An introduction to the benefits of a well-developed monitoring process

Cycling Without Borders Conference

19th September 2014
Sustrans Research and Monitoring Unit

Team of 30 - data collection experts
Monitor, evaluate and report on projects in community, universities, workplaces, schools, stations
Research and analysis for projects. Responsible for economic models in UK e.g. Tourism Model, WebTAG, HEAT, Carbon Model
Manage cycle counters and surveys on the National Cycle Network
Range of projects in London, Wales, Northern Ireland, and Scotland.
Monitor, evaluate and report on Government funded projects such as Cycle Safety Fund
EXAMPLE - Hands Up Scotland:

Established in it is the largest national survey to look at travel to school

RMU are responsible for overall collation, analysis and reporting

Parliamentary Order passed designating Sustrans as Official Statistics Providers on 1st June 2012.

The Hands Up Scotland 2014 survey was between 8th and 12th September 2014 € with results due to be published in May 2015.
National Cycle Network monitoring

1995

2015
**Fit for life**

Physical inactivity is a growing problem. As a recently published report from the All-Party Commission on Physical Activity confirms "in all human History, we have never been so inactive...we have simply stopped moving."

As an ever growing number of health analysts are warning us, cycling is the new smoking. It is bad for your health and well being. For our children it could mean a shorter life expectancy than their parents.

Being able to get about by foot and bike changes all this. Users of the Network are physically active, and the benefits to their health, calculated using the World Health Organization's ILLA tool, is £277 million for cyclists and £526 million for pedestrians.

Around 9 in 10 users over 65 enjoy the Network.

Children made over 110 million active, healthy trips on the Network, 16% of the total, with 77 million of these to and from school, 10 million more than last year.

A third (33%) of users of the Network are over 65, and usage has increased by people over 65. The rate of growth in the number of pedestrian trips made by users over 65 (3%) was greater than the rate of growth in the overall number of pedestrian trips across the Network (1%).

80% of over 65s say they use the Network to get exercise, and around 9 in 10 get enjoyment from using it, an important part of mental well-being.

Over half of users over 65 walking say they get 2.5 hours of exercise a week minimum, or more of exercise a week, which is a long term benefit, but the less active are also benefiting, nearly 9 in 10 of over 65s are achieving at least 75 minutes of exercise a week.

The majority of cyclists over 65 are women, but 16% are women, and 71% of trips in this age group are made by those who are returning to cycling. 90% of people who were cycling had never cycled before age 10, and nearly all cycle. In this age group, 97% say they enjoy their levels of physical activity, with only 71% saying they increase their levels of physical activity.

**Health benefits**

- **£526 million**
- **£277 million**

Three quarters of users say that the Network increases their regular physical activity, and nearly half of users are achieving their recommended levels of physical activity.

Users say that the Network has increased their levels of physical activity.

75%
NCN Providing walking and cycling routes

14,500 miles of network across the UK

- 7% increase in 50 million more journeys made by foot and bike in 2013
- Over £1 billion in health benefits, potential savings in fuel and carbon
- 75% of users say that the Network has increased their levels of physical activity

*measured using the HEAT tool
Improving health

Reducing physical inactivity by just 1% a year over a five-year period would save the UK economy just under £1.2bn
Tackling obesity

Obesity related illnesses cost the NHS
• 4.2 billion in 2007
Improving safety

Vulnerable road user casualties have increased each year since 1996
Tackling climate change

In 2013:
67% of all journeys were less than 5 miles
64% of all trips were made by car
Engaging with children and young people

- Working with over 500,000 young people
- 1.1 million journeys to school by bike or scooter in just two weeks.
- Encouraging children to investigate their local area and campaign for change

27% of children regularly cycling to school where there is a Sustrans officer working.
Improving streets

Engage local people in a process to re-design their streets, neighbourhoods and urban spaces
Economic benefits

- 12.7 jobs from every £1 million investment
- £30 million every year generated by long distance cycle routes
- £11 billion annual cost of urban congestion in England
- 131 million days lost to sickness or injury in 2011
- +20% to 40% increase in shop footfall in walkable street locations

Sustrans  JOIN THE MOVEMENT
Transforming local and lasting legacy

The benefits of enabling people to walk and cycle for everyday journeys

- 42% increase in trips by foot
- 1.6 million short car trips saved in a year
- £781 million is the cumulative benefit over 30 years

- 53% increase in trips by bike
- 6.3:1 is the benefit to cost ratio (using the Department for Transport's appraisal framework)
- 4.4 million people live close to a scheme

sustrans
JOIN THE MOVEMENT
How investment in walking and cycling leads to healthier, happier communities

Floors, rivers and railways create barriers which prevent people from making everyday journeys by foot or bike and cut communities off from each other.

We overcome these barriers by building bridges and crossings, giving people safe and convenient access to workplaces, schools and shops as well as each other. For our 84 schemes finished in 2013, there was an average of 20 schools, 50,000 households and 50,000 people within a mile of each.

More convenient and safe walking and cycling routes lead to more people walking and cycling. It leads to less congestion.

People enjoy better health, and a better environment and economy due to less car use and more people walking and cycling for their everyday journeys. Local businesses prosper.

This leads to more integrated, sustainable communities. The new networks, for example, are reducing our journey by enabling people to leave their cars behind, generating over £6 million of benefits through reduced congestion over 30 years.

We acknowledge this work and must re-influence and secure more funding. This leads to more investment in better walking and cycling routes, and means we can reduce more obstructions, and overcome even more barriers.

The cumulative benefit is £981 million over 30 years, plus an additional £285 million from children using the routes. This is almost £1 billion combined.

1.6 million

The new routes will deliver at least £215 million of health benefits over 30 years.

This is an estimated saving of 1,242 tonnes of carbon.

1.0 million short car trips were saved in one year.

A virtuous circle

6.3:1 is the benefit to cost ratio of our 84 new schemes.

£515 million

* Using the Department for Transport’s appraisal framework
Cycle Tourism and Leisure Spend Model
The Model helps us estimate €

- How much do tourists spend?
- How much do day visitors spend?
- Where do they spend?
- How can a local economy benefit from cycling tourism?
Cycle Tourism and Leisure Spend Model

Developed by Sustrans and University of Central Lancashire

Enables us to estimate economic impact of leisure routes

Model uses information on the number of tourist groups using a cycle route and the characteristics of the group

Inputs required are € average trip duration; average group size; percentage of tourist users; percentage of leisure users; total annual usage.

This information comes from route user intercept surveys or similar sources

Model allows us to estimate total amount spent by home-based users and by tourist users, average spend per head, and spend in different sectors (accommodation, food and drink etc).

The revenue is converted into an equivalent number of full time jobs we can expect to be supported by that level of expenditure.
## What do you need to know?

<table>
<thead>
<tr>
<th>Input</th>
<th>Description</th>
<th>Possible Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Region</td>
<td>The region in which the route is located</td>
<td>Route information</td>
</tr>
<tr>
<td>Annual Usage</td>
<td>The estimated number of cycling trips on the route per year</td>
<td>Manual count/Automatic Cycle Counters</td>
</tr>
<tr>
<td>Percentage of recreational users</td>
<td>The percentage of cyclists using the route that using the route for recreational purposes.</td>
<td>Tourism specific route user survey/ Travel diaries</td>
</tr>
<tr>
<td>Percentage of Tourist Users</td>
<td>The percentage of cyclists using the route that are staying away from home overnight</td>
<td>Tourism specific route user survey / Travel diaries</td>
</tr>
<tr>
<td>Average Trip Duration</td>
<td>The length of cyclists current trip</td>
<td>Standard route user survey/ Travel diaries</td>
</tr>
<tr>
<td>Average Group Size</td>
<td>The average size of groups cyclists are travelling in (included solo cyclists)</td>
<td>Standard route user survey/ Travel diaries</td>
</tr>
<tr>
<td>Trip type</td>
<td>The type of trip people are completing – short circular, short out and back, day, touring.</td>
<td>Tourism specific route user survey / Travel diaries</td>
</tr>
</tbody>
</table>

**sustrans**

JOIN THE MOVEMENT
Survey: 146,197 trips

Survey: 268,115 trips

Overall Usage

<table>
<thead>
<tr>
<th></th>
<th>Pre</th>
<th>Post</th>
<th>Growth %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cycling</td>
<td>37,406</td>
<td>42,955</td>
<td>15%</td>
</tr>
<tr>
<td>Walking</td>
<td>227,688</td>
<td>281,181</td>
<td>23%</td>
</tr>
<tr>
<td>All</td>
<td>265,094</td>
<td>324,136</td>
<td>22%</td>
</tr>
</tbody>
</table>

DRAFT DATA
Estimating whole scheme usage

Segments of route with no monitoring are estimated using 'users per km' from representative monitoring location.

From location A
AUE: 60,000

AUE: 100,000
A

1/2 trip length

From location B
AUE: 40,000

AUE: 60,000
B

1/2 trip length

WSUE: 260,000

Key:
- Red: Automatic counter
- Yellow: Route User
- Orange: Intercept Survey

*For illustrative purposes only, this does not represent a particular scheme.
Analysing the survey data: an example
Tourism Model Patterns

Observations show tourists spend more

Observed relationship between average spend per head and % of tourist users

<table>
<thead>
<tr>
<th>Location</th>
<th>% Tourist Users</th>
<th>Average Spend (£)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aberafan, Celtic Trail</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Loughshore Trail, ferry Bridge</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Ecos Trail, Ballymena</td>
<td>14.2</td>
<td>51.5</td>
</tr>
<tr>
<td>Boat of Garten</td>
<td></td>
<td>63.1</td>
</tr>
<tr>
<td>Aviemore</td>
<td></td>
<td>82.1</td>
</tr>
<tr>
<td>Newtonmore to Kingussie, Loch and Glens</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Tourism Case Studies
Headline findings: Way of the Roses

Way of the Roses (2012)

- 130,000 leisure cycle trips
- 8,000 end-to-end users
- 3 million to local economy
- 60 FTE jobs
Headline findings

North East routes

<table>
<thead>
<tr>
<th>Route</th>
<th>Year</th>
<th>Distance (km)</th>
<th>Cycle trips (of which end to end)</th>
<th>Total yearly expenditure</th>
<th>Jobs supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>C2C</td>
<td>2006</td>
<td>287</td>
<td>241,051</td>
<td>£10,700,000</td>
<td>173</td>
</tr>
<tr>
<td>Coast and castles</td>
<td>2006</td>
<td>151</td>
<td>68,000</td>
<td>£3,300,000</td>
<td>53</td>
</tr>
<tr>
<td>Hadrian’s Cycleway</td>
<td>2006</td>
<td>234</td>
<td>160,242</td>
<td>£6,500,000</td>
<td>105</td>
</tr>
<tr>
<td>Pennine Cycleway</td>
<td>2006</td>
<td>184</td>
<td>39,182</td>
<td>£1,800,000</td>
<td>28</td>
</tr>
</tbody>
</table>

North East Cycle tourism

302,000 cycle trips

£9.6 million to NE economy
### Headline findings - South Wales routes

- **Celtic and Taff Trails**
  - £75 million to South Wales economy
  - 1,399 FTE jobs

<table>
<thead>
<tr>
<th>Route</th>
<th>Year</th>
<th>Distance (km)</th>
<th>Cycle trips</th>
<th>Total yearly expenditure</th>
<th>Jobs supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>Celtic Trail</td>
<td>2008</td>
<td>734</td>
<td>1,500,000</td>
<td>£54,000,000</td>
<td>1,002</td>
</tr>
<tr>
<td>Taff Trail</td>
<td>2008</td>
<td>97</td>
<td>628,000</td>
<td>£21,000,000</td>
<td>367</td>
</tr>
</tbody>
</table>
### Headline findings - Scotland

<table>
<thead>
<tr>
<th>Site</th>
<th>Spend per head</th>
<th>Spend per year</th>
<th>Total spend per year</th>
<th>FTE roles</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Home based</td>
<td>Tourist</td>
<td>Home based</td>
<td>Tourist</td>
</tr>
<tr>
<td>Callander-Kilmahog, Stirling</td>
<td>13.28</td>
<td>22.81</td>
<td>195,225</td>
<td>107,535</td>
</tr>
<tr>
<td>Bo’ness-Blackness, West Lothian</td>
<td>11.69</td>
<td>0.00</td>
<td>12,178</td>
<td>0</td>
</tr>
<tr>
<td>Laggan Locks, Highlands</td>
<td>13.72</td>
<td>25.31</td>
<td>4,661</td>
<td>68,863</td>
</tr>
<tr>
<td>Linlithgow, West Lothian</td>
<td>11.04</td>
<td>23.01</td>
<td>223,707</td>
<td>37,221</td>
</tr>
<tr>
<td>Deeside Way, Aberdeen</td>
<td>10.37</td>
<td>26.42</td>
<td>163,772</td>
<td>113,929</td>
</tr>
<tr>
<td>Peebles to Innerliethen, Borders</td>
<td>12.13</td>
<td>22.46</td>
<td>391,572</td>
<td>178,790</td>
</tr>
<tr>
<td>Benderloch</td>
<td>15.97</td>
<td>21.43</td>
<td>84,222</td>
<td>143,175</td>
</tr>
<tr>
<td>Dores</td>
<td>12.31</td>
<td>24.62</td>
<td>16,596</td>
<td>33,069</td>
</tr>
<tr>
<td>Loch Creran</td>
<td>13.56</td>
<td>20.50</td>
<td>22,381</td>
<td>55,928</td>
</tr>
</tbody>
</table>
Executive Summary

BACKGROUND, SCOPE, METHODS
This report demonstrates the potential for expansion of the sector through a comprehensive evidence-based analysis of the strategic direction for cycle tourism. The study identified four major areas of expansion: £22 million and £230 million in the table below.

FINDINGS
The study identified four major areas of expansion: £22 million and £230 million in the table below.

Key Recommendations
The report sets out key recommendations aligned with the ‘Priorities for Action’ identified in the Scottish Tourism Alliance 2012 strategy, Tourism Scotland 2020.

STRENGTHENING LEADERSHIP AND COLLABORATION
1. Strengthen leadership and coordination across the sector
2. Deliver better collaboration between local/regional stakeholders

KNOWING OUR MARKETS
3. Establish more comprehensive monitoring arrangements
4. Focus promotional activities on key market segments
5. Brand Scotland as a top destination for cycle touring
6. Develop key themed areas for leisure cycle tourism

MANAGING THE CUSTOMER JOURNEY
7. Continue the development and marketing of cycle routes
8. Enhance information provision and technology integration

BUILDING SUSTAINABLE TOURISM
9. Continue to support cycle events, and extend this support to smaller events
10. Create a development strategy for the growth of cycle tourism
Advantages of having data of this sort

- Influence Government policy (e.g. Scotland)
- Strengthen link between cycling and economic growth
- Increase investment in cycling
- Increase investment in leisure and tourism by helping decision makers understand the value of local tourism economy
- Support additional policy work e.g. transport poverty, effectiveness of new routes