the NEMP, which includes a summary of youth targets.

St Helena Youth Parliament planned and instigated the *Aluminium Can Recycling Project* although due to funding difficulties the project was later handed over to New Horizons.

An environmental information system is being established for St Helena.

Conserving St Helena's Gumwoods project provided infrastructure and organisational management at two key Gumwood sites to improve education and awareness.

The *Mitigation for the impacts on the Wirebird Population on St Helena* project supported a long-term wirebird conservation and awareness-raising programme within the National Trust.

Biodiversity education requirements were identified through the *Laying the foundations for invertebrate conservation on St Helena* Project.

The *Increasing local capacity to conserve St Helena's threatened native biodiversity* project involved a training programme to increase local capacity and skill base in the restoration and sustainable management of natural resources, restoration of native habitats at High peak and Blue Point, and delivery of an education programme to increase awareness and appreciation of St Helena's natural resources.

There is an annual environment week and annual marine awareness week as well as a St Helena Science seminar. Information is also being made available online on the SHG website. A Conservation Apprentice Scheme is available.

There are currently a small number of environmental courses that are run on the island; these include an Environmental NVQ course provided by the National Trust and the *Introduction to Data Management* course developed by the Environmental Management Directorate.

In July 2013, EMD work experience students undertook black bag litter collection from West Rocks to the bottom of the Run.

The Millennium Forest, managed by the National Trust, is a community initiative, and over the years hundreds

of islanders have planted trees. Visitors and overseas supporters are also able to sponsor a tree, thereby leaving a personal legacy.

The PNP Management Development Plan 2013-2023 states that wherever possible NCA management should be open to other community initiatives such as SHAPE, the Duke of Edinburgh Award and student work experience.

International Agreements

CBD is extended to St Helena, as are the Ramsar Convention on Wetlands, CITES, the Convention on Migratory Species, the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, and the International Commission for the Conservation of Atlantic Tuna (ICCAT).

Economic Value of Sustainable Use

The St Helena National Trust considers St Helena's Biodiversity to be globally significant and central to the future development of the island's economy. They are currently submitting IUCN Red List Assessments to highlight the Threatened nature of the invertebrate fauna.

Still to do:

Continue implementing robust environment and conservation frameworks as the airport project progresses.

Continue to explore financial incentives for 'going green'.

Produce, approve and implement protected area management plans. Review and update these regularly and set up framework for monitoring whether they are being adhered to. Complete management plan drafts that have not yet been finished.

Set up the Conservation Areas Working Group if this has not been set up already.

Is the Land Development Control Plan actively followed? If not, when will this be implemented?

Create and implement marine management plan.

Enact National Parks Ordinance.

St Helena does not really implement actively the South Atlantic Invasive Species Strategy and Action Plan, but a weeds action group was recently established by ANRD to address this.

Develop a Biological Control Strategy for priority species.

Continue the Peaks National Parks public awareness programme.

Does the Arable and Fruit Pest and Disease Status Review need to be updated?

Develop a culling strategy for grazing invasives – this is needed for rabbits in particular.

Strengthen environmental legislation according to the outcome of the review carried out in 2008.

Designate Marine Protected Area.

Is there a Management Plan for the Marine Biological Reserve?

Designate Ramsar Sites. Find ways of taking this forward (including possible assistance from UKOTCF and others).

Complete investigation of fourth potential Ramsar Site.

Prioritise species for action plan development and develop further action plans.

Monitor implementation of Species Action Plans – is there a framework allowing this to be done effectively?

Complete *Bugs on the Brink* project and continue Red-listing species not already on the IUCN Red List.

Develop habitat action plans for priority ecosystems.

Was the climate controlled propagation unit set up in the Environmental Management Division nursery for long-term propagation?

Enact the draft *Native and Endemic Plant Propagation, Collection and Distribution Policy*.

Develop Freshwater Ecology Management Plan.

Establish carbon off-setting scheme.

Is the Land Planning and Development Control Ordinance 2013, implemented actively?

A key lesson learnt from the airport project is that future EMPs must be clear and unambiguous, with implementable, measurable and auditable actions. Key performance indicators must be included, people responsible must be identified, and the cost of mitigations calculated properly. Once EIA has been carried out and an EMP developed, an environmental team has to be employed for the entirety of a project to guarantee implementation. Have all of the lessons learnt through the airport project been incorporated into EIA legislation and development policy?

Develop strategy for mainstreaming the environment across all sectors.

Raise public awareness regarding litter and recycling.

Complete water resources plan.

Is the environmental review of the Tourism Strategy being fed into tourism development? If not when will it be, e.g. through a sustainable tourism plan which outlines, e.g. carrying capacity for protected areas?

Carry out further research and report as to the socio-economic value of St Helena's natural resources.

Has an environmental advisory group been established

to bring in both national and international expertise?

Has the development of Management Plans for National Conservation Areas included public consultation?

Best practice EIA was not carried out for Bradleys workers camp development. EMD recommendation was that no EIA was required for change of use. This situation should be avoided in the future.

Are sustainable methods of building homes being promoted, e.g. through leaflets, presentations, etc.?

Have green guidelines for procurement been produced?

Have guidelines been produced for reducing carbon footprint?

Has a Strategy for achieving green certification been produced?

Has a Renewable Energy Strategy been produced? Have any solar panels been established?

Does the SHG exploratory pole and line fishing plan include environmental criteria?

Complete review of fisheries policy.

Continue monitoring of marine biodiversity and adapt fisheries policy as required.

Complete environmental review of the National Agriculture Policy and Implementation Strategy.

Complete integration of the Aichi Biodiversity Targets into the NCA management plan process. Incorporate the targets into species and habitat action plans as well.

Is the prevention of marine pollution incorporated into legislation?

Obtain additional resources for the continued monitoring of priority species.

Have the results of the State of the Environment Report been fed into the development of new legislation, management plans, action plans, etc.?

Is the marine sighting scheme being used effectively? Can more be done to raise awareness of this? Can a similar scheme be established for terrestrial species as well?

Are the species and habitat inventories continuously being updated?

Carry out further research into smaller organisms, e.g. the in-faunal communities of marine and coastal soft sediments.

Is the pollution incident reporting system used?

Complete pollution policy. Incorporate idea of 'Polluter Pays' into pollution policy.

Was Environmental Impact research carried out on the wreck of the oil tanker *RFA Darkdal*e? Have the lessons learnt from this incident been incorporated into legislation?

Develop an emergency strategy to deal with future oil/ fuel leaks.

Complete Climate Change Policy and enact. Obtain additional resources to carry out research into baseline data and weather monitoring data.

Complete establishment of environmental information system.

Integrate the biodiversity education requirements identified through the *Laying the foundations for invertebrate conservation on St Helena* project into the school syllabus. (This was due to be complete by 31 March 2016. Further educational outreach will be carried out by a newly funded Darwin invertebrate project.)

Provide additional talks and volunteer opportunities for adults to get involved in as well.

Tristan da Cunha

Protected Area

Tristan has a Biodiversity Action Plan (BAP) which sets out the key objectives for biodiversity conservation. Targets have been established in relation to each of these objectives. The BAP 2012-2016 was updated in 2012 and the Targets contained were agreed with the Island Council and Conservation Department. The Conservation Department, Agriculture team, and Fisheries Department have all undertaken work in relation to the implementation of the BAP.

A Marine Management Plan is currently being developed for the Tristan Maritime Zone under an RSPB / Fisheries Department managed Darwin Plus project. The Marine Management Plan will be developed in line with the TdC BAP, Conservation Ordinance and the UKOT regulatory framework. The management plan will be finalised by June 2016.

44% of Tristan's land area has been set aside for conservation.

A 2010 OTEP project allowed for the development of Management Plans for Gough and Inaccessible Islands 2010-2015. These islands are a World Heritage Site. A joint *Gough and Inaccessible Islands World Heritage Site Management Plan April 2010–March 2015* was enacted in 2010.

The four islands, Tristan da Cunha, Nightingale, Inaccessible and Gough are actual or proposed Ramsar Sites, the last mentioned two having been designated already. All four are Important Bird Areas (IBA). Gough Island is also classified as an Endemic Bird Area (EBA), separate to the Northern Islands which together classify as another EBA.

The legislative framework for site protection has robust elements such as a general prohibition on non-residents entering nature reserves without a permit. It is not clear however, whether new site designations would take place using science-based criteria. The public have a right to comment on proposed declarations of nature reserves.

Species Protection

Under the Conservation of Native Organisms and Natural Habitats (Tristan da Cunha) Ordinance, 2006, all native organisms are protected species. The Biodiversity Action Plan and Management Plans identify priority species.

All breeding colonies of the northern rockhopper penguin *Eudyptes moseleyi* on the main island, Tristan, have been declared Nature Reserves under the Conservation Ordinance 2006.

There is a fairly robust legislative framework for the protection of native species. This is well complemented by the Biodiversity Action Plan. A Biodiversity Management Planning Project 2010-2012 was carried out.

Monitoring and Baseline data

When many penguins were oiled following the 2011 shipwreck, the whole island community joined together to save them. The community swimming pool was converted into a rehabilitation centre.

Studies into the breeding biology and ecology of the northern rockhopper penguin *Eudyptes moseleyi* were carried out in 2012/13. These were to continue in 2013/14 so as to inform conservation management for this Endangered species.

Long-line fishing is a major threat to some Procellariiform seabirds in the Territory. Large-scale mortality of Atlantic yellow-nosed albatross *Thalassarche chlororhynchos* and sooty albatross *Phoebetria fusca* has been recorded off the South American continental shelf near Brazil. Illegal fishing in Tristan EEZ may also contribute significant mortality although this is unquantified.

A Darwin Plus project *Assessing the conservation status of the Atlantic yellow-nosed albatross (2014-2016)* was initiated to determine robust population estimates of the Atlantic yellow-nosed albatross (AYNA) on Tristan da Cunha (TdC). The local capacity to provide standardised monitoring data on population trends will be built. By the end of the project, a global population estimate for the AYNA will be provided and a TdC population trend monitoring programme established. An existing monitoring programme for AYNA, set up by the Tristan Government Conservation Department, will be expanded.

Studies have been carried out for Wilkin's bunting *Nesospiza wilkinsi* on Nightingale.

In 2015, a whale species new to Tristan was found beached on Tristan da Cunha. This was a juvenile Antarctic minke whale *Balaenoptera bonaerensis*. Also, in January 2011, a whale was found in the harbour. It was thought to be a short-headed sperm whale (*Kogia* sp.), which had not been recorded from the Tristan area before.

Northern rockhopper penguin numbers were affected by the oil spill following the wreck of *MS Oliva* in 2011. It is estimated that only 10% of the penguins rescued survived. There was wide-scale oiling of several seabird species including the 4000 rockhopper penguins. The breeding success of these birds remains low. Following this incident, dives were planned for monitoring what was around the rock site, until the resources provided by the ship's insurers ran out. Spilt soya was also an issue following the grounding of the *MS Oliva*. A dive team was on Tristan for 2 weeks and found that

in shallow water there was no sign of oil and limited evidence of soya beans. There were concerns for the fishery as dredging in deeper water collected rotting soya from the sea-bed. Whilst the marine environment around the island appeared in a good condition, the sustainability of Tristan's economy is of great concern. Fisheries quotas have been re-modelled and have been sent to interested parties. Traditional harvest of penguin eggs has been suspended. A new counting method was used to measure the density of rockhopper penguins on Nightingale Island. Monitoring of rockhopper penguin populations has been carried out since 1992 on the Tristan da Cunha archipelago.

Many groups of taxa (plants, lichens, invertebrates) are not well documented, and the status of many species is unclear. This could mean that there are further unknown declines. Botanical surveys were carried out through the RSPB South Atlantic Invasive Species project (2006-2009). A plant survey project was also part-funded by OTEP with a baseline plant vegetation survey carried out in 2011/12 to assess the distribution and abundance of native and introduced plant species, as well as to inform future conservation management of the island's habitats.

Wildlife monitoring manuals have been developed for the Tristan Islands. Monitoring manuals published in 2009/10 and included in the BAP.

A deep-water marine survey was carried out for Gough in 2013.

The South African Government supported ornithologists to remain on Gough throughout the year to carry out research in 2013/14. A team (Gough 60) of biologists, meteorologists, a medic, radio operator, and mechanics were on Gough Island until September 2015. During the takeover from Team Gough 59, one of the tasks carried out was a Tristan albatross *Diomedea dabbenena* chick count. The 2014 albatross chick count saw the lowest ever recorded chick count for the Tristan albatross.

In 2015, the *SA Agulhas II* trip to Tristan and Gough provided an opportunity for 16 conservation specialists to travel to the islands and join the core South African National Antarctic Programme 2015/16 team also on the ship. Research includes: seabird monitoring, annual monitoring of breeding success, survival, and population counts, among other field work for 14 breeding species on Gough. Four conservation workers have also been carrying out seal research.

Invasive Species

Tristan da Cunha has legislation to protect habitat outside of protected areas; the Conservation of Native Organisms and Natural Habitats (Tristan da Cunha) Ordinance, 2006, 'provides for the protection of natural habitat on Tristan da Cunha'. Tristan da Cunha's conservation legislation and policy are being reviewed and updated.

Invasive species, particularly rodents and plants, are having an ongoing impact and causing continued species declines. Particularly affected are burrowing seabirds and albatrosses on Gough Island, as well as the Gough bunting *Rowettia goughensis*.

Through the RSPB *South Atlantic Invasive Species Project*, a South Atlantic Invasive Species Strategy and Action Plan (2010) was produced. Through a visit to New Zealand, staff from South Atlantic UKOTs learnt about aerial eradications and restorations. Training was carried out on Tristan da Cunha. Through this project, the legislation related to invasive species was also reviewed.

The 2014 RSPB study *Eradication of invasive alien vertebrates in the UK Overseas Territories*, provided one strategic assessment to rank all of the UKOTs'. Gough Island in the Tristan da Cunha group is the top priority island restoration project in the UKOTs due to the presence of a large number of globally threatened and globally important breeding seabird species, two endemic land birds and the high impact of predatory house mice *Mus musculus*. An eradication project is looking to start possibly in 2018. *A Feasibility Study for the Eradication of House Mice from Gough Island* was published in 2008 and the logistics for a potential eradication were trialled and assessed in 2013.

Improving biosecurity and minimising the arrival of new species is a high priority, as is preventing rats reaching Gough and other uninvaded Tristan islands. Another aim is to reduce the number of feral sheep on the Base (the high plateau) at Tristan. Biosecurity measures are in place on the smaller islands of Nightingale and Inaccessible, and are regularly reviewed. There is also a general prohibition on the transportation of native organisms between islands/islets and releasing live specimens not originally derived from an island/islet, with limited exceptions.

The arrival of new marine invasive species is a great concern. Tristan has had two recent shipwrecks both of which brought new additions to the marine fauna. One fish species, in particular a Porgy *Diplodus argenteus argenteus*, has successfully colonised Tristan Island. It is still not known what impact these new species may have.

A Baseline Vegetation Survey of the island of Tristan was carried out 2011/12 to assess the distribution and abundance of native and introduced plant species. This was to inform future conservation management of the island's habitats.

Clearance of invasive logan-berry plants was carried out at Sandy Point.

Externally funded projects that the Government Department is involved with include the control and eradication of invasive plants on all of the islands. Invasive plants control work has almost succeeded in eradicating New Zealand flax from Nightingale and almost clearing it from Inaccessible. Invasive Plant

management for selected priority species has been implemented on all 4 main islands of Tristan da Cunha. The New Zealand Christmas tree *Metrosideros excelsa* is controlled on Tristan.

See the following page for some aspects of the problems caused when the *MS Oliva* ran aground in March 2011.

Planning, EIA and Legislation

Environmental Impact Assessments are to be carried out prior to new major developments. Action points in the Tristan Biodiversity Action Plan (BAP) stated that policies will be produced that require infrastructure/ development projects to undergo EIAs and that the construction of a new harbour will undergo EIA, in particular to mitigate the potential introduction of invasive species. However, the development control framework is limited and has not been seen as a local legislative priority. Nonetheless, under the Conservation of Native Organisms and Natural Habitats Ordinance 2006, permits are required for any construction or agricultural or horticultural activity within a nature reserve.

The *Gough and Inaccessible Island Management Plan* does have an objective on access, infrastructure management, and development and proposed priority actions e.g. 'form a single consistent zoning plan for the WHS [World Heritage Site]' (which has not been done yet).

Pollution

The Conservation of Native Organisms and Natural Habitats (Tristan da Cunha) Ordinance, 2006, outlines a liability framework to be adhered to if an offence is carried out under the Ordinance.

Climate-change, Renewable Energy and Waste Management

Previously, rubbish was buried underneath volcanic ash. This was unsatisfactory due to the smell and the fact that it was unsustainable and attracted vermin. An environmental impact assessment was carried out and there are plans for an incinerator, which would also help to keep the rat population down.

Environmental Education

A school vegetable garden started during the South Atlantic Invasive Species project has continued and led to the development of more local horticulture with freshly grown vegetables now available in the island store.

In 2011, there was a Tristan school film festival. JNCC and University of West Scotland provided funding for the purchase of filming equipment and the children made films to be shown at a festival in Scotland. Jim Kerr, then schoolteacher on Tristan had been overseeing the project and also encouraged underwater filming.

Tristan Studies is integrated into the school curriculum. This programme includes study of Tristan's native flora and fauna and issues on conservation, biodiversity and sustainability. Expatriate Geography specialist, Richard Grundy, originally introduced the topic and taught it to the 14-16 age range in the 1980s. It was an examination subject, mode 3 Certificate of Secondary Education (CSE). The highest grades were considered the equivalent of a GCE 'O' Level. This examination ceased in the late 1980's. Jim Kerr returned to Tristan as Education Adviser in 2009. Tristan Studies was still being taught but was relying on outdated notes that Jim had previously made. By this point in time, there was a Conservation Department. It was part of their remit to get the students involved in projects, e.g. counting penguins and monitoring other seabirds. However, school involvement was not common due in part to the dangers of reaching seabird colonies. In the last few years of Jim being at the school, some fieldwork and trips were organised, e.g. a visit to Nightingale and Inaccessible for four students. During each activity, the students were able to encounter the expertise of visiting scientists and experts.

UKOTCF produced and provided to the school a supply of a book on Tristan natural history designed to make the results of recent studies and Tristan's great international importance available to local school students. When Jim returned to Tristan, teachers were making good use of this *The Natural History of Tristan da Cunha* by Paul Tyler and Alison Rothwell, as well as the *Field Guide to the Animals and Plants of Tristan da Cunha*, edited by Peter Ryan (Percy FitzPatrick Institute, University of Cape Town).

When Jim was working in the school in 2014, IGCSE Geography was added to the curriculum and Tristan Studies topics were aligned to topics on the IGCSE course.

International Agreements

Tristan da Cunha is included in the UK's ratification of the Convention on Biological Diversity, CMS, CITES, the Ramsar Convention and the Agreement on the Conservation of Albatrosses and Petrels.

Economic Value of Sustainable Use

Lobster fishery and sustainable approach to use of marine resources

In 2011 Tristan da Cunha gained a Marine Stewardship Council award and international recognition as a high quality and sustainable fishery for its rock lobster. This has enabled Tristan to widen its market and develop further its fishing industry, which is vital for the

sustainable future of the community. The product goes to a variety of markets in the USA, Japan and Australia; and, in October 2014, the first Tristan lobster was imported into the European Union.

The Tristan Fishery is managed in a unique way, with the island having an agreement with a single user to guarantee that the licensee has a good incentive to invest in the long-term sustainability of the lobster. Although an exclusive concession on its own should provide enough incentive for good management, a minimum size has been added along with: seasonal closures, boat and trap restrictions, catch quotas, and a ban on taking females bearing eggs. There is a vessel-based fishery and an island-based fishery, with the two sectors closely linked as they utilise the same markets and resource. They also differ considerably in terms of catching and processing the lobster. A by-catch of octopus is usually sold in South Africa.

A project to develop a Marine Management Plan includes research on the rock lobster, and concludes in 2016. Lobster stocks around Inaccessible and Nightingale Islands seem to be recovering after being covered in soya when the *MS Oliva* ran aground in March 2011, spilling 1500 tonnes of heavy fuel oils and approximately 70,000 litres of diesel which spread around Nightingale and Inaccessible Islands, in addition to 65,000 metric tonnes of soya beans. The situation is still fragile, with regard to setting quotas. Experts believe that the oil is most likely to have impacted juvenile lobsters (aged 1-3) which are often found on shallow vertical rocks and in tidal pools. However, the effect on the juveniles will be apparent only from approximately 2017 onwards. Thus, a conservative total allowable catch has been set. Recent catch per unit effort results from Nightingale show good signs of recovery.

The greatest threat today is posed by illegal, unregulated and unreported (IUU) fishing, and there is virtually no capacity to assess, let alone control this activity in Tristan's waters.

Much of the economy of Tristan depends on the commercial lobster fishery. Total Allowable Catch (TAC) quotas for the commercial Tristan rock lobster fishery are in place and regularly reviewed with input from Marine Resource Assessment and Management (MARAM) at the University of Cape Town. Fishery independent biomass surveys have been running since 2006. These are carried out prior to the start of each fishing season. MARAM and the Tristan Fisheries Department have been working together to produce Harvest Control Rules (HCR) and Operation Management Procedures (OMP) as part of MSC certification requirements. These are currently in place in Tristan, Inaccessible and Gough. The OMP for Nightingale will be implemented once the effects of the *Oliva* marine incident are better understood.

Still to do

Obtain additional funds to expand the Conservation Department and support its activities. Additional funds must be obtained to carry out additional smaller projects. Sufficient resources must be obtained to maintain a continued staff presence on Gough Island. This is essential for continuing invasive plant control work. UK HMG and NGOs must provide increased support so that biodiversity does not suffer on the islands.

Does the Biodiversity Action Plan include implementation actions? If not, should these be incorporated in a revision for 2016 onwards?

The BAP 2012-2016 was an updated version of the BAP 2006. Has an advisory committee therefore been established to oversee the management of Protected Areas?

Is implementation of the management plans for Gough, Inaccessible and Nightingale Islands being monitored/ reviewed? If not set up review/ reporting procedures.

Review the Conservation Ordinance and update if required.

Update Tristan da Cunha's conservation legislation and policy.

Have action plans been produced for invasive species?

Sorting and packing the lobster catch (James Glass, Tristan Fisheries Department)

If not, these should be produced. In particular priority should be given to those key invasive alien vertebrate species as identified by the RSPB study *Eradication of invasive alien vertebrates in the UK Overseas Territories*.

Strengthen biosecurity measures.

Carry out and publish research into the impact of new invasive species resulting from recent shipwrecks.

Produce action plans for urgently addressing this issue.

Develop an emergency protocol for dealing with new marine invasive species as quickly as possible.

Initiate and complete Gough Island mouse eradication.

Complete eradication of New Zealand flax from Nightingale and Inaccessible.

Are reports produced periodically to demonstrate how targets for the *Gough and Inaccessible Islands World Heritage Site Management Plan* is being met? If not reviews/ reporting should be taking place.

Update legislation to include elements for designating nature reserves based on science and including public consultation procedures.

Are reports being produced regarding meeting the objectives of the BAP? If not they should be and if they are they should be more readily available.

Produce management plans for the northern rockhopper penguin if this has not already been done.

Develop legislation addressing the threat of long-line fishing to seabirds.

Establish a TdC population trend monitoring programme which can be used for all species.

Does the Fishery Limits Ordinance need updating if it has not been updated since 2001?

Has the Strategic Sustainable Development Plan been updated? Are the objectives of the Strategic Development Plan being met and achievements reported? If reports are not being produced, they should be and they should be widely available.

Reduce number of feral sheep on the Base [high plateau] on Tristan

Construct an incinerator for waste disposal. Develop a waste disposal strategy based on the results of the Environmental Impact Assessment.

Strengthen EIA policy and the development control framework and a more open approach generally.

Implement the Gough and Inaccessible Management Plan fully.

Extend Tristan Rock Lobster Darwin project.

Complete surveying of *Oliva* wreck and the oil rig sites for invasive species.

Has a strategy been developed for addressing future spills from ships? If not, one should be developed.

Produce an invasive Species Action Plan for the porgy.

Implement marine monitoring programme.

Complete review of data management and observer reporting.

Obtain adequate resources for effectively policing waters.

Produce a Marine Management Plan for the Tristan da Cunha Marine Zone.

Investigate options for fisheries monitoring control and surveillance within the TdC group.

Are sustainability measures included in the Agricultural Ordinance? If not, should legislation be produced addressing any impacts that agriculture may have upon biodiversity and the local environment as a whole?

Will the new Agricultural Advisor be providing guidance on implementing sustainable agricultural practices on the island?

Designate the Nightingale Group as a Ramsar Site, and consider what work is needed to allow a site for Tristan itself to be delineated for later designation.

Data needed for taxa for which trends are unknown.

Is information collated being fed into the BAP? If not it should be and the BAP should be periodically reviewed and updated.

Increase Fishery Department's knowledge-base and understanding of the marine ecosystems, in particular lobster stock dynamics. Increase monitoring and research capacity.

Check and publish efficacy of legislation and enforcement by analysis of the two major ship-wreck incidents.

Make reports on outcomes of projects/EIAs etc. more widely available – it is hard to find reports online and many local workers are not aware of particular reports that have been recorded in various places, e.g. through the minutes of meetings. Tristan greatly requires additional external funds for future conservation work, but if reports are not easily accessible regarding what is needed, it is hard to know where to direct resources.

Provide students at the age of 16 with the opportunity to gain the equivalent of at least 5 IGCSEs including Maths, English, Geography, Science and IT. This would allow some of them to access further education in the UK or South Africa.

Falkland Islands

In October 2015, Executive Council approved a full review of the 2008 Biodiversity Strategy and a public consultation on a new draft Biodiversity Framework; this was adopted in January 2016. The framework includes a summary of progress towards Aichi targets. (The Framework replaced the 2008 Biodiversity Strategy.) In January 2016 approval was received to request extension of the Convention on Biodiversity (CBD) to the Falkland Islands. The UK ratification of the CBD was extended formally to the Falkland Islands in June 2016. The principles in the CBD are to be acknowledged through the revised Biodiversity Framework.

In 2013, the South Atlantic Environmental Research Institute (SAERI) was founded as an academic organisation conducting research in the South Atlantic. It aims to conduct research in both the natural and physical sciences, teach students, and build capacity within and between the South Atlantic Overseas Territories. A data-curation centre established by SAERI to improve access to research and data, and SAERI science symposiums and other initiatives encourage knowledge sharing and knowledge transfer. A Geographic Information System (GIS) Centre is currently being established by SAERI.

Protected Areas

The Falkland Islands Biodiversity Framework (2015-2030) identifies 9 habitats and species which are particularly vulnerable, and 22 threatened plants. The Framework sets out an ecosystems approach and identifies eleven ecoregions as being present in the Falkland Islands.

The Environmental Mainstreaming project (2012) identified the need to strengthen and expand the network of protected areas in the Territory, including marine areas, which may require revision of the Conservation of Nature and Wildlife Ordinance.

National Natures Reserves (NNRs) have been declared to protect 19 mainland and island group sites of biodiversity importance. The terrestrial protected areas were reviewed in 2014.

There are no existing Marine Protected Areas (MPAs), although there are some seasonal fishery restrictions to protect spawning grounds and a 3 mile 'no take' zone around the shoreline for commercial fisheries. In 2014, UK funding, through Darwin Plus, was successfully granted to the South Atlantic Environmental Research Institute to consult and develop a marine spatial planning network for Falkland Islands marine waters. The project will inform discussions about how best to manage the marine environment, and whether or not MPAs provide a useful tool as part of a broader approach.

Legislation exists to designate Marine Protected Areas up to 15 nautical miles from the shore.

Management plans have been produced for Sea Lion Island, a Ramsar Wetland Sites of International Importance, and 6 of the nationally protected NNRs.

Species Protection

In 2012, an Environmental Mainstreaming Project was launched to establish a strategic overview and identify gaps in knowledge or capacity, and barriers to action. A Biodiversity and Environmental Mainstreaming Group has also been established

Species Action Plans have been developed for the following species: southern rockhopper penguin *Eudyptes chrysocome*, Cobb's wren *Troglodytes cobbi*, ACAP-listed seabirds (black-browed albatross, southern giant petrels, white-chinned petrels), seals and sea-lions, and cetacean species.

Monitoring and Baseline Data

The Falklands Conservation annual Seabird Monitoring Programme has been in place since 1987 and monitors the main breeding seabird species around the Falkland Islands. Island-wide 5 years census of penguin and albatross species have been undertaken by Falklands Conservation since 1995.

An annual census and behavioural assessment of the main elephant seal breeding site at Sea Lion Island has been in place since 1994.

An island-wide census of breeding southern sea lions was undertaken in 2015, following the previous 2006 census.

Monitoring programmes are underway for inshore fisheries, seaweed biodiversity and the Patagonian toothfish by the South Atlantic Environmental Research Institute.

A Royal Zoological Society of Scotland project has established baseline data and monitoring of birds of prey including southern caracara *Caracara plancus*, striated caracara *Phalcoboenus australis* and turkey vultures *Cathartes aura*. This was followed by an island-wide census of striated caracara conducted by Falklands Conservation in 2014/15.

A Native Plants Programme has produced a native vascular plants checklist for nationally/globally threatened species and identified 17 internationally recognised Important Plant Areas in the Falkland Islands.

ACAP implementation guidelines for the Territory were produced in 2010. These provide recommendations for ongoing monitoring as part of the International Plan of Action – Seabirds. The Islands host major proportions of the global breeding populations of black-browed albatrosses *Thalassarche melanophris* (ca 67%) and

southern giant petrels *Macronectes giganteus* (ca 40%), and an additional nine non-breeding ACAP species have been recorded as visitors to the territorial waters of the Falkland Islands. Demographic monitoring of black-browed albatross is undertaken at 2 major breeding sites since 2003 and 2006.

Marine environment monitoring is undertaken by the Shallow Marine Surveys Group. Publications include: studies on sponge biodiversity, species ranges of cephalopods, scaled squid *Pholidoteuthis massyae* and bathyal octopus *Muusoctopus eureka*.

Invasive Species

In 2010, a South Atlantic Invasive Species Strategy and Action Plan was produced, and Defra funding to the Joint Nature Conservation Committee (JNCC) was used for rodent eradication projects, management of invasive alien plants, marine invasive species monitoring and a zebra trout *Aplochiton zebra* restoration initiative. A Biosecurity Risk Assessment Framework is in place.

The Shallow Marine Surveys Group has produced an Invasive Species survey of Stanley and Mare Harbours (2011).

The Environmental Mainstreaming Project (2012) has identified gaps in biosecurity legislation and noxious weed legislation. In 2015 Darwin funding was secured to enhance biosecurity capacity in the Territory.

In 2013 a three-year FIG-funded project was started by CABI to look at methods of controlling invasive European earwigs *Forficula auricularia* in the Territory. This was followed by a current Darwin-funded biological control project focussing on earwig control.

A Biosecurity and Invasive Species Strategy is proposed in the Biodiversity Framework.

Rat eradication efforts are being undertaken in the Territory, over 70 small islands are now rat-free, thanks to planned eradications undertaken locally.

Planning, EIA and Legislation

The Updated Development Plan (Structure Plan and Town Plan) - has policies to protect biodiversity.

Environmental Impact Assessment legislation exists as part of the Planning Permission and Off-Shore Hydrocarbons Permitting processes. Mandatory terrestrial Environmental Impact Assessment (EIA) legislation was introduced in 2015 and requires EIA to be undertaken where significant impacts on the environment are likely.

Under the Offshore Minerals Ordinance, an Environmental Impact Statement (EIS) must be submitted prior to any extractive work, as well as oil spill contingency plans and waste management plans. All EIS documents are made public and distributed to local environmental non-governmental organisations, interested government departments and other stakeholders, who are given 42 days to comment. In 2012, *Guidance Notes on the Production of Offshore Environmental Impact Statements for Field Developments* were produced in 2015 to promote compliance with Territory requirements.

Pollution

Oil pollution is managed by the Environment Protection (Overseas Territories) (Amendment) Order 1997, the Merchant Shipping (Oil Pollution) Act 1971, Merchant Shipping Act 1995 and Oil in Territorial Waters Ordinance 1987.

Small- and larger-scale wind-power generators in the Falkland Islands (Falkland Islands Government)

Climate-change, Renewable Energy and Waste Management

Achieving high domestic renewable energy usage

The Falkland Islands' location necessarily means that imported fossil fuels are expensive to use, and transporting them long distances presents risks. In Camp (everywhere outside of the capital, Stanley) small isolated farms and settlements have, until relatively recently, often been reliant on diesel generators that would provide power for a limited time each day.

To respond to the challenge of developing cheaper, more secure and (for Camp) 24-hour power, the Islands have been taking advantage of one source of energy that is potentially cheap, green and in plentiful supply – wind power. A six-turbine wind farm in Stanley the capital produces approximately 33% of total electricity requirements for Stanley. There is also the development of a wind power facility at MPA the military base.

The Islands Plan 2014 - 2018 identifies the need to implement a responsible strategy to mitigate effects of climate change, including exploring further take-up of renewables in the Territory. Currently, 40% of domestic energy requirements are from renewable sources. The Government is exploring the possible use of tax incentives to encourage further investment in renewable energy in rural areas as part of its rural development strategy. In 2013, an agreement was reached with the Ministry of Defence for the construction of additional wind-turbines to provide power to the Mount Pleasant Complex. In November 2015, the Falkland Islands adopted an Energy Strategy, the overall goals of which are to facilitate sustainable development and economic growth, and for the national greenhouse gas emissions of the Falkland Islands to be as low as possible within that framework.

A farm improvement programme places emphasis on holistic farming. Organic certification in recent years has encouraged further improved farming practices. The energy subsidy on wind-turbines has been a success, with over 90% of farm settlements utilising wind power.

An EU-funded project entitled *TEFRA – Terrestrial Ecosystems of the Falklands – a Climate Change Risk Assessment*, which began in 2012, aims to increase understanding of and address some of the potential threats to plant community diversity, pasture growth, water availability and ultimately the potential of soils to sequester carbon as a consequence of changes in the climate. The first phase of the project is using 2020-2080 climate change predictions to model impacts on plant distributions and ecosystem services delivered by plants and grasslands. A risk assessment is being carried out as part of the second phase to evaluate the likely impacts of climate change on the plant diversity and ecosystem services of the Falkland Islands. The final phase will be to produce a National Climate Change Action Plan for the Falklands.

A Waste Management Strategy Options report was produced in 2011 for comment and a full Waste Management Strategy and Plan is due for development after this consultation. The Territory has a Tourism Development Strategy in operation and a Tourism Code of Practice to encourage sustainable behaviours and patterns of consumption by visitors.

There appears to be a good level of stakeholder engagement in the extractive industries, and the conservation of biodiversity is at the forefront of policy. A 2013 Hydrocarbon Development Policy Statement makes explicit that 'development of the hydrocarbons industry must ensure the protection and conservation of the Falkland Island's environment and biodiversity'. FIG (in partnership with the local private and voluntary sector) completed a gap analysis to identify key gaps in environmental knowledge that need to be addressed to ensure that future oil and gas exploration/production does not adversely affect the environment. Following completion of the gap analysis, FIG and the oil companies active in the Islands agreed to jointly fund a £600,000 programme of scientific research to fill the identified gaps. Work commenced in 2013 for a two year period.

The Territory has largely sustainable extensive farming practices as well as a managed fishery with sustainable quota system and well established scientific monitoring of fishery and impacts. A Waste Action Plan has been agreed and a Co-ordinator appointed (production of a longer-term strategy is an Islands Plan Commitment).

Environmental Education

Falklands Conservation provides environmental education material for schools as part of the MoU with FIG as well as community programmes. There are school children visits to Camp, i.e. Kidney Island, and there is an active Falklands Conservation watch group. Additionally there is a range of educational material relating to the heritage and natural environment of the Territory. A series of natural history documentaries featuring the Falklands are now freely available to the Territory, and others..

International Agreements

The Falkland Islands are included in the UK's ratification of the Kyoto Protocol on Climate Change, the Ramsar and Bonn (Migratory Species) Conventions, and CITES and the ACAP agreement.

In June 2016 the UK ratification of the CBD was formally extended to the Falkland Islands.

Economic Value of Sustainable Use

See Mainstreaming project under protected areas section.

Still to do

Make legislative provisions.

Make further site designations and implement stronger protection.

Produce Action Plans for each of the eleven ecosystems, and for each of the ten priority habitats and species (unless subsumed into relevant Ecoregion Action Plan).

Review the Conservation of Wildlife and Nature Ordinance in the short term (subject to wider drafting priorities) to reflect species protection changes (i.e. plant schedule).

Close gaps in biosecurity and noxious weed legislation.

Develop Invasive Species Plans.

Make further Ramsar Site designations .

Act to strengthen and expand the protected area network, which may require revision of the Conservation of Nature and Wildlife Ordinance.

Rather than designate land arbitrarily just to meet Aichi Targets (currently less than 5% of the terrestrial area is designated and there are no marine protected areas), a locally tailored approach is proposed in the Falkland Islands Biodiversity Framework (2015-2030) to implement proactively a spatial approach to conservation and, in doing so, contribute towards delivery of the CBD.

Produce National Red List (based on international criteria and best practice documents).

Produce a National Climate Change Action Plan for the Falkland Islands.

Revise Planning Ordinance.

Facilitate further take up of renewables.

Consider how best to manage the marine environment in light of the findings of the ongoing Marine Spatial Planning Project.

Undertake Ecosystems Services Assessment.

Produce longer-term waste strategy

Produce a National Climate Change Action Plan for the Falkland Islands as part of TEFRA project.

Draft Genetic Resources Policy.

South Georgia and the South Sandwich Islands

The Convention on Biological Diversity (CBD) was extended to SGSSI in 2015.

A draft National Biodiversity Action Plan (NBAP) has been produced, which provides a roadmap for how GSGSSI will meet the environmental objectives outlined in the Strategy 2010-2015. This NBAP is expected to be launched shortly.

Protected Areas

Enactment of the Wildlife & Protected Areas Ordinance 2011 has enabled the designation of Specially Protected Areas. The Strategy 2016-2020 identifies the need to develop management plans outlining their rationale and protection.

The South Sandwich Islands Sustainable Use MPA was designated in 2012, by the Marine Protected Areas Order 2012. The MPA covers 1,007,000km^2. Additional restrictions were added in 2013 including a no-take zone, an area ban on all bottom fishing below 2250m and an additional closed area for Patagonian toothfish. The area has an operating Management Plan, enforcement is carried out by *FPV Pharos SG* and the levels of illegal fishing are considered to be low.

The majority of South Georgia and the South Sandwich Islands have been identified as potential Ramsar sites, totalling 4032km^2.

Species Conservation

The 2011 Wildlife & Protected Areas Ordinance provides protection for species and habitats and improves measures to prevent against invasion of non-native species. A legislative review is currently underway; policy proposals will be available for stakeholder comment before legislation is drafted.

Regular consultation of fisheries stakeholders has resulted in well managed and sustainable fisheries. Recently the Government implemented a 2-year licensing arrangement for toothfish and icefish fisheries, an initiative which was broadly supported by stakeholders as part of the consultation.

The fisheries of South Georgia & the South Sandwich Islands (SGSSI) are among the best managed in the world. The South Georgia Patagonian toothfish longline fishery been certified as a sustainable and well-managed fishery by Marine Stewardship Council (MSC) since 2004. The SGSSI Government also commissioned an independent peer review of the toothfish fishery by the MSC, which rated it as one of the best managed in the world.

These high standards are underpinned by scientific research and precautionary management practices. SGSSI fisheries have been influential in raising fishery standards and sustainability within the Convention of the Conservation of Antarctic Marine Living Resources (CCAMLR) region and beyond. Commercially fished species include: Patagonian toothfish, Antarctic toothfish, Antarctic krill and mackerel icefish.

The CCAMLR approach is used in management of fisheries and there is a high level of enforcement across the maritime zones, resulting in very low instances of illegal fishing. Reducing incidental mortality of seabirds by fisheries in SGSSI is of considerable importance. The 2008 assessment of SGSSI fisheries as part of the UN Food & Agriculture Organisation *International Plan of Action – Seabirds*, found a suite of mitigation measures had led to a reduction in by-catch, which is currently at a negligible level.

Marine biodiversity in South Georgia has been found to be extremely diverse by British Antarctic Survey researchers, and at risk from environmental change. GSGSSI is implementing utilization of new technologies and remote sensing techniques that maximise understanding of the Territory's flora and fauna with minimal environmental impact.

Monitoring and Baseline data

South Georgia hosts globally important breeding populations of petrel and breeding populations of 4 species of albatross (wandering *Diomedea exulans*, black-browed *Thalassarche melanophris*, grey-headed *Thalassarche chrysostoma* and light-mantled sooty *Phoebetria palpebrata*). Since the early 1960s, BAS scientists have monitored populations of albatross and giant petrel at Bird Island, South Georgia.

Comprehensive annual demographic studies of banded birds determine adult and juvenile survival rates, individual reproductive success and population trends. South Georgia Surveys carry out regular monitoring of bird species on Albatross and Prion islands.

ACAP implementation guidelines for the Territory were produced in 2010. This provides recommendations for ongoing monitoring. Review of these guidelines on a regular (5-year) basis is included in the draft NBAP.

The development of long-term monitoring sites to track the recovery (following large scale restoration project – see below) of burrowing seabird populations and monitor the changes in coastal vegetation communities following the eradication of rats, mice and reindeer, is underway.

Invasive Species

Largest island restoration ever attempted

An extensive and ambitious habitat restoration project commenced in 2009: The *South Georgia Habitat Restoration Project*, led by the South Georgia Heritage Trust (SGHT). This has involved extensive fund-raising as the costs involved were significant and nothing on this scale had been attempted previously. It was a major undertaking for a small NGO. The 3 main phases of the project were completed in 2015, the aim being to rid South Georgia of rodents. Monitoring will continue to ensure the island is rat-free. Eradication will allow breeding birds (including endemics as well as huge numbers of many seabird species) to survive and reproduce successfully, as well as the survival of plant and invertebrate species. In fact, the South Georgia pipit *Anthus antarcticus* is showing signs of recovery as a nest was found in January 2015 in an area previously overrun by rats. The task of placing at least one bait pellet (a fatal dose) into the path of every single rodent on the island took three seasons, 1000 flying hours, 300 tonnes of bait, 900 drums of aviation fuel, 13 person years in the field and a total spend of around £7m.

During the project, reindeer were removed in 2013 and 2014 by a Government initiative with the expertise of Sami herdsmen and Norwegian Government conservation agency marksmen. Almost 7,000 reindeer were removed from nearly 40,000 ha of the ice-free ground. In the presence of reindeer, large areas of coastal vegetation had become almost entirely denuded causing a shift in plant community composition and a reduction in soil stability.

In the absence of grazing pressure, both native and non-native plant species have been able to grow. However, in some areas, it is the invasive species that are responding more rapidly. A weed management project was designed to coincide with the reindeer eradication and utilise this narrow window of opportunity to assess the distribution of non-native plant species while they are at their most visible and then instigate a control programme to reduce target populations to zero density before they spread.

South Georgia pintails, one of the species benefitting from the restoration project (Dr Mike Pienkowski)

The *South Atlantic Invasive Species Strategy and Action Plan* was produced in 2010, with strategic aims to develop effective prevention and response measures.

Monitoring of marine invasive species in South Georgia has been conducted to address priority alien invasive species and climate change needs in the South Atlantic Overseas Territories.

A comprehensive report on weeds in South Georgia was produced in 2013. 76 non-native plants have been recorded; the report provides recommendations for their management/eradication depending on the extent of their coverage. In 2016 the government of South Georgia and the South Sandwich Islands published a non-native plant management strategy 2016-2020.

The SGSSI government published comprehensive biosecurity protocols in 2014. Visitor-specific biosecurity information has also been provided, and all visitors are required to complete a biosecurity self-audit and checklist prior to landing. Effective implementation of biosecurity protocols is essential to maintain rodent-free areas.

BAS continues to monitor ocean temperature around SGSSI. Surface waters near South Georgia are 1.8 degrees Fahrenheit (1.0 degrees Celsius) warmer in winter and 4.1 degrees Fahrenheit (2.3 degrees Celsius) warmer in summer than they were 80 years ago. Model projections suggest that South Georgia will experience increased stress from ocean-wide acidification over the coming decades. The marine biodiversity on South Georgia's continental shelf is particularly sensitive to environmental change.

GSGSSI has allocated resources for the development of a research and evidence plan for SGSSI fisheries to enhance understanding of the marine ecosystem, fishery - environment interactions and implications of long-term environmental change.

South Georgia Heritage Trust and Dundee University will host the international conference on invasive species in 2017.

Planning, EIA and Legislation

Environmental Impact Assessment policy requires further development; it is currently based on the Environment Protocol to the Antarctic Treaty. EIAs which have been carried out are available for view on the SGSSI government website, where most consultation is carried out. Assessments are carried out on major projects such as the Grytviken hydroelectric plant and the Prion Island boardwalk, as well as for the eradication of rodents from South Georgia. However, the Strategy 2016-2020 identifies the need to develop robust and standardised EIA procedures and mitigation measures for ***all*** projects in the Territory. Implementation of the new Strategy and draft NBAP will enable improved Environmental Impact Assessment legislation, including the development of standard online application documentation and the establishment of a panel of experts to externally review projects. Consultation with groups of stakeholders (e.g. tourism, fishing) is carried out annually.

Recognising the important contribution tourism makes, GSGSSI is committed to working with industry to develop management policy and site-specific management plans that take account of the impact and benefits of tourism and integrate visitor management into the new system of Protected Areas.

A particular challenge is to maintain visitor access without compromising biosecurity. The South Georgia Tourism Management Policy 2015 currently operates to achieve this, alongside site-specific visitor management plans to identify impacts and threats to flora, fauna and biosecurity and provide codes of conduct. Tourism-related legislation is under review in the 2016-2020 Strategy. As part of this, GSGSSI plans to implement a new system of visitor management, likely to include 3 categories: standard, working and special.

The draft NBAP sets out in detail measures which review and improve biosecurity protocols, including an annual biosecurity review, production of a biosecurity handbook which is freely available online, and the development of an early detection rapid response strategy for invasive alien species.

Pollution

Currently GSGSSI policy for prevention of marine pollution is based on Annex IV (prevention of marine pollution) of the Environmental Protocol to the Antarctic Treaty, with Annex VI to the Protocol (the 'Liability Annex') adopted by the Antarctic Treaty Consultative Parties in 2005.

A review into the possibility of extending the ban on the carriage of heavy fuel oil (HFO) into Territorial Waters was undertaken in 2010. As part of the Strategy 2016-2020 the government will consider the prohibition of the carriage and use of heavy fuel by all fishing vessels in the SGSSI MPA by 2020.

The government has carried out an extensive clean-up operation on South Georgia to remove oil residues, asbestos, demolition waste and other hazardous products from Grytviken. This included removing over 600 tonnes of oil from three former sealing and whaling vessels. The BAS Environmental Office also cleaned up the abandoned BAS huts, reindeer fences and former work sites on Bird Island, and ensured operational BAS huts were free from hazardous substances. Historic whaling stations remain hazardous and substances that are harmful to wildlife persist in these locations, including heavy oil contained in storage tanks, pipe-work and sunken wrecks. Removal of this oil is required but challenging due to the prohibited area status of the stations.

Climate-change, Renewable Energy and Waste Management

The primary source of power is hydroelectric, with use of diesel generators kept to a minimum.

The draft NBAP states that economical, fuel-efficient travel will be a requirement for the fisheries patrol vessel *Pharos SG* during routine transit, and the amount of domestic and building waste generated at King Edward Point will be minimised, with recycling where possible.

Environmental Education

One of the pillars of the Strategy 2016-2020 is to improve public awareness of the stewardship of SGSSI by effective dissemination of information. The government website acts as a portal for consultation and also provides documentation, such as annual reports, financial reports, management plans, legislation, press releases and visitor information.

Additionally there is a range of educational material relating to the heritage and natural environment of the Territory. A series of natural history documentaries featuring territories, including SGSSI, by Stewart McPherson, recently became freely available.

International Agreements

SGSSI is included in UK's ratification of the Ramsar Convention on Wetlands (but has yet to designate a Wetland of International Importance), the Convention on Migratory Species (Bonn) (under which the Agreement on the Conservation of Albatrosses and Petrels, in which it is also included, is a part), the Convention on International Trade in Endangered Species (CITES, Washington), the Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR), the London Convention on the Prevention of Marine Pollution, the United Nations Convention on the Law of the Sea, Vienna Convention for the Protection of the Ozone Layer and the Aarhus Convention.

The Convention on Biological Diversity (CBD) was extended to SGSSI in 2015.

Stakeholder Stewardship

Stakeholder meeting held at the Foreign and Commonwealth Office annually.

Economic Value of Sustainable Use

The South Georgia Patagonian toothfish longline fishery been certified as a sustainable and well-managed fishery by Marine Stewardship Council (MSC) since 2004. The SGSSI government also commissioned an independent peer review of the toothfish fishery by the MSC, which rated it as one of the best managed in the world.

Still to do

Engage with stakeholders to develop a suite of terrestrial protected areas in line with obligations under CBD.

Develop management plans for Specially Protected Areas.

Continue monitoring to establish whether rat eradication has been successful.

Action recommendations in the 2013 non-native plant report.

Publish a weed management strategy.

Make Ramsar designations.

Monitor regularly marine biodiversity, including cetacean populations

Develop Species Action Plans for black-browed, grey-headed and wandering albatross.

Seel research council funding required for investigations into climate, glacial retreat and the upper atmosphere.

Develop and implement improved Environmental Impact Assessment procedures based on best practice.

Consider if any additional legislation is required in order to support revised environmental assessment procedures.

Continue alertness to biosecurity with regard to visitors.

Review the environmental footprint of GSGSSI operations in Stanley and develop an environmental / energy policy.

Continue raising standards in the fisheries and ensure best practice is adopted, including by developing a plan to phase out heavy fuel, restricting bunkering activity, and introducing a minimum ice-classification standard in the toothfish fishery.

Implement CBD Biodiversity Action Plan.

Enhance CCAMLR inventories of Vulnerable Marine Ecosystem habitats and species.

Improve baseline data on benthic habitats (including those in benthic closed areas) and intertidal zones.

Gather data on terrestrial and marine invertebrates and plants.

Develop a plan to phase out the carriage of heavy fuel oil (HFO) in Territorial waters.

Identify suitable project partners and methodologies for removal or remediation of the risks from waste oil and other harmful substances in old whaling stations.

Continue monitoring and assessment of ocean acidification and its effects on biodiversity.

Improve public awareness of the stewardship of SGSSI by effective dissemination of information.

Review immigration legislation.

British Antarctic Territory

Protected Areas

Under the Environment Protocol, Antarctic Specially Protected Areas (ASPAs) and Antarctic Specially Managed Areas (ASMAs) can be designated. All designated ASPAs and ASMAs are subject to operating management plans, which are regularly reviewed.

High sea marine protected areas

The South Orkney Islands Southern Shelf Marine Protected Area was designated in 2010 and covers 94,000 km^2 after the UK put forward a proposal to the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR). All fishing activities, as well as waste disposal and discharge from fishing vessels within its boundaries are prohibited. The South Orkneys MPA was the world's first entirely 'High Seas' marine protected area. This area also has huge scientific value, and the creation of the MPA has enabled more co-ordinated research activities. Scientists in the region have been conducting important research on predator ecology, biodiversity and climate change over many decades. Current research has shown exceptionally high biodiversity and is exploring the region in order to better understand the distribution and composition of the seafloor communities around islands in order to try and ascertain how animals, vulnerable to fishing and other human impacts, live. This will help to manage the region's natural resources in the future.

Species Conservation

The Convention on the Conservation of Antarctic Marine Living Resources was adopted in 1980. The Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) gives effect to the Convention's objectives, governing fisheries using an ecosystem-based and precautionary approach. The Convention also establishes a scientific Committee. The Commission meets on an annual basis, to adopt conservation measures and other decisions, which apply to harvesting activities within the Convention Area.

Conservation measures are recorded by CCAMLAR 2016/17 https://www.ccamlr.org/en/system/files/e-schedule2015-16_1.pdf

Pod of orcas, British Antarctic Territory (Dr Mike Pienkowski)

Monitoring and Baseline data

The Scientific Committee on Antarctic Research (SCAR) initiates, develops and coordinates scientific research in the Antarctic region and provides objective independent scientific advice to the Antarctic Treaty. British Antarctic Survey (BAS) is a component of the Natural Environment Research Council (NERC). It undertakes the majority of Britain's scientific research on and around the Antarctic continent.

BAS undertakes long term monitoring and survey of petrel, penguin and seal species. In the northern Scotia Sea, BAS undertakes also annual surveys of krill in areas close to where seabird and seal monitoring occurs. Though outside BAT, this monitoring provides valuable

insights into krill stocks further south within BAT.

Invasive Species

Work is being undertaken to assess the colonisation status of known non-native species in the Antarctic terrestrial environment. In 2011, Resolution 6 (2011) Antarctic Treaty Consultative Meeting XXXIV (ATCM) adopted a *Non-native Species Manual*. Guidance documents have also been produced, such as guidance for visitors and environmental managers following the discovery of a suspected non-native species in the terrestrial and freshwater Antarctic environment, vehicle cleaning procedures and 'don't pack a pest' pamphlets. BAS has carried out research into non-native species on terrestrial and freshwater environments in the Territory, and produced a handbook of practical biosecurity measures.

Pollution

The Antarctic Act 2013 and Annex VI on 'Liability arising from environmental emergencies' to the environmental protocol of the Antarctic Treaty, reflect the polluter-pays principle.

Planning, EIA and Legislation

The aim of the Environmental Protocol is to ensure 'the comprehensive protection of the Antarctic environment'. One of its guiding principles is that an Environmental Impact Assessment (EIA) be carried out before any activity is allowed to proceed. Activities should be planned and conducted on the basis of information sufficient to allow prior assessments of, and informed judgements about, their possible impacts on the Antarctic environment (Article 3, Environmental Protocol). In 2014, the UK tabled a paper to the CEP on *Improvements to the Antarctic Environmental Impact Assessment process*.

Climate-change, Renewable Energy and Waste Management

The Environmental Protocol and Convention on the Regulation of Antarctic Mineral Resource Activities (CRAMRA) bans all mineral resource activities in Antarctica (other than for scientific research).

BAS ensures minimal environmental impact in its operations via the use of an Environmental Management System (certified to ISO 14001 standard). BAS Environment Office has produced a waste management handbook. The FCO has commissioned the production of various guidance publications for sustainable activities in the Territory such as aircraft/ cruise operations.

Environmental Education

BAS produces a range of educational resources for schools, including the website 'Discovering Antarctica'.

International Agreements

The Antarctic Treaty system

Stakeholder Stewardship

The Antarctic Treaty recognises tourism as a legitimate activity in Antarctica, and BAS welcomes a small number of visits to its stations from International Association of Antarctica Tour Operators (IAATO) affiliated companies during the austral summer.

Pitcairn Islands

Protected Area

The largest marine protected areas on the blue planet

Pitcairn's waters are exceptionally rich. Over 1,200 marine species have been recorded around Pitcairn, including whales and dolphins, 365 species of fish, turtles, seabirds and corals. Forty-eight of these species are globally threatened and some are endemic. Researchers have over several years been collecting data to inform the scientific basis for the creation of a marine reserve.

The island community believe that a large no-take reserve, while allowing for traditional small-scale uses, conserves their unique environment, attracts scientific and conservation interest in studying and protecting the area, and also increases tourism to the islands, all of which benefit the local economy.

Plans for the MPA were outlined in the UK Government budget in 2015. The proposed MPA would total 834,334 km^2. The UK Government and NGOs have provided a budget to look into a variety of matters such as monitoring systems, enforcement etc. A current Darwin-funded project is aiming to develop a marine management plan with the Pitcairn community and UK Government for fisheries and the proposed marine reserve.

Enforcement in the MPA is a major consideration. To overcome this, Pew Charitable Trusts have partnered with Satellite Applications Catapult, a UK government initiative created to help foster economic growth through the exploitation of space. The '*Eyes on the Sea*' project is pioneering a system that enables government officials and other analysts to identify and monitor unlawful activities in global waters, particularly illegal, unreported, and unregulated fishing (IUU).

Humpback whales off Henderson Island, Pitcairn Group (Steve Darroch)

This cutting-edge technology merges satellite tracking and imagery data with other sources of information, such as fishing vessel databases and oceanographic data, to help monitor seas across the globe. A system that can synthesize and automate analysis of multiple data sources in near real-time to identify vessels acting suspiciously is being developed. The system can then alert users so that they can investigate and take action. It is considered much more efficient than current processes, and drastically reduces the human power required to detect and analyse suspicious activities. A virtual watch room has been established which will focus on marine reserves and will be powered by the Catapult system.

Species Protection

Baseline data have been established for several plant species *Angiopteris chauliodonta*, *Coprosma benefice*, *Diplazium harpeodes*, *Abutilon pitcairnense* and *Myrsine* sp.

A restructure has renamed the Natural Resources Division as the Environmental, Conservation and Natural Resources Division, and has introduced a Flora Conservation Officer role. This role manages Pitcairn's endemics and natives, ensuring that plant stocks are increased and data are gathered; this role works collaboratively with the Nursery which is responsible for the propagation of flora.

In 2010, the Henderson petrel *Pterodromo atrata* was

added to the appendices of the Convention on the Conservation of Migratory Species.

In 2009, the Governor of Pitcairn Islands signed a Memorandum of Understanding (MOU) for the Conservation of Cetaceans and their Habitats in the Pacific Island Region.

Monitoring and Baseline Data

Reef monitoring is ongoing as part of Polynesia Mana Coral Reef Monitoring Network.

Invasive Species

In 2010, a report was produced reviewing biosecurity operations. The Territory has a Biosecurity Department dealing with all aspects of biosecurity and quarantine matters such as fruit-fly, pests, invasive plants, zoosanitary, cargo inspections, environmental impact assessments etc. An Environmental Protection Ordinance is currently being finalised. Once implemented, the Ordinance will provide some powers to the biosecurity department as well as permits for importing certain items.

There has been research into invasive plant species and forest restoration on the island, including experimental removal of *Syzygium jambos* and replacement with native tree and shrub species.

Ducie and Oeno Islands have been rat-free since a project carried out in 1997. In 2011, the eradication of rats on Henderson Island was attempted, but was unsuccessful probably due to unusual weather. There is currently an investigation into how further attempts will be made, along with eradication of rats on Pitcairn itself. A 3-year Darwin-funded project addressing the threat of non-native species ended in September 2015.

In 2014, some 440 goats were eradicated. There are no feral goats on Pitcairn but goats are managed (penned) for pets and food.

Planning, EIA and Legislation

Environmental Impact Assessments are required when applying for all construction and development projects.

Pollution

Section 7 Local Government Regulations Part II B. Rubbish deals with pollution. Enforcement measures consist of fines and penalties which range from 10-20 NZ dollars.

Climate-change, Renewable Energy and Waste Management

In early 2016, the *Reef to Ridge* Project was due to action the waste management activity. The objective is to improve waste management practices on Pitcairn and the project will implement a waste-management building, recycling area, glass-crusher, mulch and soil area for the community to use, as well as a wood-chipper. As part of the project, a consultant from SPREP (Secretariat of the Pacific Regional Environment Programme) has been engaged and will provide waste-management policy and protocols, and a waste survey will be conducted. Sustainable development of the tourism sector is identified as important in the Strategic Development Plan 2012-2016. There is significant potential for environmentally responsible marine tourism after the creation of the MPA. The government has produced a set of conditions for visits to Pitcairn by cruise ships and other vessels. The Territory has received 2.4 million Euros from the European Development Fund SPD to develop the tourism sector and infrastructure on the island. Repopulation of the Territory is an integral part of sustainable development in the Pitcairn Islands. A Repopulation Plan 2014 – 2019 has been produced by the Pitcairn Islands Council to promote the flow of skill and investment into the Territory.

In mid 2015, a Renewable Energy Fund was signed off for Pitcairn and is a sector of EDF 11. French Polynesia and New Caledonia have already set up some renewable energy systems and have expertise, which will prove invaluable to Pitcairn.

Environmental Education

A new Education Policy was produced in 2012, but it does not mention the environment specifically.

In 2011, the RSPB developed two bird pins, the Pitcairn reed warbler *Acrocepalus vaughani* and the Henderson fruit dove *Ptilinopus insularis*, which are sold to generate income for Pitcairn conservation.

The need for continued development of promotional material on the Territory's natural environment is identified in the Strategic Development Plan 2012-2016. This would be for scientific and eco-tourism interest.

Additionally there is a range of educational material produced by UKOTCF and other collaborators relating to the heritage and natural environment of the Territory, including a Virtual Tour on www.ukotcf.org. A series of short natural history documentaries featuring the UKOTs, including Pitcairn, by Stewart McPherson, recently became freely available.

International Agreements

Pitcairn is included in UK's ratification of the Ramsar Convention on Wetlands (but has yet to designate a Wetland of International Importance), the Convention on Migratory Species (Bonn), and the Convention on International Trade in Endangered Species (CITES, Washington) – but not yet the Convention on Biological Diversity. In 2009 the Governor of Pitcairn Islands signed a Memorandum of Understanding (MOU) for

the Conservation of Cetaceans and their Habitats in the Pacific Island Region.

Still to do

Pitcairn Environmental Management Plan 2008 document requires updating.

Environmental work has used external funding and this will need to continue.

Continue to address invasive plant species and work towards forest restoration on the islands.

Eradicate rats on Henderson and Pitcairn.

Build capacity in the Pitcairn Islands to maintain pest-free status of areas, once this has been achieved.

Designate proposed MPA.

Designate Ramsar Sites for Ducie, Oeno and possibly Henderson in the first instance

Continue to gather baseline data for under-researched species, in particular flora and invertebrates of Pitcairn Island as a priority, with emphasis on locating pockets of the original biota.

Implement best practice in EIA and other planning matters, as well as consultative strategic environmental assessment and planning.

Move towards renewable energy provision of electricity.

Develop technical partnerships in the area of research projects and applications, including innovative sustainable energy technologies.

Raise awareness to reduce energy consumption and promote energy efficiency.

The Fisheries and Marine Management Plan is in progress and has a deadline for completion in 2016.

Continue development of sustainable agricultural practices.

Extend the Convention on Biological Diversity to the Pitcairn Group.

Review priority baseline data needs.

Continue development of promotional material on the Territory's natural environment.

Continue efforts to ensure sustainable harvesting of timber for the wood carving industry.

British Indian Ocean Territory

Coral reef, anemone and fish (Chagos Conservation Trust)

Protected Areas

In April 2010 a 640,000km^2 no-take Marine Protected Area (MPA) was established.

The Territory is a member of the Big Ocean Network which was formed in recognition of the particular management challenges which arise from very large MPAs. Enforcement is a key focus of the network; being investigated currently is how arrests can be matched to legislation.

Species Protection

There is a Conservation and Management Plan 2012.

Restoration of natural vegetation in place of the introduced coconut is being undertaken in three large experimental plots in Diego Garcia.

Monitoring and Baseline data

Annual expeditions to survey and monitor continue, as does effort to connect the community in Britain

In 2010, the UK government designated a marine protected area around the Chagos Bank. At the time, this was the largest ever created. An international team of scientists visit Chagos frequently to carry out a variety of surveys and research. Over 200 scientific papers have been published so far from scientific exploration of the Territory. In order to make this more widely available, a new website has been created: ChIP (Chagos Information Portal). ZSL's *Connect Chagos: People and Wildlife* project is delivering an outreach and environmental education project for the Territory. Through a suite of community days, nature taster sessions and the Connect Chagos Environmental Training Course, it aims to connect Chagossian people in the UK and overseas with their natural heritage as well as building employable skills. The project provides free training courses on the environment of Chagos.

There have been extensive research expeditions funded in the Territory and the Conservation and Management Plan 2012 makes recommendations for further science, monitoring and management activities. Several species such as turtles, crabs and birds have seen marked improvement in status over the last 40 years, since coconut farming no longer takes place.

Royal Botanical Gardens Kew has compiled a full plant species list for the Territory. Updated species lists are being formulated by ZSL as part of a long-term monitoring project. Further monitoring in the Territory is as follows:

- Coral cover, since 1996
- Juvenile coral monitoring and coral demographics of stony and soft corals, since 1998
- Continuous sea temperature monitoring, since 2006
- Sea level and wave monitoring
- Reef fish biomass monitoring
- Coral growth changes monitoring
- Seabird research and monitoring since 1996
- Reef sharks (relative number/scientific dive), 1975
- Turtle research and monitoring, since 1996

The Conservation and Management Plan 2012 identifies further research needs.

Invasive Species

A 2014 Defra-funded review into invasive vertebrate species in the UKOTs identified the house crow, common myna, bloodsucker, Madagascar tody, feral donkey and cat as problem-species in the Territory.

In 2013-2014, a Darwin-funded a project eradicated rats from Île Vache.

There is an ongoing feral cat eradication programme in Diego Garcia, carried out by staff on the US military base: the method used is trapping only. The recommendation is to continue the eradication programme until total eradication is achieved, thereby preventing the risk of cats reaching other islands. There are some biosecurity measures in place, such as the *Diego Garcia Brown Tree Snake Awareness and Prevention Plan*.

Planning, EIA and Legislation

There is currently no planning or development legislation in place in the Territory, and no requirement to undertake Environmental Impact Assessments. This is needed in view of the extensive works at Diego Garcia. In addition, a resettlement feasibility study published in 2014 identifies this as an area requiring strategic policy development if the Territory were to be resettled, to prevent uncontrolled development from spreading across the most valuable landscapes, coastlines and habitats. Development in the Diego Garcia military base area is controlled by the Diego Garcia Final Governing Standards 2011.

Pollution

The 2012 Management Plan identified the current system of fines as being possibly too small to act as a sufficient deterrent.

In 2014 the US Navy was found to be in breach of pollution legislation by discharging human waste from vessels into the sea. The FCO states that a comprehensive mitigation plan is now underway.

Climate-change, Renewable Energy and Waste Management

An Ocean Thermal Energy Conversion (OTEC) system was proposed in 2009 for Diego Garcia and a renewable energy site assessment was carried out in Nov 2013. The main Diego Garcia electricity generating facility is inefficient, and a replacement programme is underway. In January 2015, a $15 million project was completed in Diego Garcia for a new landfill facility with a leachate collection and disposal system, an incinerator facility and a recycling facility.

Environmental Education

See above for ZSL's *Connect Chagos: People and Wildlife* project. Additionally there is a range of educational material relating to the heritage and natural environment of the Territory. A series of shortnatural history documentaries by Stewart McPherson and featuring the UKOTs, including BIOT, have recently become freely available. The Chagos Conservation Trust is very active in producing and promoting publications from research in the region. Publications are available to view on the Chagos Conservation Trust website.

International Agreements

The Territory joined UK's inclusion in the Convention on the Conservation of Migratory Species of Wild Animals MoU on migratory sharks in 2012.

In Ramsar, CMS and CITES; not yet CBD.

Still to do

An updated Management Plan to identify areas where baseline data-gathering is still required.

Implement eradication/control programmes for already identified problem invasive species, and extend these throughout the archipelago.

Designate Chagos Ramsar Site.

Overcome the practical problems in joining CBD.

Strengthen enforcement, with arrests matched to legislation.

Re-evaluate current penalty system to increase deterrent.

Undertake further science, monitoring and management activities.

Develop planning and development legislation.

Implement international best practice in EIA and other planning matters, as well as consultative strategic environmental assessment and planning.

Continue alertness and monitoring of pollution levels, and report on the outcome of the mitigation of the US Navy pollution, so that lessons can be learned.

As identified in Conservation Management Plan 2012:

- Continue to repeat filming of reefs where possible.
- Continue to support the collection of samples of coral for genetic analysis and, in exchange, require copies of final results and publications so the data can be used to help management.
- Continue to investigate connectivity of Chagos marine life with other areas of Indian Ocean and within Chagos.
- Continue to sample coral cores for palaeo-climatology work. Results have been valuable both for Chagos and for the international community engaged in climate

change.

- Continue terrestrial & cryptic invertebrate research.
- Survey unvisited shallow areas.
- Undertake ‘mesophotic’ and deeper reef research.
- Monitor atmospheric gases as a key link in the global understanding of atmospheric changes and monitor alkaline levels.

Cyprus Sovereign Base Areas

Protected Areas

On 30 December 2015, the Sovereign Base Areas (SBAs) announced the designation of five Special Areas of Conservation (SACs) in the SBA official gazette.

Now there are 5 SACs and 3 Special Protection Areas (SPAs). Due to their importance for birds, including breeding griffon vultures *Gyps fulvus* and Eleonora's falcons *Faco eleonorae* as well as migratory birds, SPAs were designated at Akrotiri and Episkopi cliffs (in the Western SBA, WSBA) in 2010.

Conservation, protection and sustainable management of forests are governed by the Forest Ordinance 2014. This includes powers to declare areas to be national forest on the basis of important biodiversity, genetic diversity or landscape features. Agricultural areas, especially in Eastern SBA (ESBA), are in an area with a hugely depleted and polluted aquifer. Sustainable use of water is fundamental.

Livhadi Marshes, West Sovereign Base Area (Thomas Hadjikyriakou)

Large wetland restoration in Akrotiri

Akrotiri Marsh (also known as Fassouri Marsh) is part of the Akrotiri wetland complex. The complex is a Ramsar site, an Important Bird Area (IBA) and the equivalent of an SPA of the EU Birds Directive, according to the mirror law (26/2007) in the Cyprus SBAs. The newly built Akrotiri Environmental Education Centre (replacing the previous site) is situated near here in order to provide education opportunities to local and Cypriot visitors, especially schools. The marsh, which covers an area of around 150 hectares, has been largely unmanaged for the last 20 years resulting in overexpansion of reeds (*Arundo donax* and mainly *Phragmites australis*) and consequent loss of bird and plant diversity. To restore the area and its biodiversity, a team including local and international non-government organisations, the SBA Administration and Akrotiri Environmental Education Centre are implementing a conservation project.

The restoration of the marsh to a mosaic of habitats will lead to improved conditions for priority breeding species including: spur-winged lapwing *Vanellus spinosus*, black-winged stilt *Himantopus himantopus* and ferruginous duck *Aythya nyroca*. Opening up the reed-bed for grazing livestock, a traditional activity at the site, will provide socioeconomic opportunities for the local community, as well as contributing to longer-term reed-management. In addition, traditional handicraft production is being enhanced and promoted to support the local community.

A series of baseline studies is being conducted: a topographical survey, a productivity study and population assessment for key breeding birds, and a study on native killifish *Aphanius fasciatus*. Monitoring of water quality, and bird and plant species richness and abundance are being undertaken. A water-management regime and a site-management plan are being drafted to ensure the sustainable long-term management of the site.

Enhanced facilities for birdwatching tourism, including an observation tower, walkway for visitors and information material are being constructed.

Species Protection

A policy instruction was produced in 2014 outlining Sovereign Base Areas Administration (SBAA) strategic objectives for tackling the illegal poaching of wild birds. This was followed by a Bird Trapping Action Plan in September 2015, which outlines information, activities and strategy for bird trapping in the SBAs. Legislation is in place that allows the SBA courts to impose penalties on those involved in the illegal killing and trading of birds – including custodial sentences. The maximum penalty for an offence is 3 years imprisonment or a fine of €17,086, although actual fines imposed are often small. Recent examples of punitive action for mist netting / use of limesticks were a 2-month prison sentence and a €700 fine for one person, and another received 3 months imprisonment. The SBAA have allocated more resources to enforcement and anti-poaching actions, and over the last 5 years (01/01/10 – 31/3/15) over 130 people have been convicted within the SBAs for mist-netting offences under the SBA Game and Wild Birds Ordinance 2008.

BirdLife Cyprus began monitoring the small population of griffon vultures *Gyps fulvus* in 2011. The GYPAS Project, which took place between 2011 and 2014, aimed to reintroduce birds from Crete and tackle illegal poisoning and lack of food to protect the remaining Cypriot population of birds.

Green and loggerhead turtles: An Action Plan was developed for the 2010 turtle nesting season. Patrols, training and enforcement by the SBAA are ongoing.

The *Red Data Book of the Flora of Cyprus* contains the basis for species action plans for threatened plants in the SBAs.

Monitoring and Baseline data

An international species action plan was developed for Eleonora's falcon *Falco eleonorae* in 1999. Episkopi and Akrotiri cliffs and Cape Aspro are important breeding sites for this species. Surveys are carried out annually and the current population is stable at ~250 birds.

Invasive Species

Invasive *Acacia saligna* has been spreading rapidly. SBAA has been making considerable efforts to manage *Acacia saligna*, including mapping, prioritisation and clearance. From December 2014 to January 2016, a total of 54 acres of acacia have been cleared in Cape Pyla.

Planning, EIA and Legislation

Schedules 1 and 2 of The Environmental Impact Assessment Ordinance 2010 specify which developments require an EIA. Further requirements are laid out in the Game and Wild Birds Ordinance 2008 under 'Appropriate Assessment'. In January 2014 it was announced that there would be a relaxation of controls of non-military developments in the SBAs. Public consultation was carried out in July 2014. New planning zones and policy are under development, alongside a review of legislative and procedural requirements and strategic environmental assessment in the new planning regime. A policy document outlining restrictions on development in the coastal region of the SBAs was produced in 2014. Further consultation took place in August/September 2015.

Pollution

The Chief Officer has the power to order a penalty to pay for the environmental recovery of land in instances of an offence being committed.

Climate-change, Renewable Energy and Waste Management

The SBAA policy encourages renewable energy schemes which improve the energy self-sufficiency of Cyprus. Legislation may change with the development of the new planning regime.

Environmental Education

Akrotiri Environmental Education Centre has been instrumental in providing environmental education and promoting the value of the local environment and the special features of the SBAs. It receives over 10,000 visitors / year and has recently moved to new premises which will allow its programme of activities to expand further. Its work is accredited and used by the authorities in the Republic as well as the SBAs. Additionally there is a virtual tour by UKOTCF (www.ukotcf.org) and a range of educational material by the Centre, relating to the heritage and natural environment of the Territory. A series of natural history documentaries featuring UKOTs, including SGSSI, has recently become freely available.

International Agreements

The Cyprus SBAs are included in UK's ratification of the Ramsar Convention on Wetlands, and the Convention on Migratory Species (Bonn), but not CBD or CITES.

Stakeholder Stewardship

The 2015 Darwin Initiative project to restore Akrotiri marsh and create a flagship wetland, aims to not only restore species diversity at the site, but also increases socio-economic opportunities for local villagers.

Still to do

Formalise local forum meetings and work towards formulation of a detailed strategy for action and review of progress to date.

Translate Ordinance provisions into action on the ground, such as the implementation of the Akrotiri management plan and relevant management actions.

Sustain and target enforcement of anti-poaching legislation; allocate additional SBA police resources to enable more operations and seizures of trapping paraphernalia. Act to remove illegal activities and buildings, to start the restoration process, including intensive wardening to prevent illegalities, such as hunting, exercising dogs, driving 4x4.

Increase enforcement in the marine environment, especially with regard to illegal fishing, overfishing and sea turtle disturbance.

Assess the impact of rats and cats on birds.

Assess the extent of marine invasive species by underwater surveys.

Finalise and implement fully the management plan for Akrotiri peninsula.

Allocate additional resources for sea turtle efforts in ESBA.

Is an assessment of soil degradation required?

Implement best practice in Appropriate Assessment and EIA and other new planning rules, as well as consultative strategic environmental assessment and planning.

Increase enforcement in the marine environment, especially with regard to illegal fishing, overfishing and sea-turtle disturbance.

Increase sustainability in management of water resources in agriculture, including closing or registering all illegal boreholes (including Cape Pyla area).

Implement fully Akrotiri Peninsula management plan of Ramsar site.

Extend the Convention on Biological Diversity and the Convention on International Trade in Endangered Species (CITES) to the SBAs.

Review range, quality and availability of baseline data for natural resources and biodiversity.

Address the pollution of beaches by litter.

Assess the health of coral in SBA waters by underwater surveys, and follow by appropriate action.

Gibraltar

Protected areas

In 2014, HMGoG designated the entirety of British Gibraltar Territorial Waters as a Marine Nature Area.

In addition, the Southern Waters of Gibraltar Management Scheme (established under the Habitats Directive) as well as the Gibraltar Marine Monitoring Programme (established under the Water Framework, Marine Strategy, Birds and Habitats Directives) provides the relevant marine biodiversity strategy framework. A review of the Southern Waters Management Scheme was due to be published in early 2016. The Southern Waters of Gibraltar are also protected at EU level, classified as a dual Special Area of Conservation and Special Protected Area (SAC/SPA), as designated through the Designation of Special Area of Conservation (Southern Waters of Gibraltar) Order 2012 and the Designation of Special Protected Areas Order 2011.

See also the paragraphs on the Southern Waters in the following section on Species Protection.

In 2013, through the Nature Conservation (Designation of Gibraltar Nature Reserve) Order 2013, the Gibraltar Nature Reserve was extended from 1,454,457 m^2 to 2,370,079 m^2 [21% to 35% of total land area 6,800,000 m^2]. The new plan contains a wide range of recommendations for the Upper Rock and other areas of ecological importance in Gibraltar.

The Gibraltar Biodiversity Action Plan and the Upper Rock Management Plan are implemented under the umbrella of the Gibraltar Nature Reserve Management Plan. This Management Plan, which includes habitat restoration and species action plans, brings together all the relevant stakeholders with regards Gibraltar's terrestrial biodiversity strategy.

Commonwealth Park, Gibraltar – recently created from a town-centre car-park (HM Government of Gibraltar)

Gibraltar, through the UK, has proposed that the Gorham's Cave Complex be a UNESCO World Heritage Site. The Complex contains four sea caves - Bennett's, Gorham's, Vanguard and Hyena - lying at the base of the eastern face of the Rock of Gibraltar. The caves lie within the youngest of five tectonic uplift blocks of the Jurassic limestone of the Rock. This represents the last 250,000 years of the history of the western Mediterranean, including a most important site for Neanderthal Man. UK included this amongst only 13 sites on its 2012 statutory list of Tentative World Heritage Sites, from which proposed nominations over the following approximate 10 years have to be drawn.

Through the urban planting programme, a total of 158 trees have been planted around Gibraltar. The Gibraltar Commonwealth Park was created in 2014, and has become one of Gibraltar's prime recreational areas. The Department of Environment and Climate Change (DECC) has worked extensively on the maintenance and improvement of existing green areas. A GIS mapping and assessment was due to be completed before 2016.

During 2013 the artificial reef programme was re-invigorated by the DECC with the creation of the North West Artificial Reef; the reef has proven to improve marine life in the area.

Work is being carried out also on other marine ecosystem restoration. This facet of the marine programme draws on historical sources and local expert knowledge to inform the re-introduction of species that were known to exist in the Bay such as fan mussels,

oysters and sea grasses, the latter species being a tremendously important source of food, oxygen and habitat as well as an excellent carbon sink.

Species Protection

The Gibraltar Biodiversity Action Plan covers 5 bird species, 1 group and 5 species of mammals, all orchids, 9 species of flowering plants and 5 invertebrate species.

Actions carried out for the protection/ conservation of species are as follows:

1. On-going programme of protection of endemic vegetation and restoration of natural habitats since 2005.
2. In conjunction with the office of the Town Planner, the DECC is able to issue Tree Preservation Orders to protect endemic and established trees from development pressures.
3. Seeds of the Gibraltar campion *Silene tormentosa* are stored with the Millennium Seed Bank and many specimens are grown annually at Gibraltar Botanical Gardens. The Gibraltar campion was thought to be extinct, but was rediscovered in 1994.
4. The Gibraltar Ornithological & Natural History Society and the Gibraltar Veterinary Clinic are responsible, under agreement with the Government of Gibraltar, for the management of the macaques, e.g. for looking after their well-being and general condition as well as monitoring their population levels.

In 2014, a species of bat new to Gibraltar, the Isabelline serotine *Eptesicus isabellinus*, was captured during a netting session conducted by the Gibraltar Bats Project team at the Gibraltar Botanic Gardens.

Surveys are being undertaken for all planted green areas throughout Gibraltar so as to ensure better management and preservation of all such areas.

The DECC is working with the University of Algarve's Centre of Marine Sciences to plant mature plants and seedlings around Gibraltar.

GONHS and the DECC are working on a programme on the Barbary partridge *Alectoris barbara*. Numbers were low due to predation, lack of habitat etc. Clearing habitat and dealing with some of the other problems have commenced, as well as a re-introduction.

Whilst there are no commercial fisheries in Gibraltar, the issue of illegal commercial fishing is covered by the Southern Waters of Gibraltar Management Scheme and under the 2013 report *The management of marine living resources in the waters around Gibraltar*. There is active and rigorous monitoring and enforcement of all marine commercial activities within British Gibraltar Territorial waters. This was used to help design new regulations:

The Marine Protection Regulations 2014, along with the Tuna Preservation Regulations 2014, are both tools of the Nature Protection Act 1991. They allow for the regulation of fishing activities carried out legally in British Gibraltar Territorial Waters, e.g. fishing with long-lines. Other activities carried out by, e.g., sports fishing operators are also regulated subject to the conditions of the relevant permit classes included in the aforementioned regulations. The Tuna Preservation Regulations specifically cater for the regulation of tuna fishing activities.

Key measures introduced in the regulations include the licensing requirements, minimum fish sizes, the creation of Marine Conservation Zones and the ability to implement designated fishing seasons and yearly quotas for species requiring additional protection such as Atlantic bluefin tuna *Thunnus thynnus*.

No-anchoring zones have also been designated and included in the regulations to protect the seabed, particularly reefs. On the eastside for example, the no anchoring zone extends up to 1.5 nautical miles. There are currently 3 no fishing zones in Gibraltar's MCZs.

Monitoring and Baseline data

The status and trends of the main EU-listed habitats in Gibraltar have been determined through two classification exercises carried out in 2007 and 2013 respectively. These were carried out in-line with the requirements of the EU Habitats Directive. In line with this Directive, there is continued habitat surveillance and data management.

Specific assessments of marine biodiversity have been carried out in line with the requirements of the Marine Strategy Framework Directive. There is also surveillance monitoring of the Marine Special Area of Conservation.

A collaborative study of Gibraltar's bats is being carried out by the Gibraltar Museum and Gibraltar Ornithological and Natural History Society (GONHS). The project aims to establish a better understanding of local bats' habits and monitor resident and non-resident species over the next 3 years. The GONHS bat group welcomed this study which links in with the work they have been conducting over the past 6 years in monitoring bats in Gibraltar, as well as participating in International Bat Night as part of the Eurobats Agreement.

Invasive Species

The *Gibraltar Nature Reserve Management Plan* builds on the legislative requirements of the Nature Protection Act 1991 and all the Regulations that come under the Act. In doing so, it includes sections dealing with the introduction of fauna and flora that are not indigenous to Gibraltar. The Plan and the relevant Regulations are implemented and enforced by the Environmental Protection and Research Unit of the Department of

the Environment and Climate Change as well as the Gibraltar Nature Reserve Management team.

In support of the GNR Management Plan and through consultation with the DECC, the Ministry of Defence implemented their Integrated Rural Management Plan during 2014, for MOD estates in Gibraltar. This plan also contains an Invasive Species Control Programme. The overall direction is managed by the DoE.

Planning, EIA and Legislation

A government making strides in planning with support from local NGOs

The planning process on Gibraltar used to be chaired by the Minister for Economic Development. There was one other Minister there, as well as mainly civil servants, a representative of the Ministry of Defence, two NGOs: the Gibraltar Heritage Trust which concentrated on built heritage, and the Gibraltar Ornithological and Natural History Society. They were secret meetings; there was no agenda published; there were no minutes published.

With the new government, elected in 2011, the representation of NGOs on the Planning Commission increased by one, by including the Environmental Safety Group, which is another environmental NGO. The Minister no longer chairs; the Town Planner now chairs the Planning Commission. The Chief Technical Officer of the Government is there. The meetings are now held in public. People can go and present their project. And people can go and sit there and say why they oppose the project. So it is completely open and completely transparent. The Deputy Chief Minister and the Minister for Environment and Climate Change often do not vote in the same direction. And it does not matter as they are there as individuals. They carry the responsibility of being Government Ministers but say what they feel. If a civil servant votes against what people might perceive as the Government's policy, that does not matter either. So there has been a huge improvement in planning.

A command paper being produced will mean that Government projects will go through the same planning process and, if the Planning Commission throws out the applications, then they will not be developed. This is hugely important as Gibraltar has a thriving economy, and yet is still able to have great democracy.

Biodiversity issues are considered as part of the Gibraltar Development Plan. A strategic assessment (which included biodiversity issues) was carried out in 2009. The plan is now being reviewed in line with new legislative and management requirements. The plan states that all new developments must provide a minimum of 5% of total floor area as permanent green areas.

The Town Planning Act 2015 now references both the Nature Protection Act 1991 and the Environmental Protection (Trees) Act 2014, to support the 2009 Gibraltar Development Plan's references to the environment and to biodiversity. The Town Planning Act 2015 requires consideration of the impacts of any proposed development on European protected sites, such as the Gibraltar Nature Reserve: Upper Rock.

There are legislative requirements for EIAs and more stringent Appropriate Assessments (in line with the Habitats Directive) of all projects that could impact protected areas. The Town Planning (Environmental Impact Assessment) Regulations 2000 set out EIA procedures, including for developments with significant trans-boundary effects. Through the Development and Planning Commission, all building developments are assessed on environmental rankings such as energy consumption, biodiversity impact, emissions and efficiency of building materials used. The Development and Planning Commission meetings have been held in public since 2012.

All development (including those by HMGoG) projects that require planning approval are heard by the Development and Planning Commission which is based on a public consultation process.

The Commission consists of the following voting members:

(a) the Town Planner, who shall be the chairman;

(b) the Minister;

(c) five persons nominated by the Chief Minister including representatives from the Department of the Environment and Climate Change;

(d) one person nominated by the Ministry of Defence;

(e) one person nominated by the Gibraltar Heritage Trust;

(f) one person nominated by the Gibraltar Ornithological and Natural History Society; and

(g) one person nominated by the Environmental Safety Group.

Department officials are playing an increasing role in planning, as well as in the EIA process. Departmental scientists attend all DPC meetings and ensure that planning conditions are met. The Government's green procurement policy, which was instrumental in changing the environmental dynamics within the local market, is being reviewed and updated. By continuing to apply and direct the public sector's purchasing power towards green alternatives, HM Government of Gibraltar continues to stimulate the market and create niches for green initiatives, employment and economic regeneration.

Pollution

The Environment (Air Quality Standards) Regulations 2010 require that the Minister for the Environment develop Action Plans, for where the limit values stated within the Regulations are exceeded, to allow the reduction of emissions of the offending pollutant(s), therefore guaranteeing that the limit values are met within the shortest possible timeframe.

An Air Quality Action Plan has been produced, as well as legislation for reducing urban dust emissions entitled 'Environment (Control of Dust) Regulations 2010'.

There is an air quality monitoring network across Gibraltar. The air quality monitoring programme commenced in 2005 and is comprised of three air monitoring stations as well as a comprehensive network of diffusion tubes throughout Gibraltar. The objective is to monitor air pollutants to check that target levels are being kept, and action taken when they are exceeded.

Raw monitoring data obtained are processed, analysed and interpreted in order to provide information and ensure compliance requirements under the Air Quality Framework and Air Quality Daughter Directives. Data are disseminated in near real-time on the Gibraltar air quality website.

There is Government support and involvement in pollution reduction initiatives such as Clean up the World and World Environment Day.

The Government is drafting legislation that focuses on land-quality management and enforces a polluter-pays principle in respect to contamination or pollution of land.

The Environmental Action and Management Plan (2013), serves as a road map for the implementation of green principles aimed at reducing pollution. It establishes general policy goals, identifies specific action points and sets out tentative time-frames for goal achievement.

Climate-change, Renewable Energy and Waste Management

Environmental Protection Officers comprise the Department of the Environment and Climate Change law enforcement body. The Environmental Protection Unit has the role of monitoring, supervising and enforcing the Nature Protection Act (2013) on a daily basis.

In 2012, HMGoG commissioned a carbon-footprint assessment and review of all government operations, with a view to quantifying and reducing carbon emissions, as well as introducing green accounting policy into mainstream reporting.

The DECC and the recently created Climate Change Task Force, chaired by the Deputy Chief Minister, have been addressing key aspects of Gibraltar's Climate Change strategy. The strategy will be elaborated further in the revised Gibraltar Climate Change Programme and is divided into four main overarching themes which include:

1. Adapting to climate change by building Gibraltar's resilience;
2. Facilitating the transition towards a low carbon economy;
3. Improving our understanding of climate change science; and
4. Raising climate change awareness and changing consumer behaviour through educational initiatives. This follows the strategic approach adopted by the United Nations Environment Programme for combating climate change.

Some of the key measures that form part of the strategy and are being implemented already include:

- Developing and encouraging the uptake of solar energy;
- Developing and encouraging the uptake of marine renewables;
- Improving end-user efficiency.

Gibraltar's Climate Change Policy includes also a Soil Protection Policy. The aim of this policy is to provide a framework for the protection of soil and the preservation of the capacity of soil to perform various environmental functions including acting as a biodiversity pool. It therefore aims to lay down measures for the prevention of soil degradation processes. Developments which would involve the removal of significant amounts of soil would be discouraged. If such a development does go ahead, every effort should be made to find a beneficial use for the removed soil.

As part of the coastal water, bathing water and groundwater monitoring programmes, samples are collected on a monthly basis from all beaches, offshore locations around Gibraltar's coastline and from Gibraltar's freshwater aquifers. In addition, marine sediment, phytoplankton, fish and bivalve tissue samples are collected and monitored. Data collected are used by the DECC to help meet its reporting obligations under the Bathing Water, Water Framework and the Marine Strategy Framework Directives. These ensure the protection of coastal ecology and water quality, unique and valuable habitats, drinking water resources and bathing waters.

The Water Framework Directive Working Group consists of a panel of local professionals, scientists, and Government officials. It was specifically established to provide ongoing technical and scientific advice to Government on the development and implementation of the Water Framework Directive.

The EU Water Framework Directive itself requires River Basin District Management Plans to be drawn up, to classify the existing state of coastal waters,

ground waters and rivers and to identify any potential sources of pollution. The Gibraltar Plan covers only coastal waters and ground waters as there are no rivers. This, along with any relevant information is available to the public, through displays at the site as well as through the media and internet. The annual Bathing Water Report and Tourist Atlas can be viewed on the Environmental Agency website; this web resource provides also current water status for each bathing area as well as providing historical results. Bathing water quality research and findings are available also to the public through web-browser application access. They are published on an annual basis in the yearly environmental report.

Gibraltar does not currently produce any goods and is therefore considered to be a net consumer. The production of waste is therefore one of the main negative environmental impacts arising from Gibraltar's consumption of natural resources.

The long-term waste strategy requires a municipal waste treatment facility. This project is going through a renewed tender process in order to ensure that the best available technologies and best practices are adopted to ensure that Gibraltar specific environmental needs are met.

Gibraltar's recycling campaigns continue to expand, and World Environment Day 2015 saw the launch of another kerbside recycling service, the recycling of waste cooking oil.

2015 figures on recycling have already seen an increase of approximately 38.5% in mixed packaging waste such as plastic and cans, 15% on Glass, 21% on Cardboard and 60% on Paper. Additional bins were provided in 2015 to increase further the recycling rates of waste electrical and electronic equipment (WEEE). 2015 figures well surpassed the amount of WEEE recycled in 2014.

Dedicated litter wardens patrol Gibraltar daily, creating awareness, educating and deterring people from irresponsible tipping. No-dumping signs will shortly be going up in litter hotspots to further remind the public that, in Gibraltar, bins are only a short distance away and there is no excuse for the illegal dumping of refuse.

Preliminary climate change modelling and impact assessment was undertaken in 2012/2013 through the *EU's Cities Adapt* climate-change project. This highlighted zones of further research. Gibraltar-specific climate change risk analyses are therefore now being investigated.

Zones of further research are being discussed with the Gibraltar University with a view to create a Climate Resilience Strategy for Gibraltar.

The Climate Change Fund is being reviewed at present.

Environmental Education

Gibraltar has converted significant amount of its spatial, geographical and environmental data into GIS format. These were published via a dedicated web portal in 2013. This was based on the EU wide INSPIRE legislation. They are accessible via the Gibraltar geoportal on www.geoportal.gov.gi

The DECC raises awareness on a whole array of environmental issues in schools. The focus has recently been on energy-efficiency and marine awareness, as well as the launch of an underwater camera, the first of its kind in Europe. The underwater camera forms another element of the wider marine surveillance programme carried out by the DECC to monitor the status of marine habitats and species within British Gibraltar Territorial Waters. A second camera is going to be set up in summer 2016.

The Department's Thinking Green website now has a video link to the underwater camera all with real-time footage of Gibraltar's rich underwater environment: http://www.thinkinggreen.gov.gi/index.php/underwater-camera. While providing a facility for the community to learn about the marine environment it is continuously providing scientific data on Gibraltar's marine diversity and water quality.

Local NGOs also contribute and continue to drive environmental and biodiversity awareness, for example, the Alameda Gardening Club. Green space in Gibraltar is very limited. Most children in Gibraltar have no access to gardens. Thus, some have little contact with the natural environment. The Alameda Gardening Club introduces children to themes such as: horticulture, importance of plants in peoples' lives; ecology, including pollinators, conservation and recycling. The initiative is supported by the Department of Education. There are also Facebook sites where they are able to interact with the public, answering questions etc.

Clean up the World Day is organised locally in conjunction with local NGOs. This is 100% voluntary public participation.

World Environment Day is held yearly and hosted with the participation of all schools and parents.

The Environmental Agency officers take an active part in health and environmental promotion campaigns throughout the year, visiting schools and giving presentations to interested groups.

Several apps have been developed including one for the Upper Rock Reserve, which presents information on the natural environment in Gibraltar.

Guidance documents have been published to better inform the public on how the new marine regulations work, these include a marine species identification booklet which has been produced and is made available to all applicants to highlight some of the common fish and mollusc species found in Gibraltar along with their corresponding minimum sizes.

International Agreements

Ratified some years ago by the UK, Gibraltar has never before taken a full role in the activities of the ACCOBAMS (Agreement on the Conservation of Cetaceans in the Black Sea, Mediterranean Sea and contiguous Atlantic area) organisation. Its role has now been accepted and, as a first activity, the ACCOBAMS Secretariat has invited the Government's Department of the Environment and Climate Change (DECC) to take a full part in the ACCOBAMS Survey Initiative which is aimed at undertaking a comprehensive survey of the waters covered by the ACCOBAMS including British Gibraltar Territorial Waters (BGTW).

Gibraltar is included also in UK's ratification of Ramsar, CBD, CITES, CMS and Eurobats.

Still to do

Implement the *Gibraltar Nature Reserve Management Plan*.

Implement and revise the Southern Waters of Gibraltar Management Scheme.

Establish more concise and measurable conservation objectives for EU protected habitats and species.

Work towards the designation of Gorham's Cave Complex as a World Heritage Site.

In conjunction with the findings of the first data gathering round, the Gibraltar Climate Change programme 2015 will provide targets to reduce overall emissions.

Initiatives that need to be implemented include:

- Continuation of the sea-grass restoration (carbon sink) programme;
- National Energy Efficiency Action Plan, published 2014;
- Street lighting efficiency replacement programme;
- National Renewable Energy Action Plan, published 2015;
- Gibraltar Renewable Energy strategy, published 2015;
- Energy Efficiency Lighting programme for Government Buildings, rolled out in 2014 and on-going;
- Smart metering of household electrical consumption being deployed throughout Gibraltar, initiated in 2015.

Continue to raise awareness of biodiversity-related issues in the Development and Planning Commission.

Complete review of Gibraltar Development Plan.

Finish updating and reviewing the Government's Green Procurement Policy.

Complete review of Buildings Regulations. (A review of Part F of the Building Regulations has commenced. In as far as the energy performance of buildings is concerned, the relevant legislation dates back to 2008, i.e. Building (Energy performance) Rules 2008. It has been amended a number of times since then.)

Increase recycling targets.

Implement Gibraltar's Waste Prevention Programme more rigorously.

Establish municipal waste treatment facility.

Put up no-dumping rubbish signs.

End illegal fisheries, largely by foreign boats.

Designate Wetland(s) of International Importance under the Ramsar Convention.

Extend the following Conventions to Gibraltar: International Commission for the Conservation of Atlantic Tunas (ICCAT); Barcelona Convention

A new Urban Waste Water Treatment facility will be commissioned in 2016. This will ensure that Gibraltar is compliant with the EU's Urban Wastewater Treatment Directive.

Complete and enact legislation that focuses on land quality management and enforces a polluter-pays principle in respect to contamination or pollution of land.

Carry out Gibraltar-specific climate-change risk analyses.

Create a Climate Resilience Strategy for Gibraltar following further research.

Isle of Man

The Convention on Biological Diversity was extended to the Territory in 2012.

Protected Areas

The Isle of Man has one Marine Nature Reserve, designated in 2011. The Ramsey Bay and Ballacash Channel Marine Nature Reserve protects important habitats and species in the area.

Additionally a Marine Planning project is underway to introduce measures to manage the marine environment.

At the end of February 2014, 21 Areas of Special Scientific Interest were designated in the Isle of Man, one of which is also a National Nature Reserve. There is also one designated Ramsar Site and several proposed.

The Isle of Man was adopted into UNESCO's network of Biosphere Reserves in March 2016.

Species Protection

The Biodiversity Strategy states that, by 2018, all relevant legislation, regulations, schemes, incentives and codes of practice will be reviewed for consistency with biodiversity conservation, especially international obligations. The Endangered Species (Import and Export) Act 2010 was updated to adhere to the principles of CITES.

The Fisheries Act 2012 enables the Department to produce regulations which come into effect as soon as they have been signed by the Department of Environment, Food and Agriculture (DEFA) Minister.

In 2014 a consultation paper containing proposals for the future management of the queen scallop fisheries was produced. There are five Fisheries Closed or Restricted Areas, designated to promote the recovery of scallop stocks. Enforcement is in place for Regulation breaches, using *FPV Barrule*. In October 2015 the Fisheries Strategy was unanimously agreed by the department, and will be taken forward to Tynwald (parliament).

Monitoring and Baseline data

Baseline data have been gathered for oak hazel woodland and molluscs in ancient woodland. A project recording new flora is underway. Monitoring programmes exist for basking sharks *Cetorhinus maximus*, marine mammals and Calf of Man shearwaters *Puffinus puffinus*. In 2014 the Calf of Man shearwater survey indicated that the population was increasing.

Invasive Species

A marine invasives strategy is currently being drafted for the Territory. Section 14 of the Wildlife Act 1990 was updated in 2011, prohibiting the release of certain introduced species into the wild.

The Manx Wildlife Trust has produced an ID guide to marine invasive non-native species.

Planning, EIA and Legislation

Environmental Impact Assessments are required through the planning system for terrestrial developments.

Trees in the Isle of Man are protected under The Tree Preservation Act 1993.

In 2015 marine planning legislation went out for consultation; it is aimed at streamlining the consenting process for developments in the Isle of Man's territorial waters. Consultations are carried out online on the government website. A Code of Practice on Consultation was produced in 2008.

Pollution

Legislation and policies to address pollution are based on the 'polluter-pays' principle. Enforcement is carried out through the relevant Directorate.

Isle of Man has a Water Pollution Response Plan.

River pollution is monitored and a report has been compiled detailing river pollution incidents from 1997-2013.

Climate-change, Renewable Energy and Waste Management

Isle of Man is currently working towards becoming a 'Zero Waste Island' using the Waste Policy and Strategy 2012-2022. The Environment, Safety and Health Directorate deals with the Water Discharge Licence Register and Licensed Waste Disposal Sites Register, and water resource management is handled under the guiding principles of the Watercourse Management Guide 2006.

The Government's short-term renewable electricity target was 15% by 2015. The island's energy system is currently undergoing transformation. A renewable energy study was commissioned in 2010, and offshore energy opportunities are progressing. In 2013, Government adopted a greenhouse gas emissions target for the Isle of Man of 80% reduction of 1990 levels by 2050.

Environmental Education

A Biodiversity Education Officer (Manx Wildlife Trust), a part-DEFA supported post, is helping to implement the environmental education aspects of the Isle of Man government's Biodiversity Strategy.

Marine education and awareness-raising is part of the Territory's Marine Plan project. The Territory has an 'Eco-Mann' and 'Eco-Schools' initiative to help children learn about looking after the environment both locally and in a wider context.

International Agreements

CBD was extended to Isle of Man in 2012. The Isle of Man is also in Ramsar, CITES, CMS & Eurobats.

The Endangered Species (Import and Export) Act 2010 was updated to adhere to the principles of CITES.

Stakeholder Stewardship

Consultation the key to strides in Isle of Man

Two areas where consultation has been the key to success in setting strategies for conserving biodiversity and for ensuring sustainable use of marine resources are in the development of the Isle of Man Biodiversity Strategy as part of their sign up to the Convention on Biological Diversity and the creation of a Marine Protected Area.

The Isle of Man used two different approaches to show local participation and good science are both essential for well-informed management decisions to promote sustainable fisheries.

Ramsey Marine Nature Reserve (RMNR) was developed in a partnership between the Isle of Man Government and the Manx Fish Producers' Organisation. After an initial area and concept were agreed between the two parties, comprehensive stakeholder consultation led to the development of management zones and regulations. The zones within RMNR provide a full range of protection, from no-take through to managed use, appropriate to the features being protected. Conservation features protected include horse-mussel reefs, seagrass-beds and maerl (rhodolith) beds. One of the zones is a Fisheries Management Zone which is managed by the Manx Fish Producers' Organisation (MFPO). The fishermen opted to keep the zone closed to all mobile-gear fishing for 4 years. In 2013 and 2014, limited fishing was permitted by MFPO members. Strict quotas were set by the fishermen, based on scientific surveys carried out by the IOM Government and fishing industry surveys carried out by the fishermen. Fishing activities were timed to coincide with premium prices for scallops on the Christmas market, and fishermen co-operated to pool their individual quotas, reducing fuel costs and maximising profits. Fishermen have limited their fishing to a small proportion of the total area available to them, effectively extending the conservation zones of the RMNR. RMNR took 3 years to establish, from the start of the project to designation of the Isle of Man's first Marine Nature Reserve. RMNR demonstrates the benefit of investing time and resources to work in close partnership with the fishing industry and other stakeholders for conservation and fisheries sustainability outcomes.

Ramsey Marine Nature Reserve, Isle of Man (Dr Fiona Gell)

Baie ny Carrickey Closed Area (BNCCA) grew out of a gear conflict situation and public concerns about the marine environment. The location of the closed area was decided by a community committee of stakeholders representing fisheries, recreational and environmental interests. As a result of the consensus reached by the community committee, the Isle of Man Government was able to implement rapidly the BNCCA as a trial

designation with relatively little further consultation. The designation began as an area closed to trawling and dredging. The next stage was led by a group of fishermen who formed an association to manage pot-fishing within the area. Working with the Isle of Man Government and Bangor University scientists, the pot-fishermen now carry out regular monitoring and fisheries surveys within the Bay, and have implemented stricter management controls such as increased Minimum Landing Sizes for lobster and reductions in fishing effort. New initiatives include the development of a protected zone for sea-grass, a habitat survey and other proactive measures initiated by the fishermen's management association. BNCCA is an example of a community-led initiative that resulted in the rapid designation of a Marine Protected Area with fisheries and conservation benefits.

In 2010, following several years of preparatory work, a public consultation was held on the Convention on Biological Diversity (CBD), producing a document to explain what the Convention was about and what it would mean to the Island. Some ways in which this can be done are by having shorter documents in colour, and items on radio and TV. Another way is to hold meetings and work with NGOs. The Nature Conservation Forum in Isle of Man was proactive and continued its dialogue with various groups throughout the process. On the Isle of Man, 105 answers to the public consultation were received out of a population of 84,000. The Minister wanted to know if key people, e.g. fisherman, business leaders etc, were happy. The proposal had been well received, and the Minister agreed in early 2011 to the first informal request to Defra to have the assessment evaluated. In 2014, after fulfilling all the requirements including the Isle of Man's Biodiversity Strategy, the CBD was extended to the Island.

Economic Value of Sustainable Use

Ecosystem resilience is a strong theme throughout the draft Biodiversity Strategy. Most of the Territory's carbon stored in soils is in the uplands. A provisional estimate of the quantity of carbon in the Island's soils is 4.76 million tonnes. In May 2013, the Department instigated a working group of uplands stakeholders to identify the diverse uses and values of the uplands and to develop a vision for the future of the Department's uplands estate and adjoining lands. A final report on the future of the Manx uplands was produced in 2014. Recommendations include habitat restoration initiatives. DEFA has started restoring upland bogs through blocking drainage to increase carbon capture by activating peat accumulation.

Still to do

Pass & implement Biodiversity Strategy.

Review all relevant legislation, regulations, schemes, incentives and codes of practice for consistency with biodiversity conservation, especially international obligations.

Resourcing to be identified and implemented

Complete and implement marine invasive species strategy.

Make further Ramsar designations.

Review agri-environment scheme or similar to incentivise sustainable use and conservation of biodiversity.

Continue working towards renewable energy targets and zero-waste status.

Take forward Fisheries Strategy.

Undertake an audit of essential ecosystem services.

Manage the Manx uplands sustainably.

Monitor breeding hen harrier population.

Identify genetically distinct species of flora and fauna and mitigate risks to these.

Jersey

Protected Areas

A Protected Area Strategy is in draft, as is a National Park Management Plan.

The National Trust for Jersey is restoring the site at Plémont (a former holiday camp) and returning it to nature. Heathland restoration trials are being carried out.

There has been establishment of some Marine Protected Areas of no dredging / trawling. The Normandy and Jersey lobster fishery was certified independently by the Marine Stewardship Council as sustainable in 2011. Protection of maerl beds has been implemented and there are minimum landing sizes for key economic species.

There are 4 designated and one proposed Ramsar Sites.

Species Protection

The Territory has a comprehensive list of Species Action Plans in its Biodiversity Strategy. These include 19 species of plant, 8 species of insect, 3 species of reptile, 13 species of mammal, 5 species of bird, 2 species of amphibian and 1 species of fish. There is also a Habitat Action Plan for eelgrass beds (*Zostera* spp.).

Further plans are under development for: *Myosotis sicula guss* - Jersey forget-me-not, *Fratercula arctica* - Atlantic puffin, *Branta bernicla* - Brent goose, *Haliotis tuberculata* – ormer, Hedgerow Habitat Action Plan and an urban habitat statement. Habitat condition assessments are also being undertaken.

Reintroduction programmes are going ahead for choughs *Pyrrhocorax pyrrhocorax* and agile frogs *Rana dalmatina*, which include collaboration with other conservation organisations such as the National Trust for Jersey and Durrell.

Previous habitat restoration efforts have led to the recovery of species such as brown galingale *Cyperus fuscus* and Jersey forget-me-not *Myosotis sicula guss*.

The *Birds on the Edge* project is working to restore coastal habitats.

Within the Normandy and Jersey lobster fishery, maerl beds are protected and there are minimum landing sizes for key economic species.

Monitoring and Baseline data

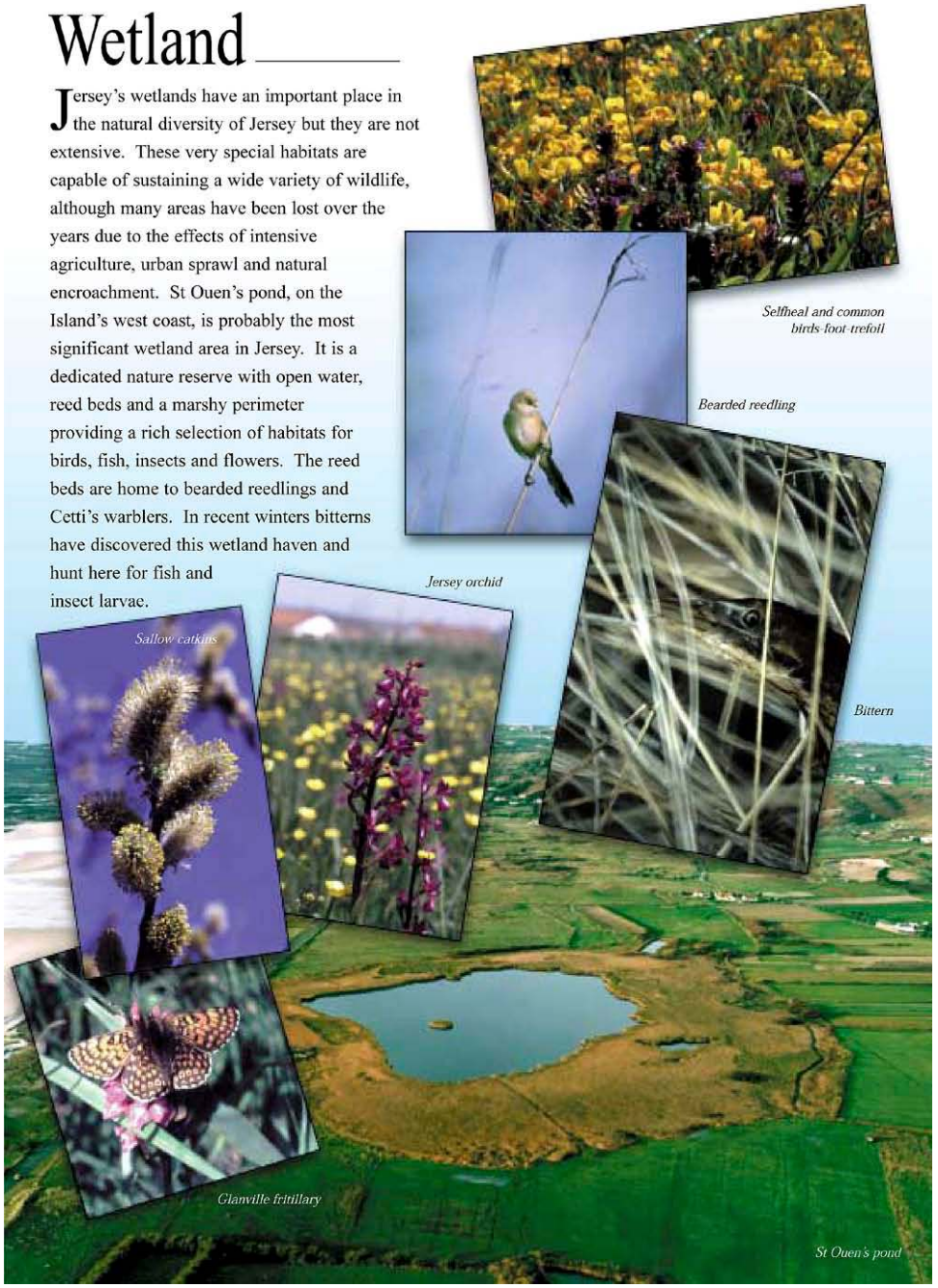
Freshwater species monitoring is carried out on a quinquennial basis.

Marine and garden birds are monitored as part of the *Birds on the Edge* project.

Monitoring programmes are also in place for butterflies, amphibians and reptiles, and bats through the Jersey Bat Group.

There are various specialist working groups between the States of Jersey and NGOs.

Sea and ground water monitoring is carried out regularly by the States of Jersey.



Remaining proposed Ramsar Convention Wetland of International Importance

Invasive Species

A draft Invasive Species Strategy is in progress. Invasive species are managed on ecologically important sites.

In 2013, the Environment Department initiated a project to gather data on the locations of Japanese knotweed *Fallopia japonica*. This plant was selected as a good target species due to its relative ease in identification, its high profile and the threat it poses to Jersey's infrastructure and biodiversity. By downloading a phone app designed by Plant Tracker, people in Jersey have been engaged via social media and the www.gov.je website, and asked to photograph then email any sightings of this plant to the Plant Tracker website. Sightings are then downloaded by the DoE and recorded as a GIS layer. They are ground-truthed by staff and others with permission. All records have been verified and added to historic records held at the DoE, increasing records from 50 to 120. The project aims to assign criteria to all patches of knotweed which will then prioritise their management, identify land ownership details and calculate the known infested area and costs of control.

The government has produced information leaflets on Japanese knotweed and monitoring is carried out on other non-native species, including Colorado beetles, oak processionary moth and burnet rose.

There is regulation of aquaculture seed to reduce the risk of invasives being imported.

Jersey is communicating with GB non-native secretariat about Jersey's role as an early warning for invasive species.

Planning, EIA and Legislation

Open planning takes environment into account

Environmental Impact Assessments are required for development projects on Jersey and the government has produced guidance for completion of these. The National Trust Development Application Committee is involved in the planning process. This Committee meets weekly to run through Island-wide planning development applications and highlights issues which are in contravention of the Island Plan, or are not in the wider interests of the people of Jersey. The EIS Review, along with all other documents that have been relied upon in determining the planning application, are all public documents and are available for inspection at the Planning and Environment Department. A Register of Buildings and Sites of Architectural, Archaeological and Historical Importance is maintained by the Minister for Planning & Environment. Work is in progress on an amended development control process, which takes better account of biodiversity issues and makes comprehensive mitigation a requirement in development projects likely to have a significant impact. A biodiversity checklist has recently become a requirement to accompany all planning applications.

Under Article 9 of the Island Planning (Jersey) Law 1964 (as amended), there are powers to designate areas as Sites of Special (ecological) Interest (SSI). The *Jersey Island Plan 2011* contains proposals for special designations, including habitat corridors and Environmentally Sensitive Areas.

Pollution

In 2010 a Memorandum of Understanding was drawn up and agreed by the relevant Ministers in order to: clarify each department's respective roles with regard to marine pollution, avoid any unnecessary duplication between these departments, and provide an efficient and cost-effective pollution prevention and control service.

The government provides a template water pollution contingency plan for farms, and an oil-spill response plan is under development. Enforcement is carried out via Environmental Protection. Jersey has a Water Framework Directive and Soil, Air and Water Code.

Climate-change, Renewable Energy and Waste Management

Jersey has a Soil, Air and Water Code.

Waste management is well provisioned for. A Solid Waste Strategy was developed in 2005 and the Island Plan has a dedicated waste management element. The government provides waste management templates for farms, and there are various local initiatives such as promoting composting via not-for-profit schemes.

The Natural Resources and Utilities section of the Island Plan deals with the policies and proposals relating to the Island's requirement for, and management of, natural resources, including air, water and energy. In 2011 the government commissioned a report into the potential for tidal power for the Territory. *Pathway 2050: An Energy Plan for Jersey* outlines the challenges Jersey faces in terms of energy use through to 2050 and maps out the policy response needed to meet those challenges.

The Island's sewage treatment system is in the process of being upgraded, and sea and ground water monitoring is already in place.

Low-carbon nuclear power is the main source of electricity for Jersey.

An Energy Policy is in draft for the island.

Environmental Education

There is a good level of engagement of schools with the natural environment. The Department of the Environment (DoE) Eco-Active environmental education campaign launched a Sustainable Schools

framework in 2010. This ties into national Eco-Schools standards, and 27 local primary and secondary schools have signed up. The Ecology Fund has agreed to support initiatives associated with the Eco-Active Sustainable Schools Framework. Schools and other groups are led in field visits by the DoE to explore the Island's biodiversity, and lots of educational work and resources are provided by the National Trust and Durrell. Additionally there is a range of educational material relating to the heritage and natural environment.

The Jersey Conservation Volunteers has been developed into a group, which meets monthly to carry out conservation projects.

International Agreements

Included in UK's ratification of Ramsar, CBD, CITES, CMS & Eurobats.

Stakeholder Stewardship

The island has various environmental work schemes (Probation, Back to Work). There are various Volunteer Monitoring Schemes – e.g. NARRS, Butterfly Monitoring Scheme, and Citizen Science projects, e.g. for invasive species.

The States of Jersey has implemented the EcoActive States programme, an environmental management programme which helps departments to manage the environmental impact of their day-to-day operations. The EcoActive business certification programme helps businesses operate in an environmentally friendly way.

The Enterprise Environmental Award recognises and rewards businesses that strive to protect the natural environment and encourages others to do the same.

A Jersey marine and coastal wildlife watching code has been produced to encourage sustainable interactions with the natural environment.

Still to do

Implement fully Action Plans; monitor these; and develop further Plans as appropriate.

Review and update the Biodiversity Strategy for Jersey.

Finalise and implement the National Park Management Plan and Protected Area Strategy.

Finalise and implement the Invasive Species Strategy.

Work more closely with continental neighbours, including France.

Implement best practice in EIA and other planning matters, as well as consultative strategic environmental assessment and planning.

Develop cross-compliance of policies and agricultural inputs.

Finalise and implement Jersey Energy Policy, responding to meet Jersey's energy challenges,

Acquire further knowledge of freshwater ecosystems

Finalise and implement Water Management Plan.

Survey and recognise ecosystem services through the Rural Economic Strategy and revised Biodiversity Strategy.

Develop proposals for local tidal / wave / wind electricity generation.

Develop more citizen-science monitoring, e.g. bees, dragonflies etc.

Modernise the school curriculum needs, and include an updated environmental focus.

Stop importation of 'wild plants' which erode genetic integrity of native provenance.

Guernsey

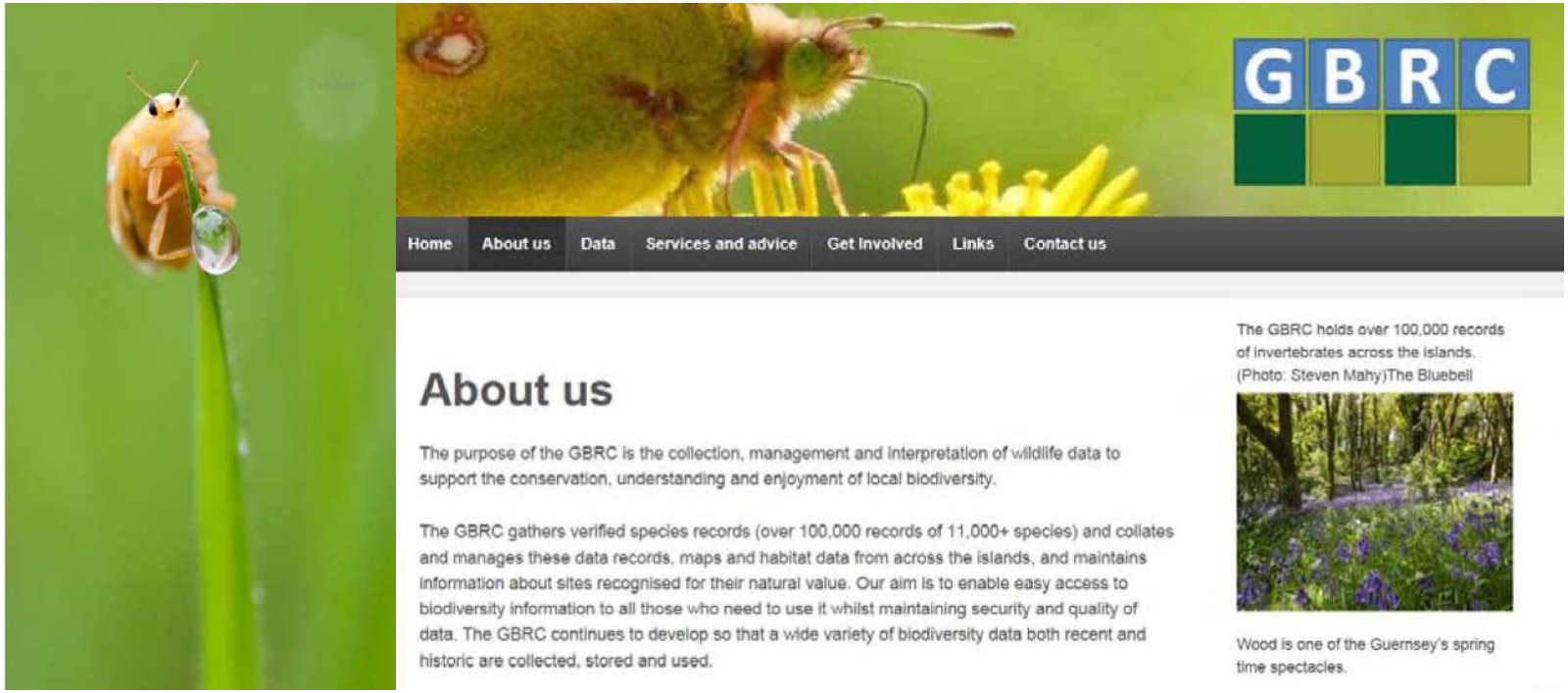
Protected Areas

Guernsey has 2 Ramsar Sites, L'Erée and Lihou Island, totalling 391ha, and a new Ramsar Site designated in 2015, including Herm, Jethou & the Humps (in addition to those separately noted for Alderney and Sark, which also form part of the Bailiwick, alongside Guernsey itself). The new site is located within the Normand-Breton Gulf, which is a large marine area in the west part of the English Channel, including French marine waters (Bay of Saint Malo) and British (Channel Islands) marine waters. This area of over 11, 000 km^2 comprises numerous marine protected areas with six marine Ramsar Sites (of which five are in the Channel Islands), and Natura 2000 sites, French designation sites and a proposed marine nature park in French waters.

The Environment Department manages a number of important Environmental Sites on Guernsey, including Bordeaux Nature Reserve, and Bluebell Wood, which has been designated a Site of Nature Conservation Importance. A survey of existing SNCIs and other areas has been commissioned to determine what sites may be appropriate for the designation of Sites of Special Significance (SSSs).

Species Protection

At the end of 2015, a Biodiversity Strategy was passed by the Guernsey Assembly.



From Guernsey Biological Records Centre web-site

Monitoring and Baseline data

Guernsey Biological Records Centre

The Guernsey Biological Records Centre is run by Environment Guernsey on behalf of the two partners, La Société Guernesiaise and the States of Guernsey. The centre works with a wide range of organisations, individuals and government bodies to provide information about the species and habitats found in the Guernsey and other Channel Islands. It collates, manages and stores data that describes local biodiversity and forms an evidence base to which decision-makers can refer to when making decisions that may impact on wildlife or wildlife habitat.

In 2010, a full island-wide habitat survey was carried out to inform habitat action plans as part of the Biodiversity Strategy. Surveys are proposed to be repeated every 10 years. There is a monitoring programme for water birds in shore areas, and Guernsey Bat Group monitors bats.

The *Guernsey Amphibian and Reptile Survey* is now into its fourth year. It is part of the UK 'NARRS' (National Amphibian and Reptile Recording Scheme) and should help us to understand the populations of our few local species: common frog *Rana temporaria*, smooth newt *Triturus vulgaris*, slow worm *Anguis fragilis* and green lizard *Lacerta viridis*.

The Marine Biology Section of La Société Guernesiaise will continue to take part in the *Shore Thing* survey in

2016. The *Shore Thing* is an initiative of the Marine Biological Association, working with schools and community groups around the British Isles to collect information on rocky sea shore life.

Invasive Species

The Guernsey States of Deliberation have agreed new plant health legislation that will include provision for the control and eradication of invasive species. Invasive species are identified as a threat to terrestrial and marine environments in the Biodiversity Strategy. There are some biosecurity protocols in place, such as import restrictions and plant health checks. Invasive species are identified as a threat to terrestrial and marine environments in the Biodiversity Strategy.

Planning, EIA and Legislation

The States of Guernsey Environment Policy Plan commits to ensuring environmental considerations are deliberated in all policy decisions. Since April 2009, it has been a legal requirement in Guernsey for certain types of development project to undergo EIA before decisions are made on whether consent should be given. Details are specified in the The Land Planning and Development (Environmental Impact Assessment) Ordinance, 2007.

Pollution

Legislation dealing with pollution consists of the Prevention of Pollution (Guernsey) Law, 1989, the Environmental Pollution (Guernsey) Law 2004 and the Environmental Pollution (Waste Control & Disposal) Ordinance 2010. The Ordinances do not implement the polluter-pays principle. Restrictions for agricultural pollution are in place in the form of a 'closed period' between 1st October –31st December each year, during which time nitrogen containing fertilisers and organic manures, including slurry, must not be applied to the land.

Climate-change, Renewable Energy and Waste Management

A Waste Strategy was produced in 2012.

Potential for renewable energy projects in the Territory is being explored.

A report titled *Guernsey Regional Environmental Assessment of Marine Energy* was produced in 2011.

In 2012 the Marine Institute at Plymouth University carried an epibenthic assessment of a renewable tidal energy site.

A new Renewable Energy Ordinance was sent out for consultation in 2014. The aim of the Ordinance is to enable effective development of offshore renewables (such as offshore wind, tidal and wave energy) in Guernsey at the appropriate time and to provide robust environmental protection while still keeping the process of licensing offshore renewable energy systems as straight forward and streamlined as possible.

Environmental Education

The environment is central to school curriculum, whose purposes include:

- develop knowledge and understanding of the world and the Bailiwick's place in it
- appreciate local heritage and community whilst understanding different beliefs and cultures
- make informed choices and decisions
- evaluate environmental, scientific and technological issues

Additionally there is a range of educational material relating to the heritage and natural environment.

International Agreements

Included in UK's ratification of Ramsar, CITES, CMS & Eurobats.

Stakeholder Stewardship

Keep Guernsey Green Award fis or organisations that wish to publicise their commitment to the environment.

Still to do

Implement legislation providing for the control and eradication of invasive species.

Review invasive species.

Develop strategy for carbon-footprint reduction and climate-change adaptation.

Draft Island Development Plan (IDP) includes proposals for SSS designation and a proposal to introduce "Areas of Biodiversity Importance" which may require particular conditions to be met in respect of new development. The draft IDP will be debated by the States of Guernsey in late 2016. The States will be asked to adopt the draft following the recently finished Planning Inquiry on the draft IDP.

Performing Strategic Environmental Assessments is not yet a legislative requirement on Guernsey.

Revise Farm Biodiversity Action Plan.

Pass Renewable Energy Ordinance.

Extend the Convention on Biological Diversity to Guernsey. (Representatives from the Territory were present at the Workshop on the CBD in October 2012, to discuss the responsibilities and resources required for an extension.)

Secure long term funding for Guernsey Biological Records Centre.

Consider introducing the polluter-pays principle.

Alderney

Protected Areas

Approx. 25% of the land area (this includes: woodland, reserves and the Ramsar site at Burhou) and 10% marine area (West coast and Burhou islands Ramsar site) protected.

There is a Ramsar Site Management Plan reviewed annually.

Species Protection

Ramsar site management plan has dedicated conservation actions for lesser black-backed gull *Larus fuscus*, storm petrel *Hydrobates pelagicus*, ringed plover *Charadrius hiaticula*, and puffin *Fratercula arctica*.

Monitoring & Baseline Data

The Alderney Wildlife Trust (AWT) monitors: breeding birds, moths, butterflies and seaweeds.

Invasive Species

AWT has a programme of invasive control, which relies on university research work and volunteer ground work.

Planning, EIA and Legislation

Hazardous development or large road/infrastructure proposals require Environment Impact Assessments (EIA)

Not subject to European environmental directives

Public consultation limited except for sites designated by Government to be major changes within areas under the Land Use Plan.

Pollution

Renewable Energy (Alderney) Law, 2008, appended 2011, recognises implications of large-scale development including decommissioning and restitution work.

Alderney has an oil spill action plan.

Climate-change, Renewable Energy and Waste Management

Alderney has been recognised as a location with significant tidal power potential, part of the largest tidal resource in North West Europe. The Alderney Commission for Renewable Energy (ACRE) is an independent body which markets, licenses and protects Alderney's renewable resource. In 2008, Alderney Renewable Energy Limited (ARE) was issued a licence for 50% of Alderney's marine assets by ACRE. Applications from developers for sub-surface tidal devices were first received in 2008.

Environmental Education

Education for sustainable development is a cross-curricular theme at Key Stage 3 upwards in schools.

School groups involved in Alderney Community Woodland project through AWT.

LIVE: teaching through nature; an AWT flagship project links schools with wildlife webcams ecologists and a wide range of primary teaching resources.

Puffins on Burhou, in Alderney's Ramsar Site (Bill Black, Alderney Wildlife Trust)

Alderney WATCH group – the junior Wildlife Trust, supports children from 6-14 years of age and runs over 50 events per year, all with an environmental educational theme.

International Agreements

Included in UK's ratification of Ramsar, CITES, CMS & Eurobats.

Stakeholder Stewardship

Living Islands Project

The Living Islands is a programme, designed to promote Alderney's natural and cultural heritage to new

audiences. Using a model developed by the Yorkshire Wildlife Trust, it engages the local community in activities that support the islands objectives, and help them understand the potential of their island to support the local economy.

Alderney's historic fortifications and variety of natural habitats are obvious attractions for new visitors. They also inspire the local community about their island heritage. Some of the project's achievements include a programme of walks, guided tours, boat trips and even all-inclusive holidays now established at the Cambridge Battery of Fort Tourgis, and the unique WW2 German defences at Bibette Head. Assistance was given to the Alderney Wildlife Trust's Ramsar Officer with signage and monitoring of successful ringed plover breeding sites in Platte Saline and Clonque bays.

The project involves many partners including: Alderney Wildlife Trust, the States of Alderney and the Alderney Society. The website is https://www.alderneylivingislands.com and details many more of the island's successes.

Still to do

Areas where progress can be made:

- New strategic plan: including a detailed section on environmental and sustainability commitments; draft Environmental Charter adopted formally by the States of Alderney; and integration of the *Living Islands* project into States of Alderney working practice within its Economic and Business Development Programme;
- New Ramsar Management Strategy 2017-2021 to include more specific habitat protection and development of legislative protection;
- Creation of a Marine Protected Area;
- Creation of a more systematic habitat and species management programme by developing two provisional site management plans through *Living Islands*;
- Formalised species protection requirements within Environmental Charter and a Wildlife Act;
- Continued development of Alderney Records Centre by AWT;
- Adoption of a formal Environmental Strategy within the planning process and its enactment in SoA policy and legislation;
- Development and implementation of island-wide agriculture and fisheries policies by SoA;
- The Convention on Biological Diversity extended to Alderney;
- Incorporation of a 'polluter-pays' requirement into SoA planning policy.

Sark

Protected Areas

Ramsar Site designated.

Sark was designated a Dark Sky Community in 2011

Approximately 500 trees of mixed deciduous varieties are to be planted in March 2016, obtained from the Woodland Trust and Guernsey Environment Department.

Species Protection

The planting of vines on Sark is a concern due to agricultural run-off and associated water pollution.

There has been some slight halting of new vineyards on the island. One proposed vineyard has been planted with cider-apple trees with flowers attractive to bees between the trees. Another proposed vineyard has been left to pasture.

Fishing restrictions were extended to 12 miles in 2011.

In 2014, the Bailiwick introduced a ban of wreck netting, a practice whereby prominent wrecks are netted by fishermen. Nets get entangled on the wrecks and cannot be hauled and continue to "ghost fish". The introduction is based on a catch composition control and has had very good support from many fisheries sectors.

Monitoring and Baseline data

Digimap, a joint venture by NGO (Société Sercquaise) and Chief Pleas, is now in use. It is principally for monitoring land-use, water sources, and biodiversity of plants species.

Sark Entomology Group has been formed and reports moth and butterfly sightings.

Bordeaux Mix is harmful to insects, particularly bees, to earthworms and in the long term, also to humans in contact with it. It is believed that this is being used by some land-owners to prevent mildew and other fungi. Guernsey authorities are helping with identification of the sprays used and are monitoring the situation. Water quality on the island is also being monitored.

Stars shine brightly over Sark
(Sue Daly, Sark Astronomy Society http://www.sastros.sark.gg/)

Invasive Species

Carpobrotus edulis and Japanese knotweed are problematic invasive species on Sark. Work is ongoing to address the spread of these. A volunteer group has been tasked with removing *Carpobrotus edulis* round the Harbour area. It may still be in private gardens. Japanese Knotweed spread has been halted but not eradicated altogether.

Planning, EIA and Legislation

The Development Control Committee Mandate outlines the scope and role of the Committee in relation to development planning. Performing Strategic Environmental Assessments is not a legislative requirement on Sark, and a public enquiry/policy development system needs to be developed. *A Vision for Sark* identifies the need to review and activate land reform legislation, establish a planning system which emphasises the needs of the environment, and develop a marine spatial plan. The document discusses also the need to encourage more environmentally friendly waste-management techniques, as part of a new planning system, as well as draft septic tank legislation and a review of discharges into the sea. Sustainable means of transport are the norm, as cars are not allowed on the island (Motor Vehicles (Sark) Law 2013). The Tourism (Sark) (Amendment) Law 2014 was developed to regulate tourist accommodation, including environmental health aspects such as water samples.

Pollution

Dark skies overhead good for Sark

The absence of street lighting and cars on Sark means that the skies are incredibly dark.

The local community as well as tourists to the island travel around on foot or by bicycle, and after it gets dark torch-light is used. As a result the night sky is a natural

wonder virtually unspoiled by light pollution.

The International Dark-Sky Association (IDA) aims to preserve and protect the nighttime environment and heritage of dark skies. The IDA designates Dark Sky sites after an application is received which demonstrates community support and documents to support their program requirements. The IDA believes that a Dark Sky Places designation helps "enhance the visibility of designated location and foster increased tourism and local economic activity".

On Sark, the application to become a Dark Sky Island involved the development of a Lighting Management Plan and island wide publicity to explain what the Dark Sky designation would mean for the island, which they fully supported.

Climate-change, Renewable Energy and Waste Management

A Vision for Sark sets out the need to regulate environmentally and commercially effective marine energy solutions and review the provision and cost of electricity. The Renewable Energy (Sark) Law, 2010 deals with the prohibition, licensing and regulation of renewable energy projects.

Sark has representation in the Channel Islands Renewable Energy Group (CIMREG) and the potential for tidal current energy being explored by the Centre for Understanding Sustainable Practices (CUSP), Robert Gordan University (Aberdeen).

Sark is represented at the talks taking place regarding renewable energy in the Bailiwick of Guernsey.

Environmental Education

La Société Serquaise has a junior wildlife club, Sark's Watch Group, which is active and promotes value of the local natural environment.

Additionally there is a range of educational material relating to the heritage and natural environment.

International Agreements

Included in UK's ratification of Ramsar, CITES, CMS & Eurobats.

In 2015, Sark became the World's first Dark Sky Island, in view of its lack of light pollution.

Still to do

Add Sark to UK's ratification of the Convention on Biological Diversity.

Address the situation that there is no support for environmental costs from the Bailiwick of Guernsey (although sometimes NGOs offer practical help with, e.g., fieldwork or conservation).

Continue stemming of vineyard creation and maintenance of traditional land-use. (Leases on land for sheep-grazing on rough ground have been withdrawn by vineyard owners.)

Develop a public enquiry/policy development system.

Review and activate land reform legislation, and establish a planning system, which empathises with the needs of the environment; develop a marine spatial plan.

Encourage more environmentally friendly waste-management techniques, particularly the incineration of waste, as part of new planning system in the Territory, as well as draft septic-tank legislation and review discharges into the sea.

Review priority baseline or monitoring data needs, if any.

Implement regular water monitoring and any necessary action.

Summary of cross-territory results on main further needs

Introduction

In this section, we take a cross-territory view of some identified further needs remaining to be addressed to meet Commitments.

1. Protected Areas

a) Extend protected area network (both terrestrial and marine) basing where possible on scientific evidence and local consultations; strengthen protection; acquire further land, in many cases passing and implementing required legislation (TCI, Montserrat, Cayman, BVI, Anguilla, Bermuda, Gibraltar, Ascension, St Helena, Tristan da Cunha, Falkland Islands, SGSSI, Pitcairn, Isle of Man, Jersey, Alderney, Sark).

b) Prepare/designate further Wetlands of International Importance under the Ramsar Convention or address the need to designate the first ones (TCI, Montserrat, Cayman, Anguilla, Bermuda, Ascension, St Helena, Tristan da Cunha, Falkland Islands, SGSSI, Pitcairn, BIOT, Isle of Man).

c) Prepare and implement Protected Area Management Plans (for both terrestrial and marine areas), science-based and with public consultation, and with clear and assessable objectives, regular monitoring, reporting and updating, appropriate enforcement and effective penalties for infringement; produce periodically and publish reports to demonstrate how management plan targets for protected areas are being met (TCI, Montserrat, Cayman, Gibraltar, Ascension, St Helena, Tristan da Cunha, SGSSI, BIOT, Cyprus SBAs, Jersey, Alderney).

d) Produce habitat map and/or habitat/ecosystem action plans, with priorities (TCI, Ascension, St Helena, Falkland Islands).

e) Set up Conservation Areas Working Group or BAP committee to oversee the management of Protected Areas (St Helena, Tristan da Cunha).

f) Territory-specific measures, including: installing adequate moorings to protect environmentally sensitive areas (TCI); investigation of potential management of remaining forest in volcano zones (Montserrat); investigation of wetlands to compensate for the loss of lowland wetlands due to built development (Montserrat); monitor fish overspill from MPAs (Cayman); research & development on forest management (BVI); prevent further extraction of sand (Ascension).

2. Species Protection

a) Enact or update species protection legislation (TCI, Cayman, BVI, Ascension, St Helena, Falkland Islands, Alderney).

b) Develop and implement species action or recovery plans (including the establishment of more concise and measurable conservation objectives), Red-Listing, monitor, review and update; undertake necessary related research (TCI, Cayman, BVI, Anguilla, Bermuda, Gibraltar, Ascension, St Helena, Tristan da Cunha, Falkland Islands, SGSSI, Jersey).

c) Enact/update and enforce fisheries (and turtle-protection) legislation; undertake work to assess and monitor the real impact of fishing on current stocks of both target and other species; prevent over-fishing and by-catch; enact/ implement legislation to protect marine mammals and sharks; establish no-take zones based on scientific evidence and consultations (TCI, Anguilla, Gibraltar, Ascension, St Helena, Tristan da Cunha, Cyprus SBAs).

d) Territory-specific measures, including: plant new trees to replace ageing specimens and increase the area of epiphytic habitat (Ascension); set up climate-controlled propagation unit in the Environmental Management Division nursery (St Helena); sustain enforcement of anti-poaching legislation and allocate additional SBA police resources to enable more operations and seizures of illegal bird-trapping paraphernalia (Cyprus SBAs).

3. Monitoring and Baseline data

a) Areas that need further baseline assessment include the following:

- Cave ecosystems (where there are known to be endemic invertebrates) (many territories);
- The dry tropical forest ecosystem (one of the most threatened habitats in the world, where the studies that have been done indicate that there will be many endemic invertebrates) (mainly Caribbean territories);
- Re-assessment of current conch status (TCI);
- Whole-island biodiversity assessment (Montserrat; originally resourced by UK Government in 1997 but cancelled, with a commitment to refund, due to volcano);
- Survey work for identifying other wetland features of interest (Montserrat);
- Invertebrates of Ascension's Montane Mist region;
- Reassessment of status of the giant pseudoscorpion and composition of the invertebrate community of Boatswain-Bird Island (Ascension);
- Small organisms, e.g. the in-faunal communities of

marine and coastal soft sediments (St Helena);

- Baseline data for under-researched species, in particular flora and invertebrates of Pitcairn Island, with emphasis on locating pockets of the original biota (Pitcairn);

- Update the 2012 Management Plan to identify areas where baseline data gathering is still required (BIOT);

- Underwater surveys to assess the health of coral in SBA waters, followed by appropriate action (Cyprus SBAs);

- Identify genetically distinct species of flora and fauna and mitigate risks to these (Isle of Man);

- Further knowledge required of freshwater ecosystems (Jersey);

- Need to review priority baseline or monitoring data needs (Sark);

[- Not clear whether there are baseline needs for Cayman, BVI, Anguilla, Bermuda, Falkland Islands, SGSSI, Isle of Man].

b) Identified monitoring needs include:

- Implement formal environmental monitoring regime (BVI);

- Continue regular monitoring of frigatebird fledging success, so as to maintain the conditions for the continuing expansion of the mainland frigatebird nesting colony (Ascension);

- Regular monitoring of the diet and fledging success of nesting terns (Ascension);

- Obtain more baseline data and improve monitoring of biomass and fishing mortality of target species for the shallow marine sub-littoral habitat (Ascension);

- Gather baseline data on abundance and distribution of land crabs and develop robust population monitoring protocols and improve ecological understanding of this species (Ascension);

- Raise awareness and use effectively the marine sighting scheme being used effectively (St Helena);

- Investigate establishment of similar scheme for terrestrial species as well (St Helena);

- Update continuously species and habitat inventories (St Helena);

- Include environmental monitoring in a state of the environment report (St Helena);

- Develop training manual for environmental monitoring equipment (St Helena);

- Produce and publish reports regarding meeting the objectives of the BAP (Tristan da Cunha);

- Establish a Tristan da Cunha population trend monitoring programme which can be used for all species (Tristan da Cunha);

- Implement Marine Monitoring Programme (Tristan da Cunha);

- Complete review of data management and observer reporting (Tristan da Cunha);

- Feed information collated into the BAP, to inform its periodical review and update (Tristan da Cunha);

- Collect data needed for taxa for which trends are unknown (Tristan da Cunha);

- Regular marine biodiversity monitoring (SGSSI);

- Monitor breeding hen harrier population (Isle of Man);

- More citizen science monitoring, e.g. bees, dragonflies (Jersey);

- Continue development of Alderney Records Centre, so that key data are collected and used effectively to manage services and inform policy making (Alderney).

c) Particular research needs identified include:

- Carry out further scientific research into Montserrat galliwasp lizard;

- Have statistician on staff (Montserrat);

- Address issues identified in Habitat Action Plans under BAP, e.g. carry out further research into the physical characteristics of the anchialine system and the physiological tolerances of the species that inhabit it (Ascension).

4. Invasive Species

a) Create and publish invasive species action plans to address each invasive species for cases not already done, prioritising the creation of the action plans according to impact of the species (TCI, Montserrat, Cayman, BVI, Anguilla, Bermuda, Ascension, St Helena, Tristan da Cunha, BIOT, Isle of Man (especially marine), Jersey, Guernsey).

b) Particular actions identified include:

- Substantial work remains to be done on long-term solving of the invasives issue, management of remaining good habitat in the southern area, and involving the community in the north (Montserrat);

- IAV control programmes where complete eradication is unfeasible, e.g. Cayman Brac and Grand Cayman (Cayman);

- Expand lionfish food campaign and Bermuda Invasive Lionfish Control Initiative (Bermuda);

- Continue with prickly pear and Mexican thorn control, chemical control of rats, implementing strict control of cats and dogs, excluding Mexican thorn and other woody invasives from traditional sooty tern nesting areas, and preventing introduction of non-native predators to Boatswain-Bird Island (Ascension);

- Update Arable and Fruit Pest and Disease Status

Review (St Helena);

- Develop culling strategy for grazing invasives (St Helena);
- Develop an emergency protocol for dealing with new marine invasive species as quickly as possible (Tristan da Cunha);
- Initiate and complete Gough Island mouse eradication (Tristan da Cunha);
- Complete eradication of New Zealand flax from Nightingale and Inaccessible (Tristan da Cunha);
- Ongoing monitoring to establish whether rat eradication has been successful (SGSSI);
- Action recommendations in the 2013 non-native plant report & 2016-2020 non-native plant strategy (SGSSI);
- Continue to address invasive plant species and work towards forest restoration on the islands (Pitcairn);
- Eradicate rats on Henderson and Pitcairn (Pitcairn);
- Continue restoration of natural vegetation and removal of introduced coconut (BIOT);
- Implement eradication/control programmes for already identified problem invasive species, and extension of these throughout the archipelago (BIOT);
- Work more closely with continental neighbours, including France (Jersey).

c) Further research needed into the impact of some invasive species or on feasibility/methods or eradication or control (TCI, Montserrat [total island, rather than just the Centre Hills], Cayman [investigate the feasibility of eradicating key IAV species on Little Cayman; and other issues], Anguilla, Bermuda, Ascension [especially re rats], Tristan da Cunha [carry out and publish research into the impact of new invasive species resulting from recent shipwrecks and produce action plans for urgently addressing this issue], Cyprus SBAs [terrestrial and marine], Guernsey).

d) Pass or implement legislation relating to invasive species (TCI, Bermuda, Falkland Islands, Guernsey).

e) Put in place/maintain and review/update effective arrangements for restriction of live material, inspection and quarantine (TCI, Montserrat, BVI, Ascension, St Helena, Tristan da Cunha, SGSSI, Pitcairn, Jersey).

5. Planning, EIA & Legislation

a) Complete, consult on and publish national development plans/frameworks, ensuring that environmental and sustainability aspects are incorporated fully, and implement with monitoring and published reports (TCI, Cayman, BVI, Anguilla, Gibraltar, St Helena, Tristan da Cunha, BIOT, Isle of Man, Alderney).

b) Enact/ strengthen and implement legislation ensuring incorporation of environmental and sustainability considerations into development planning, mineral extraction etc and best-practice Environmental Impact Assessment and Strategic Environmental Assessment (TCI, Montserrat, Cayman, Anguilla, Bermuda, Ascension, Tristan da Cunha, SGSSI, BIOT); environment, wildlife and biodiversity conservation legislation (TCI, Anguilla, St Helena, Tristan da Cunha, Alderney); and incorporation of biodiversity aspects into legislation and policy on agriculture, forestry, natural resource management and genetic resources (TCI, BVI, Bermuda, Guernsey, Alderney, Sark).

c) Ensure that planning control and EIA and SEA procedures (including those relating special measures in Protected Areas, openness and best international practice, and including requiring EIA for all government-backed developments, disaster risk assessment), and relevant general measures (such as effectively implemented, monitored and reviewed accountability and integrity in public life) (TCI, Montserrat, BVI, Bermuda, Gibraltar, St Helena, Tristan da Cunha, BAT, Pitcairn, BIOT, Cyprus SBAs, Jersey, Alderney, Sark).

d) Adopt a strong framework outlining political accountability (including access to information regarding policy and legislation, e.g. through a portal on the government website), appeals procedures, public consultation, EIA procedures, enforcement and monitoring procedures to implement the legislation, including effective fines for infringement (including against heavy equipment operators and contractors who do the clearing, as well as landowners) and ensure that ministers and government bodies themselves follow procedures relating for example to Special Development Orders, public notice, and appeals procedures, with monitoring, published reporting, and feedback into reviewing and updating, including in relation to consistency with biodiversity conservation requirements, especially international obligations and international best practice (TCI, Bermuda, Cayman, Anguilla, St Helena, Isle of Man, Sark).

e) Develop/update, approve and implement a National Biodiversity Strategy and Action Plan and implementation plans, with monitoring and reporting (Montserrat, BVI, Bermuda, St Helena, Tristan da Cunha, SGSSI, Pitcairn, BIOT, Isle of Man, Jersey, Alderney).

f) Establish joint Government/NGO groups to take a lead in some aspects of implementation or coordination or to take an overview of forward conservation planning and to review progress (Montserrat, Anguilla, St Helena, BIOT, Cyprus SBAs).

g) Territory-specific actions include:

- Update the National Environmental Management Strategy (NEMS), Develop frameworks/action plans for meeting the principles under the Conservation &

Environmental Management Act (CEMA); develop frameworks for meeting the goals and objectives under the Sustainable Development Plan; complete and implement regulations, and investigate, plan and manage conservation work in the southern (volcanic exclusion) area (Montserrat);

- In the Bermuda Strategy and Biodiversity Action Plan, provide more incentives aimed at biodiversity, and remove any harmful ones (Bermuda);

- Sand mining needs to be regulated, e.g. through legislation requiring the application for sand-mining permits (TCI);

- Continue implementing robust conservation frameworks as the airport project progresses (A key lesson learnt from the airport project is that future EMPs must be clear and unambiguous, with implementable, measurable and auditable actions. Key performance indicators must be included, people responsible must be identified, and the cost of mitigations calculated properly. Once EIA has been carried out and an EMP developed, an environmental team has to be employed for the entirety of a project to guarantee implementation. Have all of the lessons learnt through the airport project been incorporated into EIA legislation and development policy?) (St Helena);

- Develop Freshwater Ecology Management Plan (St Helena);

- Decide upon best strategy for improving the Tristan harbour and produce development plans based upon the recommendations of the 2013 DFID report (Tristan da Cunha);

- End planting of vines; maintain and re-establish traditional land-uses (Sark).

6. Pollution

a) Implement/reinstitute standards for water quality, beaches, air quality, monitoring emissions, pesticides and environmental health, and the 'polluter-pays' principle; develop an emergency strategy to deal with future oil/fuel leaks, including from ships and wrecks (TCI, BVI, Bermuda, St Helena, Tristan da Cunha, SGSSI [with a ban on the carriage of heavy fuel oil (HFO) in territorial waters], Guernsey, Alderney).

b) Monitor and publish pollution levels and initiate any necessary resulting actions; make the rare best practice in pursuing criminal and civil cases against polluters normal practice; and use a pollution incident reporting system, analysing and publishing the efficacy of legislation and enforcement by analysis of, e.g., the two major ship-wreck incidents in Tristan da Cunha, the environmental impact research carried out on the wreck of the oil tanker RFA Darkdale at St Helena, and the report on the outcome of the mitigation of the US Navy pollution at BIOT (TCI, Montserrat, St Helena, Tristan da Cunha, SGSSI, BIOT, Sark).

c) Complete and enact/ revise legislation and policy so that it contributes to these areas (Anguilla, Gibraltar, St Helena).

d) Territory-specific aspects include:

- Recruit and train BVI nationals in the area of Environmental Health (BVI);

- Threat of golf courses to water-lenses below the surface needs to be assessed (Bermuda);

- Continue research into carbon sequestration of endemic trees; Establish carbon off-setting scheme (St Helena);

- Extend Tristan Rock Lobster (and post-ship-wreck pollution) project (Tristan da Cunha);

- Pollution of beaches by litter is an issue in the SBAs, and needs to be addressed (Cyprus SBAs).

- The planting of vines on Sark is a concern due to agricultural run-off and associated water pollution.

7. Renewable Energy and Waste Management

a) Develop/implement and monitor a climate-change/ risk analysis/renewable energy strategy (TCI, Cayman, Gibraltar, St Helena, Falkland Islands, Pitcairn, Isle of Man, Jersey, Guernsey).

b) Research: climate-change vulnerability assessment on Cayman Islands tourism sector; climate-resilience strategy for Gibraltar; research into the potential impacts of climate-change upon the habitats and biodiversity and into preventing seabird mortality from wind turbines of Ascension Island; development of local tidal / wave / wind electricity generation in Jersey (Cayman, Gibraltar, Ascension, Jersey).

c) Continuation of the sea-grass restoration (carbon sink) programme (Gibraltar).

d) Develop/implement a Waste Management Strategy/ Action Plan (Bermuda, Gibraltar, Ascension, Tristan da Cunha, Falkland Islands, Isle of Man, Alderney, Sark).

e) Establish municipal waste treatment facility (Gibraltar, St Helena, Tristan da Cunha, Sark).

f) A new Urban Waste Water Treatment facility (Gibraltar).

g) Complete water resources plan (St Helena).

8. Environment Education

a) Development of (further) environmental modules integrated into school curricula (TCI, Montserrat, Cayman, St Helena, Jersey).

b) Strengthen links between environmental NGOs and schools to encourage environmental activities involving children and young adults, e.g. volunteer days, after-school activities, environmental/conservation

internships (TCI, Montserrat, St Helena).

c) Implement more environmental awareness-raising activities and courses for adults (Montserrat, Cayman, Anguilla, Bermuda, Ascension, St Helena).

d) Establish/ re-establish work on trails, visitors centre, botanic gardens, facilities for visiting scientists, facilities for local schools, training of local personnel and other material (TCI, St Helena).

e) Establishment of environmental information system; Make reports on outcomes of projects/EIAs etc. widely available; digitise herbarium and create a field guide; continued development of promotional material on the Territory's natural environment (Ascension, St Helena, Tristan da Cunha, SGSSI, Pitcairn).

f) Some territory-specific activities:

- More summer camp/activity groups for children (Montserrat);
- Raise public awareness regarding litter and recycling; Promote sustainable methods of building homes (St Helena);
- Continued efforts to ensure sustainable harvesting of timber for the wood carving industry; raise awareness to reduce energy consumption and promote energy efficiency (Pitcairn).

9. International Agreements

a) Join UK's ratification of the Convention on Biological Diversity (CBD): (TCI, Montserrat, Anguilla, Bermuda, Pitcairn, BIOT, Cyprus SBAs, Guernsey, Alderney, Sark); the Convention on International Trade in Endangered Species (CITES): (TCI, Cyprus SBAs); the Convention on Migratory Species (CMS): (Anguilla); ICCAT and Barcelona Convention (Gibraltar).

b) Designate first or further Wetlands of International Importance under the Ramsar Convention (TCI, Montserrat, Cayman, BVI, Anguilla, Gibraltar, Ascension, St Helena, Tristan da Cunha, Falkland Islands, SGSSI, Pitcairn, BIOT, Isle of Man).

c) Join the international whale sanctuary initiative in respect of EEZ (TCI, Montserrat, BVI, Anguilla).

10. Stakeholder Stewardship

a) Develop: charcoal-making from alien invasive trees; environmentally sensitive tourism strategies including work engaging the community in conservation; a plan/guidelines for hoteliers to implement sustainable practices in their business; strategies for mainstreaming the environment across all sectors (including agriculture, fisheries, water management, hill management) (TCI, Montserrat, Anguilla, St Helena, Tristan da Cunha, Pitcairn, Cyprus SBAs, Isle of Man, Jersey, Guernsey, Alderney).

b) Produce a *Greening the Economy* strategy; develop/ update/ review the Government's Green Procurement Policy; develop green guidelines and certification, and explore financial incentives (TCI; Gibraltar, St Helena).

c) Territory-specific items include:

- Create an NGO for the Island of Anegada (BVI);
- Assess soil degradation (Cyprus SBAs);
- Increased sustainability in management of water resources in agriculture (Cyprus SBAs);
- Continue stemming vineyard creation and maintain traditional land-use (Sark).

11. Economic Value of Sustainable Use

a) Carry out further research and report as to the socio-economic value of natural resources; undertake an audit of ecosystem services (St Helena, Falkland Islands, Isle of Man, Jersey).

12. Funding & other resourcing

a) Continue to implement the strategy prepared for the implementation of the Environment Charters, and review and revise as necessary collaboratively with stake-holders and incorporating in annual corporate work-plans; utilise skilled volunteer input from UK and other partner organisations; improve the availability of funds by: updating policies to facilitate the management of restricted-fund projects; (re)instituting fund based on earmarking tourist tax to be run and monitored semi-independently of government in accordance with international best practice; funding NGOs which make available skilled free or low-cost workers (TCI, Montserrat, Cayman, BVI, SGSSI).

b) Obtain additional resources to: implement site-management effectively, implement environmental legislation, meet the level of enforcement responsibilities required, developing or updating, implementing and monitoring Management Plans, patrol national parks adequately, facilitate volunteer support, restore habitats, provide appropriate signage and publicity for trails, resource a whole-island biodiversity assessment, support the eradication of rats from cays, continue monitoring priority species, carry out research into baseline data and weather monitoring data, investigate climate, glacial retreat and the upper atmosphere, support biological records centre (TCI, Montserrat, Anguilla, St Helena, Tristan da Cunha, SGSSI, Pitcairn, BIOT, Cyprus SBAs, Isle of Man, Guernsey, Alderney, Sark).

UK Government & its commitments in relation to the further needs

We do not attempt a formal analysis of progress by UK Government in meeting its own Commitments under the Environment Charters. This is because, in both previous reviews, UK Government found it difficult, partly because of the structure of those Commitments, to assemble information on progress. Instead, we hope that this review, and the discussions that it will assist, will help UK Government to support the priority needs that are identified, and thereby help meet UK Government's intentions, as Prime Minister David Cameron expressed in the Foreword to the Government's 2012 White Paper *The Overseas Territories – Security, Success and Sustainability (Cmnd 8374)*: "This Government is ambitious for our Territories as we are ambitious for the United Kingdom. We see an important opportunity to set world standards in our stewardship of the extraordinary natural environments we have inherited."

UKOTCF has always tried to help UK Government meet its commitments where it has been able to find resources to do so. In the following summary we include those aspects where UKOTCF has been willing and able to help UK meet its Commitments under the Charters. UK Government works with UKOT Governments but UKOTCF provides, as well as its links with UKOT government environment departments, a link to NGOs which, in many of the territories, play as important a role in conserving biodiversity as their Government colleagues.

We summarise below some views received on UK Government's delivery of its Commitments under the Environment Charters, as well as some of UK Government's own comments in various fora. We use as headings of the following sections the Commitments which UK Government made. These were preceded by the words "**The government of the UK will:**"

The feedback from Territories and the UKOTCF network can be summarised as follows.

1. Help build capacity to support and implement integrated environmental management which is consistent with the Territory's own plans for sustainable development.

At the request of the UKOTs, in the years immediately following the signing of the Environment Charters in 2001, FCO and DFID part-funded work by UKOTCF to facilitate some pilot territories to develop strategies for action to implement the Charters (one of the first Commitments in the Charters). These exercises brought together stake-holders across a wide range of sectors of the economy, from governmental, NGO, commercial and other interests, to result in strategies which guided local policies in the following years. The process was essentially what has since become known by the term "mainstreaming." On the basis of this experience, UKOTCF voluntarily advised several other Territories on their own strategies. However, UK Government did not respond positively to UKOTCF's suggestion that most UKOTs might benefit from a similar facilitated strategy development process.

This need has been recognised also by the House of Commons Environmental Audit Committee (EAC), which stated in its 2014 report on its Inquiry into the *Sustainability in the UK Overseas Territories*, that "Defra must work with UKOTs Governments on developing planning regimes which value and protect natural capital and which promote sustainable tourism industries and economies. Accordingly, the FCO must direct its Governors strongly to advocate the introduction of effective development controls." The report notes also that extending the Aarhus Convention to the Overseas Territories would be beneficial for increasing transparency surrounding planning and development. EAC noted also in their 2014 report that "UK Government is prepared to exercise hard and soft power in relation to financial matters in the UKOTs, but it is apparently not prepared to exercise those powers to protect biodiversity and to promote environmental sustainability."

The Environment Charters remain highly valued by both NGO and governmental conservation workers in many territories as an agreed basis for policy and practice, even though, with personnel changes, UK Government seemed to lose interest in the Environment Charters that it had drafted. Interest and commitment has re-established following mention that the 2012 White Paper omitted reference of the Charters even though the Paper aimed to build on the achievements of the 1999 White Paper, of which the Charters were a key result.

Some years after the UKOTCF-facilitated strategy-development exercises, UK Government decided that such exercises would be valuable for most UKOTs, and started its mainstreaming process. Unfortunately, the lack of corporate memory in most UK Government Departments (and a more recently acquired reluctance to consult NGOs) meant that at least the first few of these mainstreaming exercises were conducted in ignorance of the earlier strategy-development processes, even though the earlier exercises had been published. This lack of corporate memory, especially in governmental bodies where frequent staff-turnover is a policy, has proved problematic in several cases, despite the efforts of the UKOTCF network to minimise this. Because of this, the positive efforts of individual officials can be reduced and some duplication can be generated, leading to a less than fully cost-effective use of public funds.

2. Assist the Territories in initiating, reviewing and updating environmental legislation.

The information from the Territories shows quite a varied pattern over the years. In the years before the signing of the Environment Charters, legislative reviewing and drafting help from either UK Government or UK NGOs was received by several UKOTs, but this did not seem to follow any strategic or systematic plan. To some extent, this pattern seemed to continue in the early years after Charter signing.

More recently, UK Government legal drafting support seems to have focussed primarily on meeting international commitments – which has a logic to it. However, support has been very uneven, with some territories suffering delays of years in implementing some key legislation. Strangely, some of the worst delays in environmental legislation have occurred while UK Government was directly in charge. The case of Turks & Caicos has been drawn to our attention by several parties. TCI Government environmental officials prepared briefs for lawyers to draft legislation to allow TCI to join UK's ratification of both the Convention on Biological Diversity and CITES in 2010-12, during UK direct rule. These were submitted to the Attorney General's Office. However, the Environment Department was advised that these matters of international commitments and UK Government declared priority were not of high enough priority to warrant deployment of the limited capacity for legal drafting. Much of the latter was engaged in agreements with developers, in some cases relating to land of high conservation value. Five years later, the situation remains the same, the now locally elected government having followed the lead given by UK Government-appointed rulers under the direct UK rule period, not yet to pursue the environmental legislation.

In some other territories of direct UK rule, the situation has been more satisfactory. For example, as policy, the legislation of the Cyprus Sovereign Base Areas matches that of the Republic of Cyprus. With the latter joining the European Union a few years ago, EU legislation (including the strong environmental legislation) has been copied into SBA laws.

The situation across most UKOTs, whether uninhabited, populated and with a locally elected government, or with very small populations so more directly under UK Government control, is quite varied. However, many have some needs for UK Government help (or action where UK Government controls).

In the 2008 report on its Inquiry into *Halting Biodiversity Loss*, the EAC recommended that better use be made of the ministerial Inter-Departmental Group on Biodiversity regarding "support for the development and implementation of effective environmental protection policy in the UKOTs". They recommended also expansion of the group so that it contain additional relevant Departments. UK Government subsequently discontinued this ministerial group.

In spite of the commitments in both the 1999 and 2012 White Papers, FCO and Defra Ministers made a rather different approach clear to the EAC during its Inquiry into the *Sustainability in the UK Overseas Territories* (report 2014) by saying that "territory governments are constitutionally responsible for the environment, for environmental protection and for conservation of their natural environments". The EAC report reminded that the UK has ultimate responsibility under international law, as stated in *British Overseas Territories Law*: "The overseas territories are plainly not independent sovereign States. Their external relations remain the responsibility of the United Kingdom, the sovereign power. Accordingly, the United Kingdom is responsible for each of the territories under international law".

3. Facilitate the extension of the UK's ratification of Multilateral Environmental Agreements of benefit to each of the Territories and which each Territory has the capacity to implement (and a desire to adopt.)

In the years before the Environment Charters, UKOTCF (whose personnel had strong experience of the Ramsar Convention and of some other conventions) worked, in consultation with FCO, with many territories, on a voluntary basis and as opportunities arose. This had the result that all the eligible UKOTs and CDs (i.e. except British Antarctic Territory, where matters are covered by the Antarctic Treaty system) were included in UK's ratification of the Ramsar Convention on Wetlands and that many had designated at least one Wetland of International Importance (which would be a requirement of ratifying were these territories independent states). This was done in consultation with UK Government. In the years immediately after the Environment Charter, Defra, in consultation with other UK Government Departments and the territories, part-funded UKOTCF to work in consultation with local partners to review designated and proposed Wetlands of International Importance. The report (www.ukotcf.org/pubs/ramsarReview.htm), published in 2005, led to many more designations in the years since and provides still a reasonable target list of sites, in addition to some of the key information on them. UKOTCF, now on a totally unpaid basis again, has continued to provide advice and support to territories on these Ramsar-related matters.

As noted above, British Antarctic Territory (BAT) is included in the Antarctic Treaty System, so that the other conservation conventions are not generally applicable there. Therefore, in the following paragraphs, BAT is not included.

Efforts over the years by territory personnel, some UK officials, UKOTCF and other NGOs have led to all but one of the territories being included in the Bonn

Convention on Migratory Species (CMS) and all but two in the Washington Convention on International Trade in Endangered Species (CITES). Several territories are not yet included in UK's ratification of the Convention on Biological Diversity (CBD).

Some bottlenecks in progress (such as the joining of one to both CITES and CBD) are caused by lack of legal draftsman capacity (see above section). Attention was drawn to this by the House of Commons Foreign Affairs Select Committee (FAC) in the 2008 report of their Inquiry: "We conclude that the FCO's guidelines on treaties applying to Overseas Territories do not yet appear to be being followed by all of Whitehall and recommend that the FCO writes to remind other Government departments of their existence. We also recommend that the FCO should provide more drafting assistance to Overseas Territories for transposition of international agreements into local legislation." It is hoped that this can now be addressed by UK Government, especially in view of the clarification in *British Overseas Territories Law* that "the application of treaties falls wholly within the responsibilities of the Government of the United Kingdom, not those of the territory Government." This assistance from UK Government to Territories in drafting is certainly happening in some cases, including updating some cases of legislation implementing CITES, to restore certain territories (and therefore UK) to compliance, but not yet in others.

Over several years up to 2012, officials in the Isle of Man, with some help from UKOTCF and certain UK Government officials, managed to add the Isle of Man to UK's ratification of CBD – the first territory addition since the original signing in 1992 and ratification in 1994 (which included some territories). This process identified the bottlenecks in procedures, both within the Convention Secretariat and various UK Government Departments, and some ways of addressing these. Colleagues in Defra and FCO have taken these points on board, leading to the successful addition of South Georgia and the South Sandwich Islands in 2015. Now, officials and partners from the UKOTCF network, are working to help other territories join, for example through a workshop session at the UKOTCF-organised conference in Gibraltar in 2015. This has been followed by several territories showing active progress by 2016.

4. Keep the Territories informed regarding new developments in relevant Multilateral Environmental Agreements and invite the Territories to participate where appropriate in the UK's delegation to international environmental negotiations and conferences.

Both UK Government and the UKOTCF network attempt to keep the Territories informed of relevant news from multilateral environmental agreements.

UKOTCF facilitated the first involvement of UKOT officials in the UK Government delegation and UKOT NGOs amongst the NGO observers at a Conference of the Parties (CoP) in 1999 (in that case, Ramsar). Since then, UK Government has arranged to include UKOT and/or CD personnel in the UK Delegations at various MEA meetings. There remain various challenges, including:

- At present, the UKOT/CD has to resource the participation of its personnel;
- With a sporadic approach, this has utility in gaining experience for the personnel and territory concerned, and may give the UK Delegation experience that it would not otherwise have and possibly greater credibility to some audiences, but there are limitations as to how one or a few territories represented can address the interests of other territories;
- Some development is needed in identifying well in advance whether participation by some busy individuals on only some of the days out of a week-long meeting might be most cost-effective.

Useful developments in the reports, which have to be submitted in advance to the CoPs of the Convention on Biological Diversity, are the appending of reports by the territories which are included in UK's ratification, as well as increasingly effective incorporation of references in UK's main report. This is making progress in response to EAC's report.

In respect especially of some uninhabited Territories, UK Government is a strong participant in the operation of the Antarctic Treaty system (re BAT), the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) (re both BAT and SGSSI) and the Agreement on the Conservation of Albatrosses and Petrels (ACAP) (re Falkland Islands, SGSSI & Tristan da Cunha). There may be good precedents here for other regional conventions. For example, Gibraltar would welcome the necessary UK Government support for it to join the International Commission for the Conservation of Atlantic Tunas (ICCAT), and the Convention for Protection of the Mediterranean Sea against Pollution (Barcelona Convention) adopted in 1976 to prevent and abate pollution from ships, aircraft and land-based sources. Both would enhance effective conservation.

5. Help each Territory to ensure it has the legislation, institutional capacity (technology, equipment, procedures) and mechanisms it needs to meet international obligations.

There has undoubtedly been a good deal of support from UK Government to some UKOTs (but not CDs where the relationship is different) over the years on particular issues. However, some concerns have been expressed at the lack of strategic or systematic approach over much of this period.

This has been noted by UK Parliament. In 2008, the House of Commons Foreign Affairs Committtte (FAC) reported "While Defra is the lead Whitehall department responsible for environmental issues, the FCO cannot abdicate responsibility for setting levels of funding given its knowledge of Overseas Territories' capacity and resources. The FCO must work with other government departments to press for a proper assessment of current needs and the level of the current funding gap and then ensure increased funding by the Government through Defra, DFID or other government departments is targeted appropriately." In its 2014 report on *Sustainability in the UK Overseas Territories*, the House of Commons Environmental Audit Committee (EAC) states that "without enhanced monitoring, Defra cannot accurately report to the CBD on the full extent of biodiversity in the UKOTs and therefore measure progress towards the UN 2020 target to halt biodiversity loss." EAC therefore proposed that Defra must bring together "UKOTs Governments, NGOs, civil society and research institutions to agree a comprehensive research programme to catalogue the full extent of biodiversity in the UKOTs." In 2015, Defra commissioned a study to review research needs.

In 2009, the UK Government published its *United Kingdom Overseas Territories Biodiversity Strategy* (UKOTBS). The Foreign and Commonwealth Office (FCO), the Department for International Development (DFID), the Department of Environment, Food and Rural Affairs (Defra) and the Joint Nature Conservation Committee (JNCC, which drafted the document) all agreed on this document, which aimed to address the needs of the Overseas Territories, built upon an assessment of priorities for biodiversity conservation action by the JNCC. The strategy can be seen at:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69204/pb13335-uk-ot-strat-091201.pdf

The overarching objective of the UKOTBS was "to enable the UK and Overseas Territory Governments to meet their international obligations for the conservation and sustainable use of biodiversity in the Overseas Territories." In 2014, a UK Government Activity report was published which gave examples of some of the ongoing and planned activities that are supported by UK Government Departments under the UKOTBS. It did this by highlighting some key areas of progress including: finding out more about biodiversity, tackling invasive species, valuing ecosystem services, and sustainable management of marine resources, both through its dedicated funding stream and other technical and financial support.

As several observers have commented, whilst this was a valuable agreement between FCO, Defra and DFID (and Defra's agency, JNCC) as to how the Departments would collaborate, it lacked aspects which would normally be included in a strategy. Some of these elements, identified in a workshop in 2010 drawing together NGOs, government officials and others, included: a lack of stakeholder engagement in the process of developing the "Strategy", resulting in a feeling of "us and them" in the NGO community, despite the ministerial Foreword specifically noting the important role of NGOs and other stakeholders; focussing its objectives narrowly on some (but not all) international obligations, rather than the substantive conservation issues these were intended to support; no real linkage between objectives and ways of reaching these; a selection of priority work-areas that did not apparently flow from the objectives but appeared to have been selected without any clear rationale; no specific indication of how their implementation would be advanced; few outputs and no outcomes; and an absence of clear targets, resource needs indications or time-scales.

In a series of further workshops (e.g. www.ukotcf.org/pdf/fNews/BiodivWorkshop1106.pdf) involving UK Government, UKOTs, NGOs and others, UKOTCF attempted to facilitate informal agreement on conclusions which would effectively be complementary and fill the gaps left by some of these missing aspects. It seems likely that the lack of a strategic or systematic approach noted above was due to limited capacity amongst UK officials – so that restored greater engagement with experienced NGOs might be expected to help. Unfortunately, however, UK governmental engagement at the time was not really adequate to take this forward.

In 2014, UK Government's agency JNCC engaged with NGOs in an attempt to identify common priorities for UK bodies to support UKOTs/CDs in their conservation efforts, bearing in mind, of course, the priorities of the Territories themselves (http://jncc.defra.gov.uk/default.aspx?page=5479). It was not an attempt to tell the Territories what their own priorities should be; that is a matter for each of them. After a rather positive period in late 2014, this joint initiative ran out of steam in 2015, largely because UK Government itself did not really engage and, particularly since 2010, JNCC is very limited as to how far it can take initiatives on policy matters.

Throughout the period, the UKOTCF network and other NGOs have tried to support UKOTs and CDs in these areas, but there has been limited opportunity to coordinate with UK Government in a strategic way.

6. Promote better cooperation and the sharing of experience between and among the Overseas Territories and with other states and communities which face similar environmental problems.

This has been a major role of UKOTCF since its founding in the mid-1980s and particularly since the mid-1990s. This has been achieved particularly by: UKOTCF's regional Working Groups, for the Wider

Caribbean, the Southern Oceans and the Europe Territories; by its web-site; and by *Forum News* and other newsletters; and especially by its normally 3-yearly conferences for working conservationists. Some of these inter-linked components have benefitted in the past from UK Government support at various times. This was particularly important for the conferences, which are highly valued by territory participants as means of enabling important conservation initiatives which would not otherwise be possible.

Unfortunately, after successful and productive conferences from 1999 to 2009, these had to stop because UK Government withdrew its contribution. After a 6-year gap, an extremely successful conference was held in 2015, funded largely by the Government of Gibraltar, but with a small and valued contribution from UK Government. Renewed contributions in the future would enable the exceptionally effective conferences to continue.

7. Use the UK, regional and local expertise to give advice and improve knowledge of technical and scientific issues. This includes regular consultation with interested nongovernmental organisations and networks.

There was very effective coordination in this area from the late 1980s until about 2008, via twice yearly joint meetings involving UK Government Departments, NGOs, and the UK representatives of UKOTs, as well as CDs in the later years. The meetings were organised and chaired jointly by UKOTCF and FCO. FCO terminated these unilaterally for undisclosed reasons, but probably related to the closing of their environment department and loss of all but a junior environmental post shortly beforehand. Since that time, UK Government meetings have been essentially limited to governmental bodies, except for occasional short liaison meetings which do not fulfil a similar role to the pre-2008 ones.

A further means of coordination has been UKOTCF's regional Working Groups, now usually conducted by Skype to allow full territory participation. UK Governmental personnel are invited, as well as NGOs, UKOT/CD personnel and other individuals and organisations with relevant experience or expertise. Unfortunately, from about 2007 until recently, participants from UK Government Departments and agencies tended no longer to participate in these meetings, with attendance from that sector declining virtually to zero within a few years.

Following UK Government's authorisation to JNCC to become strongly involved in UKOT/CD matters from about 2006, JNCC (which had previously been invited, and had often participated in, UKOTCF regional Working Groups) established its own separate liaison group with UKOTs/CDs, but did not inform UKOTCF of this until 2009. In the meantime, many UKOT/CD bodies expressed puzzlement that they appeared to be receiving what could, at times, be duplicated requests or invitations from UK. The issue was complicated further in that, whilst UKOTCF networks had always involved both governmental and NGO bodies (reflecting the good level of collaborative working already present in most territories and Britain), the new JNCC consultations limited involvement to governmental bodies.

UKOT bodies and UKOTCF expressed, initially in non-public communications, increasing concern at the apparent movement away from Commitment 7, from a previously good situation.

EAC reported in 2014 on *Sustainability in the UK Overseas Territories* that it had heard that, while FCO civil servants visit the UKOTs, Defra staff were discouraged from doing so. However, the 2012 White Paper sets out new responsibilities for Defra and other Departments in supporting the UKOTs, which entails "each UK Department assuming responsibility for supporting the Territories, as needed, in its own areas of competence and expertise." EAC therefore concluded that Defra must "empower its staff to visit the UKOTs to meet elected representatives and civil servants and to examine environmental issues in person in order effectively to discharge their responsibilities."

As part of the Joint Ministerial Council (JMC) 2013, the Environmental Audit Committee attended a meeting with UKOT Government representatives, who said that, whilst UKOT representatives were involved in deciding elements of the JMC programme, FCO was ultimately in charge of the agenda. This meant that some UKOT representatives felt that they were unequal participants. As a result, the EAC, in the *Sustainability in the UK Overseas Territories* report (2014), highlighted the need for the FCO to "prioritise greater involvement by representatives from the UKOTs in setting the agenda at future JMCs."

In 2013, a UK Government review came to a rather similar conclusion to the NGOs about UK Government disengagement. Since then, there have been very positive discussions between JNCC and NGOs, and a re-engagement of some UK Government Departments with UKOTCF regional Working Groups, as well as with the 2015 UKOTCF-organised conference. This is encouraging, and bodes well for a restoration towards the level of coordinated working operating for 20 years from the mid-1980s.

Throughout this period, there have been many examples of the use of UK, regional and local expertise to give advice. However, because of the barriers to information flow erected (but now hopefully being dismantled), it is difficult to give a complete overview.

8. Use the existing Environment Fund for the Overseas Territories, and promote access to other sources of public funding, for projects of lasting benefit to the Territory's environment.

The dedicated funding as set out in the original Charters has changed several times.

Prior to the 1999 White Paper (from which the Environment Charters arose), there was some UK Government grant support for the environment in UKOTs, but not earmarked, coming from the FCO Assistant Under-Secretary's Project Budget (AUSPB). In addition, a few UKOT projects were funded in some years from the Darwin Initiative programme.

Following the White Paper, FCO established the Environment Fund for Overseas Territories (EFOT), totalling about £1m per year, and the grant programme was implemented immediately. A matching amount was set aside by DFID but, rather than implement, they contracted a consultant to advise on how to operate the programme. Eventually, several years later, the consultant advised a scheme by which most of the money would be spent operating the grant programme, rather than for grants. In the resulting confusion, the funds set aside by DFID were transferred to a non-UKOT purpose. FCO's EFOT continued alone, and was specifically mentioned in Commitment 8.

However, just a few months later, in 2002, FCO cancelled EFOT. UKOTs and NGOs protested strongly, and senior FCO officials attending the UKOTCF-organised conference in Bermuda in early 2003 took their reasoned arguments on board, recreating a temporary version of EFOT for that year from more general grant funds.

At the same time, FCO, DFID and UKOTCF discussed further the matching DFID money, resulting in EFOT's replacement, in 2004, by the Overseas Territories Environment Programme (OTEP), the first joint FCO-DFID funding mechanism, with a budget of about £2m per year. Over several years, £8 million was disbursed through more than 140 projects across the territories. These projects are listed on the UKOTCF website and database. In most years, in addition at least one UKOT project was awarded funding by the Darwin Initiative.

EAC, in their *Halting Biodiversity Loss* (2008) report, stated "In our Report on the UN Millennium Ecosystem Assessment, published in January 2007, we expressed concern about the continued threat of extinction of around 240 species in the UKOTs and argued that it was "distasteful", given their lack of resources, that the FCO and DFID had argued that it was up to the UKOTs to fund protection of these species."

In the same year, the EAC noted that in their report on *Development and the Environment: the Role of the FCO*, they had also approached this issue and found that, regarding environmental protection in the UKOTs, the funding situation seemed to be determined by what FCO and DFID could spare, as opposed to a strategic need assessment. In the 2008 *Halting Biodiversity Loss* report, EAC were concerned that recommendations made in the past for helping to protect the UKOT environment had been ignored by Government.

The FAC 2008 report states: "We agree with the Environmental Audit Committee that the Government does not appear to have carried out any kind of strategic assessment of Overseas Territories' funding requirements for conservation and ecosystem management. We conclude that given the vulnerability of Overseas Territories' species and ecosystems, this lack of action by the Government is highly negligent. The environmental funding currently being provided by the UK to the Overseas Territories appears grossly inadequate and we recommend that it should be increased."

At the UKOTCF-organised conference in 2009, the Defra Minister announced that, in future, an amount within the Darwin Initiative would be earmarked for UKOT projects. However, just a year later the total Defra budget, including their Darwin Initiative budget, was severely reduced.

In 2011, FCO cancelled the FCO/DFID OTEP without explanation. There were still funds allocated that year, and these were disbursed without an application round or published list of grants.

Following the publication of the White Paper in 2012, a new Darwin Plus fund, into which Defra, DFID and FCO all contribute, became the only dedicated funding source for UKOTs in respect of the environment. At present, the £2 million for each round of Darwin Plus comes from Foreign and Commonwealth Office (£500k), Defra (£1m) and the Department for International Development (£500k), although the last will fund projects only in the three territories that are eligible for Official Development Assistance (ODA). The Darwin Plus fund now constitutes essentially the only source to which applications can be directed to help meet the Commitments in the Environment Charters and the Aichi Targets, and in some cases, this is the only way in which progress is being made. EAC's 2014 report indicates that "Defra must restate its commitment to Environment Charters and use them to deliver its CBD commitments in the UKOTs. Darwin Plus funding should be linked to compliance with the terms of Environment Charters." UK and UKOT Governments restated their commitments to the Environment Charters in the Communiqué from the Joint Ministerial Meeting December 2012: "We have agreed to work together on the following priority actions:... to continue to implement Environment Charters, and to work towards the full implementation of Multilateral Environmental Agreements where these have been extended to the Territories."

From 2009 to 2013, the Darwin Initiative, in its various forms, funded eleven main projects and two post-

projects in the UKOTs, totalling almost £3m.

Defra, FCO and DFID have also provided direct funding to other projects, which are listed in their activity report (https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/337271/final_draft_UKOTBS_update.pdf). They include work on: invasive species, implementing the Agreement on the Conservation of Albatrosses and Petrels, research, biosecurity, surveys and waste management.

9. Help each of the Territories identify further funding partners for environmental projects, such as donors, the private sector or nongovernmental organisations.

UKOTCF and other NGOs drew attention in 2006 to the fact that this Commitment did not seem to have been addressed systematically and in an ongoing way. As a result, UK Government funded a 2-year post at JNCC. To avoid confusion and duplication, UKOTCF closed its own web-database on funding sources for which it had only limited capacity. Unfortunately, JNCC chose to redeploy one of its existing staff with other skills, rather than an experienced fund-raiser. In addition, JNCC chose to focus on European Commission managed funding, rather than more widely. Finally, rather than treat the funding as a start-up for continuing help to those seeking funding for conservation work in the UKOTs, JNCC simply terminated the role when the initial 2-year funding ended. The service is not known to have achieved significant results, and is no longer operative.

Before and after the signing of the Charters, UKOTCF had worked with FCO colleagues to identify potential funding sources from the European Commission and, at the request of both FCO and the territories, had coordinated some trial applications. In 2003, UKOTCF, with initial help from FCO, coordinated a proposal from 3 territories to a regional fund. After 7 years of work, the European Commission finally issued contracts, for work somewhat changed (unilaterally by the Commission) from the application. The Commission procedures (both prior to and during the project) were extremely byzantine, making it very difficult and extremely inefficient for the territories to use the resources; however, this was done to varying degrees. In 2004, RSPB coordinated an application to the same fund for different territories; similar challenges were met although, for several reasons, they were less crippling.

Defra worked with the European Commission to try to open the LIFE programme (which supports the Natura 2000 sites within the EU itself) to UKOTs (and other OCTs). Although apparently successful from the headings, detailed analysis made clear that eligibility was not in fact extended to UKOTs (or other OCTs) by this means. Partly as a result of this, the European Union extended for another round the BEST programme (see below).

In the early 2000s, UKOTCF worked with equivalent bodies in France and the Netherlands (and keeping UK Government informed) to suggest and promote what eventually became the BEST programme. Unfortunately, neither UK NGOs nor UK Government had any involvement in the rule-writing for BEST, and these rules tend to work against UKOTs for various reasons that are not necessarily intentional. However, some large UK institutions, especially governmental, have managed to secure BEST grants in later rounds.

Several (sympathetic) EU sources have pointed out that UKOTs might do better in EU funding if UK ministerial and senior official level representation were more active in Brussels.

At the requests of FCO and UKOTs, UKOTCF and other NGOs have investigated the potential for use of the National Lottery funds to support conservation work in UKOTs (as they have for many years in Britain). Although there is no blockage in law, the policies and procedures of the lottery bodies effectively prevent this. Although this could be changed by a directive from the Department of Culture, Media and Sport (and this might be considered appropriate given the wording in the 2012 White Paper), there seem to be no prospects of this happening. There have been some suggestions that Lottery funding should be deployed only to places where tickets can be bought, but this is not a requirement in law, and it has been pointed out also that it ignores the substantial proportions of UKOT populations resident in Britain at any one time (and probably buying Lottery tickets).

UK Government has facilitated some major support from commercially based interests in respect of climate-change issues in the UKOTs, but not as yet in relation to biodiversity-related ones, although there have been a few cases of this facilitated by NGOs.

10. Recognise the diversity of the challenges facing the Overseas Territories in very different socio-economic and geographical situations.

The recent moves by UK Government to take conservation initiatives in the uninhabited territories, where UK Government has direct control (even if it chooses to exercise this through a nominally separate governmental unit) is perhaps a measure of an extreme form of this. These initiatives are very welcome. It must be recognised, however, some diversion to support this of grant resources from a non-increased total budget inevitably means a reduction in resources available to support inhabited territories.

Despite the excellent individual efforts by many officials in various UK Government Departments, there are several structural challenges. The rapid turnover of post-holders, which may be appropriate for a foreign-

relations ministry, is rather less so in the ministry's role of overseeing governance of Overseas Territories. This is because the issues are complex, involving strong historical and cultural elements, time-scales long (especially those for environmental issues), and communities of a size which prefer some continuity. Corporate memory, even more than individual memory, is not long – and this has become worse, not better, as digital systems have replaced the personal approach of librarians.

There is a problem also that UK Overseas Territories are a minor part of the work of departments responsible for policy (FCO's main business is foreign relations), aid (DFID focuses on world poverty despite its statutory duty to UKOTs), and environment (only one officer is part-dedicated to UKOT matters despite these being by far the most important parts of UK territory in terms of world biodiversity). Being small parts of business means that it is unlikely (some retirees from some departments say "impossible") that any top manager in the ministries will have had any first-hand involvement in UKOTs/CDs. This shows.

However, intentions are clearly positive. UK Government stated in the 2012 White Paper that they would "continue to work with the Territories to help them develop their economies." EAC noted that such development needed to be sustainable, a point which UK Government acknowledged. EAC pointed out also that the UKOT workforce needs green skills in order to contribute to green growth. Defra could therefore support the development of green skills, a skill-base possibly limited in some UKOTs due to having a small population size. The EAC 2012 Report *A Green Economy* provides recommendations related to this topic.

11. Abide by the principles set out in the Rio Declaration on Environment and Development and work towards meeting International Development Targets on the environment.

The matters in this are largely included in the other 10 Commitments.

Appendix: Tables of more detailed collated information for each Territory

The following pages present the more detailed collations of information on each of the UK Overseas Territories and Crown Dependencies from which the information summarised in the preceding parts of this report is drawn. The following pages are the current versions of material checked with the workers in territories and others.

As we noted at the start of this report, to minimise the loading on very busy colleagues in the territories, UKOTCF personnel (working most of the time in an unpaid voluntary capacity) gathered the initial drafts using published material, information gathered by UKOTCF and the working knowledge of the UKOTCF network. Clearly, it was important that those working on-the-ground should check this and so, for 9 months, we have undertaken several rounds of consultations, by email, remote communications and using the gathering of the Gibraltar conference in July 2015. We are grateful for this input. However, we have to acknowledge that limitations on time available to territory partners mean that this report will include some errors and omissions despite best efforts to minimise these.

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