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South Atlantic Overseas Territories Natural Capital Assessment: St Helena Consultation Report



Ness Smith
26th January 2018

Introduction

Between 20th-27th January 2018 Ness Smith and Tara Pelembe, from the South Atlantic Environmental Research Institute (SAERI), visited St Helena to introduce the South Atlantic Natural Capital Assessment Project and discuss how an NCA approach could help to inform environmental decision making on the island. They met with a wide range of stakeholders including the Governor, Councillors and Government officials as well as farmers, NGOs and utility providers. This culminated in a full day meeting on Friday 26th January with key stakeholders at the Mantis Hotel to discuss the most important environmental benefits for Saints, and to prioritise what should be assessed within the project. The following is a record of that day.

Overview of the Natural Capital Assessment project

Tara Pelembe, Deputy Director – Innovation – introduced SAERI and its work, and went on to describe the NCA project in more detail:

The UK Government, through the FCO managed Conflict, Stability and Security Fund, is supporting a suite of natural capital projects across the UK's South Atlantic and Caribbean Overseas Territories. This work is designed to improve economic stability in the Territories through enhanced environmental resilience as part of a programme led by the UK's Department for Environment and Rural Affairs (Defra). The natural capital project began in September 2016 and will be completed by March 2019 with the Joint Nature Conservation Committee (JNCC) as the Implementing Body.

In the South Atlantic, the natural capital project work is being undertaken by South SAERI under a Memorandum of Agreement with the JNCC. The project will assist the UK's Overseas Territories in the South Atlantic to assess and map natural capital, value priority assets and deploy decisions support tools to secure long-term economic benefits from the sustainable management of the territories' natural assets. This support will be provided through the development and collation of spatial (mapped) evidence, and a Territory-to-Territory partnership for technical exchange and capacity building within the UK's Overseas Territories in the region. The outcome will be a framework for the South Atlantic UK Overseas Territories to assess the value of the environmental goods and services available and integrate this information into marine and terrestrial spatial planning, economic planning and environmental protection.



Figure 1: Funding route for the South Atlantic Natural Capital Assessment Project

SAERI will be providing an evidence base for Saints to make decisions on the areas identified as a priority in this consultation. The project focuses on four key deliverables:

- Spatial data on the distribution of selected natural capital assets, both marine and terrestrial, derived from satellite imagery and other existing resources, as relevant to each Territory;
- Valuation of priority natural capital assets (value mapping integrated into national GIS) and the assessment of economic and societal benefits arising from them;
- Application of analytical tools that will support decision making in the context of environmental management and economic development (e.g. scenarios);
- Methods for monitoring changes to priority natural capital over time using appropriate attributes (e.g. indicators).

This will be applied across all of the South Atlantic Overseas Territories, with the Falkland Islands and South Georgia being the main focus in year one, followed by Ascension, St. Helena and Tristan da Cunha in the second year (Figure 2).

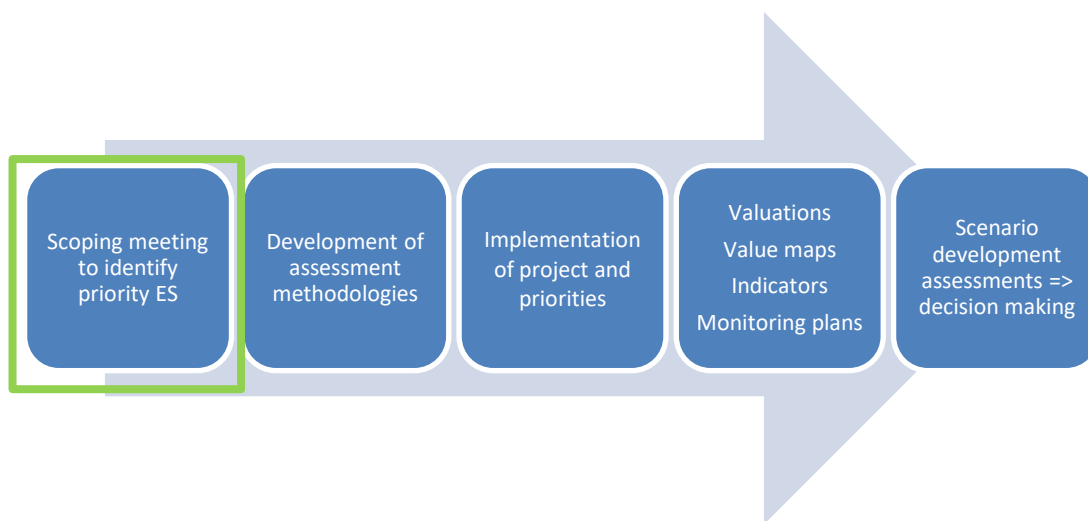


Figure 2: Work-flow for the NCA Project; green square indicates current status in St Helena

There are four Groups set up to support the project (Figure 3) and the St Helena Territory Advisory Group (outlined in green) will be a key conduit between the St Helena Government, regional cross-territory group, wider stakeholders and the project team.

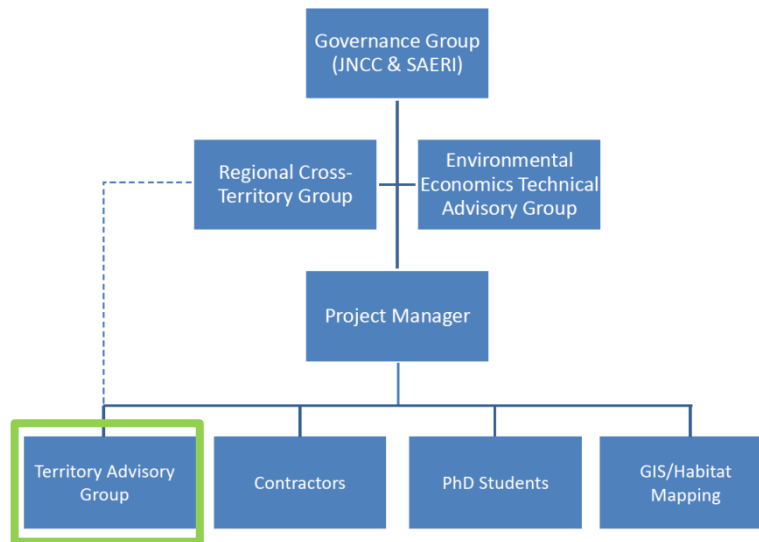


Figure 3: Governance structure of the South Atlantic Overseas Territories Natural Capital Assessment Project

Ness Smith, the NCA project manager then introduced the concept of natural capital and its uses in decision making, as well as the different ways in which the value of ecosystem services – both monetary and non-monetary – can be assessed. This presentation will be made available to everyone who attended the meeting and others on request.

Validation of St Helena ecosystem services

During the project manager’s presentation on natural capital concepts, attendees were shown photographs of St Helena and asked to name the benefits they saw in them. This was taken forward into a more formal session, where people were asked to list the benefits (or ecosystem services) which they thought occur in St Helena. The full list can be seen in table 1; whilst not all of these are ‘academically’ identified as benefits, the vast majority correlate with more formally recognised benefits. Table 2 shows a list of terrestrial benefits prepared by the project team, and it can be seen that participants identified everything in this list except carbon capture and sequestration, and renewable energy. Table 3 shows marine benefits previously identified by participants in the Darwin marine ecosystem services assessment of St Helena. These collective benefits/ecosystem services will be used as a basis for developing the St Helena NCA proposals.

Table 1: List of benefits/ecosystem services identified by participants

Irrigation	Safety	Social responsibility
Economy	Scenery	Cultural
Air- oxygen	Tourism	Education and training
Waste water buffering	Recreation	Water to sustain life
Profile to make St H tourism sustainable	Scientific research	Stories & PR
Heritage	Pollination	Community cohesion
Future investment	Spiritual	Employment
Food	Breeding grounds	Health
Biodiversity	Soil structure – rock-fall management	Cleanest air to breathe
Leisure	Health and wellbeing – mental/physical	Energy (timber=>fuel)
Erosion protection	Habitats	Soil formation
Travel and transport (marine)	Homes	Nutrient cycling
Construction materials	Art/photography	Happiness
Social	Mist interception	Potential exports
Reputation	Disease prevention (natural medicines)	International recognition
Bioprospecting – cosmetics/medicines	Biodiversity	Aesthetics/scenery
Timber	Flood regulation	

Table 2: List of terrestrial benefits/ecosystem services identified by project team

Carbon capture & sequestration	Water supply	Sense of place
Renewable energy	Tourism	Flood regulation
Recreation	Soil quality regulation	Raw materials (e.g. timber)
Nature watching	Tradition and culture	Disease/pest control
Built heritage	Biodiversity	Spiritual
Climate regulation	Cultural heritage	Genetic resources
Food	Health	Education/research
Erosion control	Medicines	Air and water quality regulation

Table 3: List of marine benefits/ecosystem services identified by participants in Darwin Marine ES study

Carbon capture	Water supply	Commercial fishing
Waste treatment	Sport fishing	Renewable energy
Tourism	Desalination	Recreation
Salt production	Raw materials (sand)	Nature watching
Tradition and culture	Access/transport	Heritage (built)
Coastal hazard protection	Spiritual	Climate regulation

Identification of questions and/or potential projects for the NCA to address, and selection of priority areas

The project team had met with most participants during the week, and potential project ideas had already started to be identified in the build-up to this session. Participants were divided into three groups and asked to identify strategies, policies, upcoming decisions or questions which the NCA could support and to develop projects from this if possible. One overarching theme emerged, which was the need for a centralised database to bring all environmental, social and economic data together.

At the end of this session, all ideas were displayed and a representative from Group C talked through their ideas. The project team worked with remaining participants to identify similar themes and ideas in the other two groups, and removed these accordingly. It was agreed that two sets of ideas would be grouped together (Table 6), and the project team also scoped-out two ideas as being unfeasible. Following this, twelve ideas were put forward to a vote by all participants – who each had five votes. To note, one person chose to use two votes against the same idea, but the overall outcome was not affected.

Table 4: Group A outputs and overall votes

Project/question	Notes during feedback session	# Votes
Water security: <ul style="list-style-type: none">• Drought risk? Last drought cost £0.5 million• More reservoirs => Fisher's Valley?• Research has commenced with Connect• Mist capture in cloud forest => potential? Results due June '18 (already looking higher than expected)• Fisher's Valley has existing high water catchment and high wetlands status (potential)• Indirect security => behaviour change– e.g. water tanks/reduced pesticides/showers not baths, water reduction toilets etc.• Drought stimulates behaviour change – need long-term cultural behaviour change	Agreed this was covered by Group B	n/a
Island use – by Saints and visitors (tourists & ex-pats) Heat map; where people go, what they use => enable more strategic spending of development money – e.g. High Knoll development Links to habitat conservation – e.g. Peaks boardwalks (managing people) Also to measure where people believe (feel) risk are; e.g. end of wharf => potentially high footfall – multiple	Agreed this was covered by Group C	n/a

uses.		
Renewable energy by 2022: <ul style="list-style-type: none"> • Within the sustainable development plan => generate and store required power • People's perception of wind turbines etc. => if fuel bills drop – more support? Visual impact? • O-TEC (gradient from lower to surface sea temperature) • Solar panels => incentive/reward scheme => would it??? 	Scoped out by project manager on feasibility grounds	n/a
Waste Management: <ul style="list-style-type: none"> • Island recycling potential? • Dealing with waste => prevent waste being imported (e.g. plastics) • Green waste => potential to link to agriculture/food production • Selling recycled material – glass/plastic etc.? • Is this viable economically and culturally? 	Agreed covered by Group B	n/a
Value of recreation to health & wellbeing <ul style="list-style-type: none"> • Using the environment more => <ul style="list-style-type: none"> ○ sports/activity groups – culture ○ recreational activities ○ sports facilities => availability • Exercise => how to stimulate more interaction with the environment? • Utilising land for food production (enabling diet choices) <ul style="list-style-type: none"> ○ Assessment to identify best areas for crop production ○ Crop planning and scheduling of supply => crop types? (linkage to water availability) 	Retained – put to vote	3

Table 5: Group B outputs and overall votes

Project/question	Notes during feedback session	# Votes
Honey: <ul style="list-style-type: none"> • Research best flora and fauna to increase honey production. Niche market for 'purest honey in the world' (Redwood – endemic) 	Retained – put to vote	5
The Peaks: <ul style="list-style-type: none"> • Economic feasibility of using flax (and other invasives) for the benefit of increasing biodiversity=> compost production, craft? 	Agreed covered by Group C	n/a

Drought mitigation: <ul style="list-style-type: none"> Economic valuation of a reservoir in Fisher's Valley to increase water storage x 10, to safeguard against drought versus other options – desalination. EIA, pros and cons. 	Retained – put to vote	12
Waste Management: <ul style="list-style-type: none"> Economic valuation of existing landfill to drive commitment to increase design life against construction of a new site – and where? (Recycling) 	Retained – put to vote	11
Agriculture: <ul style="list-style-type: none"> Timber versus agriculture – for land re-use for agriculture. What benefits are there for reforestation? 	Agreed covered by Group C	n/a
Green space: <ul style="list-style-type: none"> Value of green spaces in residential areas 	Agreed covered by Group C (cultural)	n/a
Cultural value map: <ul style="list-style-type: none"> Scaled map to capture cultural value of the environment 	Agreed covered by Group C	n/a
Waste water treatment: <ul style="list-style-type: none"> Study to determine if waste water is sufficiently treated by the ocean or if we are still polluting? 	Scoped out by project manager on feasibility grounds	n/a
SAOT's value: <ul style="list-style-type: none"> What value to UK residents place on St H, TdC and Asi socially? 	Agreed covered by Group C	n/a
Scientific research: <ul style="list-style-type: none"> Current and future value of scientific research on St H? 	Scoped out by project manager on feasibility grounds	n/a

Table 6: Group C outputs and overall votes

Project/question	# Votes	Combined votes
What is the value to the visitor of a well-managed natural environment? How much would visitors be willing to pay for nature's products?	7	
What is the value of the forestry estate to the island, including products and services?	4	8
What is the value of the agricultural estate in terms of	4	

food security and other benefits?		
What is the value chain of tuna species?	0	
What is the value of the Peaks National Park from an ecosystem services perspective?	7	
What is the cultural value of St Helena?	6	11
What is the heritage value of St Helena?	5	
What is the value of St Helena's biodiversity (preferably all three islands of the OT)	0	

Table 7: Final agreed areas to develop further

Project/question	# Votes
Drought mitigation: • Economic valuation of a reservoir in Fisher's Valley to increase water storage x 10, to safeguard against drought versus other options – desalination. EIA, pros and cons.	12
What is the cultural and heritage value of St Helena? (combined)	11
Waste Management: • Economic valuation of existing landfill to drive commitment to increase design life against construction of a new site – and where? (Recycling)	11
What is the value of the forestry & agricultural estates in terms of food security and other benefits? (combined)	8
What is the value of the Peaks National Park from an ecosystem services perspective?	7
What is the value to the visitor of a well-managed natural environment? How much would visitors be willing to pay for nature's products?	7

Next Steps

The project manager explained that the next steps would involve taking the information from the meeting and developing proposals from the priority areas identified. She stressed that data availability, time and resource would all need to be considered in developing these proposals and that it would be an iterative process.

A St Helena territorial advisory group will be set-up and several people volunteered to be members; Mike Durnford, Lourens Malan, Barry Hubbard (or Connect representative) and Wendy Benjamin (or Education representative). The project team will also approach people with knowledge in the priority areas/proposals to sit on this group. The advisory group will guide and steer the proposals, which will be validated by the Council, as well as the consequent work.

The project manager will be returning in May (subject to other travel arrangements) to further develop the ideas, and provide more detailed training in Natural Capital approaches.

Annex I: Agenda

South Atlantic Natural Capital Assessment project; prioritising assessments in St Helena

Friday 26th January 2018, Mantis Hotel, Jamestown

Time	Activity
09.30	Tea & coffee
10.00	Welcome and introductions
10.15	Introduction to the NCA project
10.30	Short break, Councillors arrive
10.45	Introduction to NCA approach
11.15	Introduction to NCA approach part II
12.15	Lunch
13.30	Validate key St Helena ecosystem services
13.45	Identify policies and upcoming decisions NCA could support
15.00	Coffee break
15.30	Selection of priority services to assess
15.45	Wrap up and next steps
15.55	Close

Annex II: Attendees

Table 1: Attendees

Name	Organisation
Annalea Beard	Ag. Marine Scientific Officer
Wendy Benjamin	Acting Director, Department of Education
Helena Bennett	Director of Tourism
Cruyff Buckley	Member of the Legislative Council
Samantha Cherrett	GIS Officer (ENRD)
Darren Duncan	Head of Agriculture and Natural Resources Division (ENRD)
Mike Durnford	Head of Environmental Risk Division (ENRD)
Gavin Ellick	Member of the Legislative Council
Corinda Essex	Member of the Legislative Council
Tony Green	Member of the Legislative Council
Alonzo Henry	Head of Operations, St Helena National Trust
Lawson Henry	Member of the Legislative Council
Barry Hubbard	Chief Executive Officer, Connect
Mike Jervois	Head of Conservation, St Helena National Trust
Cyril Leo	Member of the Legislative Council
Lourens Malan	Terrestrial Team Manager Terrestrial Conservation Section (ENRD)
Leigh Morris (observer)	Horticulturalist, UK Marine Conservation Society board
Mikko Paaanen	Chairman of SNCG
Tara Pelembe	Deputy Director – Innovation - SAERI
Nicole Shamier	Government Economist
Adam Sizeland	Museum Director
Alison Small	Darwin Pelagic Ecosystem Project Officer
Ness Smith	NCA Project Manager, SAERI
Tammy Stamford (observer)	Cefas Blue Belt team
Lolly Young	SHAPE

Table 2: Invited but could not attend

Name	Organisation
Akeem Ali	Director of Health
Elizabeth Clingham	General Manager of St Helena Fisheries Corporation
Derek Henry	Director of Environment and Natural Resources Directorate (ENRD)
Gina Henry	Crown Estates
Martin Joshua	Farmer/entrepreneur
Paul McGinnety	Assistant Chief Secretary (Performance)
Annina van Neel	Basil Reed Environment Officer
Susan O'Bey	Chief Secretary
Vanessa Thomas	Nurseries Officer (ENRD)

