

Economic Impact of the Historic Environment in Scotland

A Final Report by ECOTEC for the
Historic Environment Advisory Council for Scotland

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ECOTEC

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Executive Summary

ECOTEC Research and Consulting Limited were appointed in January 2008 by the Historic Environment Advisory Council for Scotland (HEACS) to undertake research to prepare an *Economic Impact Assessment of the Historic Environment in Scotland*.

Study Aims and Approach

While the importance of Scotland's historic environment is generally acknowledged, it is the case that the size and nature of economic benefits which are attributable to it remain poorly understood. Given this lack of appreciation and following a request from Scottish Ministers, this study has therefore been directed at establishing for the first time a *robust* set of estimates for the economic contribution of Scotland's historic environment to the country's economy. As such, this new research will be central to developing a stronger appreciation of the scale and scope of economic impacts which can accrue as a result of the historic environment and the work of those organisations operating within the sector.

In meeting these study aims and objectives our research comprised a number of principal tasks:

- Inception and scoping meetings held with representatives of the HEACS Economic Significance Working Group
- Desk research review of strategic documents and research reports produced by HEACS, Historic Scotland and other partner organisations in relation to Scotland's historic environment.
- Desk research review of comparable studies and other relevant research, including recent studies undertaken in other parts of the UK.
- Questionnaire survey to collect key primary information from a representative sample of 500 organisations active in conserving, maintaining, managing, or creating access to Scotland's historic environment.
- A programme of in-depth consultations undertaken with key organisations and individuals active in the historic environment sector in Scotland.
- On the basis of the above secondary desk research and primary fieldwork, and including application of multipliers calculated from the Scottish Input-Output tables, development of an economic impact assessment of Scotland's historic environment.
- Seminar held with HEACS Economic Significance Working Group and other interested parties to present and discuss Draft Report findings.

Scotland's Historic Environment: Definition and Scope

For the purposes of this economic assessment it was necessary to utilise a working definition of the historic environment as a basis for data collection and further analysis. Such a definition requires appropriate focusing of scope sufficient to enable meaningful estimates to be made, yet must also accord closely to common interpretation of the historic environment.

Our working definition is therefore rooted in the responsibilities of those organisations active in conserving, maintaining, managing, or creating access to Scotland's historic environment, as represented through the principal asset types of historic buildings, areas and sites. Critically, and in line with the definition of the historic environment contained in the Government's Scottish Historic Environment Policy 1, our operational definition of the historic environment encompasses Scotland's stock of pre-1919 buildings.

Given the requirement to produce a robust and conservative economic assessment, further historic assets including National Parks and Ancient Woodlands are not included in our working definition on the grounds that such features are more closely related to a consideration of the *natural environment*. Similarly, museums have been excluded as they are normally considered to be a component part of the cultural sector. It is recognised, however, that there is a significant overlap between elements of the natural and historic environment, and between many of Scotland's museums and the historic environment.

Scotland's historic environment sector is characterised by a considerable diversity of public, private and voluntary sector organisations, though the precise size and scope of the sector is problematic to determine given the paucity of available official data.

Grants made available through public sector organisations represent a major stimulus to economic activity related to the historic environment, through the built heritage maintenance and repair work that they fund and in supporting tourism.

However, private sector investment remains the principal source of funding for the historic environment. The majority of Scotland's historic environment assets are privately owned – most notably the huge stock of pre-1919 dwellings - and receive no public assistance for their upkeep and management.

Understanding the Historic Environment Sector

The historic environment is characterised by market failure due to its public good characteristics and 'externalities'. Externalities occur when there is a divergence between public and private costs and benefits. In such circumstances there is a compelling

argument for public sector intervention to correct for market failure in the historic environment domain.

Traditionally, analysis of the historic environment has focussed on those direct economic contributions which can be most readily measured, such as jobs created, investment, buildings improved etc. Although a number of recent studies have begun to more fully consider and indeed quantify economic benefits, it remains the case that wider economic benefits are often treated qualitatively, partly as a result of difficulties in expressing these in monetary terms.

A major outstanding challenge in the assessment of the historic environment involves placing economic value on categorisation of activity that does not fit neatly into traditional economic disaggregations, or for which there are few directly observable market values. This is further compounded by the fact that, historically, data has not been well collected by a sector characterised by considerable diversity and complexity.

Survey of Scotland's Historic Environment Sector

The collection of original data from historic environment organisations through the questionnaire survey has been valuable in helping us to develop more reliable and up to date estimates of the economic impact of Scotland's historic environment sector.

The survey was distributed by post to a sample of 500 organisations across the public, private and voluntary sectors. The questionnaire requested information on a range of relevant topics, including, in relation to the principal activities of the organisation, employment and staffing, income and expenditure figures, and visitors numbers. A response rate just short of 20% was achieved, which is considered reasonable for a postal survey of this nature.

The results of our questionnaire survey afford a partial, albeit valuable, view of the historic environment sector. For the purposes of the economic analysis the primary survey data has been combined with a considerable range of published data sources and bespoke datasets, and further evidence was obtained from a range of in-depth consultations with a sample of key organisations active in the historic environment.

Economic Impact of Scotland's Historic Environment: Summary of Key Findings

The historic environment is a highly significant contributor to the Scottish economy, directly supporting approximately 41,000 FTE employees. Including indirect and induced effects, it is estimated that the historic environment sector supports in excess of 60,000 FTE employees in Scotland.

Overall, the historic environment sector is estimated to contribute in excess of £2.3 billion to Scotland's national gross value added (GVA), with this representing some £4.5 billion in respect of output. The historic environment sector contributes some £1.4 billion in employees' income.

The greater share of economic impacts relate to tourism expenditure attributable to the historic environment. Indeed, tourism expenditure associated with the historic environment is estimated to support some 37,000 FTE employees in Scotland, with this representing nearly £1.3 billion in respect of GVA and more than £2.2 billion in respect of output.

The built heritage construction sector also accounts for a substantial share of the total economic impact – supporting some 20,000 FTE employees in Scotland, and generating approximately £1 billion in respect of GVA. Notably, a significant proportion of this overall impact is rooted in grants and/ or expenditure by core historic environment organisations, including Historic Scotland, the National Trust for Scotland and the Heritage Lottery Fund.

Within the context of Scotland's national economy, it is estimated that the historic environment sector's contribution to the national economy is equivalent to 2.6% of Scottish GVA and 2.4% of Scottish income (compensation of employees). Similarly, it has been estimated that the Scottish historic environment sector accounts for 2.5% of Scotland's total employment.

1.0 Introduction

1.1 ECOTEC Appointment

ECOTEC Research and Consulting Limited were appointed in January 2008 by the Historic Environment Advisory Council for Scotland (HEACS) to undertake research to prepare an *Economic Impact Assessment of the Historic Environment in Scotland*.

1.2 Scope of Study

The study brief¹ provides a clear description of both the objectives and overall scope of the research:

- provide a reliable measure and understanding of the economic impact of the historic environment in Scotland;
- collect and analyse original data in order to estimate the direct impact of the historic environment sector;
- estimate the total economic impact of the historic environment sector in Scotland taking into account both indirect and induced effects;
- involve a wide range of organisations involved in the conservation, maintenance, enhancement and presentation of Scotland's historic environment to validate the analysis and to provide additional information;
- assess the economic impact of the historic environment to tourism in Scotland by examining published data and/ or collecting information from the main Scottish tourist organisations;
- provide a full report on the results to deliver an overall assessment of the historic environment's contribution to the Scottish economy.

Recognising that a *comprehensive assessment* of the value of Scotland's historic environment is beyond the scope of the current assignment, we also highlight a number of

¹ Invitation to Tender Documents for an Economic Impact Study of the Historic Environment in Scotland (Ref: HFY/3/11/2), (2007), HEACS

limitations of the research that would be required to address aspects not covered by this study.

1.3 Impetus for the Study

While the importance of Scotland's historic environment is generally acknowledged, it is the case that the size and nature of economic benefits which are attributable to it remain poorly understood. Given this lack of appreciation, this study is directed at establishing for the first time a *robust* set of estimates for the economic contribution of Scotland's historic environment to the country's economy. As such, this new research will be central to developing a stronger appreciation of the size and scope of economic impacts¹ which can accrue as a result of the historic environment and the work of those organisations operating within the sector.

HEACS, established in 2003 as a non-departmental public body, is responsible for providing Scottish Ministers with strategic advice on issues affecting the historic environment. The HEACS Audit report (2004), in a range of observations that documented the serious effects of a paucity of fundamental Scottish data on the historic environment, specifically notes that there is currently '...little recognition of the contribution which the historic environment makes to the Scottish economy²'.

Subsequently, the issue was incorporated as a core task for the Council to take forward during its second term (from June 2006). The Minister asked Council to:

'Identify for Scottish Ministers the economic impact of the historic environment in Scotland'.

The HEACS Economic Significance Working Group has specifically sought to identify methods which could accurately and robustly describe the actual and potential economic significance of the nation's historic environment. A literature review of previous research has also been carried out in order to help define the scope of the work for the Council. The review indicated that relatively little academic research into the historic environment's

¹ Conceptually, economists make a distinction between the terms economic contribution, impact and benefits. Whilst we recognise these technical distinctions, since this report is intended principally for the non-economist we have used the terms in a manner which is most appropriate to context throughout the report and in ways comparable to their use in other studies. For this study, tourism-related effects have technically been assessed as an 'impact' (i.e. an attempt has been made to estimate the difference between the economic benefits currently generated from tourism in Scotland and what these would have been if Scotland's historic environment had little or no visitor appeal). Other figures associated with the historic environment should generally be regarded as economic contributions (i.e. the money spent on maintaining historic buildings etc would otherwise have been spent in other ways that would also have generated impacts).

² Report and Recommendations on the Need for a Heritage Audit in Scotland and How to Take it Forward, (2004), HEACS p.7; all HEACS reports are available at www.heacs.org.uk/documents

economic significance has previously been carried out, primarily because of the enormously wide range of the nation's historic environment assets and the difficulties inherent in isolating the economic impact of the historic environment from other considerations¹. Most recently, the working group commissioned a scoping study² in order to identify the options for a more detailed examination of the issues around such an impact study. It is this scoping study which has provided the departure point for the current study directed at more closely establishing the economic impact of the historic environment in Scotland.

1.4 Study Approach

In meeting the aim and objectives of the study our research to date has comprised a number of principal tasks:

- Inception and scoping meetings held with representatives of the HEACS Economic Significance Working Group
- Desk research review of strategic document and research reports produced by HEACS, Historic Scotland and other partner organisations in relation to Scotland's historic environment.
- Desk research review of comparable studies and other relevant research, including recent studies undertaken in other parts of the UK.
- Questionnaire survey to collect key primary information from a representative sample of 500 organisations active in conserving, maintaining, managing, or creating access to Scotland's historic environment.
- A programme of consultations undertaken with key organisations and individuals active in the historic environment sector in Scotland to better understand specific roles and activities within the sector, and to establish views on the potential economic impacts of the historic environment.
- On the basis of the above secondary desk research and primary fieldwork, and including application of multipliers calculated from the Scottish Input-Output tables, development of an economic impact assessment of Scotland's historic environment.
- Seminar held with HEACS Economic Significance Working Group and other interested parties to present and discuss Draft Report findings.

¹ HEACS Fourth Annual Report, 1 June to 30 August 2007, (2007), HEACS

² A Scoping Study of the Economic Significance of the Historic Environment, (2007), Fraser of Allander Institute for Research on the Scottish Economy, University of Strathclyde

1.5 Structure of Report

The remainder of this report is structured as follows:

Section 2: Scotland's Historic Environment: Definition and Scope – provides a contextual appreciation for the study, establishes an operational definition for the historic environment, and introduces aspects of policy and the range of organisations that comprise Scotland's historic environment sector.

Section 3: Importance of the Historic Environment – considers and presents evidence from the literature encompassing other studies which have attempted to examine the economic contribution of the historic environment. In reviewing these studies we focus particularly on definitions adopted, research methodologies employed and the format of results, as a basis for identifying issues to further guide our approach and modelling framework for the study.

Section 4: Survey of Scotland's Historic Environment Sector – summarises the main output results and findings from our questionnaire survey of organisations active in conserving, maintaining, managing and/ or creating access to the historic environment.

Section 5: Economic Impact of Scotland's Historic Environment – brings together and distils the results of our primary and secondary research stages as inputs to an economic impact assessment of Scotland's historic environment.

Section 6: Strategic Findings and Conclusions – provides a synthesis of our principal research findings in respect of more closely establishing the economic impact of Scotland's historic environment.

The report also contains a number of supporting annexes:

Annex 1: Consultees – list of individuals and organisations consulted as part of the study

Annex 2: Questionnaire – copy of the survey questionnaire

Annex 3: Technical Notes – further detail on the adopted methodology

Annex 4: Data sources – list of the main published and data sources used

Annex 5: Glossary – definition of technical terms

2.0 Scotland's Historic Environment: Definition and Scope

2.1 Introduction

This section is intended to serve as a contextual appreciation for the study, providing as it does an overview of the complexity and breadth of Scotland's historic environment. Specifically, we consider the question of definitions with reference to those which have been adopted by policy makers and used in other historic environment studies, before going on to establish an operational or 'working definition' to be used for the research. We also introduce aspects of historic environment policy, together with consideration of the range of organisations active in Scotland's historic environment sector.

2.2 Historic Environment: Conceptual and Policy Definitions

Given that the principal aim of this study is to establish the economic impact of Scotland's historic environment, it follows, therefore, that an essential first step is to define the historic environment sector. What specifically does the historic environment encompass? What criteria should be applied to determine whether to include an activity within the historic environment sector? Our discussion of definitions is rooted in the terminology currently used by government and public bodies, as well as by academics.

2.2.1 Heritage, culture and environment

At its most inclusive, the historic environment has been defined as:

'The elements of human activity which have left traceable evidence on the modern landscape, whether visible or not, and which are ascribed value today'

Likewise, an official, legal definition of Scotland's historic environment confers a similarly wide embrace:

'...any or all of the structures and places in Scotland of historical, archaeological or architectural interest or importance'¹

Under the Stirling Charter² the historic environment is defined in terms of built heritage, including ancient monuments, archaeological sites and landscapes, historic buildings and

¹ Public Appointments and Public Bodies etc (Scotland) Act, 2003

² The Stirling Charter: Conserving Scotland's Built Heritage, (2000), Historic Scotland

townscapes, parks, gardens and designed landscapes. However, following consultations in relation to the development of the Government's recently published policy, Scottish Historic Environment Policy 1 (SHEP 1), the definition of the historic environment has been extended to include:

- buildings erected before 1919¹;
- marine heritage (for example, in the form of historic shipwrecks or underwater landscapes once dry land);
- the wider environment (the layout of fields and roads, and the remains of a wide range of past human activities);
- the context or setting in which specific historic features sit and the patterns of past use; and
- the historical, artistic, literary, linguistic, and scenic associations of places and landscapes.

2.2.2 Scottish Historic Environment Policy - SHEP 1

Strategic policies for Scotland's historic environment are formally enshrined in the Scottish Historic Environment Policy (SHEP) series. Particularly germane to this study is SHEP 1, which provides the overarching policy statement for the historic environment, providing a framework for more detailed strategic and operational policies that inform the day to day work of a range of organisations that have a role and interest in managing the historic environment, including the Scottish Government, local authorities and the range of bodies that are accountable to Scottish Ministers, including Historic Scotland.

Notably, SHEP 1 draws attention to the poor understanding of the positive role that the historic environment may play in the 'maintenance, development and regeneration of communities, their culture and their economy'². A key outcome sought by Scottish Ministers through SHEP 1, therefore, is to realise and communicate the historic environment's importance as a 'key asset in Scotland's economic, social and cultural success'³.

Plainly, this vision for the historic environment can only realistically be achieved by close partnership working with others active in the historic environment sector. As an executive agency of the Scottish Executive and one which is directly accountable to Scottish

¹ Until 1919 most houses were built by skilled craftsmen using traditional indigenous building materials. 'Although the majority of older buildings are not listed, the majority provide flexible domestic and office accommodation. A huge investment of money, energy and materials went into these buildings', Scotland's Historic Environment Policy 1 (SHEP 1), p9, (2007), Historic Scotland

² SHEP 1, p11, (2007), Historic Scotland

³ SHEP 1, p14, (2007), Historic Scotland

Ministers, much is likely to depend on Historic Scotland. In particular, Scottish Ministers are looking to Historic Scotland to work with:

- *Local authorities*, which are key agents in protecting the historic environment and in harnessing the potential of the historic environment to contribute to Scotland's economic and social success;
- *Royal Commission on the Ancient and Historical Monuments of Scotland*;
- *Scottish Natural Heritage (SNH)*, with which Historic Scotland has a concordat. SNH has a significant role in the conservation of Scotland's landscapes, all of which have a historic dimension;
- *Commercial, charitable and private owners and tenants* of historic environment assets, who have a crucial role to play in conserving the fabric of the historic environment and, where appropriate, allowing and promoting public access and enjoyment;
- *Voluntary sector*, which makes a recognised and valued contribution: engaging local communities and individuals; undertaking important initiatives such as the Buildings at Risk Register and coastal archaeology surveys; acting as representative bodies for special interest groups; taking active roles in conserving individual sites or whole townscapes;
- *Scottish and UK government departments*, executive agencies, non departmental bodies and others with direct responsibilities for parts of the historic environment, whether managing individual assets or areas of landscape or with key policy responsibilities, and whose policies impact on the historic environment;
- *Historic Environment Advisory Council for Scotland*, which provides strategic advice to Scottish Ministers;
- *National Park Authorities*, which have a statutory aim to conserve and enhance the cultural heritage;
- *Wider cultural heritage sector*, including national and local museums, galleries, theatres, libraries and archives, because the historic environment plays a major role in Scottish culture, as is recognised in the work of the Cultural Commission;
- *Educational and training institutions*, which have an important role to play in research, formal and informal education and training of people of all ages;
- *Wider public sector*, working with organisations with important and varied roles to play such as: Architecture+Design Scotland; the Heritage Lottery Fund; Scottish Enterprise; Highlands and Islands Enterprise; and the Enterprise Network;
- *Building industry*;
- *Professional bodies* active in maintaining standards, skills and regulation in the historic environment sector.

2.3 Operational Definition

It is clear that the sector is diverse and complex, with a plethora of specialist and general interests across the public, private and voluntary sectors. To a considerable extent this is to be expected, as it reflects the richness and variety of Scotland's historic environment assets.

For the purposes of economic impact assessment, it is necessary to adopt a practical working definition of the historic environment in order to provide a framework for data collection and further analysis. Our study is principally interested in how Scotland's historic environment assets are conserved, maintained, managed and presented, and therefore how they link to different sectors of (economic) activity.

The starting point for our working definition therefore centres on all those organisations active in conserving, maintaining, managing and/ or creating access to Scotland's historic environment. We have followed the broad definition of the asset types set out in Scotland's Historic Environment Audit (SHEA), as follows¹:

Buildings of architectural or historic significance; Areas (e.g. parks, gardens, landscapes) with a historic significance; and Historic Sites (e.g. battlefields, sites inhabited by earlier civilisations).

On this basis we have including the following assets within our working definition of the historic environment:

- Ancient monuments/ archaeological sites
- Listed buildings
- Pre-1919 historic buildings
- Conservation areas
- Gardens/ designed landscapes
- Historic landscapes
- Marine historic environment

A number of further sets of assets, including National Parks (National Park Authorities), National Scenic Areas (Scottish Natural Heritage), and Ancient Woodlands (Scottish Natural Heritage), are not included in our working definition of Scotland's historic environment on the grounds that, although such features have a key historic dimension, they are more closely related to a consideration of the *natural environment*. Scottish

¹ A Review of Existing Information for Scotland's Historic Environment Audit, (2007), Historic Scotland

Natural Heritage has recently commissioned an economic impact study of the natural environment in Scotland, the results of which should be seen as complementary to those of the present study¹.

Also, we have excluded museums from our working definition for the purposes of the present study. Many of Scotland's museums have a significant connection with the historic environment (for example, they are often located in historic buildings and places, and employ staff with specialist and/ or general heritage skills), but they are normally considered to be a component part of the cultural sector. Indeed, museums have previously been subject to an economic impact study of the cultural sector in Scotland². Again, the results of the present study should be viewed as complementary to those of this earlier study of the cultural sector.

On the basis of this working definition we have collected data from relevant organisations active in conserving, maintaining, managing and/ or creating access to Scotland's historic environment, as indicated.

2.4 Scope of Scotland's Historic Environment Sector

Whilst no economic assessment has been undertaken in relation to the historic environment in Scotland, Scottish Ministers recognise that the historic environment is one of Scotland's greatest assets. As noted in SHEP 1, the historic environment provides the setting for Scotland as an attractive place to invest, visit, work and live; is a generator of wealth in both urban and rural areas; and is capable of attracting millions of visitors to Scotland each year³. In particular, the historic environment is identified as a crucial asset across three principal areas of economic activity:

- *Tourism* - research clearly reveals that visitors to Scotland, particularly those from overseas, want to visit castles and other heritage attractions;
- *Building, Supporting and Regenerating Communities* - the historic environment has a key role to play in regeneration; and
- *Construction Industry* - the historic environment is an important market focus for Scotland's construction industry.

2.4.1 Historic Environment Organisations

Scotland's historic environment sector is characterised by a considerable diversity of private, public and voluntary organisations. The exact size and scope of the sector is

¹ The Economic Impact of Scotland's Natural Environment, (2008), Scottish Natural Heritage

² The Economic Impact of the Cultural Sector in Scotland, (2004), Scotcon.net

³ SHEP 1, p45-47, (2007), Historic Scotland

difficult to determine given a number of gaps in the available data, but from official published sources it is possible to gain an initial appreciation of the historic environment in Scotland.

A useful starting point is provided by *Scotland's Historic Environment Audit (SHEA)*¹, compiled by Historic Scotland. SHEA identifies a number of key examples of employment within the historic environment, with these being presented below (Table 2.1). These organisations alone are estimated to account for some 15,000 employment positions within the sector.²

Table 2.1 Key Examples of Employment within the Historic Environment

	Permanent	Seasonal/ Temporary	Notes
Historic Scotland	991		2006/07 (Historic Scotland employed 971 FTE staff during 2005/06)
National Trust for Scotland	449	529	2005/06 (permanent staff represent FTE)
RCAHMS	100		2005/06 (FTE, including project staff)
Archaeologists (estimate by Institute of Field Archaeologists (IFA))	456		2002/03, 37% (Commercial), 24% (National Government), 20% (Universities), 15% (Local Authorities)
Local Authority Archaeologists	34	34	2006
Scottish built heritage construction sector Workforce (estimate by National Heritage Training Group (NHTG))	12,630		2006 survey estimate for Scottish built heritage construction sector (sub-set of main construction industry)
Total	14,660	563	

Source: *Scotland's Historic Environment Audit (SHEA)*

Notably, it is suggested that a substantial proportion of the jobs within the historic environment sector are in the built heritage construction sector (12,630). Both Historic Scotland and the National Trust for Scotland are also substantial employers, with 991 FTE staff and 449 FTE staff respectively; the National Trust for Scotland also employs some 500 seasonal staff. Local authorities can also be anticipated to comprise a significant employer, though due to gaps in the available data only an estimate for archaeologists has been included in the figures above³.

¹ Scotland's Historic Environment Audit, (2007), Historic Scotland

² Note that the published sources for these and most figures in this report are 2-5 years out of date; it is likely that the figures are higher as of 2008.

³ Historic Scotland has recently commissioned a study to help identify historic environment related employment and expenditure in Scottish local authorities. Initial findings from this research have contributed as an input to this economic impact assessment. The draft report identifies 203 FTE staff with some historic environment responsibilities (six times as many as included here), but this underestimates those in maintenance, outreach and administrative support functions.

In relation to funding directed at protecting, maintaining and managing the historic environment there are also significant gaps in the available data (most particularly with regard to the private and voluntary sectors). Moreover, due to the complexity of available data, careful interpretation is required: double counting is possible where, for example, the spending of a voluntary body is part-funded by grants from a public agency.

Private investment has historically been the principal source of funding for the historic environment, and it is likely that this will continue to remain the case. The majority of historic environment assets are privately owned and receive no public assistance towards their upkeep and management – most notably the huge stock of pre-1919 dwellings in Scotland. Clearly, the ability of private owners to invest sufficiently in the maintenance and repair of historic buildings and places is therefore crucial for the long-term management of the historic environment.

Public sector funding for the historic environment emanates from a variety of sources. The principal source comprises the Scottish Government, with expenditure made through Historic Scotland, the Heritage Lottery Fund (HLF) and local authorities. Headline funding figures from these organisations is summarised below (Table 2.2), with combined expenditure totalling some £127m. Importantly, grants made available through these organisations and others represent a major stimulus to economic activity connected to the historic environment, in particular through generating work in the construction industry and in supporting tourism.

Table 2.2 Public Sector and Lottery Expenditure on the Historic Environment

	Expenditure (£ million)	Notes
Historic Scotland	67.1	2006/07, includes staff costs
Heritage Lottery Fund	46.7	2005/06, 84 awards received in Scotland
Local Authorities	13.5	2005/06, mainly expenditure on museums

Source: Scotland's Historic Environment Audit (SHEA)

The voluntary sector, which includes local and national voluntary organisations, the National Trust for Scotland and churches, also plays a critical role in maintaining and managing Scotland's historic environment. The sector spends substantial sums of money each year on the historic environment, including grant funding and charitable donations (Table 2.3).

Table 2.3 Key Examples of Voluntary Sector Expenditure on the Historic Environment

	Expenditure (£ million)	Notes
National Trust for Scotland	37.4	2006/07, includes natural and historic environment; includes grants from public sources
Church of Scotland	6	2006, includes grant from Historic Scotland and HLF (£2 million) and £4 million from charitable donations.

Source: Scotland's Historic Environment Audit (SHEA) (2007) Historic Scotland

The National Trust for Scotland represents by far the single largest and most important voluntary organisation active in the historic environment sector. The National Trust for Scotland's income (some £40m in 2005/06) is derived from membership subscriptions/donations, income from admissions, investments, and grants from government agencies and other bodies; total expenditure in 2006/07 was £37.4m, with approximately one-fifth (£7.1m) directed at conservation, repair and improvement of its Scottish historic estate.

2.4.2 Historic environment and tourism

Beyond the direct contribution of the historic environment sector in terms of employment and funding, the sector also contributes very substantially to the Scottish tourism economy. Indeed, no fewer than 7 of Scotland's top 20 paid admission attractions and 4 of the top 20 free admission attractions fall within the definition of the historic environment¹. In total, the historic environment is estimated to account for nearly 30%, more than £70 million, of all visitor expenditure to attractions in Scotland². While this expenditure directly associated with historic environment attractions is in itself highly significant, the historic environment should also rightly be considered as an important contributor to expenditure above and beyond these particular attractions: the historic environment representing a central motivating factor for wider tourism to and within Scotland.

2.5 Strategic Summary: Definition and Scope of Scotland's Historic Environment

- For the purposes of this economic assessment it is necessary to utilise a working definition of the historic environment as a basis for data collection and further analysis.
- Such a definition requires appropriate focusing of scope sufficient to enable meaningful estimates to be made, yet must also accord closely to policy interpretation of the historic environment.

¹ Scottish Visitor Attractions Monitor 2007, VisitScotland

² ECOTEC analysis; based on Scottish Visitor Attractions Monitor 2007 (694 visitor attractions surveyed)

- Notably, certain categories of historic assets, including National Parks, National Scenic Areas and Ancient Woodlands, are not included in our working definition on the grounds that, although such features have a key historic dimension, they are more closely related to a consideration of the *natural environment*. Similarly, museums have been excluded as they have been considered previously in a study of the economic impact of the *cultural* sector in Scotland.
- Scotland's historic environment sector is characterised by a considerable diversity of public, private and voluntary sector organisations, though the precise size and scope of the sector is problematic to determine given the paucity of available official data.
- The SHEA document offers a starting point for characterising and disentangling the sector. SHEA identifies a number of key examples of historic environment activity, noting that a substantial proportion of jobs in the sector are in built heritage construction activities.
- Grants made available through public sector organisations represent a major stimulus to economic activity related to the historic environment, through the construction work that they fund and in supporting tourism.
- However, private sector investment remains the principal source of funding for the historic environment. The majority of Scotland's historic environment assets are privately owned – most notably the huge stock of pre 1919 dwellings - and receive no public assistance for their upkeep and management.
- The sector is known to contribute very substantially to the Scottish tourism economy. It is estimated, for example, that the historic environment accounts for approaching one-third of all visitor expenditure to attractions in Scotland. However, the wider significance of the historic environment to overall Scottish tourism can be expected to be considerably greater again.

3.0 Importance of the Historic Environment

3.1 Introduction

In this section we consider and present emerging evidence from the literature, including from a number of other studies which have attempted to examine the economic contribution of the historic environment. In reviewing these studies we focus particularly on definitions adopted, research methodologies employed and the format of results, as a basis for identifying issues to further guide our approach and modelling framework for the study.

3.2 Historic Environment: Economic Theory and Economic Benefits

Before examining the potential economic benefits of the historic environment, it is useful to consider the justification for public support for the historic environment.

3.2.1 Market failure

Economic theory suggests that market failure occurs when freely-functioning markets, operating without government intervention, fail to deliver an efficient or optimal allocation of resources. A consequence of market failure is that economic and social welfare may not be maximised. Economists highlight a number of potential causes of market failure, including:

- externalities causing private and social costs and/ or benefits to diverge;
- imperfect information;
- pure public goods or quasi-public goods;
- market dominance and abuse of monopoly power;
- factor immobility;
- equity ('fairness' issues) – markets can generate an 'unacceptable' distribution of income and social exclusion.

In the case of the historic environment, market failure particularly arises due to its public good characteristics which make it difficult for markets to operate efficiently. Whilst the historic environment is not a pure public good – i.e. non-rivalrous, non-excludable, and non-rejectable – it can be considered a quasi-public good

Market failure arises in relation to the historic environment specifically on account of the existence of 'externalities' – i.e. those benefits (or costs) of an economic good that are not directly accounted for by market transactions. Externalities occur when there is a

divergence between the private costs/ benefits and those experienced by society as a whole. The historic environment generates a number of important social benefits (including educational opportunities and its contribution to the attractiveness of an area) which are not reflected in market transactions. Where a historic site draws large numbers of visitors for example, local retailers, restaurants/ hotels etc will benefit to a considerable degree from their expenditure with job generation impacts (production externalities). Moreover, individuals visiting the historic site may also gain educational benefits (consumption externalities). Were everything left to market forces then the full extent of these benefits (or externalities) attributable to the historic site would not be realized. Rather, what is desirable is some kind of intervention to *internalise* such externalities.

3.2.2 Public intervention

Given such circumstances there is a compelling argument for public sector intervention to correct for market failure in the historic environment domain. Corresponding actions to 'correct' for market failure may follow different routes, either involving direct or indirect intervention, and through the use of instruments with either monetary or non-monetary content (Table 3.1).

Table 3.1 Public Intervention Measures and the Historic Environment

	Monetary	Non-monetary
Direct	Public expenditure	Hard regulation
Indirect	Tax expenditure	Soft regulation

Source: adapted from Ginsburgh and Throsby (2006)

Public expenditure may involve both direct funding for the maintenance, conservation, operation and presentation of publicly owned historic environment assets, and subsidies to private and not-for-profit organisations. Tax expenditure refers to the provision of tax incentives to encourage individuals or firms to spend money on maintaining or restoring historic environment assets, or else to donate funds to historic environment causes. Hard regulation prescribes behaviour (for example, through controls on works to listed buildings), whereas soft regulation may be directed at influencing intentions, through covenants and treaties etc.

3.3 Evidence from Recent Studies

It remains the case that the historic environment sector continues to suffer from a lack of appreciation of the range of economic benefits which may accrue – directly and indirectly – as a consequence of historic environment assets. To a considerable extent this is

connected to the notion that many of the benefits accruing from the historic environment cannot readily be expressed in conventional monetary terms.

Traditionally, analysis of the historic environment has focussed on those direct economic contributions which can be most readily measured, such as jobs created, investment, buildings improved etc. Although a number of recent studies have begun to more fully consider and indeed quantify economic benefits of the historic environment (and/ or heritage¹), it remains the case that many categories of potential economic impact are often treated qualitatively, partly as a result of difficulties in expressing these in monetary terms.

3.3.1 Valuing our Environment

The National Trust has made a significant contribution in this area through its *Valuing Our Environment* studies². These attempted to quantify the economic impact of the Trust on regional economies through the maintenance of its historic properties, its role in promoting tourism, and the multiplier effects on regional employment. The surveys carried out in North East and South West England, Cumbria and Wales suggested that some 40% of employment in tourism in these areas depended directly on a 'high quality environment', rising to between 60% and 70% in some rural areas. Further, it was estimated that National Trust activities generated between five and nine additional full-time equivalent posts for every job for which it was directly responsible in the regions studied.

According to *Valuing our Environment*, the environment in Wales, directly and indirectly, added some £6bn to national GDP, including £1.8bn spent on wages in employing nearly 170,000 people. Supplementary work undertaken by the University of Glamorgan³ has subsequently attempted more closely to estimate the particular contribution of the historic environment as a subset of Wales' wider environment. This study estimated that the historic environment sector directly supported more than £460 million of spending and nearly 15,700 FTE jobs. Notably, 83% of this spending was found to be associated with tourism and leisure. It was estimated that the historic environment sector supported some £780 million of spending and 22,600 jobs (including indirect and induced effects).

3.3.2 Recent impact studies

A separate consultancy study undertaken for North East England⁴ found that the sector supported more than 7,300 jobs in total. Of these, around 1,520 were posts in heritage

¹ 'Heritage' and 'historic environment' are often used interchangeably, although the particular definitions of the two sometimes differ, with heritage tending to be used in a somewhat broader sense than that of historic environment.

² *Valuing Our Environment*, (2001), National Trust

³ *Appreciating Assets: Estimating the Economic Value of the Historic Environment in Wales*, (2002), University of Glamorgan

⁴ *Economic, Social and Cultural Impact of Heritage in the North East*, (2005), North East Historic Environment Forum

organisations, with approximately 360 jobs being created indirectly as a result of the spending of the heritage sector on goods, services and capital projects, and the spending of the wages of historic environment sector employees. However, the report notes that the most significant economic impacts are the result of tourism spending of over 6 million visitors annually to heritage attractions in the North East. This is estimated to account for some £180m of visitor-related spending in the region, approaching one-fifth of total tourism spending in North East England. Interestingly, and through the use of case study analysis, the study also asserts that heritage can play a critical role in urban renaissance and rural regeneration. Importantly, it is also suggested that heritage can be found to be significant in shaping regional image and identity, as well as contributing to quality of life, with such factors increasingly being recognised as determinants of regional competitiveness.

A recent study undertaken for the East Midlands Heritage Forum has found evidence that the heritage sector directly employs between 3,925-4,710 FTEs in the region¹. Including associated employment – i.e. that which is visitor spend related, together with indirect and induced jobs – it is estimated that the heritage sector supported some 10,000 FTEs. Notably, volunteers in the sector also make a significant contribution to the economy with approximately 1,200 people (converted into FTE posts) actively involved in running heritage assets across the East Midlands – equating to an economic contribution of between £18.7m and £26.7m pa. Moreover, it is likely that these figures would be appreciably higher if full account were taken of those assets which do not attract significant numbers of visitors. Heritage also makes a highly significant contribution to tourism in the region, with eight of the top ten attractions (paid and free) being heritage based. The available evidence also serves to underline the role of the heritage assets as educational and community resources, and as important elements in the regeneration process and as a contributor to quality of life in the East Midlands.

It should be noted that while all of the above studies cover activities that are both concerned with the protection and enhancement of the historic environment and activities that are dependent on the quality of the environment, most notably tourism and leisure, there are considerable variations in terms of definitional criteria. For example, the Welsh study includes aspects of the natural environment (National Parks) which are excluded from the operational definition adopted for this current study. Similarly, both the North East England and Wales reports include 'museums' in their definitions of the historic environment – excluded from this current study on the basis that the impact of museums has already been considered as part of the cultural sector in Scotland.

¹ The Contribution of Heritage to the East Midlands Economy, (2007), ECOTEC

By way of summary, the economic benefits identified and quantified by the above studies are summarised in Table 3.2, below.

Table 3.2 Summary of Economic Benefits of the Historic Environment

	East Midlands		North East	Wales
	Lower estimate	Upper estimate		
Direct Employment	3,925	4,710	1,520	2,336
Visitor Spend Related Employment	3,475	3,475	4,970	13,340
Indirect and Induced Employment	2,585	2,960	855	6,890
Total Employment	9,985	11,145	7,345	22,566
Multiplier	1.35	1.36	1.13	1.44

Source: ECOTEC (2007), North East Historic Environment Forum (2005), University of Glamorgan (2002)

3.3.3 Social and Cultural Benefits

In addition to assessing the economic contributions and impacts, previous studies have also recognised that the historic environment contributes towards a range of social and cultural objectives, including educational and community identity. However, as such benefits are extremely difficult, if not impossible, to quantify in any meaningful sense they are largely illustrated qualitatively through case studies.

3.4 Methodological Considerations

A major challenge associated with undertaking an impact assessment of the historic environment is valuing activities that do not fit neatly into traditional economic disaggregations, or for which there are few directly observable market values. Specifically, the historic environment is not conducive to conventional economic approaches that subdivide the economy according to industry or sector (the Standard Industrial Classification or SIC) or by the nature of employment/ self employment (the Standard Occupational Classification or SOC). Given that the historic environment does not fit neatly within this framework, and there is a lack of available information outside of the standard categorisations, a central task involves assigning values to those areas where the boundaries of activity do not readily coincide with the prior categorisations.

A close reading of the studies highlighted above reveals significant variation in the approaches used for estimating the direct impact of the historic environment. For example, the Welsh study uses a somewhat arbitrary method of apportioning employment and expenditure, taken from an earlier study undertaken on the wider environment (i.e. including the natural environment as well as the historic built heritage) and applying it to

the historic environment¹. Notably, the East Midlands study incorporates a sample survey of heritage organisations as a basis for primary data collection to better inform the economic and social impact assessment, while the East Midlands study is also the only one to make use of original data to help estimate direct expenditure by visitors and tourists – albeit with a number of 'off the shelf' assumptions required to estimate average expenditure and the number of jobs created from this expenditure. Importantly, the role of the historic environment in terms of attracting visitors and tourists is strongly recognised in all of the above studies. Indeed, overall tourism and leisure-related effects are judged to account for the most significant share of total impact: between 70-83% of total economic impacts.

All of the studies adopt a similar approach to the modelling of total economic impacts, by first assessing the number of direct jobs and then determining the indirect and induced effects. In the case of the Wales study the research had the benefit of employing the empirical framework provided by a 'region specific' input-output table – the other studies largely being reliant on 'off the shelf' assumptions, particularly in relation to leakage and multiplier effects. The employment multipliers used range from 1.13 in the North East study to 1.44 in the Welsh study. The former appears too low, whilst the latter reflects the scale of the Welsh economy.

Whilst the various economic impact analyses presented above in many respects comprise reasonably robust assessments, and do serve to provide considerable insight into the nature and economic contribution of the historic environment, a number of issues and shortcomings in the existing evidence base remain. These include:

- The fact that original (primary) data has only been obtained in one of these studies means that analysis of the contribution of the historic environment is necessarily heavily dependent on 'off the shelf' assumptions to estimate direct employment and tourism expenditure.
- The studies have tended to include volunteering as part of their economic assessments. However, volunteering by its nature does not typically involve any significant expenditure and a case may be made for not including volunteering as part of a formal impact assessment framework – which is not to ignore the very real contributions that volunteering may make towards wider social and cultural objectives².

¹ Valuing Our Environment: The Economic Impact of the Environment in Wales, Technical Summary, (2002), National Trust

² HEACS has commissioned a study of Volunteering in the Historic Environment in Scotland, which will provide further insight into the scope and scale of volunteering in the historic environment. Initial findings suggest a notional economic value for this volunteer contribution of over £28 million per annum.

- With the exception of the Wales study, the previous studies have relied heavily on 'off the shelf' assumptions in relation to indirect and induced impacts and multipliers, which may have led to estimates bearing only limited relation to the actual economic impact of the historic environment sector. The use of such assumptions has largely been due to the absence of 'region specific' input-output tables.
- These previous studies have not made a distinction between local, UK and foreign visitors and tourists, which may have led to an overestimation of tourism expenditure given that displacement differs between different types of visitor.

3.5 Strategic Summary: Importance of the Historic Environment

- The historic environment is characterised by market failure due to 'externalities'. Externalities occur when there is a divergence between public and private costs and benefits. In such circumstances there is a compelling argument for public sector intervention to correct for market failure in the historic environment domain.
- There is a lack of appreciation of the range of economic benefits that can accrue from historic environment assets. To a considerable extent this is because many of the benefits accruing from the historic environment cannot readily be expressed in conventional monetary terms.
- Traditionally, analysis of the benefits accruing from the historic environment have focussed on the direct economic benefits which can be measured, such as jobs created, investment, buildings improved etc. Wider economic benefits have often only been treated qualitatively, partly as a result of difficulties in expressing these benefits in monetary terms.
- However, a number of recent studies have attempted to estimate and quantify the economic benefits of the historic environment as a whole, thereby providing an expanding body of empirical evidence.
- Research undertaken on the historic environment in Wales has estimated that the sector supports some 22,600 jobs and £780 million of spending. Similarly, a recent study undertaken for the East Midlands Heritage Forum has conservatively estimated that the heritage sector supported some 10,000 FTEs in the region.

- A major outstanding challenge in assessment of the historic environment involves placing economic value on a categorisation of activity that does not fit neatly into traditional economic disaggregations, or for which there are few directly observable market values.
- To date, studies have tended to make little use of primary data and have been limited by their heavy reliance on 'off the shelf' assumptions in relation to indirect and induced impacts and multipliers. Dependence on such assumptions has largely been due to the absence of 'region specific' input-output tables.
- Historically, data has not been well collected by a sector characterised by considerable diversity and complexity. An approach to help overcome this shortfall is likely to require collection of primary data on those organisations operating in the sector via survey.

4.0 Survey of Scotland's Historic Environment Sector

4.1 Introduction

In this section we present further evidence and analysis of the current economic contribution of the historic environment sector in Scotland based on primary survey evidence, with responses having been generated through a postal survey of organisations identified as operating within the sector. The collection of original data from historic environment organisations through the questionnaire survey was valuable in helping us to develop more reliable and up to date estimates of the economic impact of Scotland's historic environment sector.

4.2 Questionnaire Survey

The research team, in consultation with members of the HEACS Economic Significance Working Group, prepared a survey instrument designed to explore the economic impact of organisations within the historic environment sector. Considerable effort was given to the design of a questionnaire that would allow us to collect the necessary data. We were aware that our data requirements might appear onerous, and that this could serve to seriously affect the survey response rate. We therefore sought to achieve an effective balance between coverage (level of detail) and 'usability' (convenience and ease of response) of the questionnaire.

The survey asked respondents for information on a range of relevant topics, including, in relation to the principal activities of the organisation, employment and staffing, income and expenditure figures, and visitors numbers (as appropriate). The questionnaire was designed to collect mainly quantitative information, although it also included a number of open questions inviting organisations to comment on particular issues in relation to the historic environment.

A database of organisations judged to be active to some extent in Scotland's historic environment sector was compiled from information provided by HEACS and Historic Scotland, with this being supplemented by searches of available directories and databases. Overall, the assembled database contained details on around 1,000 entries, with these spanning the public, private and voluntary sectors.

The survey was distributed by post to a sample of 500 organisations in May 2008, accompanied by a covering letter from HEACS setting out the background and purpose of the research. A copy of the survey instrument is provided at Annex 2. Notably, the survey

sample excluded local authorities so as not to overlap with separate research commissioned by Historic Scotland which was undertaken within the same timeframe on the particular contribution of Scottish local authorities to the historic environment¹. However, the survey instrument used for Historic Scotland's research included specific questions designed to more fully capture the staffing and financial information required to make an assessment of local authority related economic impacts. The initial findings from this survey were used in our final report to give a more complete picture of the attribution of the historic environment to Scotland's economy.

A freepost envelope was included with the survey and organisations were asked to respond by 2nd June 2008. Once the deadline had passed, reminder phone calls were made to elicit more responses. In total 83 responses were received, giving a response rate just short of 20% which is considered reasonable for a postal survey of this nature. While not all responses were completed in full, wherever possible additional information submitted by the respondent (e.g. annual reports) was used to help fill gaps.

4.3 Activities

The sample covers a range of public, private and voluntary sector organisations. Respondents were asked to indicate all key aspects of the historic environment in which their organisation was involved.

Table 4.1 Core Activities

Activity	Number of organisations in sample
Listed/ historic buildings	57
Archaeology	31
Conservation areas	26
Gardens/ designed landscapes	20
Historic landscapes	27
Marine historic environment	12
Natural environment	15

NB: Total exceeds the number of replies as respondents were asked to select all categories that applied.

As indicated in Table 4.1, the majority of organisations revealed that they had some involvement with listed/ historic buildings, including 10 stating that that listed/ historic buildings comprised the sole focus of their engagement with the historic environment.

¹ Survey of Local Authority Policies, Staffing and Resources for the Historic Environment in Scotland, (forthcoming), Historic Scotland

Notably, the majority of respondents indicated an involvement in more than one category of historic environment activity, including a small number (3) stating that their work spanned the whole range of the activity areas that were designated for the survey.

4.4 Employment and Staffing

The organisations that responded employed around 1,840 permanent staff (full-time equivalent) and 680 full-time equivalent seasonal staff: equating to a total employment figure in excess of 2,500 FTEs.

In terms of permanent staff, the response ranged from organisations that indicated that they had no paid employees to an organisation which had approaching 1,000 permanent members of staff.

Table 4.2 Number of Permanent Employees

Employees	Number of organisations in sample
0	20
1-10	38
11-50	8
51-100	1
101-250	1
251-500	1
500+	1

The table shows the response to be heavily skewed towards those organisations which employ a relatively small number of permanent staff, with this tending to reflect the 'long tail' and diversity of micro organisations operating within the broader historic environment sector.

Based on information from those organisations which could provide a breakdown of staff by activity area, the following table suggests that the majority of staff in respondent organisations were engaged either in visitor services or else conservation and repair roles.

Table 4.3 Staff Activity

Activity	Percentage of staff
Conservation and repair	23%
Management and administration	16%

Archaeology	10%
Architectural services	4%
Research and recording	10%
Education/training/outreach	2%
Visitor services and facilities	27%
Other non-professional occupations	10%

NB: Activities accounting for less than 1% have been excluded from the table. The total may not add to 100% due to rounding.

Survey respondents also reported that all employees were residents of Scotland. Our analysis found the combined annual expenditure on wages and salaries of these organisations to be in excess of £47 million.

In addition, almost one-half of the survey respondents indicated that their organisation made use of volunteers, with over 80% of these indicating that they would not be in a position to continue to operate without this input. More than 90% of this volunteering input was by Scottish residents.

4.5 Income and Expenditure

Based on the information provided, total annual operating expenditure of respondent organisations amounted to £65 million (excluding staff). For those organisational respondents who were in a position to provide a breakdown, analysis of operating expenditure indicates that the biggest area of spend was the cost of goods sold.

Table 4.4 Operating Expenditure

Area of expenditure	Percentage of total
PR/communication/marketing	2%
Conservation/repair/maintenance	6%
Professional services	13%
Postage and telecoms	1%
Rent and utilities	6%
Cost of goods sold	49%
Other	22%

NB: Activities accounting for less than 1% have been excluded from the table. The total may not add to 100% due to rounding.

The annual capital expenditure by respondent organisations totals almost £48 million. Predictably enough, as might be expected given the nature of the sector, the majority (69%) of such capital expenditure is spent on conservation /repair /maintenance work.

The income generated by respondent organisations totalled in excess of £100 million, with almost 30% from visitors (e.g. admission fees and retail spend).

Table 4.5 Income

Income category	Percentage of total
Donations and bequests	10%
Membership fees	16%
Visitors	29%
Property transactions	4%
Grants	24%
Other	15%

NB: The total may not add to 100% due to rounding.

The main sources of grant income were identified as Historic Scotland and the Heritage Lottery Fund. Sources of 'other' income varied, but mainly comprised professional fees.

4.6 Visitor and Tourism Effects

In the majority of cases, visitor impacts were either not applicable or else not recorded (e.g. relating to access to an open site). Where annual visitor numbers were provided by survey respondents these ranged very considerably: from as little as 200 to over 3 million in one case. Plainly, visitor activity is likely to be a very significant area of economic impact for the sector as a whole, generating income and supporting employment for both those individual sites which attract visitors and for other businesses in the locality which benefit from wider spill-over effects.

Respondents were asked to estimate the proportion of visitors attracted to Scotland on account of its historic environment, and while these estimates ranged from 0-100%, significantly, almost one-half of respondents suggested that 50-60% of tourists were attracted to Scotland principally because of the historic environment. Respondents acknowledged that these estimates were based principally on anecdotal evidence and guesswork, but these views nevertheless further highlight the perceived importance of the historic environment as a draw for visitors.

Information on visitor origin was limited, but some respondents reported a highly localised visitor pattern (90% plus coming from within Scotland) while other sites reported an appreciably wider catchment, with less than 20% comprising Scottish residents.

4.7 Strategic Summary: Survey of Scotland's Historic Environment Sector

- The collection of original data from historic environment organisations through the questionnaire survey was valuable in helping us to develop more reliable and up to date estimates of the economic impact of Scotland's historic environment sector.
- The survey was distributed by post to a sample of 500 organisations, with the questionnaire requesting information on a range of relevant topics, including, in relation to the principal activities of the organisation, employment and staffing, income and expenditure figures, and visitors numbers. A response rate just short of 20% was achieved, which is considered reasonable for a postal survey of this nature.
- In terms of activity areas, the majority of organisations revealed that they had some form of involvement with listed/ historic buildings. Further, a majority of respondents indicated an involvement in more than one category of historic environment activity.
- Notwithstanding responses by a number of major employer organisations, the survey responses suggest the sector to be heavily skewed towards those organisations which employ a relatively small number of permanent staff, with this tending to reflect the 'long tail' and diversity of micro organisations operating within the broad historic environment sector.
- Based on information from those organisations which could provide a breakdown of staff by activity area, the majority of staff was engaged either in visitor services or in conservation and repair roles.
- Almost one-half of survey respondents indicated that their organisation made use of volunteers, with over 80% of these indicating that they would not be in a position to continue to operate without this input.
- Based on the information provided, total annual operating expenditure by respondent organisations amounted to £65 million. Amongst respondents total annual capital expenditure amounted to almost £48 million.

- Income generated by respondent organisations exceeded £100 million, with almost 30% being generated from visitors (e.g. admission fees and retail spend).
- The main sources of grant income were identified as Historic Scotland and the Heritage Lottery Fund. Sources of 'other' income varied, but this category was mainly comprised of professional fees.
- In the majority of cases, visitor impacts were either not applicable or else not recorded (e.g. relating to access to an open site). The annual visitor numbers that were provided by survey respondents ranged very considerably.
- Almost one-half of respondents suggested that 50-60% of tourists were attracted to Scotland principally because of the quality of its historic environment.

5.0 Economic Impact of Scotland's Historic Environment

5.1 Introduction

The economic analysis presented in this section brings together and synthesises the results of both our primary and secondary research in order to examine the contribution of the historic environment sector to the Scottish economy. The evidence and analysis relates to economic activity attributable, in turn, to those organisations comprising the 'inner wheel' of the historic environment sector¹, the built heritage repair and maintenance sector, together with expenditure resulting from tourists attracted to Scotland principally because of the historic environment.

An important input to the analysis is the results of our questionnaire survey distributed to a sample of Scotland's historic environment organisations, which necessarily only affords a partial, albeit valuable, view of the sector. For the purposes of the economic analysis the primary survey data has been combined with a considerable range of published data sources, bespoke datasets and further evidence obtained from consultations. It should be noted that the results set out below are intended to provide a set of conservative baseline estimates for the economic contribution of the sector, allowing scope for further refinement by future studies.

5.2 Modelling Framework

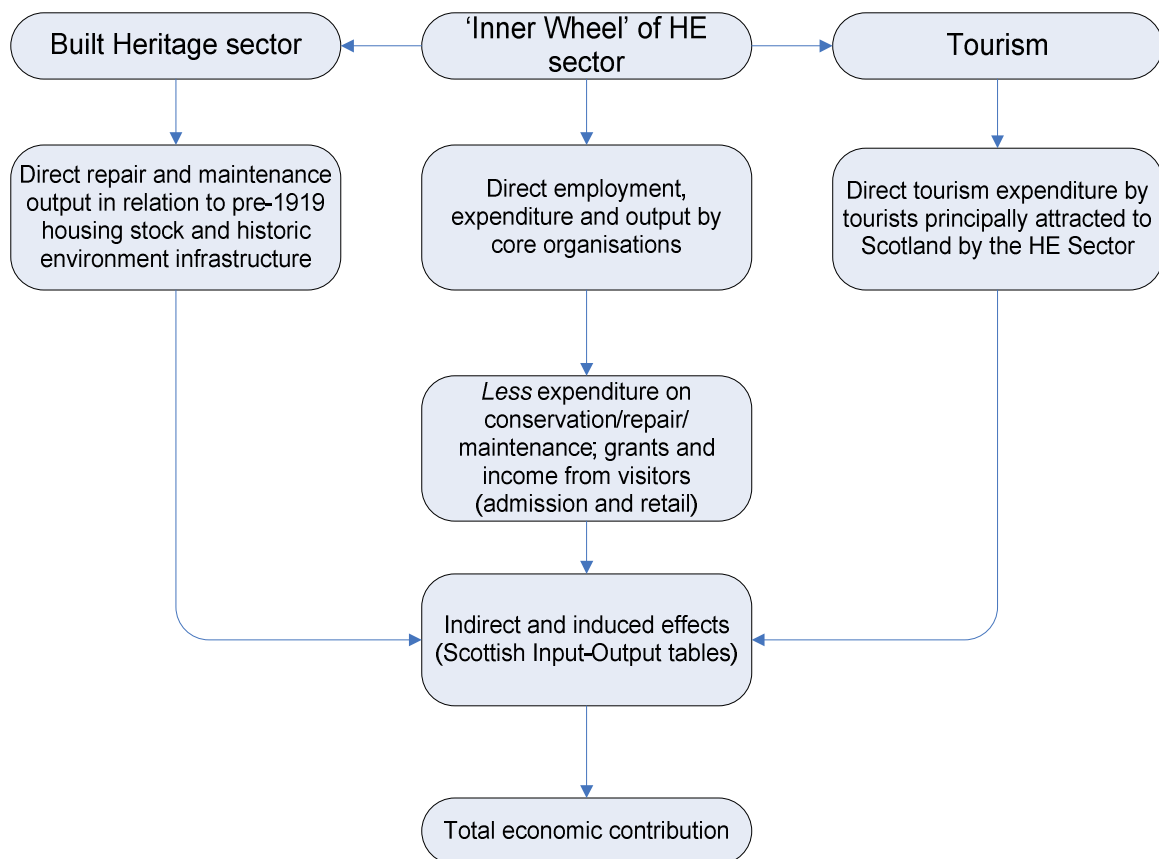
A principal aim of the study is to estimate the total economic contribution of the historic environment sector in Scotland by measuring the level of economic activity that can be attributed to the sector across the Scottish economy. This has included developing estimates of the direct (initial) contribution as well as indirect and induced contributions. For the historic environment sector the direct, indirect and induced contributions may be defined as follows:

- The **direct contribution** includes direct employment, expenditure, and output by organisations within the 'inner wheel' of the historic environment sector, built heritage repair and maintenance output, and expenditure by tourists who have been attracted to Scotland primarily because of its historic environment.

¹ Organisations whose key function relates to maintenance, conservation, management and/or creating access to part or all the historic environment.

- The **indirect contribution** includes purchases of inputs made by firms that are supplying goods and services to the 'inner wheel' of the historic environment sector, the built heritage construction sector and organisations associated with tourism, including hotels and restaurants.
- The **induced contribution** comprises benefits to the Scottish economy as a result of increased income and spending by people who work in the 'inner wheel' of the historic environment sector, the built heritage construction sector and tourism sector and in those businesses that supply goods and services to these sectors.
- The **total economic contribution** is the sum of direct, indirect and induced contributions.

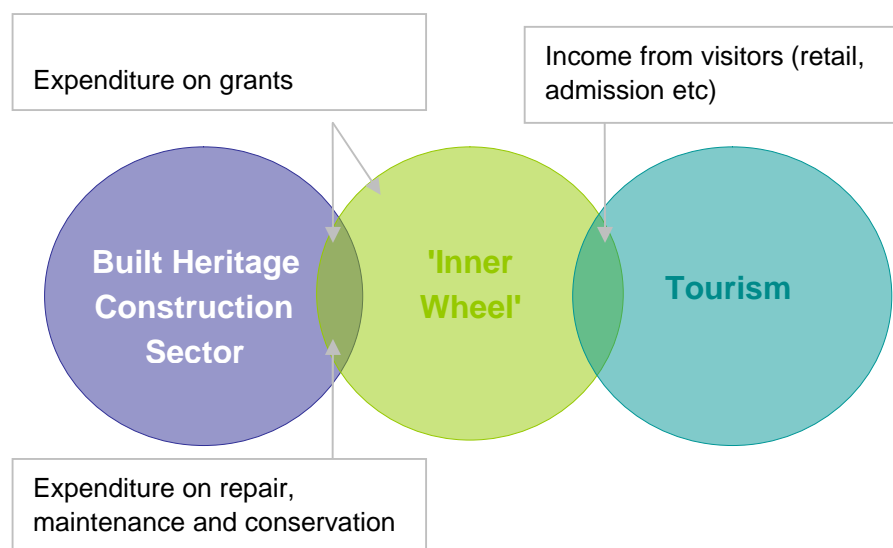
A schematic representation of the modelling framework adopted for the analysis is presented below:



The evidence and analysis is presented individually for each of the three historic environment sector 'pillars', as well as for the historic environment as a whole. However, it is important to recognise that, because of overlaps and inter-dependencies occurring

within the sector, the individual contributions for each of these three 'pillars' do not readily sum to represent the total economic 'impact' of the historic environment. Rather, simple aggregation of the pillar contributions would result in elements of double counting with respect to the sector's economic footprint. Such overlaps and inter-dependencies are shown on the Venn diagram below (Fig 5.1).

Figure 5.1 Historic Environment Sector



5.3 Direct Contribution

The following sub-sections set out the evidence in relation to the direct contribution of the historic environment. As described above, direct effects have been derived and calculated from a number of complementary sources: survey responses, published data sources, bespoke datasets, and stakeholder consultations.

The direct contribution and the total economic contribution are expressed in terms of four key measures: output (turnover), income (compensation of employees), employment (FTEs) and gross value added (GVA).

5.3.1 Historic Environment Sector 'Inner Wheel': Direct Contribution

The 'inner wheel' of the historic environment sector has been defined for the purpose of this study to comprise those organisations that can be considered to be at the core of the historic environment sector: (1) large employers and grant bodies, such as Historic Scotland and the National Trust for Scotland, (2) smaller organisations, such as trusts and societies, all of whose principal *raison d'être* is the preservation, conservation and/ or

presentation of the historic environment, (3) relevant arms of Scottish local authorities, and (4) organisations providing specialist archaeological services.

Evidence from the survey indicates that the total number of full-time equivalent (FTE) employees working in the 'inner wheel' of the historic environment sector is approaching 2,500 (2,423). However, to the extent that this estimate excludes non-respondents, including a number of large employers operating in the sector, it can be considered a highly conservative estimate of the real world total. Similarly, survey information gathered on expenditure and output (income/ turnover) provides only a partial profile of the 'inner wheel' of the historic environment sector. Consequently, we have supplemented the survey with published data sources, bespoke datasets and consultations, in order to more closely establish the direct economic impact of the sector, but notably in relation to economic output (income/ turnover).

Table 5.1, below, sets out the estimated direct impact of the 'inner wheel' of the historic environment sector:

Table 5.1 Historic Environment Sector 'Inner Wheel': Direct Contribution

Output (£m)	Income (£m)	Employment (FTEs)	GVA (£m)
£264.3	£107.7	4,001	£166.3

Source: ECOTEC Analysis, based on Scottish Input-Output tables (2004). Survey results and other inputs have been adjusted for inflation. Headline figures are presented in 2007 prices.

In summary:

- It is estimated that the 'inner wheel' of the historic environment sector directly contributes approaching £170 million to Scotland's gross value added (GVA), and more than £260 million of economic output.
- It is estimated that this level of economic activity directly supports the equivalent of some 4,000 FTE employees.
- With regards to the income earned by these employees, the 'inner wheel' of the historic environment sector contributes approaching £100 million.
- Whilst the estimates presented above have been grossed up from survey evidence, they nevertheless do not take account of certain known organisations (including, notably, the Historic Houses Association Scotland and various educational providers) due to lack of accurate data. Consequently, they can be interpreted as conservative.

In order to avoid double counting within the historic environment 'inner wheel', we have subtracted grants from the total value of output on the assumption that these grants will be included in other organisations' expenditure. For example, the spending of many civic societies and trusts tends to be funded (in part, at least) by public bodies, such as Historic Scotland.

5.3.2 Built Heritage Construction Sector: Direct Contribution

According to the Department for Business, Enterprise and Regulatory Reform (formerly the Department of Trade and Industry), approximately £3.6 billion of the total Scottish construction industry turnover was spent on repair and maintenance of housing and other infrastructure in 2006¹. A significant share of this annual turnover can be expected to relate to built heritage. Indeed, a recent study by Communities Scotland suggests that some 40% of repair and maintenance expenditure on housing relates to pre-1919 buildings². Whilst a similar estimate is not available for other infrastructure, it can be reasonably assumed that it will be considerably lower, particularly considering that roads and bridges are included in this estimate. For the purpose of the analysis, we have therefore assumed that 20% of repair and maintenance expenditure on other infrastructure relate to the historic environment. Consequently, it can be estimated that the Scottish historic environment accounts for approximately £1.1 billion of repair and maintenance output³.

In line with these assumptions, Table 5.2 below sets out the estimated direct contribution of the built heritage construction sector.

Table 5.2 Built Heritage Construction Sector: Direct Contribution

Output (£m)	Income (£m)	Employment (FTEs)	GVA (£m)
£1,113.5	£311.0	10,585	£501.1

Source: ECOTEC Analysis, based on Scottish Input-Output tables (2004). The value of repair and maintenance expenditure has been adjusted for inflation. Results are presented in 2007 prices.

In summary:

- It is estimated that the built heritage construction sector directly supports some 10,500 FTE employees.

¹ Construction Statistics Annual 2007, (2008), DTI

² Scottish House Condition Survey 2002 - National Report, (2003), Communities Scotland

³ This follows the definition of SHEP 1 which states that the historic environment also includes 'buildings erected before 1919'. Although the majority of [pre-1919] buildings are not listed, most provide domestic and office accommodation.

- In terms of GVA, the sector directly contributes some £500 million to Scotland's economy, with this representing some £1.1 billion in respect of economic output.
- With regards to the income earned by direct employees, the built heritage construction sector contributes in excess of £300 million.

Importantly, part of this output will be financed by organisations that are included in the 'inner wheel' of the historic environment sector. Consequently, when totalling the economic impact of the historic environment sector we have excluded expenditure on conservation, repair and maintenance by organisations in the 'inner wheel' in order to avoid double counting.

5.3.3 Historic Environment related Tourism Expenditure: Direct Contribution

In addition to the direct contribution of the historic environment sector 'inner wheel' and built heritage components, the historic environment also has a significant impact on people choosing to visit Scotland.

The Visitor Attractions Monitor 2007 (VAM 2007) provides much valuable information on visitor attractions in Scotland and highlights that no fewer than 7 of Scotland's top 20 paid admission attractions and 4 of the top 20 free admission attractions that provided information of their visitor numbers fall within the definition of the historic environment. Overall, the historic environment is estimated to account for 22% of all visits to attractions in Scotland¹, and nearly 30% of total spend.

Table 5.3, below, sets out the number of visits and the average spend per person associated with the historic environment.

¹ ECOTEC analysis, based on Scottish Visitor Attractions Monitor 2007. Note: the survey was distributed to 938 visitor attractions with a completion rate of 74% (694). Consequently, the figures in Table 5.3 will represent a conservative estimate of visitor numbers and expenditure.

Table 5.3 Visitor Numbers and Average Spend per Person, 2007

Attraction Category	Visitors 2007			Average spend per person		Total spend
	Free admission	Paid admission	Total	Free	Paid	Total
Castles & Forts	297,817	3,343,297	3,641,114	-	£5.02	£16,783,351
Distillery/Vineyard/Brewery	271,774	765,106	1,036,880	£13.84	£23.82	£21,984,230
Heritage & Visitor Centre ¹	533,583	860,610	1,394,193	£7.55	£6.62	£9,725,790
Historic Houses & Places	68,060	1,308,446	1,376,506	-	£5.69	£7,445,058
Historic Monuments & Archaeological Sites	3,984	642,107	646,091	-	£4.57	£2,934,429
Industrial & Craft Workplaces	-	5,051	5,051	£23.87	-	-
Other Historic Properties	6,636	464,146	470,782	-	£3.49	£1,619,870
Places of Worship	1,104,935	161,034	1,265,969	£7.68	-	£8,485,901
Steam & Heritage Railways		172,106	172,106	-	-	-
Other ²	-	150,178	150,178	-	£10.62	£1,594,890
Total Historic Environment Attractions	2,286,789	7,872,081	10,158,870	£7.12	£6.90	£70,573,518
All Visitor Attractions	31,726,286	14,703,969	46,430,255	£4.72	£6.79	£249,471,890
% of All Visitor Attractions	7.2%	53.5%	21.9%	n/a	n/a	28.3%

Source: ECOTEC analysis; based on Scottish Visitor Monitor 2007

As the above analysis shows, historic environment attractions directly attracted more than 10 million visitors in 2007, with expenditure of more than £70 million. While this expenditure directly associated with historic environment attractions is in itself highly significant, the historic environment is also a central motivating factor for wider tourism to and within Scotland. It is therefore legitimate to credit some part of the total expenditure of tourists/ visitors on hotels, food, transport, etc to the historic environment.

According to Visit Scotland, Scotland attracted approximately 16 million visitors in 2007, of which nearly 3 million were international visitors. In total, visitors to Scotland spent approximately £4.2 billion, which represents an average expenditure of £216 for domestic

¹ This value has been adjusted according to the definition of the historic environment.

² This value has been adjusted according to the definition of the historic environment.

visitors and £487 for international visitors¹. It is estimated that this level of expenditure directly supports some 85,500 (85,451) FTE jobs.

Whilst existing datasets do not precisely reveal what proportion of tourism expenditure can be attributed to the historic environment, a number of surveys highlight the importance of the historic environment sector to Scottish tourism. For example, a survey of tourists using the Superfast Ferry service between Rosyth and Zeebrugge noted that almost 50% mentioned visits to castles/ historic sites and Scotland's history and heritage as reasons for visiting Scotland².

Table 5.4 Reasons for visiting Scotland

Prompted Reason for Visiting Scotland	% of respondents
Landscape & scenery	71%
Tranquillity / space	58%
Nature & wildlife watching	51%
To visit castles / historic sites	48%
Scotland's history & heritage	44%

Source: Survey of Visitors Coming to Scotland on the Rosyth Ferry Link (2003)

Moreover, a Visitor Experience Survey carried out by Visit Scotland shows that 90% of international visitors and 61% of UK visitors visited castles, historic houses and palaces during their visit to Scotland³. Visiting castles, historic houses and palaces was the second most frequent activity among international visitors and the sixth most frequent activity among UK visitors.

As part of the survey research undertaken for this study, those historic environment organisations responsible for managing historic environment sites and providing access to visitors/ tourists were asked through our survey what proportion of visitors to Scotland they thought were attracted to Scotland principally because of the historic environment. While almost one-half of respondents indicated that they thought between 50-60% of tourists to Scotland were principally attracted to the country because of the historic environment, based on an average of responses received, the estimated proportion of tourism principally attracted by the historic environment sector is calculated at 46%.

¹ Scottish Tourism Current Position Summary 2007, (2008), VisitScotland: tourism expenditure is spending incurred whilst away from home overnight on a tourist trip and on advance payments for such items as fares and accommodation. Expenditure by day visitors is therefore not included in the above estimate. However, it can be argued that the displacement effect is relatively high for day visitors and therefore these visitors may not incur additional expenditure.

² Survey of Visitors Coming to Scotland on the Rosyth Ferry Link, (2003), George Street Research

³ The Visitor Experience 2007, (2007), VisitScotland

In light of these survey results, we have assumed that one-third (33%) of total tourism expenditure represents a reasonable, if perhaps conservative, estimate of the importance of the historic environment sector in attracting visitors to Scotland¹. However, given the uncertainties surrounding this estimate we also provide alternative estimates in the table below based on a higher and lower estimate of tourism expenditure attributable to the historic environment sector – 50% and 25% respectively.

Table 5.5 Historic Environment related Tourism Expenditure: Direct Contribution

	Output (£m)	Income (£m)	Employment (FTEs)	GVA (£m)
Base (33%)	£1,379.0	£537.8	28,197	£827.4
Low (25%)	£1,045.0	£407.6	21,368	£627.0
High (50%)	£2,089.0	£814.7	42,715	£1,253.4

Source: ECOTEC Analysis, based on Scottish Input-Output tables (2004). The value of tourism expenditure has been adjusted for inflation. Results are presented in 2007 prices.

In summary:

- Of total tourism expenditure of £4.2 billion in 2007, it is estimated that some £1.4 billion can be attributed to the historic environment sector.
- It is estimated that this level of expenditure supports in excess of 28,000 FTE employees, and generates more than £800 million in respect of GVA.
- If one-half of Scotland's tourism expenditure were to be attributed to the historic environment sector, the direct employment effect would be approximately 43,000 FTE employees, and more than £2 billion in economic output and £1.2 billion in GVA would be generated.
- Even if only 25% of total tourism expenditure were attributable to the historic environment, then the direct effect would still be highly significant, supporting an estimated 21,000 FTE employees and generating £600 million in GVA.

¹ In assessing importance, we are not attributing 33% of tourist expenditure in Scotland to the historic environment and 67% to all other factors combined. If such analysis were applied to all factors, the total would exceed 100%: for example, rural scenery, walking opportunities and the historic environment taken together are what attract many visitors. Although the concept is theoretical, the implication is that, without an appealing historic environment, Scotland would attract 33% less visitor expenditure. Without this element, Scotland's other attractions would not be enough for many visitors to choose the country over other destinations.

Notably, the estimates do not include expenditure attributable to day visitors – as it can be argued that displacement is relatively high for day visitors (i.e. their expenditures are not additional within Scotland). This is a conservative assumption, however, as (1) the alternative on the day for some Scottish residents will have been a visit over the border to England, and (2) some visits (especially to historic environment attractions in the south of Scotland) will be by English residents or overseas visitors staying in England.

Part of the expenditure by tourists will generate income for organisations represented in the 'inner wheel' of the historic environment sector. Consequently, when totalling the economic 'impact' of the historic environment sector we have excluded income from visitors, including admission and retail, for organisations that are included in the 'inner wheel' in order to avoid double counting.

5.4 Total Economic Contribution (Indirect and Induced Effects)

The indirect and induced impacts below have been calculated by applying multipliers calculated from the Scottish Input-Output tables to direct impacts. More specifically, we have used our estimates of the direct output (or income/ turnover) of the historic environment sector to estimate its total economic 'impact'. The employment, income and GVA effects were generated through ratios calculated from the Scottish Input-Output tables (see Annex Three for additional technical information).

5.4.1 Historic Environment Sector Organisations 'Inner Wheel': Indirect and Induced Effects
Indirect and induced effects accruing from the direct economic activity within the 'inner wheel' of Scotland's historic environment sector are presented in Table 5.6 below.

Table 5.6 Total Economic Contribution: Historic Environment Sector Organisations 'Inner Wheel'

	Direct	Indirect	Induced	Total
Output (£m)	£264.3	£70.5	£90.3	£425.2
Income (£m)	£107.7	£31.2	£15.3	£154.2
Employment (FTEs)	4,001	834	968	5,804
GVA (£m)	£166.3	£31.8	£52.9	£250.9

Source: ECOTEC Analysis, based on Scottish Input-Output tables (2004). The survey results and other inputs have been adjusted for inflation. Headline figures are presented in 2007 prices.

In summary:

- Including indirect and induced effects, it is estimated that the 'inner wheel' of the historic environment sector supports some 5,800 FTE employees (5,804) in Scotland.
- The 'inner wheel' of the historic environment is estimated to contribute in excess of £250 million to Scotland's national GVA, with more than £400 million in respect of output.
- The 'inner wheel' of the historic environment sector contributes in excess of £150 million in employees' income.

5.4.2 Built Heritage: Indirect and Induced Effects

Indirect and induced effects accruing from the direct economic output within the built heritage repair and maintenance sector of Scotland's historic environment are presented in Table 5.7 below:

Table 5.7 Total Economic Contribution: Built Heritage Construction Sector¹

	Direct	Indirect	Induced	Total
Output (£m)	£1,113.5	£642.5	£334.0	£2,089.9
Income (£m)	£311.0	£160.0	£111.3	£582.3
Employment (FTEs)	10,585	6,114	3,651	20,350
GVA (£m)	£501.1	£278.3	£222.8	£1,002.1

Source: ECOTEC Analysis, based on Scottish Input-Output tables (2004). The value of repair and maintenance expenditure has been adjusted for inflation. Results are presented in 2007 prices.

In summary:

- Including indirect and induced effects, it is estimated that the built heritage construction sector supports in excess of 20,000 FTE employees in Scotland.
- The built heritage construction sector is estimated to contribute some £1 billion to Scotland's national GVA, with this representing approximately £2 billion in respect of output.

¹ NB: this represents a conservative estimate as it can be argued that the labour input and the use of Scottish materials is higher in the built heritage construction sector than for the construction industry as a whole. Indeed, consultations with organisations within the built heritage construction sector indicate that labour inputs are between 30-70% higher in relation to the historic environment.

- The built heritage construction sector is estimated to contribute approaching £600 million in employees' income.

5.4.3 Tourism Expenditure: Indirect and Induced Effects

The indirect and induced effects from tourism expenditure attributable to Scotland's historic environment sector are presented in the Table 5.8 below:

Table 5.8 Total Economic Contribution: Historic Environment Tourism Expenditure¹

	Direct	Indirect	Induced	Total
Output (£m)	£1,379.0	£441.3	£413.7	£2,234.0
Income (£m)	£537.8	£124.1	£110.3	£772.2
Employment (FTE)	28,197	3,845	5,127	37,169
GVA (£m)	£827.4	£206.9	£220.6	£1,254.9

Source: ECOTEC Analysis, based on Scottish Input-Output tables (2004). The value of tourism expenditure has been adjusted for inflation. Results are presented in 2007 prices.

In summary:

- Including indirect and induced effects, it is estimated that tourism expenditure attributed to the historic environment supports in excess of 37,000 FTE employees in Scotland.
- The tourism expenditure is estimated to contribute approaching £1.3 billion to Scotland's national GVA, and in excess of £2.2 billion in respect of output.
- The tourism expenditure is estimated to contribute approaching £800 million in employees' income.

5.5 Total Economic Impact: Scottish Historic Environment

The aggregate economic 'impact' of Scotland's historic environment sector is summarised in Table 5.9 below). (N.B. as noted above, the individual contributions for each of the three 'pillars' do not readily sum to represent the total economic 'impact' of the historic environment, on account of overlaps and inter-dependencies occurring within the sector (see Figure 5.1 above)).

¹ Please see Annex Three for the total economic contribution of the high and low tourism expenditure figures.

Table 5.9 Total Economic Contribution – Historic Environment Sector

	Direct	Indirect	Induced	Total
Output (£m)	£2,613.5	£1,112.1	£789.8	£4,515.5
Income (£m)	£900.8	£297.7	£228.3	£1,426.8
Employment (FTE)	40,883	10,323	9,267	60,473
GVA (£m)	£1,409.0	£498.1	£467.6	£2,374.7

Source: ECOTEC Analysis, based on Scottish Input-Output tables (2004)

In summary:

- Including indirect and induced effects, it is estimated that the historic environment sector supports in excess of 60,000 FTE employees in Scotland.
- The historic environment sector is estimated to contribute in excess of £2.3 billion to Scotland's national GVA, and some £4.5 billion in respect of output.
- The historic environment sector is estimated to contribute some £1.4 billion in employees' income.

5.6 Strategic Summary: Economic Impact of Scotland's Historic Environment

- The historic environment is a highly significant contributor to the Scottish economy, directly supporting approximately 41,000 FTE employees.
- Including indirect and induced effects, it is estimated that the historic environment sector supports in excess of 60,000 FTE employees in Scotland.
- Overall, the historic environment sector is estimated to contribute in excess of £2.3 billion to Scotland's national GVA, and some £4.5 billion in respect of output.
- The historic environment sector is estimated to contribute some £1.4 billion in employees' income.
- The greater share of economic impacts relates to tourism expenditure attributable to the historic environment. Indeed, tourism expenditure is estimated to support some 37,000 FTE employees in Scotland, with this representing nearly £1.3 billion in respect of GVA and more than £2.2 billion in respect of output.

- The built heritage construction sector also accounts for a substantial share of the total economic impact. Notably, a significant proportion of this overall impact is rooted in grants and/ or expenditure by core historic environment organisations, including Historic Scotland, the National Trust for Scotland and the Heritage Lottery Fund.
- Including work funded by grants and expenditure by core historic environment organisations, the built heritage construction sector supports some 20,000 FTE employees in Scotland, and generates approximately £1 billion in respect of GVA and £2 billion in output.

6.0 Strategic Findings and Conclusions

6.1 Introduction

In this final section of the report we provide a synthesis of our principal research findings in respect of more closely establishing the economic impact of Scotland's historic environment. The study has developed a series of highly significant economic results that will be of considerable interest to those operating in the historic environment sector.

6.2 Scope of Scotland's Historic Environment

- Scotland's historic environment sector is characterised by a considerable diversity of public, private and voluntary sector organisations, though the precise size and scope of the sector is problematic to determine given the paucity of available official data.
- Grants made available through public sector organisations represent a major stimulus to economic activity related to the historic environment, through the construction work that they fund and in supporting tourism.
- However, private sector investment remains the principal source of funding for the historic environment. The majority of Scotland's historic environment assets are privately owned – most notably the huge stock of pre-1919 dwellings – and receive no public assistance for their upkeep and management.

6.3 Importance of Scotland's Historic Environment

- The historic environment is characterised by market failure due to 'externalities'. Externalities occur when there is a divergence between public and private costs and benefits. In such circumstances there is a compelling argument for public sector intervention to correct for market failure in the historic environment domain.
- Traditionally, analysis of the historic environment has focussed on those direct economic contributions which can be most readily measured, such as jobs created, investment, buildings improved etc. Although a number of recent studies have begun to more fully consider and indeed quantify economic benefits, it remains the case that many categories of potential economic impact are still subject to a qualitative treatment, partly as a result of difficulties in expressing these in monetary terms.

- A major outstanding challenge in assessment of the historic environment involves placing economic value on a categorisation of activity that does not fit neatly into traditional economic disaggregations, or for which there are few directly observable market values. This is further compounded by the fact that, historically, data has not been well collected by a sector characterised by considerable diversity and complexity.

6.4 Survey of Scotland's Historic Environment Sector

- The collection of original data from historic environment organisations through the questionnaire survey has been valuable in helping us to develop more reliable and up to date estimates of the economic impact of Scotland's historic environment sector.
- The survey was distributed by post to a sample of 500 organisations, with the questionnaire requesting information on a range of relevant topics, including, in relation to the principal activities of the organisation, employment and staffing, income and expenditure figures, and visitors numbers.
- The results of our questionnaire survey afford a partial, albeit valuable, view of the historic environment sector. For the purposes of the economic analysis the primary survey data has been combined with a considerable range of published data sources, bespoke datasets and further evidence obtained from consultations.

6.5 Economic Impact of Scotland's Historic Environment

- The historic environment is a highly significant contributor to the Scottish economy, directly supporting approximately 41,000 FTE employees. Including indirect and induced effects, it is estimated that the historic environment sector supports in excess of 60,000 FTE employees in Scotland
- Overall, the historic environment sector is estimated to contribute in excess of £2.3 billion to Scotland's national GVA, with this representing some £4.5 billion in respect of output. The historic environment sector contributes some £1.4 billion in employees' income.
- The greater share of economic impacts relates to tourism expenditure attributable to the historic environment. Indeed, tourism expenditure is estimated to support some 37,000 FTE employees in Scotland, with this representing nearly £1.3 billion in respect of GVA and more than £2.2 billion in respect of output.

- The built heritage construction sector also accounts for a substantial share of the total economic impact – supporting some 20,000 FTE employees in Scotland, and generating approximately £1 billion in respect of GVA. Notably, a significant proportion of this overall impact is rooted in grants and/ or expenditure by core historic environment organisations, including Historic Scotland, National Trust for Scotland and the Heritage Lottery Fund.
- Within the context of Scotland's national economy, it is estimated that the historic environment sector's contribution to the national economy is equivalent to 2.6% of Scottish GVA and 2.4% of Scottish income (compensation of employees). Similarly, it has been estimated that the Scottish historic environment sector accounts for 2.5% of Scotland's total employment¹.

¹ Significantly, and by way of further comparison, the scale of total economic impact of the historic environment sector would appear to compare strongly in terms of the size of its employment impact against a number of other, distinctive Scottish sectors, including textiles (tartan and cashmere – 12,500 jobs), whisky, gin and vodka (43,300), sport (45,500), and the cultural sector (7,300).

Sources: Whisky, Gin and Vodka (Scottish Whisky Association, 2000); Sport (sportscotland, 2007); Cultural sector (Dunlop S *et al*, 2004, Scotecon.net); Tartan (ECOTEC, 2006); and Cashmere (ECOTEC, 2007).

Annex One: Consultees

Stakeholder Consultees

The following individuals were consulted as part of this study.

Table A.1 List of Stakeholders

Name	Organisation
Peter Bromley	Historic Scotland – Properties in Care
Malcolm Cooper	Historic Scotland – Inspectorate
Martin Fairley	Historic Scotland – Grants and Investment
Laura Petrie	Historic Scotland – Finance
Ingval Maxwell	Historic Scotland – Technical Conservation Group
Sarah Troughton	Historic Houses Association Scotland
Stephen Carter	Headland Archaeology
Adam Wilkinson	Edinburgh World Heritage Trust
Mark Adderley	National Trust for Scotland
Diana Murray	RCAHMS
Colin McLean	Heritage Lottery Fund
Professor Fiona McLean	Glasgow Caledonian University – Heritage Futures Network
Mark Hopton	LDN Architects

In addition to the stakeholders presented above, we have also liaised closely with members of the HEACS Economic Significance Working Group, together with Stewart Dunlop (Fraser Allander Institute for Research on the Scottish Economy) and John-Glyn McLaren (Scottish Government economist).

Table A.2 HEACS Economic Significance Working Group

HEACS Economic Significance Working Group
Ian Johnson (Chair)
Mark Hopton
Colin McLean
Richard Oram
Olwyn Owen (Secretariat)
Malcolm Bangor-Jones (Secretariat)

Annex Two: Questionnaire Survey

Dear Sir/Madam

Assessing the Economic Impact of the Historic Environment in Scotland

On behalf of Scottish Ministers, the Historic Environment Advisory Council for Scotland (HEACS) has commissioned ECOTEC Research and Consulting to undertake a study to assess the economic impact of Scotland's historic environment.

As an organisation working with the historic environment sector, you will already be aware of its contribution to the Scottish economy. However, to date, surprisingly little work has been done to quantify or understand its actual economic impact. This study will provide for the first time a robust evidence base of the true value of the historic environment to the Scottish economy.

A key element of this research relates to the collection of primary data from organisations within the sector. We would therefore be most grateful if you, or another appropriate person in your organisation, could spare some time to complete the attached questionnaire and return it in the freepost envelope provided.

Should you have any queries relating to the questionnaire, or if you would prefer to provide the information electronically, then please contact Louise Scott (ECOTEC): louise.scott@ecotec.com or 020 7921 3817. For general enquiries about the project, please contact Olwyn Owen (HEACS) olwyn.owen@scotland.gsi.gov.uk or 0131 668 8810.

Thank you in advance for your support and contribution to this research.

Yours sincerely

Louise Scott
(ECOTEC Project Manager)

Olwyn Owen
(HEACS Secretariat)

Assessing the Economic Impact of the Historic Environment in Scotland

ECOTEC Research & Consulting has been commissioned by HEACS to undertake new research directed at establishing robust estimates for the economic impact of Scotland's historic environment. This research will be central to developing a stronger appreciation of the size and scope of economic impacts which accrue as a result of the historic environment and the work of organisations operating within the sector.

Given the paucity of official data sources the collection of key information from those organisations which have a role, either directly or indirectly, in conserving, maintaining, managing, or creating access to the historic environment is of fundamental importance to the research, and will allow us to better identify the full impact of the historic environment¹.

We would therefore be very grateful if you could spare the time to complete the following survey on behalf of your organisation and return it in the freepost envelope provided. Please be assured that your responses will be treated in the strictest confidence.

Should you have any additional questions or require further clarity on any point please do not hesitate to contact Louise Scott, ECOTEC project manager, on 020 7089 5570. If you would prefer to receive an electronic copy of the survey which can be submitted by email, this can be requested from louise.scott@ecotec.com

Organisational Information

Name of Organisation: _____

Contact Name: _____

Contact Telephone: _____

Contact Email: _____

¹ For the purposes of the study the 'historic environment' has been defined in accordance with Scottish Historic Environment Policy 1 (SHEP 1)

Core Activities

1. What particular aspect(s) of the historic environment would you say the work of your organisation most closely relates to (*please tick all that apply*)?

- | | | | |
|--------------------------|-----------------------------------|--------------------------|-----------------------------|
| <input type="checkbox"/> | Listed and/ or Historic Buildings | <input type="checkbox"/> | Historic Landscapes |
| <input type="checkbox"/> | Archaeology | <input type="checkbox"/> | Marine Historic Environment |
| <input type="checkbox"/> | Conservation Areas | <input type="checkbox"/> | Natural Environment |
| <input type="checkbox"/> | Gardens/ Designed Landscapes | | |

Staffing

2. How many *permanent* full-time equivalent (FTE) employees does your organisation directly employ **as a result of work focused on the historic environment?** (*for example, if an employee dedicates on average 18,5 hours per week to work related to the historic environment this would represent 0.5 FTEs based on a 37 hour week - $18,5/37=0.5$*).

Permanent: _____ FTEs

3. How many *seasonal* full-time equivalent (FTE) employees does your organisation directly employ **as a result of your work focused on the historic environment?** (*for example, if a seasonal worker dedicates 18.5 hours per week over three months this would represent 0.125 FTEs - $18.5/37 \text{ hours} / 3/12 \text{ months}=0.125$*)

Seasonal: _____ FTEs

4. Please indicate the number *and/ or* proportion of FTE employees recorded above who are engaged in the following activity areas:

	Permanent		Seasonal	
	number	(%)	number	(%)
Construction				
Conservation and Repair				
Maintenance (including minor repairs)				
Management & Administration				
Archaeology				
Architectural Services				
Research & Recording				
Other Professional Services				
Education/ Training/ Outreach				
Visitor Services & Facilities (incl. interpretation and access)				
Other Commercial Activity (incl. retail)				
Other Non-Professional Occupations				
Other (<i>please specify</i>)				
Total		100%		100%

5. What percentage of the FTE employees recorded in Q2 and Q3 are resident in Scotland?

Permanent _____%

Seasonal _____%

6. What is your organisation's gross annual expenditure on wages and salaries for the FTE employees recorded in Q2 and Q3? (*please provide information for the latest financial year or if this year is atypical an average of the last three years*)

7. Can you estimate the percentage of the expenditure stated in Q6 which is paid to employees who are Scottish residents?

_____ %

Volunteers

8. Does your organisation include individuals who work in a voluntary capacity in relation to the historic environment?

Yes No

If No, please go to Q12.

9. On average, how many hours per year are provided by volunteers connected to your organisation's **work on the historic environment**?

10. Would your organisation be able to continue to operate at the current level without any voluntary input?

Yes No

Please provide further details as appropriate _____

11. Can you estimate the proportion of the time attributable to volunteers as stated in Q9 that is provided by Scottish residents?

_____ %

Expenditure

12. What is your organisation's approximate current annual expenditure (excluding gross wages and salaries of directly employed staff) **specifically related to the historic environment** for each of the following categories? For each category, what percentage of this expenditure would you estimate is received by Scottish companies? *(please provide information for the latest financial year or if this year is atypical an average of the last three years)*

[Note that the expenditure data is fundamental to the overall economic impact assessment so we would really appreciate if you could be as precise as possible].

Operating Expenditure

	(£'000)	(%)
PR/ Communication/ Marketing		
Conservation/ Repair/ Maintenance		
Research and Reporting		
Grants (for operating purposes)		
Professional services (incl. architectural services)		
Travel/ Subsistence/ Hospitality		
Postage and Telecom		
Training/ Education/ Outreach		
Rent and Utilities		
Cost of goods sold		
Other <i>(please specify)</i>		
Total		

[If a more detailed breakdown of annual expenditure is available for your organisation, we would be grateful if you could provide this information on a separate sheet].

Capital Expenditure

	(£'000)	(%)
Office Equipment		
Construction		
Conservation/ Repair/ Maintenance		
Acquisition of land & buildings		
Grants (for capital purposes)		

	(£'000)	(%)
Other (<i>please specify</i>)		
Total		

Income

13. Please indicate the extent to which your organisation's work on the **historic environment** benefits from the following sources of income (*please provide information for the latest financial year or if this year is atypical an average of the last three years*).

Income

	(£'000)
Donations and bequests	
Membership fees	
Visitors (incl. admissions and retail)	
Property transactions	
Grants (<i>please specify source</i>)	
Other (<i>please specify</i>)	
Total	

[If a more detailed breakdown of annual income is available for your organisation, we would be grateful if you could give us this information on a separate sheet].

Visitors/ Tourists

N.B. Please only complete this section if your organisation has a role in managing historic environment sites whilst allowing access to visitors/ tourists.

14. What is the current annual number of visitors/ tourists (including school visits) to those historic environment site(s) managed by your organisation? *(please indicate if this information is based on a specific survey)*

15. If possible, please estimate the proportion of these visitors who are:

On a day trip from home _____%

Staying overnight? _____%

16. Can you provide an estimate of the breakdown by geographical origin for these visitors?

Origin within Scotland _____%

Origin within Rest of UK _____%

Origin from Outside UK _____%

17. To the best of your knowledge, what proportion of visitors to Scotland would you say are attracted to the country principally because of its historic environment?

_____%

**THANK YOU KINDLY FOR TAKING THE TIME TO COMPLETE THIS
SURVEY QUESTIONNAIRE.**

Annex Three: Technical Notes

Technical Notes on Methodology

By way of further information pertaining to data sources, inputs and assumptions used in the study, we include the following technical notes. Our research methodology has been developed in association with Scottish Government economists/ statisticians.

Historic Environment Sector 'Inner Wheel': Direct Effects

The 'inner wheel' of the historic environment sector is comprised of those organisations that can be considered to be at the core of the historic environment sector, including large employers and grant bodies, such as Historic Scotland and the National Trust for Scotland, as well as smaller organisations, such as trusts and societies, all of whose principal *raison d'être* is preservation, conservation and management of the historic environment. For the purposes of analysis we have also included those organisations providing specialist archaeological services, together with relevant arms of Scottish local authorities, within the 'inner wheel'¹.

Given some uncertainties surrounding the scope and scale of the historic environment sector, the 'inner wheel' of the historic environment sector has been analysed across a number of different types of organisations.

Large employers and grant bodies

The survey generated four responses from large employers and grant bodies operating in the historic environment sector in Scotland. Together, these organisations accounted for more than 2,000 full-time equivalent jobs (FTEs). Given the importance of this category of organisation within the historic environment, we have supplemented the survey results with published accounts² and consultations in order more completely to reflect the contribution of these core organisations. We were not able, however, to obtain information for certain large employers, including the Historic Houses Association Scotland, which implies that the overall contribution of the 'inner wheel' of the historic environment sector can be expected to be a conservative estimate³.

¹ The survey responses do not support the inclusion of education and training organisations; consequently they have been excluded from the analysis.

² Historic Scotland Annual Accounts 2006/07; National Trust for Scotland Annual Accounts 2006/07; Heritage Lottery Fund Annual Accounts 2006/07

³ It has not been possible to gross up the survey results for large employers and grant bodies on account of uncertainties about the size of this sub-sector and the limited response rate to the survey.

Trusts and Societies

With regards to trusts and societies the survey generated 47 responses. In total, these 47 organisations accounted for 104 FTE jobs. Information on expenditure on wages and salaries, and other operating expenditure, was not provided by all organisations, and as a result we produced an average per organisation in order to estimate the total expenditure for all 144 identified trusts and societies in the original sample. Since information on income was not available for all organisations, we have assumed that expenditure by these organisations is equivalent to income, on the basis of the not-for-profit nature of these organisations and their reliance on public funding.

Archaeological services

The survey generated nine responses from organisations providing archaeological services. In total, these nine organisations accounted for 181 FTE jobs. Information on expenditure on wages and salaries, and other operating expenditure, was not provided by all organisations, and as a result we have derived an average expenditure per FTE in order to estimate the total expenditure for these nine organisations. Since information on income was not provided by three of the four largest companies in the sample, we used data on wages and other operating expenditure to estimate economic output (income/turnover). More specifically, we used the Scottish Input-Output tables to estimate gross operating surplus and taxes, which are the other components of output. In order to gross up the economic output of this sample to reflect all Scottish archaeological service providers in Scotland, we used an estimate of total Scottish archaeological services employment provided in a recent study¹. According to this study, the total number of archaeologists (including support staff) was 558 FTEs². Notably, this figure does not include archaeologists working for the national government, national agencies or local government.

Local authorities

Local authorities have been surveyed as part of another study commissioned by Historic Scotland. All local authorities were asked to provide information on their expenditure and income relating to the historic environment. Whilst the survey questions were not fully completed by all respondents, the information included in this report can be expected to present a broad order of magnitude of expenditure and income relating to the different aspects of the management of the historic environment. In total, it is estimated that local authorities have an annual expenditure of some £50 million on the historic environment,

¹ Archaeology Labour Market Intelligence: Profiling the Profession 2007-2008, (2008), Kenneth Aitchison & Rachel Edwards

² It was necessary to convert employee jobs to FTE jobs. It has been assumed that 1 FTE job is equivalent of 2 part-time jobs.

including staff wages and salaries, overheads and service expenditure¹. Information on income was relatively weak and unreliable and we have therefore assumed that expenditure by local authorities is equivalent to income.

Built Heritage Construction Sector: Direct Effects

There were very few responses to the survey from organisations within the built heritage construction sector and it has therefore been necessary to estimate the direct contribution of this sector from secondary data sources. According to the Department for Business, Enterprise and Regulatory Reform (formerly the Department of Trade and Industry), approximately £3.6 billion of the total Scottish construction industry output was spent on repair and maintenance in 2006². A significant share of this annual turnover can be expected to relate to built heritage. Indeed, a recent study by Communities Scotland suggests that some 40% of repair and maintenance expenditure on housing relates to pre-1919 buildings³. Whilst a similar estimate is not available for other infrastructure, it can be reasonably assumed that it will be considerably lower, particularly considering that roads and bridges are included in this estimate. For the purpose of the analysis, we have therefore assumed that 20% of repair and maintenance expenditure on other infrastructure relate to the historic environment. Consequently, it can be estimated that the Scottish historic environment account for approximately £1.1 billion of repair and maintenance output.

Historic Environment related Tourism Expenditure: Direct Effects

The Scottish historic environment's impact on tourism has been estimated from data on tourism expenditure from Visit Scotland. Whilst the *exact* proportion of tourism expenditure which is principally attributable to the historic environment remains unknown, in light of a number of recent studies and surveys we have estimated that one-third (33%) of total tourism expenditure would be a reasonable, if conservative, estimate of the importance of the historic environment in attracting visitors to Scotland. By definition, this implies that if the historic environment accounts for more than 50% of a person's attraction

¹ This figure is similar to that identified in the initial findings of the Historic Scotland funded Survey of Local Authority Policies, Staffing and Resources for the Historic Environment.

² Construction Statistics Annual 2007, (2008), DTI. 'Repair and maintenance' concerns work which either entails repairing something which is broken, or else maintaining it to an existing standard. For housing output, this includes repairs, maintenance, improvements, house/ flat conversions, extensions, alterations, redecoration etc on existing housing. For non housing, it includes repairs, maintenance, redecoration etc on existing buildings and infrastructure, which are not housing e.g. schools, offices, roads, shops etc.

³ Scottish House Condition Survey 2002 - National Report, (2003), Communities Scotland

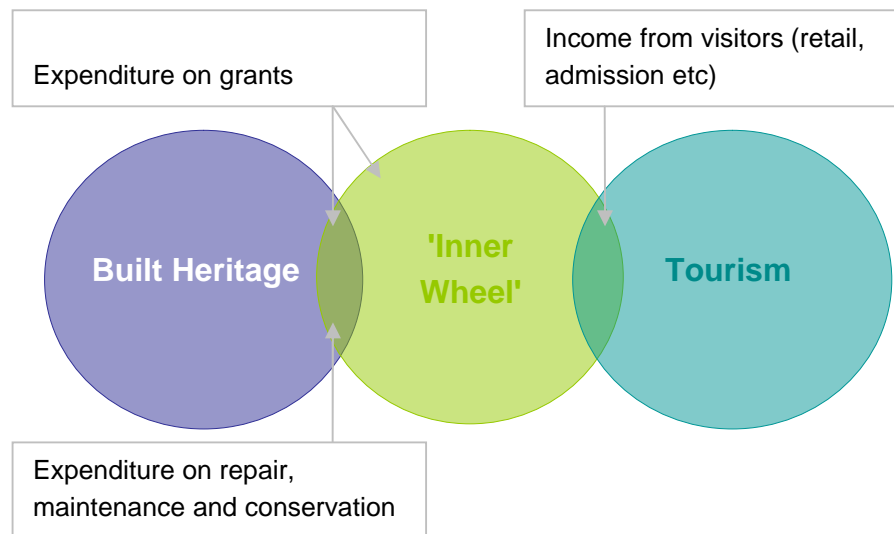
to Scotland, he/ she will be included in the 33% of tourism expenditure attributed to the historic environment.

Notably, the estimates do not include expenditure attributable to day visitors – as it can be argued that displacement is relatively high for day visitors (i.e. their expenditures are not additional within Scotland). This is a conservative assumption, however, as (1) the alternative on the day for some Scottish residents will have been a visit over the border to England, and (2) some visits (especially to historic environment attractions in the south of Scotland) will be by English residents or overseas visitors staying in England.

Avoiding Double Counting

On account of overlaps and inter-dependencies occurring within the sector, the contributions to the Scottish economy from core historic environment organisations, built heritage repair and maintenance work and tourism, as measured above, would result in elements of double counting with respect to the sector's economic footprint if aggregated. Such overlaps and inter-dependencies are represented in the following Venn diagram.

Figure - Historic Environment Sector



Because of these overlaps and inter-dependencies we have excluded grant funding and expenditure on conservation, repair and maintenance by organisations included in the 'inner wheel' of the historic environment sector when aggregating the economic contribution/ impact of the Scottish historic environment. Similarly, we have excluded income from visitor expenditure (admission, retail etc) earned by organisations within the

'inner wheel' of the historic environment sector as this income is included in the estimate for tourism expenditure.

Indirect and Induced Effects

The indirect and induced effects from each 'pillar' of the historic environment sector have been calculated by applying multipliers calculated from the Scottish Input-Output tables to the direct economic contribution/ impact estimated through this study. Total employment, income and GVA effects have been generated through ratios calculated from the Scottish Input-Output tables for each £1 million of direct output by the historic environment sector.

The 2004 Scottish Input-Output tables, which are the latest available, provide multipliers for 128 industries, which are expressed as the ratio of direct and indirect (and induced if Type II multipliers are used) output changes to the direct output change due to a unit increase in final demand. Multiplying a change in final demand (direct contribution) for an individual industry's output by that industry's type II output multiplier will generate an estimate of direct + indirect + induced impacts throughout the Scottish economy.

As the historic environment sector is not directly represented by any of the 128 industries in the Scottish Input-Output tables, it has been necessary to identify industries that together best represent activities undertaken within the historic environment sector. The table below sets out the industries used for the analysis¹.

	Industry	Share
'Inner Wheel' of Historic Environment Sector	Large employers and grant bodies	Individual analysis on each organisation.
		115: Public administration and defence; compulsory social security
		120: Activities of membership organisations nec
	Trusts and Societies	120: Activities of membership organisations nec
		120: 22.7%
		121: 50.0%
	121: Recreational, cultural and sporting activities	122: 27.3%
		Based on returns from a

¹ We are very grateful to John-Glyn McLaren, Scottish Government economist, for his help with use of the Scottish Input-Output tables and other advice.

Archaeological services	122: Other service activities 122: Other service activities	data matching exercise of identified historic environment organisations and company records held by the Scottish Executive. 100%
Built Heritage Construction Sector	88: Construction 112: Architectural and engineering activities and related technical consultancy, technical testing and analysis	88: 77% 112: 23% The share of output in each of these industries has been allocated on the basis of a recent study which showed that some 23% of Scottish construction jobs involved architects, engineers and other technically skilled labour ¹ .
Historic Environment related Tourism	Multiplier developed by Scottish Government statisticians from the Input-Output tables	100%

Tourism Scenarios

The tables below set out the total economic contribution of the high and low tourism scenarios.

High Tourism Scenario

	Direct	Indirect	Induced	Total
Output (£m)	£2,089	£668	£627	£3,384
Income (£m)	£815	£188	£167	£1,170
Employment (FTE)	42,715	5,825	7,766	56,306
GVA (£m)	£1,253	£313	£334	£1,901

Source: ECOTEC Analysis, based on Scottish Input-Output tables (2004). The value of tourism expenditure has been adjusted for inflation. Results are presented in 2007 prices.

¹ Traditional Building Craft Skills – Assessing the Need, Meeting the Challenge, (2007), The National Heritage Training Group

Low Tourism Scenario

	Direct	Indirect	Induced	Total
Output (£m)	£1,045	£334	£314	£1,693
Income (£m)	£408	£94	£84	£585
Employment (FTE)	21,368	2,914	3,885	28,167
GVA (£m)	£627	£157	£167	£951

Source: ECOTEC Analysis, based on Scottish Input-Output tables (2004). The value of tourism expenditure has been adjusted for inflation. Results are presented in 2007 prices.

Annex Four: Data Sources

Published Documents, Data Sources and Bespoke Datasets

The following published documents, secondary data and bespoke datasets were among the principal sources utilised in the study:

Traditional Building Craft Skills – Assessing the Need, Meeting the Challenge, (2007), The National Heritage Training Group

Scottish House Condition Survey 2002 – National Report, (2003), Communities Scotland

Construction Statistics Annual 2007, (2008), DTI

Archaeology Labour Market Intelligence: Profiling the Profession 2007-2008, (2008), Kenneth Aitchison & Rachel Edwards, Institute for Archaeologists

Historic Scotland Annual Accounts 2006/07

National Trust for Scotland Annual Accounts 2006/07

Heritage Lottery Fund (HLF) Annual Accounts 2006/07

The Visitor Experience 2007, (2007), VisitScotland

Survey of Visitors Coming to Scotland on the Rosyth Ferry Link, (2003), George Street Research

Scottish Tourism Current Position Summary 2007, (2008), VisitScotland

Scottish Visitor Attractions Monitor 2007, (2008), VisitScotland

Bespoke extraction of data from the Annual Business Inquiry

Annex Five: Glossary

Glossary of Technical Terms

Direct Effect – refers to direct employment, expenditure, and output by organisations within the 'inner wheel' of the HE sector, built heritage repair and maintenance output, and expenditure by tourists who have been attracted to Scotland primarily because of its historic environment. Direct effects are sometimes termed 1st round effects.

Externalities - 'externalities' result when a particular activity produces benefits (positive externalities) or costs (negative externalities) for other activities that are not directly priced into the market. The historic environment generates a number of important social benefits, including its contribution to the attractiveness of an area.

GVA (Gross Value Added) - represents a measure of the total economic activity in a region. It is equal to output excluding the intermediate inputs, and represents value added (compensation and profits). Note: $GVA + \text{taxes on products} - \text{subsidies on products} = \text{GDP}$.

Indirect Effect – refers to purchases of inputs made by firms that are supplying goods and services to the 'inner wheel' of the historic environment sector, the built heritage construction sector and organisations associated with tourism, including hotels and restaurants. Indirect effects are sometimes referred to as 2nd round effects.

Induced Effect – refers to benefits to the Scottish economy as a result of increased income and spending by people who work in the 'inner wheel' of the historic environment sector, the built heritage construction sector and tourism sector and in those businesses that supply goods and services to these sectors. Induced effects are sometimes referred to as 3rd round effects.

Input – Output - the Scottish Input-Output (I-O) framework breaks the economy down to display transactions of all goods and services between industries and final consumers in Scotland for one year. Input-Output tables are used by economists for modelling and analyses.

Multipliers - a multiplier measures the further economic activity or 'knock on' effects, (whether output or jobs), across the wider economy resulting from the creation of additional economic activity.

Output - the amount of production, including all intermediate goods purchased as well as value added. Output can also be thought of as sales or supply.

SIC (Standard Industrial Classification) - the United Kingdom Standard Industrial Classification of Economic Activities (SIC) is used to classify business establishments and other standard units by the type of economic activity in which they are engaged. It represents a uniform way of classifying industrial activities into a common structure.

SOC (Standard Occupational Classification) - SOC is the standard UK classification of jobs in terms of their skill content and skill level, used for the production of occupationally classified information and the processing of occupational data.