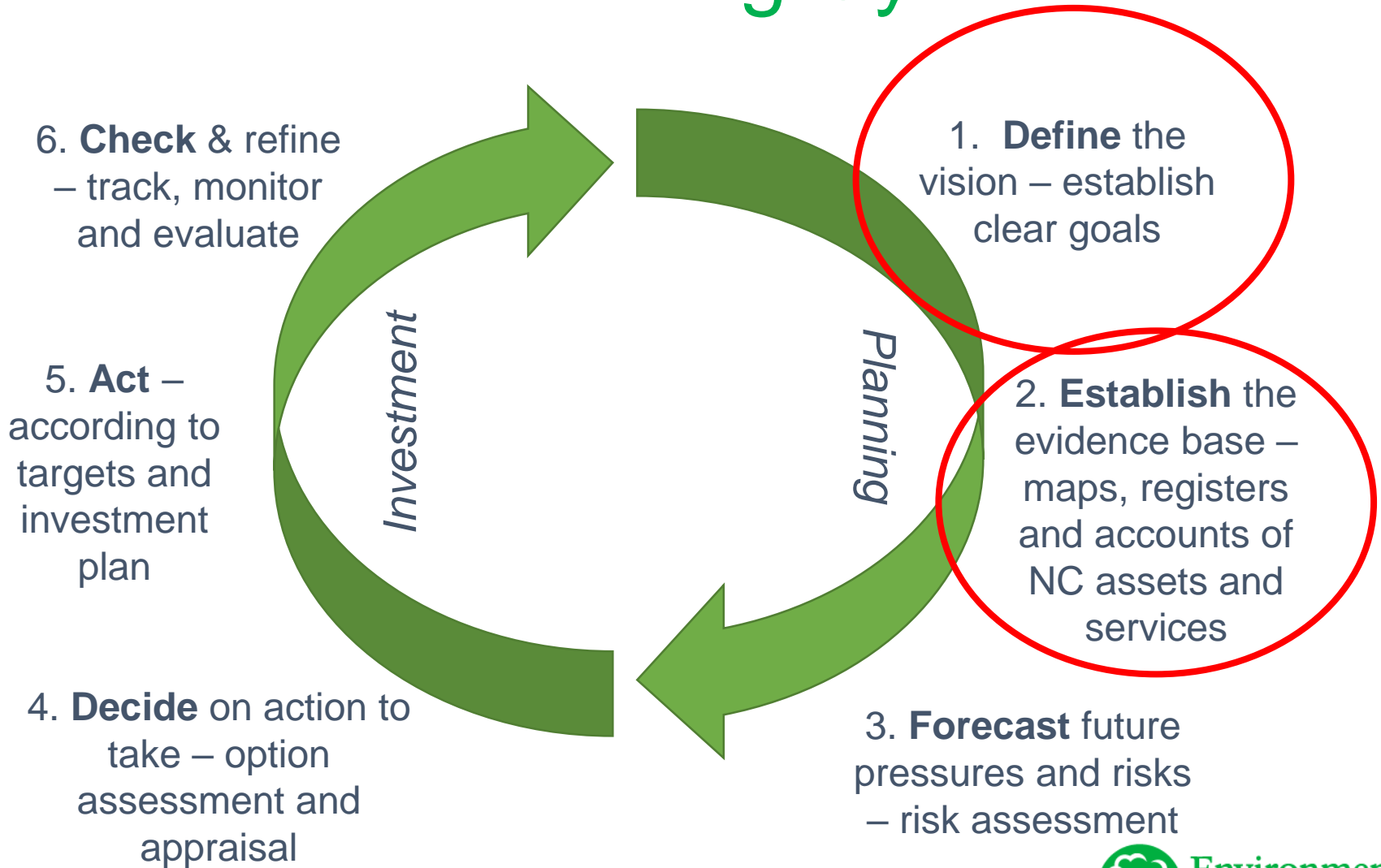


Natural Capital catchment register and accounts – trialling a natural capital approach within the environmental planning cycle

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Valuing Nature Annual Conference 2019

Natural Capital Approach within the Environment Planning Cycle



Natural Capital catchment register

- Provides a stock take of the quantity of natural capital assets in a place (catchment scale or greater)
- Corine Land Cover map
- Open source data for sharing with partners

NEA Broad habitat type (Corine 2012)	Quantity (Ha)
Coastal Margins	3000
Enclosed Farmland	120000
Freshwaters, Openwaters, Wetlands and Floodplains	60000
Marine	3000
Mountains, Moorlands and Heaths	54000
Semi-natural Grasslands	3000
Urban	21000
Woodlands	36000
Total	300000

Natural Capital catchment account

	Ecosystem Service	Measure	Avg Annual benefit (£m)	Total value (£m) 100 yr (Avg)	Confidence (RAG)
Cultural	Spiritual				
	Health				
	Amenity				
	Aesthetic / sense of place				
	Education				
Provisioning	Recreation	Welfare gain from recreation	168	5,000	
	Agriculture - Arable	Associated production value	45	1,300	
	Agriculture - Livestock	Associated production value	77	2,300	
	Water supply	Value of public water supply	8	224	
	Timber	Net value of sustainably managed timber	2	70	
Regulating	Climate regulation	Non-traded carbon value	7	580	
	Air quality - PMs	PM damage cost avoided	221	6,763	
	Air quality - SO2	SO2 damage cost avoided	0.24	7	
	Hazard regulation	Costs avoided of storage reservoirs	95	2,840	
	Disease and pests				
Pollination					
Soil quality / erosion					
Noise					
	Total quantifiable value		£623	£19,084	

Monetised values in the account

Ecosystem services	Benefits	Catchment account
Provisioning	Timber	Modelled timber harvest
	Water	Annual water abstraction for public water supply
	Food	Modelled arable and livestock
Cultural	Recreation	Modelled no. of recreational visits to green space
Regulating	Air quality	SO2 particulates absorbed per habitat
		PM10 Particulates absorbed per habitat
	Climate regulation	Storage of carbon per habitat
	Flood regulation	Flood water storage provided by woodland

Natural Capital scorecard

THE NATURAL CAPITAL APPROACH

A natural capital approach is the understanding that nature underpins human wealth, health, wellbeing and culture. Recognising the complex ways in which natural, social and economic systems interact helps us to use better evidence to support better decisions that protect and enhance natural capital so that it can continue to deliver the services and benefits we need.

Natural capital accounting can help support this approach by setting out a register of natural assets for a place, quantifying the flows of services from the assets, and estimating an economic value for the benefits derived. This value represents the longer term benefits for people from protecting and improving the environment.

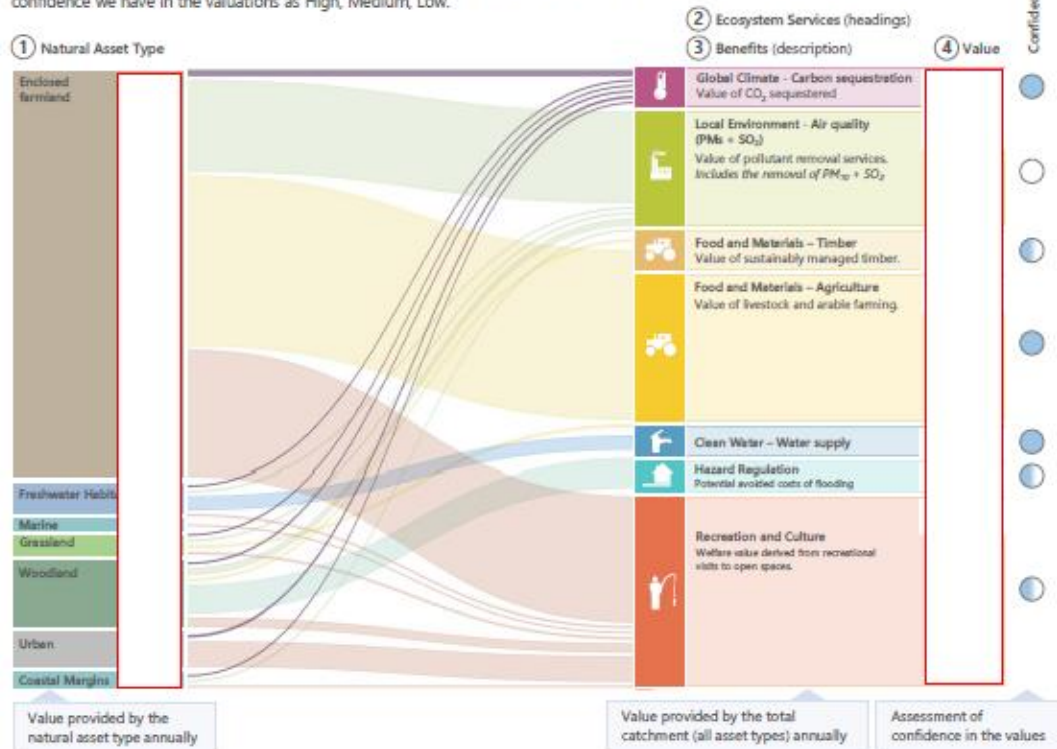
For the Bristol Avon, we have produced a natural capital account for the catchment area, following the accounting framework set out by the Government's Natural Capital Committee.



3 Benefits

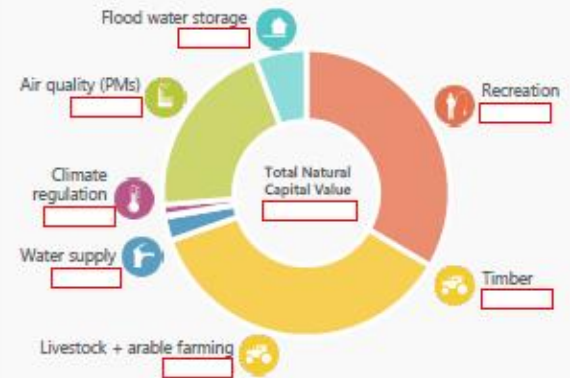
We have estimated the flows of ecosystem services that are derived from Bristol Avon's natural assets, then estimated the value of the benefits those services provide and who the main beneficiaries are.

The analysis is not exhaustive and does not include all assets, services and benefits. For transparency we have indicated the confidence we have in the valuations as High, Medium, Low.



4 Value of natural capital benefits

The Bristol Avon catchment has 280,000 Ha of land ranging from farmland and grassland to rivers and coasts. Nine ecosystem services from these assets have been quantified, with an estimated benefit value of [Redacted] annually.



Clean Water - [Redacted] million per year
The provision of clean water for public use is a vital service.

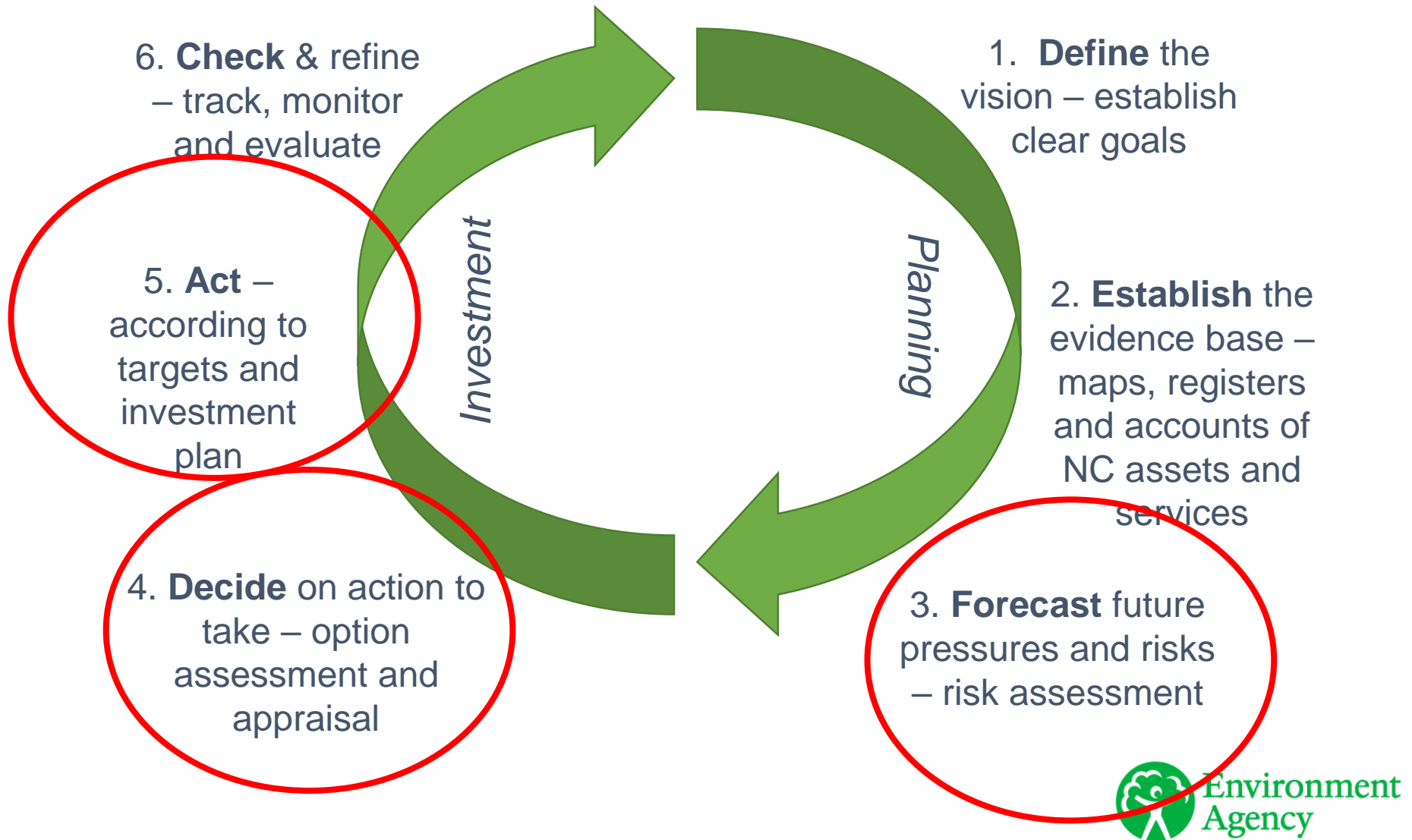
Recreation and Culture - [Redacted] million per year
Natural assets provide important recreational benefits.

Not all services and benefits can currently be quantified. For example services such as hazard regulation of floods and droughts, water supply and health are considered to be underestimates or gaps here. However the assessment is sufficiently illustrative of the significant value that the natural capital of the Bristol Avon provides to its communities and businesses.

Next steps – publish, enhance, roll out

- Feedback
- Development:
 - Evidence base
 - Functionality
 - Capability
- Empower people to bring natural capital into their planning processes

Next steps – integrated appraisal



Questions?

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