

The Benefits of Inland Waterways

Policy Brief

The inland waterways of England and Wales provide many benefits beyond those arising directly from their navigation function, which in recent decades has increasingly been for leisure use rather than the original commercial transport purpose. It is the UK Government's aim to ensure that the wider uses and benefits of the waterways are understood so that their potential to add value and help deliver objectives at the national, regional and local level is realised. These benefits include leisure and recreation opportunities which contribute to improving physical and mental health, urban and rural regeneration, and benefits to the environment.

To this end the Department of Environment, Food and Rural Affairs (Defra), supported by the Inland Waterways Advisory Council (IWAC) commissioned Jacobs to assess the diverse range of benefits provided by inland waterways in England and Wales. The outputs of this six month study are a valuation tool and guidance on its application, tailored for use by non-economists. The report which includes the first version of the valuation tool can be downloaded from www.iwac.org.uk/reports

The study is part of Defra's new two year Research and Development Programme, managed by IWAC, aimed at enhancing the evidence base for investment in inland waterways. Better evidence should be of use to navigation authorities and partners in considering local projects as well as for national policy development. This study represents the first step in this process.



Why value the benefits of inland waterways?

Monetary information on the benefits of inland waterways can be used in a variety of ways to improve decisions by Government, Regional Development Agencies, Local Authorities and the private sector. For example monetary information:

- allows comparisons between benefits and costs using the same indicator of value (money);
- provides confidence that Government investment is achieving value for money and is appropriately targeted, through a full analysis of the costs and benefits;
- indicates the relative importance of benefits to inform prioritisation of the benefits in terms of management and evaluation of priorities;
- provides decision makers with a better understanding of who benefits, in order to help identify fair and equitable funding and financing options for the waterways and;
- provides evidence of potential social, economic and environmental benefits to give confidence to third party investors.

The valuation tool developed for the study has relevance to all policy areas which could impact on the nature or extent of the benefits provided by inland waterways and is therefore not limited to use within navigation policy areas. For example, transport policies displacing commuter traffic from roads, and policies to promote community cohesion in areas with inland waterways are both of relevance here.

The benefits of inland waterways

A comprehensive list of the economic, social and environmental benefits provided by inland waterways has been compiled. These benefits are categorised using an 'Ecosystem Services Approach (ESA)', where the benefits arising from provisioning, regulating and cultural services are identified and considered. The ESA is being taken forward by Defra as part of its Natural Environment Public Service Agreement (PSA) set to run until 2011.

Monetary values are available for the majority of benefits, however due to the low level of confidence around the numbers it is recommended that they only be used to derive ball-park estimates at this stage. Data and a clear understanding of the gaps have been a limiting factor to monetisation of benefits in some cases. The study provides quantitative information for the benefits it has not been possible to monetise.

Important as they are, health, tourism, air quality and habitat connectivity type benefits are not specifically included in the list presented below as they are largely provided through a combination of other identified benefits. For instance, health benefits can be realised through recreation, sustainable commuting, volunteering and community benefits, and tourism benefits can be delivered through the creation of business opportunities and spending on recreation activities. To include them would result in double counting. From a policy perspective however, it is important that these cross-cutting benefits are not overlooked as they are often significant factors influencing decisions.

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Category	Benefit	Monetary Values Provided
Provisioning	Creation of business opportunities	No
	Property price premium	Yes
	Renewable energy (financial gains)	No
	Transport (economic gains)	Yes
	Provision of water	Yes
	Volunteering (cost savings)	Yes
Regulating	Carbon savings (renewable energy and transport)	Yes
	Drainage, water conveyance, flood protection and alleviation	Partial
	Water regulation and pollution dilution	Yes
	Water quality	Yes
	Recreation (all forms)	Yes
Cultural	Visual amenity	Yes
	Heritage benefits	Yes
	Education and training	No
	Volunteering (well-being)	No
	Community/civic pride benefits	No
	Non-use values	Yes

The monetary units provided for the benefits need to be combined with appropriate physical units to complete the valuation exercise. For example, in the case of recreation, the unit value is multiplied by the appropriate number of visitors.

The key findings

There are a wide range of benefits provided by inland waterways. These are both private financial benefits, realised through the creation of business opportunities or jobs, and public economic, social and environmental benefits, provided for instance by economic growth, recreation or education opportunities.

Monetary estimates are available to value many of these benefits using the benefits transfer valuation approach. The most significant benefits for which values are available are thought to be the premium on properties close to the waterways and recreation benefits.

However there are gaps. There is limited information and understanding of how to quantify some benefits. In many cases better scientific evidence of the bio-physical relationships between the ecosystem service and related benefit provided is required. For example, a key gap is considered to be a clear definition and quantification of the benefits provided by the drainage and water conveyance services of inland waterways. For

other benefits there is no suitable monetary valuation data available, for example in the case of the 'well-being' benefits from volunteering.

The next steps

The study makes a number of recommendations for follow on work aimed at developing our understanding of the economic value of inland waterways and increasing our confidence in the benefit values.

Initially it is proposed that the valuation tool is tested on a specific inland waterway project to confirm the benefits identified and the applicability of the benefit values provided. On the back of this testing, the study recommends further primary valuation work is completed to address key concerns and gaps. Other recommendations centre on further investigation of the benefits provided by the drainage services of inland waterways, green transport opportunities and the development of a centralised collation point for physical data.