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The Economic Impact of the Communities and Nature Environment for Growth (E4G) Strategic Project

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The Economic Impact of the Communities and Nature
Environment for Growth (E4G) Strategic Project

Report for:

NRW

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REPORT ON THE ECONOMIC IMPACT OF THE COMMUNITIES AND NATURE ENVIRONMENT FOR GROWTH (E4G) STRATEGIC PROJECT

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LIST OF ACRONYMS

B&B	Bed and Breakfast (accommodation)
BNPT	Bridgend and Neath Port Talbot
BTCV	British Trust of Conservation Volunteers
CAN	Communities and Nature
CBC	County Borough Council
CC	County Council
CCW	Countryside Council for Wales (now NRW)
CIC	Community Interest Company
E4G	Environment for Growth
ERDF	European Regional Development Fund
EU	European Union
FTE	Full Time Equivalent (jobs)
GVA	Gross Value Added
Km	Kilometre
M&E	Monitoring and Evaluation
NRW	Natural Resources Wales
NWWT	North Wales Wildlife Trust
RSPB	Royal Society for the Protection of Birds
TDGVA	Total Direct Gross Value Added
TIM	Tourism Impact Model
TSA	Tourism Satellite Account
WEFO	Welsh European Funding Office
WERU	Welsh Economy Research Unit (Cardiff University)

EXECUTIVE SUMMARY

- The overarching purpose of the E4G monitoring and evaluation work is to better understand the economic effects levered both by improvements to E4G sites, and by visitation to E4G sponsored events. This report estimates the economic impact of the E4G Communities and Nature (CAN) strategic project from November 2009 to August 2014.
- Adding together the economic impacts directly attributable to visitor spending with initiative **sites** it is estimated that in total they could be connected with impacts of £5,887,500 of gross value added (GVA) per year and with this supporting employment of 316 full-time equivalents (FTEs).
 - Surveyed sites: GVA £4,434,400 per year; 239 FTEs
 - Non-surveyed sites estimate: GVA £1,453,100 per year; 77 FTEs
- Total estimated construction expenditure associated with the CAN project was £8.997m. Taking a mid-range estimate of 80% Welsh sourcing it is estimated that, once the multiplier effects of this construction spending are taken into account, that some £6.5m of value added is supported in Wales and around 150 jobs.
- The economic impacts that are attributable to the CAN programme take place largely away from the visitor sites themselves (e.g. spending occurs in shops and on accommodation etc. in local towns). The analysis therefore looked at all trip related spending whether at, or away from the visitor sites.

1. THE MONITORING AND EVALUATION OF THE ENVIRONMENT FOR GROWTH (E4G) PROGRAMME, IN RELATION TO THE COMMUNITIES AND NATURE (CAN) STRATEGIC PROJECT

1.1 INTRODUCTION

In the 2007-13 round of European Convergence Funding for West Wales and the Valleys, over 150 initiatives related to the visitor economy in Wales received funding under the “Environment for Growth” theme of the (Priority 4, theme 3) of the European Regional Development Fund (ERDF).

E4G comprises six strategic projects, managed by Welsh Government, Visit Wales, CADW and Natural Resources Wales. The six strategic E4G projects are: Coastal Tourism; Communities and Nature; Heritage Tourism; Sustainable Tourism; Valleys Regional Park; and Wales Coast Path.

The primary aim of the Communities and Nature (CAN) strategic project was to generate increased economic growth and sustainable jobs by capitalising on Wales’ environmental qualities, particularly its landscape and wildlife; this was described as ‘Aim A’ of the project. Further aims and objectives, not studied here, relate to ensuring that the benefits of initiative activities are shared with disadvantaged groups (Aim B) and providing high quality local leisure opportunities and improving the attractiveness of each spatial plan area (Aim C)¹.

Managed by Natural Resources Wales (NRW), CAN was implemented via three strands;

- Three initiatives delivered by NRW;
- A separate NRW initiative to improve access and habitat at river and still water fisheries, giving anglers more access to wild fishing (Wild Fishing Wales); and
- A suite of 25 initiatives managed by other organisations and delivering various facilities and footpaths for visitors seeking to enjoy the natural environment.

¹ See Wavehill Report (2014): Evaluation of the Communities and Nature Project (CAN): social and community objectives.

A wide range of activities have been funded including:

- Building and improving facilities at sites including exhibition centres, car-parks, toilets, shops and tea-rooms;
- Development and installation of interpretation materials;
- Building and improvement of paths;
- Provision of way markings on paths;
- Improving cycle routes and multi-use routes; and
- Marketing of sites and activities.

Table 1.1: Communities and Nature: Outputs and Results – predicted and achieved

	Initiatives to improve the environment	Gross Jobs		Number of enterprises created	Number of visits	Km of access created & improved
		Number of associated jobs	Number of new jobs			
Predicted	20	20		3	100,000	10
Achieved	67	23.64	12	6	1,927,851	461

Source: NRW

1.2 MONITORING AND EVALUATION OF THE ENVIRONMENT FOR GROWTH STRATEGIC PROJECTS

There is a requirement that projects and sites supported by ERDF funding provide evidence that the resources have been used appropriately; that projected impacts have been achieved; and that fundamental ‘good management’ practices have been followed (for example with respect to the cross cutting themes of equal opportunities and environmental sustainability). Estimating the economic impact of visitor sites, however, presents distinct challenges. Many of the important impacts of visitation will not occur ‘onsite’ or directly because of the activity, but more widely throughout the regional economy as visitors spend money on accommodation and other services away from the destination in question; meanwhile, sites themselves will have impacts away from their immediate location through their purchases of goods and labour.

Projects under E4G were subject to common monitoring and evaluation procedures with the aim of providing cost savings and a better understanding of the economic, social and environmental benefits of individual initiatives; the six strategic projects; and E4G as a whole.

As part of this monitoring and evaluation approach Cardiff University (Welsh Economy Research Unit) was contracted to provide a central management service to help evaluate economic impacts in Wales. The Cardiff team provided a set of monitoring forms to be completed by initiatives to fulfil WEFO and Assembly requirements; a monitoring and evaluation guidance pack; off-site workshop days for initiative managers and other stakeholders; a central website offering advice and useful materials; and centralised data analysis and reporting (including summary reports for individual sites). This evaluation activity was complementary to the core monitoring requirements undertaken for WEFO grant purposes.

1.3 OBJECTIVES OF THE REPORT

The overarching purpose of the E4G monitoring and evaluation work is to better understand the economic effects levered by both improvements to E4G sites, and visitation to E4G sponsored events. This report covers the estimation of the economic impact of the E4G Communities and Nature (CAN) strategic project from November 2009 to August 2014.

It presents economic impact assessments of visitation to sites that were subject to visitor surveys and, where possible, indicates the estimated economic impact at non-surveyed sites using data collected at other similar initiatives within the overall E4G project as a proxy. Furthermore, estimates of economic impact are given for the capital spending associated with the CAN project.

This report follows two interim progress reports on the wider E4G project covering the periods November 2009 to April 2010, and then in the period to March 2011. It also follows the Mid Term Report covering progress from November 2009 to February 2012. For background on the procedures and process of the E4G monitoring and evaluation work these earlier commentaries should be read in conjunction with this report.

The objectives of the monitoring and evaluation project commissioned by the E4G project partners required that Cardiff University would:

- Work with Strategic E4G Project managers to implement the E4G monitoring and evaluation framework majoring on the economic effects of levered visitation;
- Develop the E4G monitoring and evaluation framework using feedback from partners and site managers;
- Deliver workshops on monitoring and evaluation measurement techniques around the Convergence Fund area;
- Develop and assist in the application of a system to collect the appropriate monitoring and evaluation information from E4G sites/projects and/or bid partners as appropriate, including developing a process for the electronic submission of visitor survey data;
- Develop a meta-analysis of sites, in order to focus survey resources on a sample of representative sites;
- Mentor project managers at sampled sites as appropriate;
- Analyse the collated monitoring data, and report information in short reports and datasheets to project sponsors and stakeholders at site and aggregate level;
- Create and maintain a website for E4G partners to provide access to information on M&E tools, approaches and 'best practice', and include a stakeholder discussion forum.

This report concentrates on the penultimate point above, describing the monitoring and evaluation work overseen by Cardiff Business School and setting out the findings from the analysis of data received from Communities and Nature (CAN) E4G initiative sites.

The economic impact is reported in terms of output, gross value added and employment arising directly, and indirectly, through the spending in Wales of visitors to initiatives covered by CAN. In order to estimate the impact of visitor direct spending and capital spending the Welsh Economy Research Unit's Welsh Input-Output Tables were used.

Input Output tables provide a detailed financial account of trading between different parts of the economy during one year. This includes trade between industries within the economy, external trade through imports and exports, as well as consumer and government

spending. The Input Output framework then enables the effect of any spending or activity to be traced through the various supply chains, ultimately estimating indirect and induced-income effects.

1.4 STRUCTURE OF REPORT

Section 2 outlines the methodology used in estimating the economic impacts of E4G sites and events. Section 3 aggregates the visitor survey information and presents the estimates of economic impact associated with visitor spending at surveyed and non-surveyed initiatives. Section 4 considers the capital spending effects of the overall CAN project. An appendix to this report highlights the main findings for each survey carried out at CAN initiatives as part of E4G monitoring and evaluation work, where economic impacts could be estimated.

2. METHOD

2.1 SOURCES OF ECONOMIC IMPACT

When estimating the economic impact of visitor sites and events it is important to be aware that much of the economic impact may arise away from the destination (e.g. a relatively high proportion of visitor spending takes place in shops and hotels in nearby towns, not at the destination itself). Furthermore, sites themselves will have impacts off site through their purchases of goods and labour.

As E4G visitors spend their money in the wider Convergence region away from E4G sites many E4G-related jobs will be created 'indirectly'. In order to understand whether the substantial regional match-funding allocated under this EU priority is justified, these impacts must be evaluated, requiring an overall understanding of visitors' characteristics and behaviour. Visitor surveys requested at a sample of sites and events by the research team had the aim of supplying this understanding as their goal. With relatively high numbers of returns it is possible to come to conclusions on the types of initiatives expected to have the greatest visitor economy effects.

Visitor surveys were not undertaken at every site and event. For small or unmanned sites, undertaking visitor surveys in order to reveal visitor characteristics or behaviour is impractical. For example, for very small sites, the effort involved in interviewing a sufficient sample of visitors to provide statistically robust estimates of expenditure would be wholly disproportionate to the usefulness of the data collected. It is possible though, and in some cases necessary, to assume that impact per visitor is comparable between similar sites or visitors within an area. Here we measure visitor volumes, and then assume characteristics and behaviour are in line with those reported at other similar or proximate initiatives. To assist with this, a typology of sites was produced, categorising locations by a number of activities.

The E4G framework required that inference be drawn from visitor survey information at a sample of sites to the whole population, whether by strategic project or for the whole E4G project. To make this process work it was critical that the Cardiff University team have visitor numbers associated with E4G sites and events that were not covered by surveys. The aspiration at the start of the E4G monitoring and evaluation process was for the six strategic projects to gain around 1,000 completed questionnaires in each of two separate calendar years (the target for the Wales Coast Path project was half this).

As well as impacts in terms of leveraging tourism spending it is important to recognise that the Environment for Growth programme has also involved considerable amounts of capital spending, in large measure on construction type activity. All project activity has taken place within the Convergence Area of Wales, thus employment and incomes supported in construction could have important local effects. The following analysis relates the effects of levered visitation to the capital expended in making site improvements or in developing events.

2.2 DIRECT AND INDIRECT ECONOMIC IMPACTS

The assessment of the economic impacts of spending by visitors to E4G sites and events in Wales needs to take place at two discrete levels. There is a need to first estimate the direct economic impact of this expenditure in the region, as visitors purchase food and drink, pay for parking and meet accommodation costs etc.

However, the estimate of direct effects only provides a partial estimate of impact. There is also a need to consider how the visitor spending supports economic activity in Wales indirectly. Expenditure by visitors requires outputs from other Welsh industries, so that as, for example, visitors stay in local B&B's/Guesthouses, purchases are made by the accommodation providers from local farms or wholesalers to provide breakfasts. This regional sourcing then in turn leads to further regional spending by the local farms, and so on. The extent of these supplier effects then depends on the level of Welsh sourcing for the particular sector and on levels of regional sourcing by its suppliers. Additionally, visitor spending adds to local incomes, a large part of which will likely be spent in the region, further adding to local incomes. These induced-income effects can be added to supplier effects to form the total indirect consequences of the direct local economic activities.

2.3 ECONOMIC IMPACT MEASUREMENT INDICATORS

Economic impacts, levered by visitors to E4G sites and events, can be expressed in terms of spending, incomes and jobs, or in economic terms- Output, Gross Value Added and Employment (see Table 2.1).

Table 2.1: Economic Impact Indicators

<i>Economic Measure</i>	<i>Description</i>
Output	<i>The value of the goods and services produced in the local economy as a result of the increase in visitor expenditure due to the E4G initiatives</i>
Gross Value Added (GVA)	<i>Locally earned incomes and profits, and part of taxes on economic activity</i>
Employment	<i>The number of Full-Time Equivalent (FTE) jobs supported by spending associated with the E4G initiatives</i>

To estimate the indirect economic impacts it is necessary to have a model of the Welsh economy which shows how different types of consumption spending create supplier and induced-income effects across different sectors of the Welsh economy. The Input-Output tables for Wales provide such a framework.

It is important to note that the employment figures mentioned in this report are not the same as the WEFO defined “*additional jobs*” used in measuring project outputs. Employment as defined in this report includes both the direct and indirect activity supported by project spending (both visitor expenditure and capital spend).

2.4 INPUT OUTPUT TABLES

The most recent Input Output Tables for Wales were produced by the Welsh Economy Research Unit with support from the Environment Agency Wales (July 2010). For more details please visit: <http://business.cardiff.ac.uk/welsh-economy-research-unit>

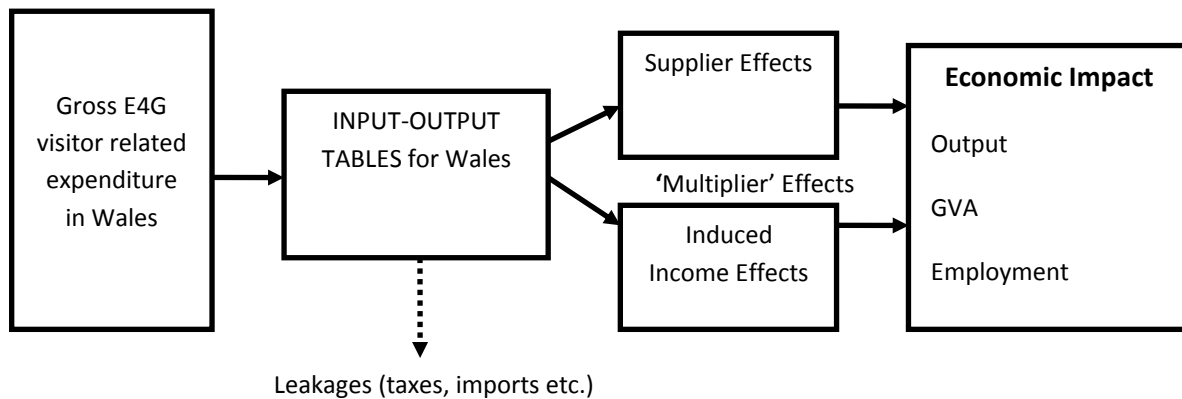
In addition to the Input-Output tables the analysis also used the Tourism Satellite Account (TSA) for Wales 2010 (produced by Cardiff University for Visit Wales in 2013). Using this tool, further analysis was possible on aspects of tourism’s economic significance. The TSA provided a wealth of information on tourism’s direct economic importance to Wales, including an employment module detailing how tourism directly supports Welsh employment. The TSA allows the estimation of Tourism Direct Gross Value Added (TDGVA). This variable shows how much of the gross value added (GVA) created in Wales is as a result of tourists’ spending before, during or after trips to Wales.

Cardiff University has undertaken additional work to develop a modelling structure from the Welsh TSA linking to the Input-Output framework described above. This is known as the Tourism Impact Model for Wales (TIM) and it is from this model that the impact figures are derived.

2.5 SUMMARY OF APPROACH

Figure 2.1 provides a summary of the economic impact estimation approach. Here, the direct spending of visitors to E4G initiatives is used within the framework of the Input-Output tables for Wales and the Tourism Impact Model for Wales to estimate indirect supplier and induced income effects.

Figure 2.1 Estimation of Net Economic Impact in Wales



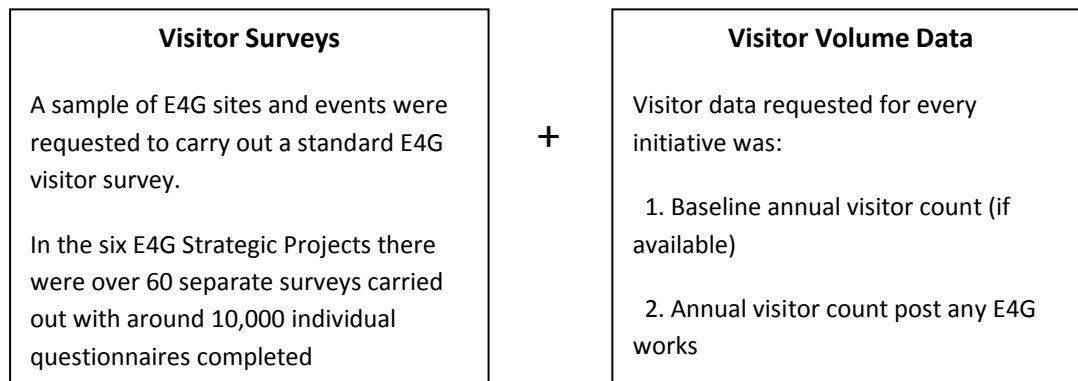
2.6 DATA SOURCES

Visitor volume estimates were combined with data from visitor surveys and modelling of the indirect impacts of visitor spending to provide a gauge of individual initiatives' overall economic impact.

Estimates of visit numbers to E4G sites and events were supplied by those running the various initiatives (such as Local Authorities, National Parks and environmental charities). These were collected through a variety of means including automatic people counters; ticket sales; and manual survey counts.

The visitor surveys, which were also carried out by selected initiatives, provided data on expenditures, type of visit (day-trip or overnight), and accommodation used.

Figure 2.2 Data Sources to Inform Direct Economic Effects of Visitation to E4G Initiatives



The evaluation was set up to meet WEFO requirements, where outputs are number of visitors and numbers of jobs, with no requirement to count *additional* visits. The research team did ask initiatives to supply 'baseline' visitor number data from the pre-project period as useful extra information (particularly to help inform discussion on project additionality), but data returns here were sparse.

The evaluation of the E4G investment intended to provide information that was both regionally and locally relevant. Where E4G sites or events did not carry out visitor surveys, but visitor numbers were able to be supplied, estimates of the economic impact were made, where possible, by using proxy data on spending from similar E4G locations. Each supported initiative or event was classified into one or more specific (lower level) typology designations. In each case up to three designations were applied (Table 2.2). For example, information on the characteristics of visitors to industrial heritage sites gleaned from E4G surveys can be applied to sites with no relevant survey information (but with relevant volume counts) to provide indicative information on economic and environmental impact – albeit with the proviso that there is an expectation that visitor characteristics are determined by the type of site they visit.

Table 2.2: Typology of E4G Initiatives

High level designation	Lower level designations
1. Route, link or connection	1.1. Cycle route
	1.2 Walking trail
	1.3 Bridleway
	1.4 Other route or link
2. Museum, gallery or heritage centre	2.1 Museum of industrial heritage
	2.2 Museum of history/culture
	2.3 Local/Community museum
3. Industrial heritage sites/activity	3.1 House and/or gardens
	3.2 Coal
	3.3 Metal industries
	3.4 Maritime
	3.5 Other industrial heritage
4. Non-industrial Heritage site/activity	4.1 Medieval
	4.2 Roman & prehistoric
	4.3 Defence of the Realm
	4.4 Linguistic Heritage
	4.5 Rural heritage
	4.6 Other non-industrial heritage
5. Natural Heritage Sites & reserves	5.1 Country Park/visitor centre
	5.2 Woodland or forest
	5.3 Hill, mountains or moorland
	5.4 Wetland
	5.5 River, canal or stream
	5.6 Beach
	5.7 Other coastal site
	5.8 Designated natural reserve
6. Activity Tourism	6.1 Family activities
	6.2 Cycling
	6.3 Walking
	6.4 Riding
	6.5 Extreme sports
7. Events	7.1 Popular culture events
	7.2 Heritage events
	7.3 Community events
	7.4 Nature & countryside events
	7.5 Other event
8. Non-spatial project	8.1 Interpretation and presentation
	8.2 Guiding
	8.3 Informal Training, coaching & skills development
	8.4 Dissemination & reporting

2.7 ESTIMATING REGIONAL IMPACTS

Over the evaluation period, some 10,000 visitor questionnaires have been collected for the E4G project as a whole, including both characteristics and expenditure details. The potential improvement to understanding the regional impact of the E4G sites (and indeed tourism as a whole) is significant. We cannot, however, simply aggregate all the expenditure of E4G visitors on trips to Wales and use this to estimate economic (or indeed environmental) impact. Key issues here are double counting and additionality. An individual survey respondent to an E4G survey may only in part be motivated to visit the region because of that specific attraction – or indeed may visit more than one attraction during the same regional trip. Counting whole-trip impact would thus overestimate the impact of E4G sites and attractions. In order to avoid this, the evaluation process allocates a single day's impact (including one night's accommodation for staying visitors) to an E4G visit. This softens the assumption on the motivation of the trip, now assuming only that the visit to the E4G site is the main motivator for that day's activities. Information gathered on the length of time spent at the site, and on multi-destination trips, was used to test the reasonableness of this assumption.

Displacement also serves to lower the net additional impact of the EU supported activity. For tourism in this regional context, displacement largely refers to how far E4G visitors have been attracted away from other Welsh attractions – and if this is the case, it offers little additional economic impact. It is difficult to adjust the questionnaire returns to account for this element; it is thus accepted that there will be some displacement from other Welsh sites.

A similar issue arises with respect to the 'additionality' of EU funding – i.e. the extent to which projects might have gone ahead without the EU funding intervention; such an assessment is outside the scope of this research project. We are thus still some way from a true assessment of the *net* additional benefit of EU intervention, but a number of these issues are more properly addressed after the end of the project term.

3. COMMUNITIES AND NATURE ECONOMIC IMPACT OF VISITOR SPENDING

3.1 INTRODUCTION

This section reports the estimated economic impact of spending arising from visitation to individual CAN sites surveyed during the E4G programme. Then economic impact estimates are provided for initiatives that were not surveyed but for which annual visitor numbers were submitted to the Cardiff research team. Here proxy data on spending from similar E4G initiatives was incorporated.

3.2 SCOPE OF CAN E4G INITIATIVES

At the start of the monitoring and evaluation process for E4G, the WERU research team designed the “e-flyer” as a means of gathering basic information from initiatives. This provided an insight into the breadth of activity being undertaken, the time-scales associated with projects and their spending (with subdivisions for matched funding and ERDF elements) and details of the expected outputs from the projects.

The overarching project data also provided the evaluators with information used to develop typologies of initiatives, and to inform the numbers of initiatives which required more detailed surveys on top of simple volume counts. Table 3.1 lists the 29 initiatives that returned e-flyers for the CAN E4G strategic project.

Table 3.1 List of CAN Initiatives (e-flyers received)

Partner Organisation	Initiative Title
TIR COED	<i>Branching Out /Egin</i>
PEMBROKESHIRE CC	<i>Westfield Pill Access Route</i>
NORTH WALES WILDLIFE TRUST	<i>Natur I Bawb</i>
MONTGOMERYSHIRE WILDLIFE TRUST 1	<i>Dyfi Ospreys</i>
GROUNDWORK BNPT	<i>Lloughor Green Ways</i>
FOOTHOLD	<i>Pembrey & Burry Port canal walkway</i>
SWANSEA CC	<i>Swansea's Nature Network</i>
BTCV 1	<i>Llys Nini</i>
BTCV 2	<i>Pembrey & Carmel</i>
GREENLINKS	<i>Upton Woodland Scheme</i>
DENBIGHSHIRE DEE VALLEY	<i>Dee Valley Rivers and Railways Project</i>
BRIDGEND CBC	<i>Access Improvements- Ewenny Moors and Heronston Lane</i>
GWYNEDD CC	<i>Lon Las Ogwen</i>
PLAS GWYN Y WEDDW	<i>Menter y Winllan</i>

MONTGOMERYSHIRE WILDLIFE TRUST 2	<i>Dyfi Ospreys – Bird Observatory</i>
RSPB	<i>Conwy Connections</i>
PEMBROKESHIRE MENCAP	<i>Stackpole Gardens</i>
CONWY & DENBIGHSHIRE COUNTY COUNCIL	<i>Conwy/ Denbighshire Country Parks and Nature Reserves Improvement Programme</i>
GWYNEDD COUNTY COUNCIL	<i>Trawsfynydd Cycle Path</i>
CCW (now NRW)	<i>Ystradlyn</i>
CCW (now NRW)	<i>Cwm Idwal</i>
CCW (now NRW)	<i>Darganfod Dyfi Explore Dyfi</i>
ENVIRONMENT AGENCY WALES (now NRW)	<i>Wild Fishing Wales (one initiative with 37 schemes)</i>
KEEP WALES TIDY	<i>Green Links on Holy Island</i>
SNOWDONIA SOCIETY	<i>Ty Hyll Welsh Honey Bee Initiative</i>
SOUTH & WEST WALES WILDLIFE TRUST	<i>Wildlife, Wicker and Walks</i>
SNOWDONIA NATIONAL PARK AUTHORITY	<i>Rhyd Ddu – Beddgelert Multi User Link Path</i>
FELIN UCHAF	<i>Visitor and Community Centre</i>
FORESTRY COMMISSION (now NRW)	<i>Newborough Recreation Development</i>

For the 29 initiatives of which the research team have data for, Table 3.2 indicates the total initial level of external and leveraged investment. Table 3.2 shows that there was an estimated total spend associated with these initiatives of around £11.4m, of which £4.9m represents ERDF support, and with an average intervention rate of 43%. The average expenditure associated with a CAN E4G initiative is £394,000.

Table 3.2 Summary of Communities and Nature Initiatives from E-Flyer Returns

	Number of Initiatives	Number of E4G E-flyers (Schemes)	Total Value of Initiative Spend (£s)	Value of ERDF grant aid £s
CAN	29	67	11.4	4.9

3.3 ECONOMIC IMPACT VISITOR SURVEYS CARRIED OUT AS PART OF THE CAN E4G PROJECT

Table 3.3 shows the 14 E4G visitor surveys that were carried out by Communities and Nature initiatives. A total of 2,589 individual questionnaires were completed at 10 different sites.

Table 3.3 CAN Visitor Surveys undertaken

	<i>Number of questionnaires completed</i>	<i>Site or Event survey?</i>
Ystradlyn Cadair Idris 2011	179	Site
Cors Dyfi Ospreys 2011	530	Site
Great Orme 2011	163	Site
Stackpole Gardens 2012 ¹	103	Site
Ystradlyn 2012 ²	45	Site
Great Orme 2012	181	Site
Ystradlyn 2013	210	Site
Ty Hyll 2013	204	Site
Cwm Idwal 2013	250	Site
RSPB Conwy Connections 2013	200	Site
Newborough Forest 2013	182	Site
Upton Castle Gardens 2014 ³	32	Site
Stackpole Gardens 2014	144	Site
The Welsh Wildlife Centre Cilgerran 2014	166	Site
	2,589	

NOTE 1: No spend data was collected at Stackpole 2012 so an economic impact estimate was not possible.

NOTE 2: The site sample size for Ystradlyn 2012 was too small to attempt an economic impact assessment (collected questionnaires were held as a back-up 'booster' for later survey).

NOTE 3: The site sample size for Upton Gardens 2014 was too small to attempt an economic impact assessment.

3.4 ECONOMIC IMPACT OF CAN INITIATIVES CARRYING OUT A VISITOR SURVEY

Table 3.4 provides an overview of economic impact associated with visitation to sites. In developing the estimates in these tables it was necessary to gross up the information in the visitor surveys to the overall visitor numbers at each site over a year or season as appropriate. Clearly the accuracy of the estimates relies heavily on the representativeness of the surveys collected, with smaller numbers of surveys having to be considered more carefully. The information on tourism spending at the sites becomes an input into the framework of the Tourism Impact Planning Model for Wales developed for Visit Wales by

Cardiff University. This economic model generates an estimate of the gross value added and employment connected to the tourist visits.

The economic impact information in Table 3.4 is presented in two panels. The first panel provides an estimate of the economic impact of the total trip per visitor. So, for example the visit to a CAN site might only take up one day of a three day visit. However, we account for the economic impact associated with the whole trip. The CAN site clearly represents just part of the visit but it is important to consider the type and impact of tourism in Wales that E4G is helping to lever. The second panel provides an estimate of the economic effects associated with the visit to the CAN site itself and is classified as an on-site impact. These are the effects associated with visitor spending at the site, and those directly attributable to it (a single day's impact e.g. including one night's accommodation for staying visitors). Where visitors to E4G sites visited more than one initiative on their trip on a particular day, or were surveyed on their way to a site or event, then there is the possibility of double-counting their economic impact. However, after examining data on wider trip characteristics and the length of time spent at one E4G site, in the case of the Communities and Nature initiatives we do not believe that the magnitude of error caused is significant.

The economic impact is reported in terms of gross value added and supported employment. It is important to note that the employment estimates in the second panel do not link directly to full time equivalent employment at the respective sites. Rather the economic impact tables reveal the direct and indirect employment impacts associated with the tourism spending as a whole. For example this reflects the amount of annual full-time equivalent (FTE) employment supported per £ of different types of tourism spending in Wales for a given year.

There are a number of determinants of the scale of economic impacts at site and trip level. This reflects differences in spending patterns for day trips as opposed to staying visitation, and then precisely what tourists spend money on. In the case of on-site economic effects this is inevitably determined by the supply side around sites and events. Some CAN sites offer few opportunities to purchase goods and services often because they wish to preserve from further development the very environment that people have come to visit and enjoy. For these reasons care needs to be exercised in comparing sites on the economic impact numbers. Smaller on-site impacts may not be a bad news story.

Table 3.4 Communities and Nature –SITE Surveys Economic Impact

	Ystradlyn 2011	Cors Dyfi Ospreys 2011	Great Orme 2011	Great Orme 2012	Ystradlyn 2013	Ty Hyll 2013	Cwm Idwal 2013	Conwy Connections 2013	Newborough Forest 2013	Stackpole 2014	Cilgerran 2014	Site average
Visitor Numbers	35,000	40,000	145,183	186,448	34,000	30,000	71,700	78,000	49,300	13,954	14,815	63,491
Date	Oct'10- Sep'11	Jan'11- Dec'11	Jan'11- Dec'11	Jan'12- Dec'12	Jan'13- Dec'13	Jan'13- Dec'13	Mar'11- Feb'12	Dec'12- Nov'13	Jan'13- Dec'13	Jan'13- Dec'13	Jan'13- Dec'13	
Questionnaires completed	179	530	163	181	210	204	250	200	182	144	166	219
Number in respondents' parties	603	1,513	599	721	745	626	1,049	430	546	300	350	680
Staying away from home in Wales	65.5%	62.2%	82.6%	80.1%	74.8%	73.0%	52.2%	16.1%	43.0%	46.9%	46.9%	58.5%
Economic Impact												
<u>Total Trip</u>												
Gross Value Added	£1,876,000	£2,150,000	£8,245,000	£10,289,000	£2,475,000	£2,192,000	£2,657,000	£1,472,800	£2,053,600	£667,000	£708,300	£3,162,336
Supported employment - FTE	84.0	95.0	370.0	460.0	110.0	98.0	120.0	66.0	92.0	30.0	32.0	141.5
GVA to create each job	£22,333	£22,632	£22,284	£22,367	£22,500	£22,367	£22,142	£22,315	£22,322	£22,233	£22,134	£22,341
Trips to create job	417	421	392	405	309	306	598	1,182	536	465	463	448.6
Total trip GVA per visitor	£53.60	£53.75	£56.79	£55.18	£72.79	£73.07	£37.06	£18.88	£41.66	£47.80	£47.81	49.81
<u>Directly attributable to site</u>												
Gross Value Added	£276,000	£180,400	£2,271,000	£2,320,000	£412,600	£569,000	£393,700	£356,200	£94,400	£45,800	£62,300	£698,140
Employment FTEs	15.0	9.6	95.0	125.0	22.7	31.0	22.2	19.2	4.3	2.1	2.9	34.9
GVA to create each job	£18,400	£18,792	£23,905	£18,560	£18,176	£18,355	£17,734	£18,552	£21,953	£21,810	£21,483	£20,004
Visits to create job	2,333	4,167	1,528	1,492	1,498	968	3,230	4,063	11,465	6,645	5,109	1819
On-site GVA per visitor	£7.89	£4.51	£15.64	£12.44	£12.14	£18.97	£5.49	£4.57	£1.91	£3.28	£4.21	£11.00
GVA per visitor (total trip: on-site)	6.80	11.92	3.63	4.43	6.00	3.85	6.75	4.13	21.75	14.56	11.37	4.53
GVA to create job (total trip: on-site)	1.21	1.20	0.93	1.21	1.24	1.22	1.25	1.20	1.02	1.02	1.03	1.12

Table 3.4 summarises economic effects associated with Communities and Nature sites. For Ystradllyn Cadair Idris there were an estimated 35,000 visitors in 2010/2011. The survey base was just under 2% of the total number of visitors with 179 surveys covering 603 people. Two-thirds of those surveyed were staying away from home. The GVA associated with the trips of which Ystradllyn was a part was £1.88m (around £54 per visitor), and with this amount of tourism consumption in Wales estimated to support 84 FTE jobs. The on-site impacts are much smaller reflecting the nature of the site. The GVA attributable to on-site spending was around £0.28m and with this supporting an estimated 15 FTE jobs in Wales directly and indirectly. In the 2013 survey at Ystradllyn (post-E4G works) the on-site attributable impacts were estimated at £0.41m with this spending supporting around 23 jobs.

Unsurprisingly, Table 3.4 reveals that the Great Orme site levers larger numbers of visitors (over 186,000 in 2012), but also with a higher proportion of economic impact associated with on-site spending. In 2012 visitor consumption associated with trips of which Great Orme was a part were associated with an estimated £10.3m of GVA and 460 supported FTE jobs. On site visitor spend contributed £2.3m of GVA and 125 FTEs. Cors Dyfi Ospreys shares some of the site characteristics of Ystradllyn. Here total trip impacts were estimated at £2.15m of GVA supported and 95 FTE jobs, with on-site impacts estimated at £0.18m of GVA supported and around 10 FTE jobs.

Taken together the nine CAN sites surveyed and analysed² could be connected to tourism visits in Wales that contributed £24.7m of GVA and that supported 1,103 FTE jobs directly and indirectly. There may be the possibility of double-counting in the total trip figures as visitors to one site may have visited another CAN site. However, no data exists on the magnitude of these visits and the research team do not believe that the quantity of such visits would represent a major factor in the estimations.

The GVA attributable to on-site spending across the nine CAN initiatives per year was £4,434,400 and 239 FTE jobs supported directly and indirectly by on-site visitor consumption.

² Ystradllyn, Stackpole Gardens and Great Orme were surveyed more than once so only their latest survey was included here to avoid double-counting; the sample size for Upton Gardens 2014 was too small to attempt an economic impact assessment here (instead it is included in the estimations of Table 3.5 below, see Green Links CIC).

3.5 ECONOMIC IMPACT OF CAN SITE INITIATIVES THAT DID NOT CARRY OUT A SURVEY

Table 3.5 shows the estimated economic impacts directly attributable to visitor spending at sites where visitor surveys were not undertaken. As noted above average spend and economic impact details here were taken from similar sites that had been surveyed and an average figure applied to the non-surveyed site annual visitor number to generate economic impacts.

The estimated total visitor spending impact of CAN initiatives that did not carry out a survey was £1,453,100 of value added per year; supporting around 77 FTE jobs.

Table 3.5 Estimated Annual Economic Impact of non-surveyed CAN E4G sites

E4G Initiative	Type/Activity	Annual Visitor Number	GVA	FTE¹
Tir Coed	5.8. Designated natural reserve 8.3. Informal training, coaching & skills development	8,032	35,100	1.9
Pembrokeshire CC	1.1. Cycle route 5.8. Designated natural reserve	26,442	42,600	2.2
NWWT	5.8. Designated natural reserve 8.1. Interpretation and presentation 7.4 Nature & countryside events	28,964	196,300	10.6
Groundwork BNPT	1.2. Walking trail 8.1. Interpretation and presentation	2,170	5,300	0.2
Foothold	1.2. Walking trail 5.5. River, canal or stream 8.3. Informal training, coaching & skills development	7,063	17,300	0.8
Swansea CC	1.4. Other route or link 8.1. Interpretation and presentation	5,000	1,900	0.1
BTCV Llys Nini	5.1. Country Park/visitor centre 8.1. Interpretation and presentation 8.3. Informal training, coaching & skills development	4,742	23,800	1.3
BTCV Pembrey & Carmel	5.1. Country Park/visitor centre 8.1. Interpretation/ presentation 8.3. Informal training, coaching & skills development	22,492	112,700	6.2

Green Links CIC ²	1.2. Walking trail 5.2. Woodland or forest 8.3. Informal training, coaching & skills development	1,240	3,000	0.1
Denbighshire Dee Valley	1.2. Walking trail 1.4. Other route or link 6.3. Walking	85,811	848,200	45.3
Bridgend CBC	1.4. Other route or link 6.3. Walking	15,211	5,700	0.3
Gwynedd Council – Lon Las Ogwen	1.1. Cycle route 1.3. Bridleway 6.3. Walking	8,396	15,900	0.8
Plas Glyn y Weddw	8.1. Interpretation and presentation 5.2. Woodland or forest 1.2. Walking trail	21,893	53,500	2.5
Gwynedd CC Trawsfynydd	1.1. Cycle route 1.2. walking trail 5.3. Hill, mountains or moorland	3,200	6,100	0.3
Dyfi Biosphere	1.2. Walking trail 8.1. Interpretation and presentation 7.3 Community events	467	1,100	0.1
Wild Fishing Wales	5.5. River, canal or stream	2,378	13,500	0.7
Keep Wales Tidy	1.1. Cycle route 1.2. Walking trail 6.2. Cycling	20,122	38,200	1.9
Snowdonia National Park- Rhyd Ddu	1.2. Walking trail 5.2. Woodland or forest 5.3. Hill, mountains or moorland	5,000	12,200	0.6
Felin Uchaf	4.5. Rural heritage 5.1. Country Park/visitor centre 8.3. Informal training, coaching & skills development	4,142	20,700	1.1
		272,765	1,453,100	77.0

NOTE 1: The “FTE” figure here refers to the estimate of full-time equivalent jobs (direct and indirect combined, on-site and elsewhere) supported by the site attributable tourism consumption.

NOTE 2: Although the Greenlinks ‘Upton Woodland Scheme’ was surveyed there was insufficient data to carry out an economic impact assessment from the information collected; the economic impact of the site has therefore been estimated using proxy data from other surveys.

3.6 SUMMARY OF THE ECONOMIC IMPACT OF VISITOR SPENDING AT CAN INITIATIVES

Adding together the economic impacts directly attributable to visitor spending associated with site initiatives (surveyed and non-surveyed, outlined in sections 3.4 and 3.5 above) it is estimated that in total they could be connected with on-site impacts of £5,887,500 of GVA per year and with this supporting employment of 316 full-time equivalents (Table 3.6).

Table 3.6 Summary of On-Site Attributable Economic Impacts of CAN SITE Initiatives

	Gross Value Added (£) per year	Full-Time Equivalent Employment (FTEs)
Surveyed sites	4,434,400	239
Non-surveyed sites	1,453,100	77
	5,887,500	316

4. THE ECONOMIC IMPACT OF COMMUNITIES AND NATURE CAPITAL SPENDING

4.1 BACKGROUND

As well as impacts in terms of leveraging tourism spending it is important to recognise that the Environment for Growth programme has also involved considerable amounts of capital spending on construction type activity. As has been noted above, all project activity has taken place within the Convergence Area of Wales, thus employment and incomes supported in construction could have important local effects.

Table 4.1 gives an estimate of the employment associated with the capital spending of the CAN E4G project from inception to completion. The estimates are reported as a range based on different regional sourcing assumptions. There is no attempt to differentiate different types of construction activity i.e. the spending is assumed to be connected to an average construction type activity in Wales. The framework of the Welsh Input-Output tables was used to estimate the indirect effects associated with the spending.

4.2 ESTIMATED ECONOMIC IMPACT

Table 4.1 reveals that the total estimated construction spend associated with the CAN E4G project was an estimated £9.0m. Taking the mid-range estimate of 80% local (i.e. Welsh) sourcing, we estimate that once the multiplier effects of this construction spending are taken into account that some £6.5m of value added is supported in Wales and around 150 jobs³. Put another way, if the construction activity bridged a period of three years, the E4G spending would have supported around 50 construction jobs and jobs in the construction supply chain over this three year period, and around £2.17m of value added per annum. However, the table also reveals that if local sourcing of the construction industry inputs averaged just 60% then a total of around £4.9m of value would have been supported and around 110 person years of employment. Care should be taken in interpreting these figures as they are not necessarily new jobs, but may be supporting already existing employment.

³ This is 12 months of employment

Table 4.1 Estimated Value Added and Employment Supported by CAN E4G Capital Spending to project completion

Project and Local sourcing assumption	Value Added (£m)	Approx Employment (FTE person years)*
100%	8.2	185
80%	6.5	150
60%	4.9	110

NOTE 1: Communities and Nature whole project capital spend to completion estimated at £8.997m.

NOTE 2: The employment estimate numbers have been rounded to the nearest 5.

5. CONCLUSION

The Monitoring and Evaluation project commissioned by the E4G programme partners in Wales required that Cardiff University estimate the economic impacts of visitor and capital spending at initiative sites. This report reveals that the economic effects associated with the activity of the CAN strategic project are considerable.

The main aim of the CAN strategic project was to generate economic growth and sustainable jobs by capitalising on Wales' environmental qualities particularly its landscape and wildlife. Data supplied by NRW (Table 1.1) shows that progress on overall project targets has been commendable with all targets exceeded, in some cases considerably – levered visitation has been very strong, as has managed access in terms of Kilometres developed.

Combining the economic impacts directly attributable to visitor spending with CAN initiative sites it is estimated that in total they could be connected with impacts of £5,887,500 of gross value added (GVA) per year and with this supporting employment of 316 full-time equivalents.

Furthermore, estimates for the economic impact of capital spending at CAN initiative sites were produced. Total estimated construction expenditure associated with the CAN project was £8.997m. Taking a mid-range estimate of 80% Welsh sourcing it is estimated that, once the multiplier effects of this construction spending are taken into account, that some £6.5m of value added is supported in Wales and around 150 jobs. Moreover, we would argue that on the basis of prior projects evaluated by the Cardiff University team involving environmental assets, the nature of construction contracts issued commonly supports local firms and jobs as opposed to situations where contracts are awarded outside of the regional and West Wales and the Valleys economy.

More generally the analysis adds to the evidence base on the economic services derived from Welsh wildlife and visitor attractions, and from Welsh ecosystems. The developing work on Natural Resource Management in Wales aims to ensure the optimization of the opportunities that Wales' natural resources provide, and is seeking to emphasise the connections between the social, economic and environmental dimensions of ecosystems and the services they impart. Visitation associated with CAN initiatives is one component of this economic dimension. While it is very difficult to associate monetary values to biodiversity and landscape, it has been possible here to assign monetary value to one set of tourist sites closely linked to the quality of regional environmental assets.