



JNCC

Enhancing Economic Security through Environmental Resilience

Overseas Territories Natural Capital: valuation, vulnerability and monitoring change to:

- improve long term economic planning and
- support growth and diversification

Objective

- To assess the value of the environmental goods and service;
 - integrate this information into marine and terrestrial spatial planning,
 - economic planning and
 - environmental protection

National Security Council Overseas Territories Strategy



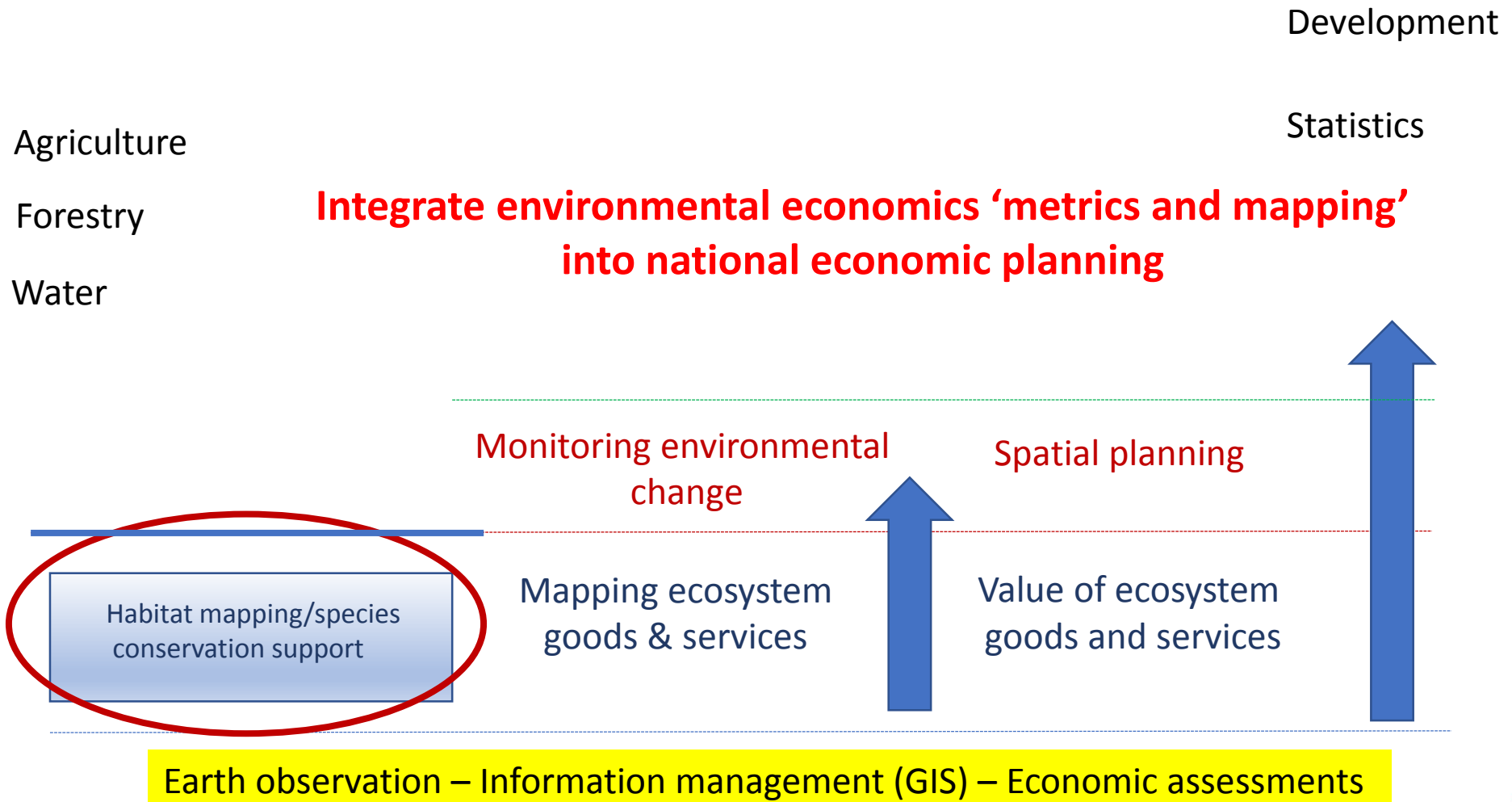
Funded by
UK Government

Projecting our influence	Protecting our people		Promoting economic prosperity
1. Defend UK sovereignty of the Territories and maximise their value to national security; ensure UK and OTs meet international obligations, including in polar regions	2. Safeguard security and improve governance standards, supporting the rule of law, sound institutions and an effective public service	3. Support capacity in the Territories for preparing for, responding to and recovering from crises and natural disasters	4. Improve Territories' sustainable economic, environmental and social development and meet their reasonable needs.

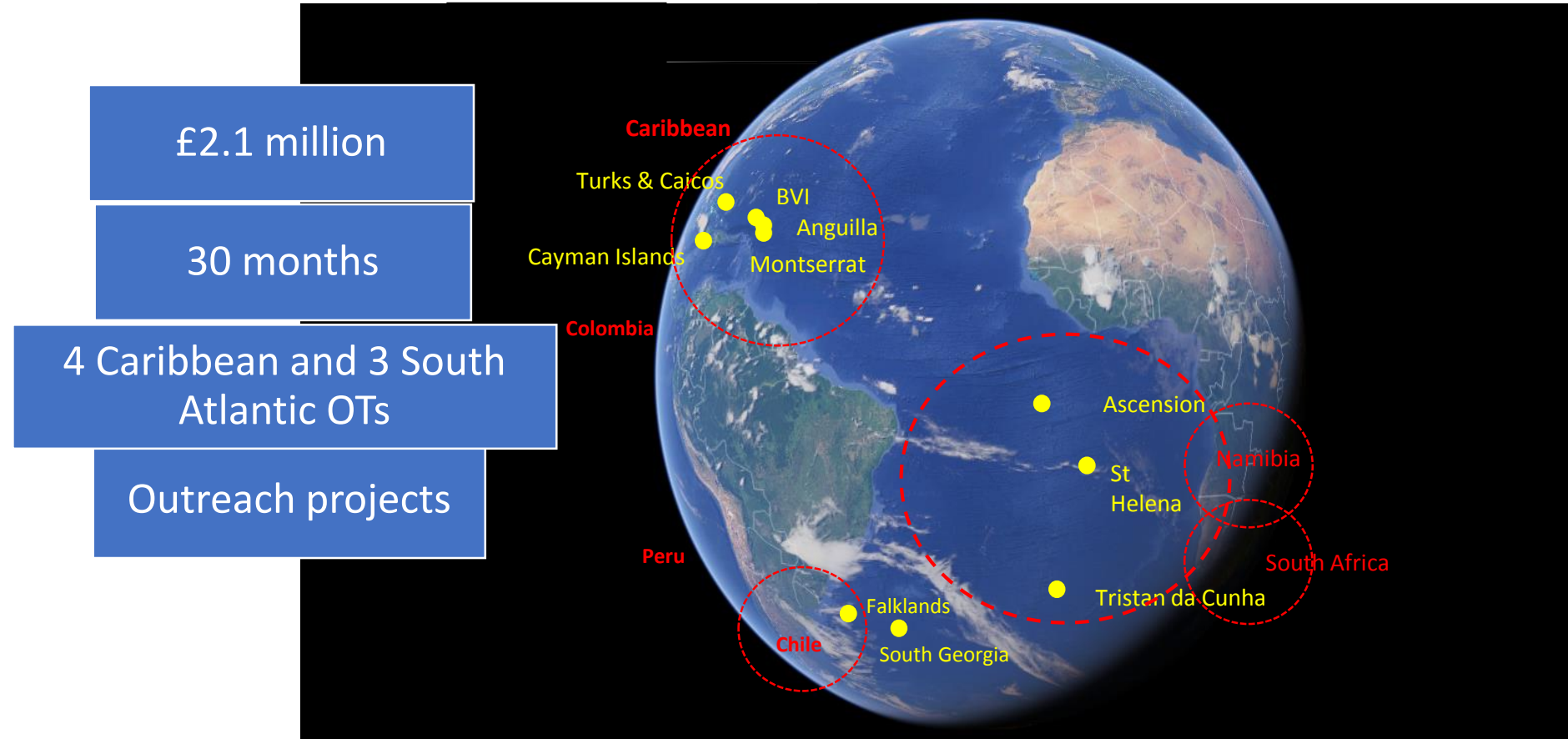
Conflict, Stability & Security Fund (CSSF):
Defra Environment

4.8 Promote role of the natural environment in underpinning long term economic prosperity and seek to embed thinking on environmental impact within OT policies and decision making.

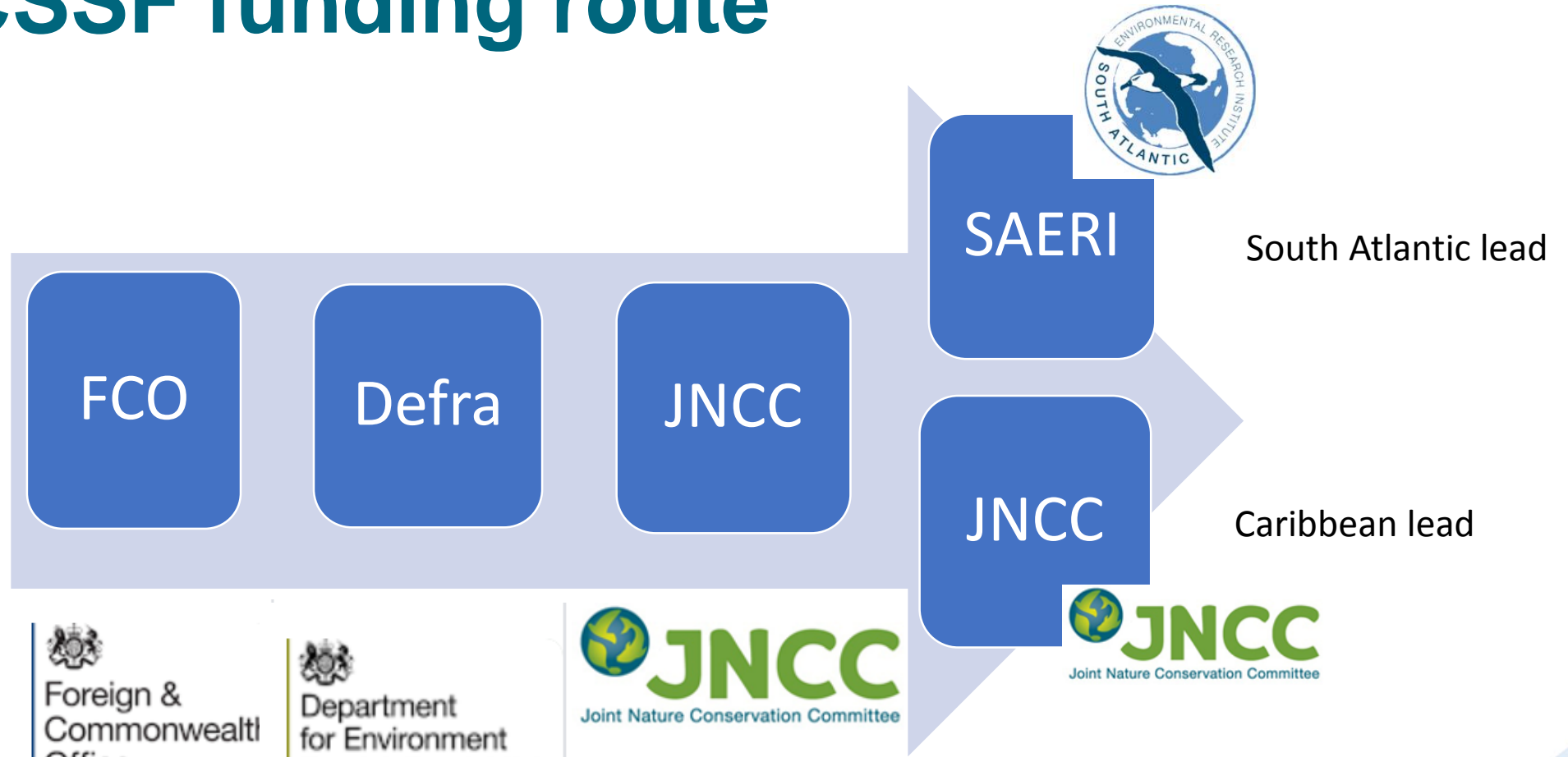
Integrating conservation



Natural capital in the Caribbean and south Atlantic Overseas Territories: valuation, vulnerability and monitoring change



CSSF funding route



 Funded by
UK Government



JNCC CSSF Natural Capital assessments across the UK Overseas Territories

Territories		Natural Capital Accounts	Vulnerability/risk mapping, avoided costs	Suspended sediment mapping	Erosion risk	Ecosystem service valuation	Cost Benefit Analysis	Opportunity map (BBN)	Constraints mapping	Blue Carbon value: Kelp	Benthic carbon value	Cultural values	Land based tourism	Marine tourism	Fisheries	Habitat map	Agriculture assessment	Data Management	Training GIS	Fisheries data collection training	Train the Trainer QGIS	Natural capital accounts training	
Caribbean	Anguilla	x	x	x	x			x										x		x		x	
	British Virgin Islands		x		x													x	x	x		x	
	Montserrat		x	x	x	x									x	x		x	x	x	x		
	Turks and Caicos	x	x		x													x	x	x		x	
South Atlantic	Ascension									x			x	x									
	St Helena	x					xx	x	x			x		x									
	Tristan da Cunha		x		x							x	x		x*	x							
	Falkland Islands									x		x	x		xx	x	x~						x
TdC Fisheries*		unpublished																					
TdC cruise		economic assessment																					
Falkland Islands		Natural capital assessment of Agriculture - unpublished																					

Caribbean CSSF



Development scenario
Expected damage

Avoided damage
value current
ecosystems
(compared to
degraded)

Avoided damage
value enhanced
ecosystems
(compared to
degraded)

Development baseline
Expected damage

\$327,341,634

Degraded ES

\$19,586,000

\$307,755,585

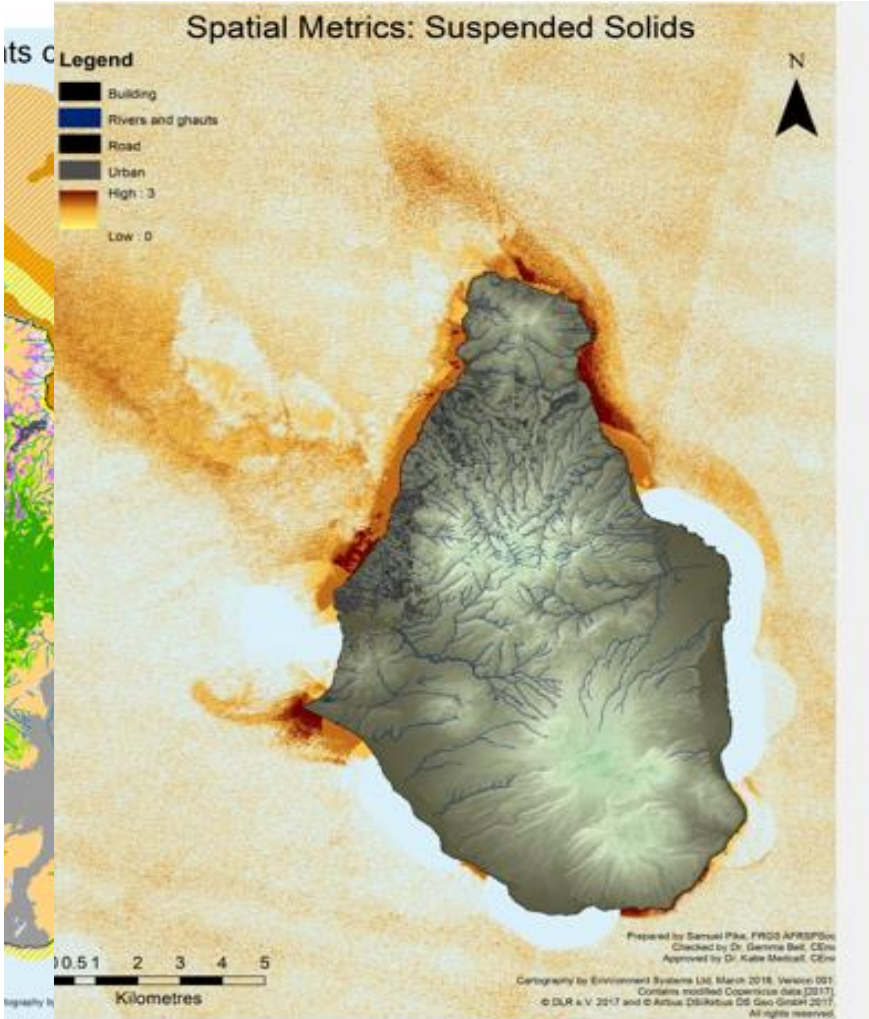
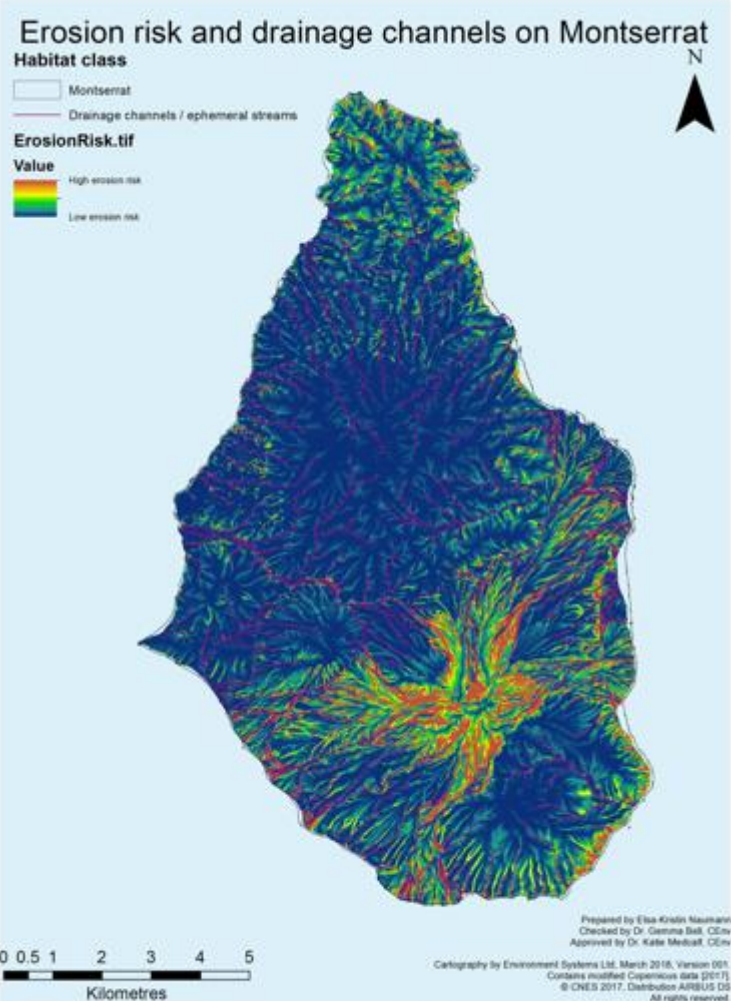
Current state ES

\$32,512,000

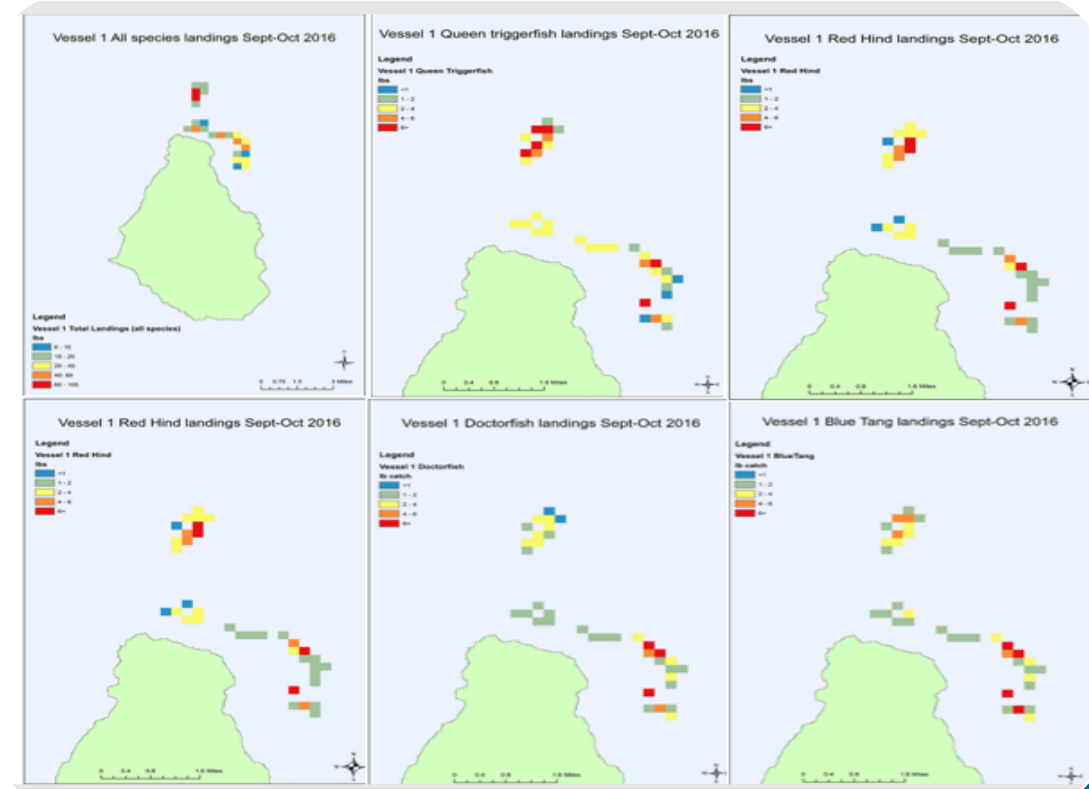
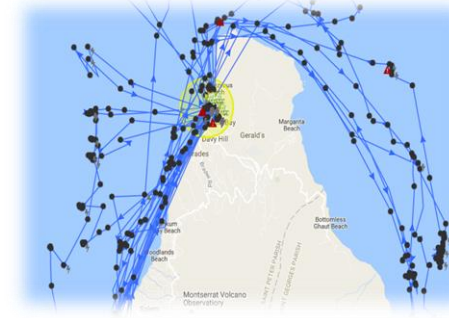
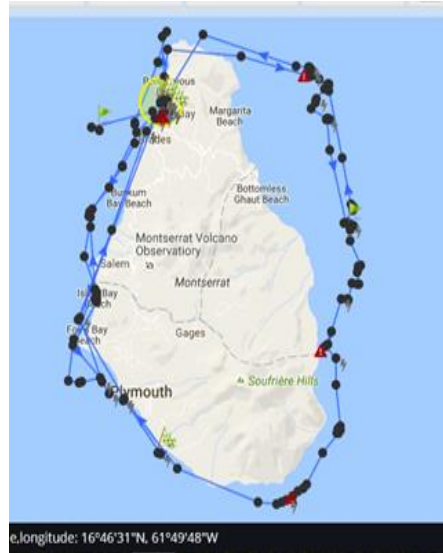
\$294,829,399

Enhanced ES

Montserrat

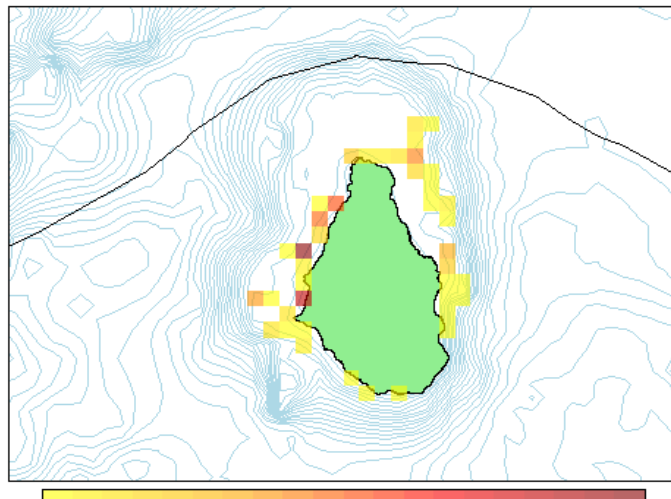
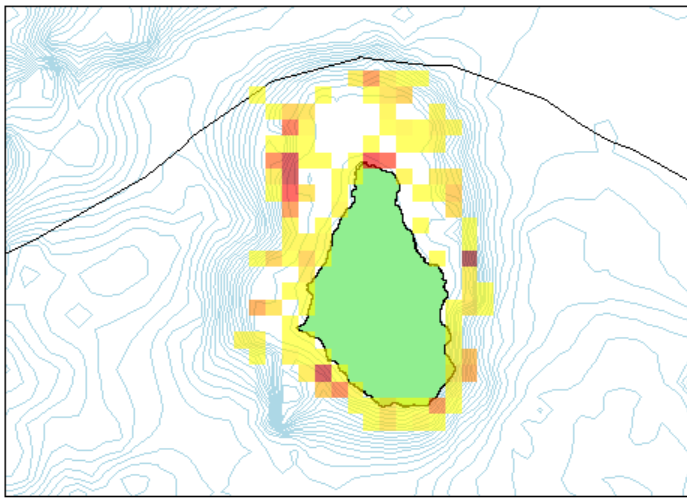


Montserrat Fisheries



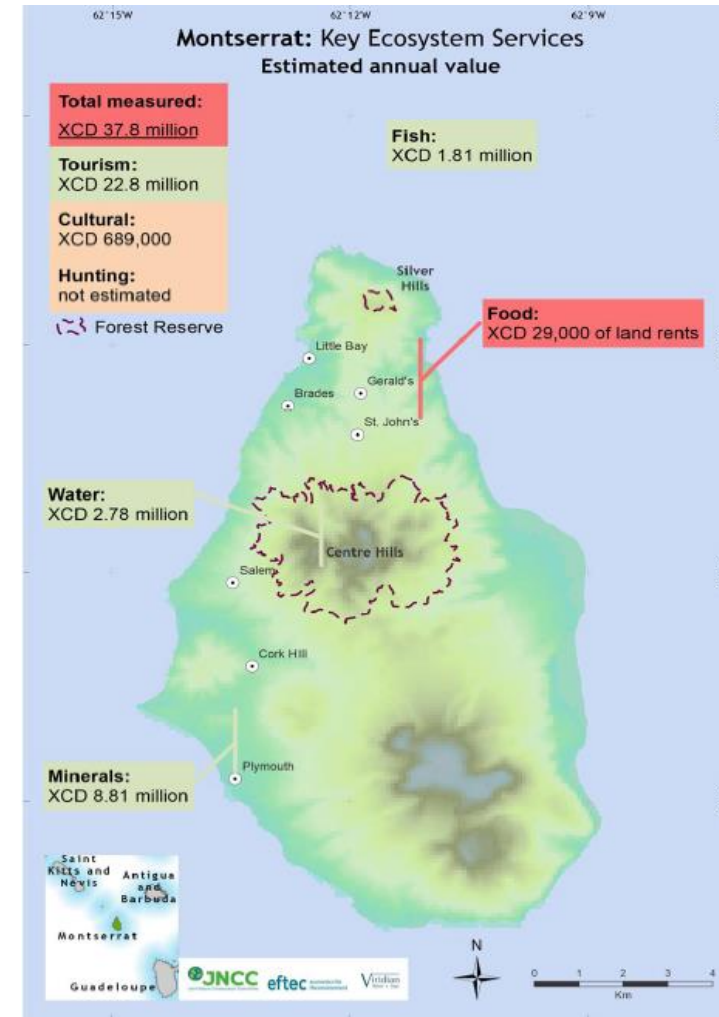
Lines ivMS linked Landings per Unit Effort

SeineNet ivMS linked Landings per Unit Effort



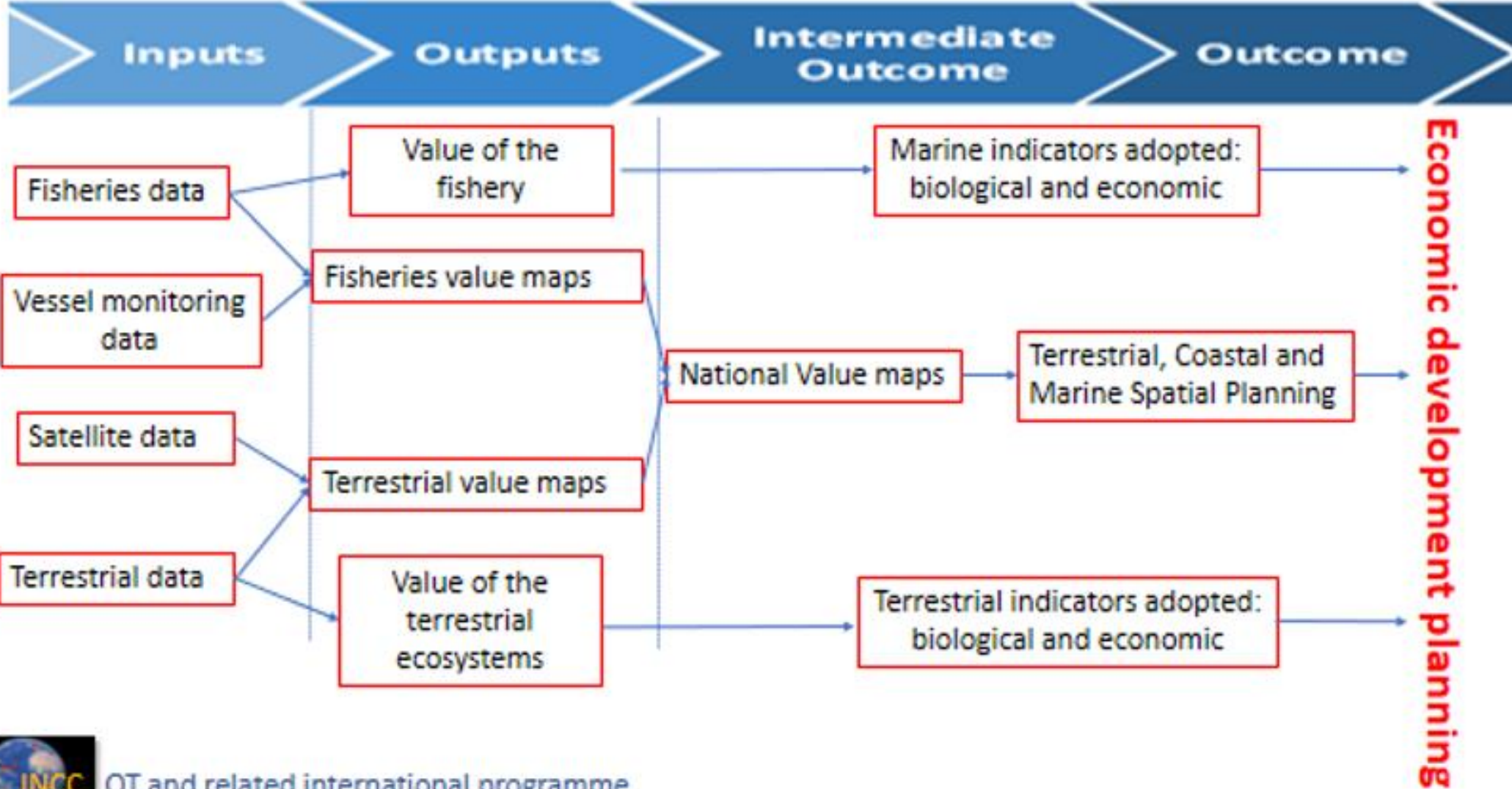
Estimated Ecosystem Services : Montserrat (2016)

Ecosystem service	Annual Measure of Benefit	Estimated Value XCD/yr.	Type of Value
Water	99 million gallons consumed	2.8 million	Price of water sold to households and businesses
Food	168 acres of cultivated land Many fruiting trees	29,000 of land rents	Rents on leased land, significant underestimate
Hunting	90,000 lbs of meat	not estimated	Estimated activity
Fish	166,920 lb fish landed	1.81 million	Total landings valued at average sale price
Minerals	1.01 million tonnes exported	8.81 million	Value recorded by customs
Tourism	9,293 tourist visits	22.8 million	Estimated expenditures
Cultural	Recreation, aesthetics & species conservation	689,000	Willingness to Pay (wellbeing from conserving the Centre Hills)
Regulating	Regulating services (e.g. carbon sequestration, hazard prevention, water quality) out of scope		
TOTAL	-	37 million	Mix of value types

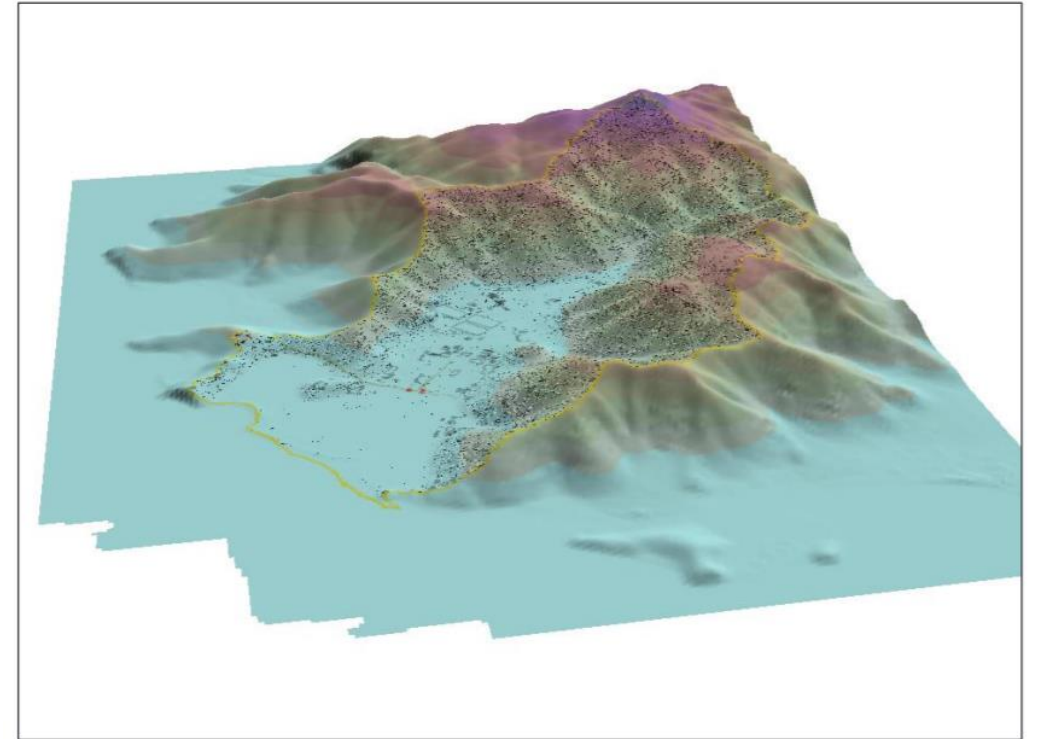
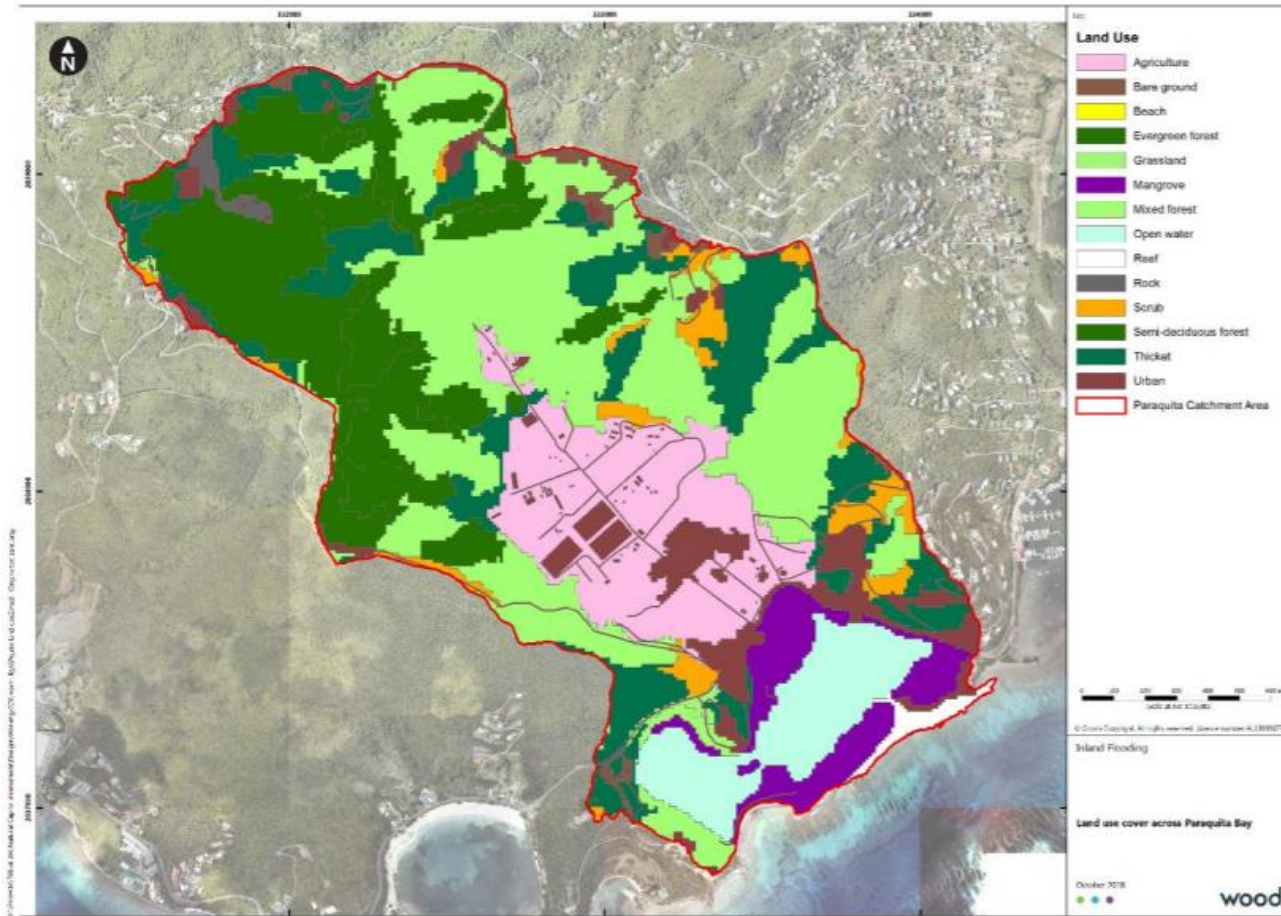


limits on available data mean
the results include a mix of different measures of economic value.

Montserrat



British Virgin Islands



Lagoon: valued at US\$2.5m annually as hurricane shelter

Partners

- UK Government Departments
 - Cefas, APHA, MMO, BAS
 - UKHO
- Organisations and consultancies
 - SAERI
 - Wood Plc
 - Eftec
 - Environment Systems
 - Wolf Company
 - Viridian
- Universities
 - University of Kent
 - SRUC
 - University of Newcastle
 - Aberystwyth University

Looking to the future

- A lot of different assessments types have been undertaken

Other Projects

- Darwin plus
 - Universities
 - Researchers
 - NGOS
-
- Data management

Links

<https://jncc.gov.uk/our-work/natural-capital-in-the-caribbean-uk-overseas-territories/>

<https://gisdataportal.gov.ms/>

https://data.saeri.org/saeri_webgis/lizmap/www/index.php/view/map/?repository=01sh&project=saint_helena_web