



Department
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Development



Darwin Plus: Overseas Territories Environment and Climate Fund

Final Report

Important note To be completed with reference to the Reporting Guidance Notes for Project Leaders:
it is expected that this report will be a maximum of 20 pages in length, excluding annexes

Darwin Project Information

Project Ref Number	DPLUS022
Project Title	Anguilla National Ecosystem Assessment- Towards a Green Economy
Territory(ies)	Anguilla
Contract Holder Institution	Department of Environment, Government of Anguilla
Partner Institutions	Joint Nature Conservation Committee (JNCC)
Grant Value	£190,500.00
Start/end date of project	1 April 2014 to 30 March 2016
Project Leader Name	Mr Karim V D Hodge
Project website/Twitter/Blog etc.	www.gov.ai/doi
Report author(s) and date	Department of Environment, August 2016

1 Project Overview



Figure 1: Map of Anguilla

Anguilla (Figure 1) is a small UK Overseas Territory in the Eastern Caribbean. Ecosystem sustainability is critical to Anguilla’s national economy, individual livelihoods and health. Habitat alteration, storm-water runoff influenced by land use changes, tropical systems and climate change induced water scarcity are all impacting on the island’s ecosystems and their services. Hence, the long term economic prosperity in Anguilla requires healthy ecosystems, coupled with effective management choices and appropriate responses to address and build the nature based resiliency to these impacts.

The project aimed to strengthen existing policies while identifying new options to achieve effective environmental management and sustainable growth. It was designed to develop a national GIS based ecosystem inventory to include;

1. the physical nature and distribution of Anguilla’s ecosystems,
2. the economic and social value of their services and
3. the potential threats to this value.

The integration of the scientific and social data into scenario development through a participatory process has allowed plausible futures for Anguilla to be developed, while improving stakeholder awareness on the value of the island’s ecosystems to the economy. The ecosystem value mapping exercises and threat assessments performed, delivered economic and social arguments and real time evidence.

This compiled data has constructed the foundation for justifying the development and implementation of innovative and new green policies. Jointly, it tailors the mainstreaming of environmental management in our planning (economic and physical) and development decisions. The creation of a National Development Plan framework that incorporates the public buy-in and scientific data; permits the development of a robust National Development Plan which will adopt a more holistic approach towards building Anguilla’s nature based resiliency. **2 Project Achievements**

2.1 Outcome

Outcome 1: Create evidence base of status and trends in ecosystems and associated services.			
Indicators	Baseline	Change by 2016	Source of evidence

Indicator 1.1	Many studies were conducted on various aspects of Anguilla's ecosystems. This information is fragmented and not stored collectively in one database.	The status and trends of Anguilla's ecosystems were compiled through a literature review and a survey. This data is collectively placed on a database.	Appendix 1-A Report: Anguilla's Ecosystems Status, trends, change and perceptions [Volume 1] Appendix 1-B Report: Anguilla's Ecosystems-status, trends, change and perceptions: Desktop Review of Literature [Volume 2] Website: www.gov.ai/doe/project.php?id=1&ID=6781
Indicator 1.2	There was no framework on how to integrate economic assessments of goods and services provided by Anguilla's ecosystems into the national GIS database.	A framework is developed on how to integrate the economic assessment of goods and services into the National GIS database. It has also been used to allow the data to be now present on the national GIS database.	Appendix 2 Document: Framework for integrating economic values into GIS database
Indicator 1.3	A holistic ecosystem valuation assessment has not been performed on any of the Anguilla's ecosystems.	There are now reports detailing the value of key ecosystems and their services.	Appendix 3- A Report: Valuation of Ecosystem Services of Anguilla Appendix 3-B Report: The tourism value of nature in Anguilla and the impact of beach erosion. Website: www.gov.ai/doe/project.php?id=1&ID=6781
Indicator 1.4	There was no compiled documentation on Anguilla's ecosystem services and values.	Publications through maps and reports are available on the value of Anguilla's ecosystems and their services.	Appendix 3- A Report: Valuation of Ecosystem Services of Anguilla Appendix 3-B Report: The tourism value of nature in Anguilla and the impact of beach erosion. Website: www.gov.ai/doe/project.php?id=1&ID=6781
Indicator 1.5	The national GIS database did not incorporate the values of Anguilla's ecosystems.	The national GIS database currently has the values of Anguilla's ecosystems incorporated	Appendix 3- A Report: Valuation of Ecosystem Services of Anguilla Website: www.gov.ai/doe/project.php?id=1&ID=6781
Indicator 1.6	There were no maps developed to illustrate to the national audience the values and services of	Multiple maps have been developed to illustrate pictorially the values and services of Anguilla's ecosystems to the general	Appendix 4-A Report: Historic Changes in Anguilla's Ecosystems Appendix 4-B

	Anguilla's ecosystems	public.	Report: Anguilla's Ecosystem Sensitivity Appendix 4-C QGIS Ecosystem Service Mapping Guidance Website: www.gov.ai/doe/project.php?id=1&ID=6781
Indicator 1.7	Government and private stakeholders and the general public were unaware of a specific source published on the economic value of Anguilla's ecosystems and their services.	A report was published and shared with all relevant stakeholders and made accessible on the Department of Environment's website.	Appendix 3- A Report: Valuation of Ecosystem Services of Anguilla Appendix 3-B Report: The tourism value of nature in Anguilla and the impact of beach erosion. Website: www.gov.ai/doe/project.php?id=1&ID=6781
Indicator 1.8	The Department of Environment owned a website but there was no weblink for public access to the ANEA as this project was not on stream.	A weblink was developed through the Department of Environment's website to public access to the ANEA material.	Website: http://www.gov.ai/doe/

Outcome 2: Capacity strengthened across agencies (multi-sectoral) eg. No. of people participating techniques learned.			
Indicators	Baseline	Change by 2016	Source of evidence
Indicator 2.1	There is no evidence of training done within the Government sector on scenario building.	First Government oriented training on Scenario building was done with a crosssection of government agencies.	Appendix 5 Report: Anguilla's National Ecosystem Assessment: Report on the Scenario Workshop
Indicator 2.2	Sectorial trainings were conducted on social and ecosystems assessments but were done across Government's agencies.	The first cross-sectoral training on conducting social and ecosystem assessments was conducted with practical examples.	Appendix 6 Report: ANEA Communication, Facilitation & Future Scenario Training. Website: www.gov.ai/doe/project.php?id=1&ID=6781 Appendix 7 Photographs: Cross-sectorial Technical Training Sessions
Indicator 2.3	A National Interagency Protocol for data sharing across agencies was non-existent. Data is stored by the collecting agency and not readily accessible to other agencies.	A Draft National Interagency Protocol has been developed in draft form and is to be reviewed by the relevant government agency.	Appendix 8 Document: Draft National Interagency Protocol
Indicator 2.4	There were no webbased tools developed to capture the public's perception on the	Web-based tools such as Survey Monkey and Google based programmes were established to ascertain the	Appendix 1-A Report: Anguilla's Ecosystems Status, trends, change and perceptions [Volume 1]

	current and future trends of Anguilla's ecosystems and their services.	public's perceptions on the status and trends of the ecosystems and their services.	Appendix 1-B Report: Anguilla's Ecosystems-status, trends, change and perceptions: Desktop Review of Literature [Volume 2] Website: www.gov.ai/doe/project.php?id=1&ID=6781
Indicator 2.5	The other British Overseas Territories (BOT's), Nongovernmental Organisations (NGO's) (Regional and International), academic institutions and research agencies were not aware of the intervention in Anguilla.	Many knowledge sharing opportunities occurred with agencies such as; the European (EU), Caribbean Development Bank (CDB), Eastern Caribbean Development Band and the Organisation of the Eastern Caribbean States, British Crown Dependencies and the British Overseas Territories on various occasions.	Appendix 9-A Presentation: Using Maps to communicate to officials and the public in Anguilla for the National Ecosystem Assessment. Conference Host Country: Turks & Caicos Website: www.gov.ai/doe/project.php?id=1&ID=6781 Appendix 9-B Presentation: Environmental Sustainability: through the application of economic valuations Conference Host Country: Gibraltar Appendix 9-C Paper: Environmental Sustainability: through the application of economic valuations

Outcome 3: Scenario's developed through participatory approach and conducted national ecosystem assessment			
Indicators	Baseline	Change by 2016	Source of evidence
Indicator 3.1	There were no stakeholder workshop to ascertain feedback on the trends and status of Anguilla ecosystems and services.	Several stakeholder workshops were conducted and relevant information on the trends and status of Anguilla's ecosystems and associated services was shared.	Appendix 1-A Report: Anguilla's Ecosystems Status, trends, change and perceptions [Volume 1] Website: www.gov.ai/doe/project.php?id=1&ID=6781
Indicator 3.2	As it pertains to this project, the media was not engaged beforehand as this type of project was entirely new to Anguilla.	Based on the forms of media used a larger percentage of the public is now aware of the project and supports its purpose.	Appendix 9-A and 9-B Public presentations, Jingles, Video Clip Appendix 10-A Posters, Bill Boards Appendix 10-B Press Releases Appendix 12 Document: ANEA Meeting Strategy
Indicator 3.3	Minimal infrastructural, developmental and statistical data existed but in a fragmented manner which did not allow for storyline development.	The relevant infrastructural, developmental and statistical data was derived. This data now exists and has led to the development of storylines for scenarios.	Appendix 5 Report: Report on the Scenario Workshop , 17 th -18 th November 2014 Appendix 11 Document: Draft ANEA Scenario Names Appendix 3

			<p>Report: Valuation OF Ecosystem Services</p> <p>Appendix 4-A</p> <p>Report: Part 1- Historic Changes in Anguilla's Ecosystems</p> <p>Appendix 4-B</p> <p>Report: Part-2 Anguilla's Ecosystem Sensitivity Website:</p> <p>www.gov.ai/doe/project.php?id=1&ID=6781</p>
Indicator 3.4	Community consultations were not held to ascertain the publics' buy-in for future development goals.	Several stakeholder workshops were conducted to obtain the publics' perceptions. The scenarios developed incorporate the publics' perceptions.	<p>Appendix 5</p> <p>Report: Scenario Workshop , 17th - 18th November 2014</p> <p>Appendix 4-A</p> <p>Report: Part 1- Historic Changes in Anguilla's Ecosystems</p> <p>Appendix 4-B</p> <p>Report: Part-2 Anguilla's Ecosystem Sensitivity</p> <p>Appendix 7-B: Pictures Website:</p> <p>www.gov.ai/doe/project.php?id=1&ID=6781</p>
Indicator 3.5	The sociological skillsets existed but was not used for building other sectors skills sets in conducting focus group consultations. Consultants were identified.	Consultants with the relevant public education and sociological skills sets were solicited to train a cross sector of Government's technical staff on conducting focus group consultations for scenarios development.	<p>Appendix 3-B</p> <p>Report: Systems Analysis Upper Shoal Bay East.</p> <p>Appendix 3-C</p> <p>Report: Erosion Management Shoal Bay</p> <p>Appendix 6</p> <p>Report: ANEA Communication, Facilitation & Future Scenario Training.</p> <p>Website:</p> <p>www.gov.ai/doe/project.php?id=1&ID=6781</p>
Indicator 3.6	Prior to this initiative, there were no strategy existed as this process had to be tailored to the island's reality and would be a living strategy.	A living strategy was developed and the local skill sets to execute it now exists within Anguilla. This process was tailored to the island's reality.	<p>Appendix 11</p> <p>Document: ANEA Meetings Strategy</p>

			application of economic valuations Conference Host Country: Gibraltar Appendix 9-C Paper: Environmental Sustainability: through the application of economic valuations
Indicator 3.7	Anguilla only hosted a national meeting on greening the economy. Anguilla has never hosted a regional or international meeting on conducting a National Ecosystem Assessment.	Regional and International meetings hosted in other countries have given Anguilla the opportunity to share with other OT's the ANEA process. All the material developed thus far on detailing the ANEA process is published on the DOE's website for sharing with the other BOTs and CDs.	Appendix 9-A Presentation: Using Maps to communicate to officials and the public in Anguilla for the National Ecosystem Assessment. Conference Host Country: Turks & Caicos Website: www.gov.ai/doi/project.php?id=1&ID=6781 Appendix 9-B Presentation: Environmental Sustainability: through the

Outcome 4: Establishment of an Integrated Framework towards a national development plan.			
Indicators	Baseline	Change by 2016	Source of evidence
Indicator 4.1	The Ministry of Home Affairs and Environment (MHA) was informed about the project proposal and provided support.	Through roundtable discussions, all Ministries' were informed about the project. The MHA was prohibited from hosting the orientation retreat due to unforeseeable circumstances.	Appendix 7-B Pictures: National Focus Groups Consultations
Indicator 4.2	There was no framework for developing a National Development Plan, although there was a draft National Development Plan produced in the 1980s.	The objective for the National Development Plan Framework was established.	Appendix 13 Document: Methodology for the National Development Framework
Indicator 4.3	A National Development Plan Framework with the stakeholder's input was non-existent.	Focus group sessions were held with various stakeholders under each of the Ministries. In draft form and is being reviewed by the relevant government agency.	Appendix 14 Pictures: Consultations-NDPF Appendix 13 Document: Methodology and Draft NDPF
Indicator 4.4	There was no National Development Plan Framework developed.	The first draft of the national Development Plan Framework was developed and reviewed through stakeholders' discussions.	Appendix 13 Document: Methodology and Draft NDPF

Indicator 4.5	A commission to drive the National Development Plan Framework did not exist.	The establishment of a Commission for this component was deemed unnecessary as the method adopted was focus group discussions with the Ministries.	Appendix 15 Document: Email to Ministries for National Development Plan Framework Consultations
Indicator 4.6	There were no prior engagements with stakeholders on developing a National Development Plan Framework.	Numerous stakeholder working group sessions were held.	Appendix 14 Pictures: Consultations-NDPF
Indicator 4.7	Official training seminars on developing frameworks were not held with Government stakeholders.	There was no specific training conducted with developing frameworks. Knowledge sharing with the Ministry responsible for developing the national Development Plan provided the relevant expertise and skillsets required to fulfil this component.	Appendix 14 Pictures: Consultations-NDPF
Indicator 4.8	Major approved laws and policies such as the Framework for Fiscal Responsibility Act and the Greening the Economy Report were produced but not aligned to achieve holistic development.	The draft National Development Plan Framework was developed incorporating the recommendations and objectives of the relevant laws and policies.	Appendix 13 Document: Methodology and Draft NDFP
Indicator 4.9	General funding schemes were available.	Potential funding schemes relevant to implementing recommendations derived for the NDF. A regional meeting involving the World Bank, International Monetary Fund and Caribbean Development Bank was hosted.	Caribbean Development Bank http://www.caribank.org/

The intended outcomes laid out in the project application were achieved in full, with the exception of outcomes 2 and 3 which were partly fulfilled by the project's end date. The achievements are realised through the material that has been generated and stated in Table 1.

During the course of the project, there were some factors that caused some digression:

- i. The Department of Environment relocation was delayed although the administrative work to facilitate the move was completed in advance of the project.
- ii. Scheduled focus group sessions which were critical for the development of the scenarios and framework for the National Development Plan did not go as envisioned. The traditional method of inviting participants to one location was not effective.
- iii. The indigenous banking issue developed caused the Government of Anguilla and the Ministry of Finance which holds the portfolio for the National Development Plan to redirect their focus. This resulted in the preliminary works for the Draft Framework for the National Development Plan to be delayed.

To resolve this, the Department of Environment requested and received a no cost extension on the project from the Darwin Initiative. Furthermore, the Department of Environment revised its strategy for approaching stakeholders. Letters were devised to determine the appropriate times to meet with the stakeholders at their preferred venue.

2.2 Long-term strategic outcome(s)

The achievement of sustainable development means that Governments are to employ holistic approaches which take into consideration the contribution of environmental goods and services. The Government of Anguilla has established its mandate to develop sustainably into the future but, there is no formal National Development Plan. The draft National Development Plan Framework produced under this intervention has been developed collaboratively and accepted by all Ministries. The horizontal approval of the draft framework in the Government sector allows for a streamlined process towards developing the National Development Plan, which will factor in all spheres for sustainable development.

Thus, general improvements in the social, economic and cultural conditions, conservation of biodiversity, disaster risk reduction, the mitigation of climate change impacts and the maintenance of vital ecological processes are critical for the maintenance and enhancement of environmental quality. These processes are also crucial to sustainable development. In the long term, the project strengthened the existing policies and identified new options to achieve effective environmental management and sustainable growth in Anguilla through the production of plausible future scenarios. The integration of scientific and social data into scenario development leads to a more defined and publicly accepted approach towards safeguarding the productivity of Anguilla's ecosystems.

i. Project's Achievements and Expected Changes

- a. An evidence database on the status and trends of Anguilla's ecosystems and their associated services was developed. This data has been integrated into the National GIS database to provide the relevant baseline information to the Land Development Control Committee (LDCC) and other pertinent making bodies. The information is also relevant for the development of resource management plans. For example, there is a now a database which details the location of specific species and habitat types to allow for better ecological management practices. This also will assist with the extension of the Convention on Biological Diversity.
 - b. A cross-section of the civil service was trained on conducting various assessments; social scenario, ecosystem scenario and socio-economic. As a small island state, human, technical and financial constraints affect the effectiveness of environmental management. By cross training technical staff in the Government in processes such as facilitating public consultations, the capacity to acquire more fruitful public discussions on various issues is afforded. In addition, the enforcement of environmental management legislation, policies and strategies along with managing the state of the environment tends to be restricted to Natural Resource Agencies. Cross training has allowed for a greater environmental understanding in terms of assessments to be present in other ministries.
 - c. Scenarios were developed with associated timelines, critical uncertainties and potential surprises. The narrative for developing the scenarios incorporated the public's perceptions. By doing so, the plausible futures produced give the Government of Anguilla the opportunity to determine the appropriate options for development under various conditions. This has provided the Government of Anguilla a first plausible outlook for Anguilla. The trade-offs among the scenarios focused on human development, security, environmental conservation and economic development.
 - d. The draft National Development Plan Framework towards a national development plan has been established. This draft framework has been developed collaboratively with the Ministry of Economic Development in the first stance, and then with all other Ministries. It has given the Government of Anguilla a kick-start to initiate the process for producing the National Development Plan as it provides the structure for developing this instrument in the future.
- ii. Project's influence on wider decision making embedding environmental issues into decision making.**

The outcomes achieved under this project have informed wider decision-making and helped embed environmental issues into the decision making process. For example, many maps were produced during this project. These include but are not limited to; Risk Maps, Change Maps and Opportunities Maps. These maps and their respective analysis have been made available to the Department of Physical Planning; GIS Unit and the Land Development Control Committee. These two entities are directly responsible for decisions on land use and land development, respectively.

The draft National Development Plan Framework hinges on the Greening the Economy Report along with the Medium Term Economic Strategy (MTES) and Framework for Fiscal Responsibility Act. This is one means of ensuring that the environmental issues highlighted and recommendations stipulated in the said documents will be enforced and achieved.

iii. Project impacts and how it has delivered value for money.

The project built the capacity of key local stakeholders to ensure sustainability and ownership, while ensuring Anguilla's continued economic and ecological sustainability. This was further enhanced by the integration of science and traditional knowledge which resulted in an informed Draft National Development Plan Framework. The maps serve as key tools which will complement and aid the implementation of sections of the Comprehensive Disaster Management Plan. In addition to this, it makes land zoning and the development of land use plans more feasible whether sectoral or national plans. Furthermore, it aids with the development of regulations for the Biodiversity Heritage and Conservation Act.

The costs of the main elements of the project were derived from direct experience through existing contracts. The project established a broad based steering committee in its early stages and comprised of the skill sets needed to execute the project in an efficient manner. It was built on the project partners/stakeholder strengths, used local resources and knowledge to defray costs, contracted consultants only for critical technical areas, and leads to sustainable changes. In addition, this project has been based on the Department of Environment's Strategic Approach toward Sustainable National Development (Figure 2). This is complementary to other works towards achieving environmental sustainability in Anguilla.

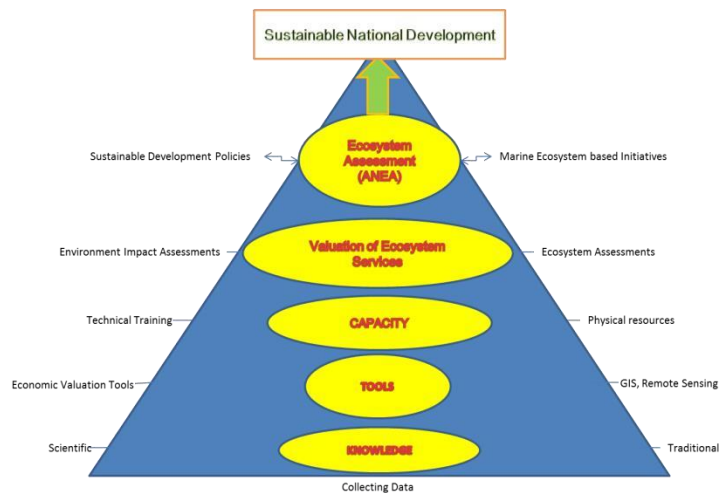


Figure 2: Department of Environment's Strategic Approach.

2.3 Outputs

	Baseline	Change recorded by 2016	Source of evidence	Comments (if necessary)
Output 1	Create evidence based of status and terms in ecosystem services.			
Indicator 1.1 to 1.8	No such maps and training to produce such maps existed prior to this project	A range of mapping has produced maps addressing; ecosystem services, values, risks and potential.	Website: www.gov.ai/doi/proje ct.php?id=1&ID=6781 Appendixes: 3-A , 4A, 4-B & 4-C.	
Output 2	Capacity strengthened across agencies (multi-sectoral) e.g. no of people participating techniques learned.			
Indicator 2.1 to 2.5	No such capacity training for these subject areas has occurred prior to this initiative.	Over thirty persons received training (ecosystem assessment/scenario/social assessments) various agencies ensuring a wide cross section of individuals gained expertise and were able to contribute to the overall project achievement.	Appendixes: 5, 6, 3B, 3-C, 4-A, 4-C, 7-A & 16	
Output 3	Scenario developed through participatory/approach and conducted national ecosystem assessment.			
Indicator 3.1 to 3.7	No Scenario planning has ever being done to illustrate the future of Anguilla under different social economic and environmental	Twenty five focus/stakeholder groups meetings were held with over five hundred person. Early scenarios were constructed. At the end of the consultation period, new and refined scenarios were	Appendixes: 11 & 7-B	

	conditions	developed.		
Output 4	Establishment of Integrated Framework towards a national development framework.			
Indicator 4.1 to 4.8	No such policy document exist	Draft framework for the National Development Plan was developed for further refinement and annotation.	Appendix: 13	

Project's Outputs

- Anguilla now has 38 very detailed maps produced; addressing ecosystem services, values, risks and potential. Additionally, a wealth of specific attributes data to accompany the maps were produced and placed in the national GIS database (**Appendixes** 4A, 4B & 4C; www.gov.ai/doe/project.php?id=1&ID=6781).
- A wealth of new expertise exists on the island as a result of training and this has assisted with social, economic and political assessments (**Appendixes** 3-B, 3-C, 5, 6, & 7-A).
- Early in the process six (6) scenarios were constructed. A suite of newly refined scenarios have been developed in draft form. Twenty-five focus/stakeholder groups meetings were held with over five hundred persons attending and contributing (**Appendixes** 11, 12 & 7-B).
- A draft framework for the national development plan has been developed and is being further reviewed with rigour by government agencies (**Appendixes** 13, 14 & 15).

Challenges and Resolutions

- The traditional method of town hall meetings or inviting groups to attend meetings at a specified location was considered for the attracting members of the public to the consultations. Given that this technique it most popular in Anguilla, it was not foreseen as a risk. However, it was realized during the project that this method is not as effective as it has been in the past. Consequently, the staff determined an alternative strategy which was to formally contact the leaders of groups via telephone and then by email to determine the date, time and place most suitable to meet. This allowed a broad cross section of the population to be engaged in the process.
- It was anticipated that the Department of Environment would be relocated. However, this was foreseen to occur prior to the commencement of the project given that the administrative work was completed in advance of the project. Consequently, the relocation occurred during the project which resulted in a delay in some of the project's activities. The Department of Environment requested and received a no cost extension of the project.
- The Ministry of Finance which holds the portfolio for the National Development Plan was integral to the preliminary works for developing the Framework for the National Development Plan. The indigenous banking issue developed during the course on the onset of the project caused the Ministry of Finance and Government of Anguilla to redirect their focus. This resulted in the preliminary works for the Draft National Development Plan Framework to be delayed. The extension received from the Darwin Initiative allowed the necessary time to undertake the activities.
- During the course of the project, the Government's system was bugged and this impacted all departmental websites. The Department was unable to recover the website. Therefore, regular updates on the project via this means ceased. However, through talk shows, updates on the ANEA were continued. The Department of Environment constructed another website through which the ANEA and its deliverables are being publicised.

2.4 Sustainability and Legacy

The achievements most likely to endure would be;

1. the capacity building components of the project. These are specifically related to; facilitating focus group consultations, developing maps using GIS and building scenarios. These are processes and activities that agencies use on a day to day basis. Further to this are the public awareness and communication components of the project. The technical staff who were engaged became more informed about ecosystems and their services, and in some cases was startled by the immense change Anguilla's ecosystems had underwent.
2. the maps integrating the economic valuation studies are placed in the national GIS database. This information is readily accessible by the key agencies involved in national land use and planning development. This would assist with being able to use our limited land and natural resources efficiently for development without compromising livelihood and ecosystem services.
3. the Draft National Development Plan Framework produced is the first of step of this sort taken towards developing the National Development Plan for Anguilla. This framework which incorporates the local stakeholder's perceptions as well as buy-in from the various Ministries provides the requisite to work with in the interim.

Long-term Actions

The initial steps taken to ensure the impact of the project will endure can be found in the preliminary stage of project development, where most of the ministries were contacted to partner on this Darwin project in a manner to highlight linkages. These same agencies were a part of the capacity building and knowledge sharing exercises. One key link was the development of a draft National Development Plan Framework with future development work being administered by the Ministry of Finance and Economic Development. This Ministry's plans and involvement indicated a paramount yet critical decision in the collaboration and realization of the 4th output of the ANEA. This output 'the Development of a draft National

Development Plan Framework' proves to be a significant objective of Anguilla's Medium Term Economic Strategy (MTES) and precursor to the development of the national development plan. In doing such, the development plan will be underpinned with a modern set of environment principles.

The initial phases of the project indicates not only the baseline data collation but also is an indicator of how dynamic our ecosystem types are and how they are related (directly or indirectly) to the socio-economic well-being of Anguilla.

Project staff and resources after completion

The project did not employ additional staff to achieve its outputs. The staff at the Department of Environment managed the project and therefore, this will have no impact on the continuity and sustainability of this project's outcomes. Although consultants were contracted to fulfil key components of the project, we have developed a working relationship. Therefore, if we are given other opportunities to further develop the achievements of this project, their expertise can be utilised. The resources which have been produced can be sustained by the Department of Environment in terms of updating of the evidence base on the status and trends of Anguilla's ecosystems and their associated services.

3 Project Stakeholders/Partners

Our principal stakeholders in this project were the Government of Anguilla Agencies (all its facets of social, natural resources based and political and economics/financial), private sector entities and communities. The project also included regional and international stakeholders. The Joint Nature Conservation Committee (JNCC) supported with managing the initial start-up meetings and networking with known experts suitable for the ANEA project. The consultancy team that built the local capacity; Environment Systems, EMU Services, DEMOCRA-SEA, Fabis Consulting, and Newcastle University have continued their involvement through remote input via

email and virtual meetings (Skype, teleconference) as well as in country visits and joint meetings when the need is greatest.

One consultant that was a part of the project's development was unable to continue working as part of the team when the project commenced. However, a substitute consultant for that specific component of the project was identified and utilised in the project. This was made

possible as we had continued our working relationships established with the consultants who worked on the Anguilla National Ecosystem Assessment – Scoping Exercise project.

4 Lessons learned

□ Management Structure

A team of experts were identified from the development stage of the project. This allowed a managing structure on who will be doing what at each interval in the project to be devised from the beginning. Despite doing this, a crucial lesson learnt during the project was the need to have back-ups as one of the consultants was unable to continue on the initiative.

□ Expertise Employed

As it pertained to this project, the right expertise was employed and to ensure continuity, the technical staffs at the Department of Environment and other agencies were trained. For example, an expert was solicited to train the staffs on conducting public consultations. By being trained and informed of various techniques, we were able to conduct all the stakeholder consultations independently and knew how to deal with various personalities in an efficient manner. Furthermore, the staffs were able to analyse the data and do the initial coding for developing the scenarios narratives.

□ Project's Plan

The project was developed based on the priority issues identified through preliminary works and stakeholder consultations. They were considered correct with the exception that other issues surfaced during the course of the project which would have influenced the stakeholder's perceptions. Such one issue was the Sargassum invasion which blanketed the coastline. The timeframe outlined was realistic but unforeseeable circumstances beyond the management team control, resulted in delays.

□ Budget Allocation

The resources required for achieving the outcomes outlined in the project's application was sufficient. As it relates to the delays, there were no additional costs incurred as the most strategic measures were taken for spending.

4.1 Monitoring and evaluation

There were no major changes made to the project design. However, the allocated timeframe for the project was extended. A no cost extension on the project was accepted and approved by Darwin Plus. This was to allow some of the key objectives of the project to be effectively achieved.

The many reports, minutes from key meetings were the simple and objective means of monitoring the progress of the ANEA Project. The data analysis programme and capacity building programme developed and executed were also means by which the project was evaluated on a continual basis. Establishing a methodical approach, early on in project meetings with all key project stakeholders as well as the consultants allowed for smoother implementation. Hence, the approach of recording minutes, producing reports and maps have proven adequate in capturing and tracking the project's progress.

Internal Evaluation of Work

The work was evaluated internally by the project management team. This was primarily done through the many reports produced, maps orchestrated and minutes collated from key meetings held. This strategic approach allowed all key stakeholders, including the consultants, to be kept abreast of the project's progress. It also ensured that the deliverables were aligned with what was set out in the project's application.

At certain intervals during the evaluations, it was revealed that some of the activities scheduled in the Gant Chart were not achievable during the allocated time frame. As a result, allocations were made to allow that outcome to be achieved at a later date without affecting any other activity.

External Evaluation of Work

The Darin Plus Initiative was the only external entity that evaluated the project. This was done through the half yearly progress reports and yearly reports. There was no feedback given on the half year progress reports. However, the yearly report revealed the following

- Overall, it appears to be a solid project that is moving forward as planned. It has produced good documentation of Anguilla's ecosystems, based on literature review and in the form of a series of maps. Capacity building workshops have been well received and local awareness of the value of ecosystem services is being increased. The project was scored two (2) based on the Darwin criteria which meant there is good progress towards purpose completion and most outputs have been achieved, particularly the most important.

The key findings of the external evaluator were useful as it provided succinct points on each key component of the project. This allowed the management team to be satisfied with the project's progress and the knowledge that the project was achieving the outcomes as stated for that specific time period.

4.2 Actions taken in response to annual report reviews

An issue highlighted in the Department was the absence of the Darwin Logo from the ANEA weblink accessible through the Department of Environment's website. The Department of Environment addresses this by ensuring the logo was also included on the website. It was also highlighted that although the local media outlets are said to give the natural environment attention, it was not made clear whether Darwin was recognised in such coverage. This was made much clearer in the infomercials produced collaboratively by the Department of Environment and Government radio station, Radio Anguilla.

5 Darwin Identity

All material produced possessed the Darwin Initiative logo. The recordings developed, presentations delivered, conversations held, and conferences held nationally, regionally and internationally acknowledged the Darwin Initiative as the funding agency for the project. Other projects such as the Anguilla National Ecosystem Assessment-Towards a Green Economy-Scoping Exercise also highlighted the Darwin Initiative. Hence, there has been an on-going recognition of the Darwin Initiative through various means.

There are a number of projects which have been done under the Darwin Initiative in Anguilla. The traditional method of press releases and other activities under the projects build the awareness of the Darwin Initiative. This has made this source known in the wider community. An initiative also taken by the Department of Environment was the circulation of the funding opening date amongst all Government Agencies vital for natural resource management, NGOs, Community Groups and CBO's entities.

6 Finance and administration

6.1 Project expenditure

Project spend (indicative) since last annual report	2015/16 Grant (£)	2015/16 Total actual Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs			+0.43	We only required staff for a short period to reconstruct the website, develop the ANEA Video Mini Series.
Consultancy costs			-0.002	
Overhead Costs			+0.96	The meeting venues for stakeholder sessions and focus groups as the format changed

				and securing venues was no longer necessary.
Travel and subsistence			+0.19	This was used to ensure that the project team met to conduct the data coding, the data analysis and initiate the process to produce Technical and Synthesis Reports for publication.
Operating Costs			+0.77	Due to the delay in relocating, we experienced a setback in producing public awareness paraphernalia and therefore we economised on the funds without having a great impact on the project. Further to this, we did not manage to rent spaces for public displays as originally planned. This resulted in savings.
Capital items			+100	It was not necessary to purchase additional capital items.
Others			+100	This expenditure served as a contingency fund in the event that an unexpected cost aroused.
End of project audit fee *			+100	This audit monies is for the project review and is not to be utilised otherwise.
TOTAL	75,000.00	55,539.48		

Staff employed (Name and position)	Cost (£)
Catherine Brooks (Video Documentary and website redevelopment Development)	
TOTAL	2839.95

Consultancy – description of breakdown of costs	Other items – cost (£)
Environment Systems (Map Production)	
EMU Environment Services (Ron Janssen)	
Roy Haines-Young (ANEA Synthesis and ANEA Technical Report)	

Democra-SEA Limited Sarah Young	
Allison Gilbert EMU Education and Consultancy (Training)	
TOTAL	40,980.00

6.2 Value for Money

- The wealth of data obtained on Anguilla's ecosystems has enabled a rich database to be developed to allow informed decisions on developments, the production of resource management plans, and build awareness on the linkages between the environment and socio-economic development. The capacity building allowed local expertise to be used to acquire the data without any astronomical cost.
- The experts who worked on this project had already had a working relationship with the Department of Environment. Consequently, the budget allocation for consultancy work stayed within the limited stipulated in the project's application.
- The persons who were trained, interviewed and more importantly, contributed to the focus group sessions were made more aware of the environment, its function and benefits of its services and benefits in a common space and at a comfortable pace for a relatively low fee. We can further value this aspect based on the fact that observations were documented, awareness was raised, real time perceptions were witnessed, questions and uncertainties addressed and overall data collection was active and efficient regarding all the dynamics of this participatory function.
- There is no price for the synergy and the outputs of such with regards to combining the economic, social, communicative and geographic context of Anguilla aligned with the views and responses of the focus groups. This is evidenced by the resulting scenario work as well as the considerations and analysis that followed.

Annex 1 Standard Measures

Code	Description	Totals (plus additional detail as required)
Training Measures		
1	Number of (i) students from the UKOTs; and (ii) other students to receive training (including PhD, masters and other training and receiving a qualification or certificate)	
2	Number of (i) people in UKOTs; and (ii) other people receiving other forms of long-term (>1yr) training not leading to formal qualification	
3a	Number of (i) people in UKOTs; and (ii) other people receiving other forms of short-term education/training (i.e. not categories 1-5 above)	
3b	Number of training weeks (i) in UKOTs; (ii) outside UKOTs not leading to formal qualification	(i) 2 Weeks (ii) 1 week
4	Number of types of training materials produced. Were these materials made available for use by UKOTs?	(i) 7 Manuals and yes they are available other UKOTs by way of request.
5	Number of UKOT citizens who have increased capacity to manage natural resources as a result of the project	(ii) Thirty persons from across the public/private and civil society
Research Measures		
9	Number of species/habitat management plans/strategies (or action plans) produced for/by Governments, public authorities or other implementing agencies in the UKOTs	
10	Number of formal documents produced to assist work in UKOTs related to species identification, classification and recording.	Habitat Maps (7 maps)
11a	Number of papers published or accepted for publication in peer reviewed journals written by (i) UKOT authors; and (ii) other authors	
11b	Number of papers published or accepted for publication elsewhere written by (i) UKOT authors; and (ii) other authors	
12b	Number of computer-based databases enhanced (containing species/genetic information). Were these databases made available for use by UKOTs?	
13a	Number of species reference collections established. Were these collections handed over to UKOTs?	

Code	Description	Totals (plus additional detail as required)
13b	Number of species reference collections enhanced. Were these collections handed over to UKOTs?	
Dissemination Measures		
14a	Number of conferences/seminars/workshops/stakeholder meetings organised to present/disseminate findings from UKOT's Darwin project work	
14b	Number of conferences/seminars/workshops/stakeholder meetings attended at which findings from the Darwin Plus project work will be presented/ disseminated	
Physical Measures		
20	Estimated value (£s) of physical assets handed over to UKOT(s)	
21	Number of permanent educational/training/research facilities or organisation established in UKOTs	
22	Number of permanent field plots established in UKOTs	
23	Value of resources raised from other sources (e.g., in addition to Darwin funding) for project work	

Annex 2 Publications

Type * (e.g. journals, manual, CDs)	Detail (title, author, year)	Nationality of lead author	Nationality of institution of lead author	Gender of lead author	Publishers (name, city)	Available from (e.g. weblink, contact address, annex etc)
Manual	Ecosystem Services Mapping in Anguilla: Historical Changes in Anguilla. Elsa-Kristin Naumann, Mathew Kelly & Dr. Katie Medcalf, 2015	United Kingdom (Wales)	United Kingdom	Female	Environment Systems, Wales	www.gov.ai/doe/project.php?id=1&ID=6781
Manual	Ecosystem Services Mapping in Anguilla: Risk and Opportunities by Dr. Katie Medcalf, Elsa-Kristin Naumann & Matthew Kelly, 2015	United Kingdom (Wales)	United Kingdom	Female	Environment Systems, Wales	www.gov.ai/doe/project.php?id=1&ID=6781
Manual	Ecosystem Services Mapping in Anguilla: QGIS Technical Report: by Dr. Katie Medcalf, Elsa-Kristin Naumann & Matthew Kelly, 2015	United Kingdom (Wales)	United Kingdom	Female	Environment Systems, Wales	www.gov.ai/doe/project.php?id=1&ID=6781
Manual	Anguilla's National Ecosystem Assessment: Report on the Scenario Workshop; Roy HainesYoung; 2014	United Kingdom	United Kingdom	Male	Fabis Consulting, United Kingdom	www.gov.ai/doe/project.php?id=1&ID=6781

Manual	Towards a green economy on Anguilla: A corporate ecosystem service review of the tourism sector. Sophie Schäfgen, 2014	German	Netherlands	Female	(IVM) Institute for Environmental Studies – VU	www.gov.ai/doi/project.php?id=1&ID=6781
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					University	
Manual	The tourism value of nature on Anguilla and the impact of beach erosion; Koen Tieskens, Clint Lake, Sharmer Fleming, Pieter van Beukering, Luke Brander & Ron Janssen, 2014	Dutch	Netherlands	Male	(IVM) Institute for Environmental Studies – VU University	www.gov.ai/doi/project.php?id=1&ID=6781
Manual	Anguilla National Ecosystem Assessment (NEA) - Towards a Green Economy Framework For Integrating Economic And Environment Data By Prof Ron Janssen 2014	Dutch	Netherlands	MALE	Emu Consultancy	www.gov.ai/doi/project.php?id=1&ID=6781

Manual	Anguilla Habitat Mapping Using Earth Observation: Phase II Anguilla Marine Habitat Mapping Using EO; By Dr. Katie Medcalf CEnv Dr Gemma Bell Dr Iain Cameron Samuel Pike	United Kingdom	United Kingdom	Female	Environment Systems	www.gov.ai/doe/project.php?id=1&ID=6781
Manual	Simulating erosion at Upper Shoal Bay East, Alison Gilbert (acknowledging the valuable assistance of	Dutch	Netherlands	Female	EMU Environmental Services	www.gov.ai/doe/project.php?id=1&ID=6781
	Sharmer Fleming, Department of Environment, Anguilla); 2015					
Manual	Erosion Management of Upper Shoal Bay East; Ron Janssen, Clint Lake, Report prepared for the Government of Anguilla by EMU Environmental Services; 2015	Dutch	Netherlands	Male	EMU Environmental Services	www.gov.ai/doe/project.php?id=1&ID=6781
Manual	An Ecological Analysis of the Lionfish Invasion in Anguilla; by Fadilah Ali and Paulo Bertuol; 2014	Trinidadian	Trinidad and Tobago	Female	Joint Nature Conservation Committee	www.gov.ai/doe/project.php?id=1&ID=6781

Manual	Anguilla National Consultation Meeting Report 27 February 2013	United Kingdom	United Kingdom	Female	FOR-Anguilla	www.gov.ai/doi/project.php?id=1&ID=6781
Manual	Counting the pot of sandy white gold: Quantifying Anguilla's zone using high and low resolution earth observation	United Kingdom	United Kingdom	Female	Aberystwyth University	www.gov.ai/doi/project.php?id=1&ID=6781

Annex 3 Darwin Contacts

To assist us with future evaluation work and feedback on your report, please provide details for the main project contacts below. Please add new sections to the table if you are able to provide contact information for more people than there are sections below.

Ref No	DPLUS 022
Project Title	Anguilla National Ecosystem Assessment – Towards a Green Economy
Project Leader Details	
Name	Mr Karim V D Hodge
Role within Darwin Project	Project Leader
Address	P O Box 60, Department of Environment, Ministry of Home Affairs, The Valley, AI-2640, Anguilla BWI
Phone	
Fax/Skype	
Email	
Partner 1	
Name	Tony Weighell
Organisation	Joint Nature Conservation Committee
Role within Darwin Project	Project Partner
Address	
Fax/Skype	
Email	
Partner 2 etc.	
Name	
Organisation	
Role within Darwin Project	
Address	
Fax/Skype	
Email	
