



EUROPEAN UNION



Summary by Carolyn Petersen

Mapping Opportunities and Pressures for Sustainable Tourism (MOPST)

Who was involved in creating MOPST?

MOPST was created by Geospatial Training Solutions (Nick Bearman), the University of Exeter (Tim Wilkinson and Carolyn Petersen at the Centre for Rural Policy Research) and Devon County Council / North Devon Biosphere Reserve (Andy Bell) through the BioCultural Heritage Tourism (BCHT) Project, funded by the EU InterReg France (Channel) England Programme. The BCHT Project was implemented in four UNESCO Biosphere Reserves - North Devon Biosphere Reserve, Brighton and Lewes Downs Biosphere Reserve (the Living Coast), Réserve de Biosphère Iles et Mer d'Iroise and Réserve de Biosphère Marais Audomarois – and consists of ten partner organisations (see logos below).

What is MOPST and what is it for?

MOPST is a **decision-support tool for strategic tourism planning**. It was designed to inform stakeholders and policy-makers about areas of tourism pressure and to support decision-making about siting of new tourism opportunities.

MOPST integrates spatial data about tourism pressures and opportunities including a range of environmental, access, tourism and business clustering data (see below).

It is intended to be a **transferable** tool that can be used by local authorities, planners / planning authorities, Destination Management Organisations, site managers, etc. It could be implemented in any area, providing GIS data sources for that area are available.

It is an **updateable** tool – the component layers can be updated and the model rerun.

It is based on **participatory stakeholder data** – mainly from environmental stakeholders - and on **local expert knowledge** (e.g. local policy scoring) as well as statistical processes (including regression analysis).

What are the impacts?

The findings have important implications for policy makers (see [full report](#)). The model and toolkit was created in 2021, therefore we are still in discussion with policy-makers in the Biosphere Reserves and beyond about generating additional impacts and implementing it in other areas.

The results have so far led to discussions with policy-makers in the North Devon Biosphere Reserve and the Brighton and Lewes Downs Biosphere Reserve (the Living Coast), as well as feeding into future BCHT project outputs (tourism prototypes etc).

It is envisaged that the model will feed into local planning processes (e.g. directly into Local Plans) and into tourism development – both at strategic and practical site management levels.

What types of information does the model contain?

The model integrates a range of spatial data on human tourism factors (converted into scores using regression analysis). This includes information on:



- **Management** (including environmental designations – SSSIs, local nature reserves etc);
- **Access** (including transport infrastructure – roads, cycle paths etc, open access areas and paths / rights of way);
- **Businesses** (including food & drink, cycle hire and water sports); and
- **Attractions & amenities** (including heritage sites, archaeological sites and key tourism attractions).

It also includes information and scoring by stakeholders and local environmental managers / experts:

- Scoring the **environmental sensitivity of habitats** – creating a Habitat Sensitivity Score
- **Seasonality scores for habitats** (summer vs. winter)
- **Stakeholder identification of areas of tourism pressure and opportunity** – digitised as GIS data
- **Local policy priority weightings**
- **Tourism scenario weightings** - for opportunity and pressure – see below.

The model outputs are based on three **scenarios** developed in conjunction with project partners – these show possible futures for tourism (but are not forecasts):

Scenario name	Summary
Business as Usual	<ul style="list-style-type: none"> • Tourism centred on honey pot sites • Visitor pressure issues • Seasonal peaks in visitor numbers and tourism business income • Gradual decline in the quality of environmental assets
Less Regulation	<ul style="list-style-type: none"> • Over-development • Increasing visitor numbers • Businesses making more • BUT visitor spend not contributing to the local economy • Rising visitor pressures erode natural environments • Rising Resident – Visitor tensions
Responsibility and Custodianship	<ul style="list-style-type: none"> • Spreading the benefits of tourism across the region • More green infrastructure and travel options • More visitor spend staying in the local economy • Restoring the environment • Visitor giving, e.g. time, skills, payback schemes

How is the model implemented and what software does it use?

The model can be implemented using any GIS, and it was originally run in QGIS and R. We have developed the ArcGIS Python Toolbox to enable MOPST to be run within ArcMap using a more automated, easily transferable tool. A version of this for QGIS will shortly be available for QGIS.

See the full report for more info on the method and implementation:

<https://github.com/mopst/reports>

What is the BioCultural Heritage Tourism Project about?

BioCultural Heritage Tourism is a three-year research project (2018- 2021) involving collaboration between inhabitants, businesses and environmental managers and other stakeholders to create new



tourism activities that celebrate the connections between humans and nature distinctive to the local area and cultural heritage. Four English and French UNESCO Biosphere Regions have come together, with substantial funding from the EU InterReg Channel regional programme, to increase the economic value of tourism based on their natural and cultural resources, whilst reducing its environmental impact.

The **main outputs** of the project are:

- 1) **Conserving the natural and cultural sites** by strategically managing tourism flows and improving the experience of visitors;
- 2) **Raising awareness and engaging with local businesses about sustainable tourism and the aims of the project;** and
- 3) **Creating a diversified visitor offer for natural and cultural tourism destinations.**

Who do I contact to find out more or if I would like to implement this in my area?

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