GROSS VALUE ADDED OF ENGLAND'S NATIONAL PARKS – UPDATE

Introduction

The Gross Value Added (GVA) of England's National Parks was calculated as part of the report 'Valuing England's National Parks' produced by Cumulus Consultants for National Parks England (NPE) in May 2013. The GVA figures provided were based on estimates for 2012.

This project aims to update the GVA figures for England's National Parks using latest data from the Office for National Statistics (ONS). NPE intends to use the data to produce an updated infographic.

The approach taken involved members of the original project team reviewing updated Inter-departmental Business Register (IDBR) data for the National Parks, accessing other relevant data and ratios, repeating the analysis and reporting.

The project output is set out on the following pages. This is an updated version of Section 2.10 (pages 23-26) of the 2013 report, together with commentary on the key changes since then.

Paul Silcock & Matt Rayment

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Cumulus Consultants Ltd
1 Gainsborough House, Campden Business Park
Battle Brook Drive
Chipping Campden
Gloucestershire GL55 6JX

Telephone: +44 (0)1386 277970
Email: info@cumulus-consultants.co.uk
Web: www.cumulus-consultants.co.uk

Gross Value Added for the National Parks is estimated to be in the region of £5.5 to 8.7 billion

The economic contribution of different sectors and economies is best measured in terms of gross value added (GVA). GVA represents the total value generated by all producer units in a particular sector, local area, region or country. Unfortunately, GVA data is not available for local areas, which means that there are no GVA estimates for the National Parks. However, GVA can be estimated using different assumptions about GVA per business, per worker or per £1 of output, based on relevant data at the national and county level.

The first approach is to use data from the UK National Accounts to estimate the GVA generated per £1 of output across different sectors and apply this to the estimated turnover for those sectors in the National Parks. The results are presented in Table 2-16 and suggest that the England National Parks support GVA of £5.5 billion per annum. The wholesale and retail sector supports the most GVA, accounting for 20% of the total, followed by the 'production' sector (12%), accommodation and food service sector (11%) and the health sector (9%). Agriculture, forestry and fishing activities are estimated to support 7% of all GVA supported in the national parks.

However, it is important to note that this approach may under-estimate the true level of GVA because some of the turnover in the National Parks has been suppressed and is therefore excluded from these estimates.

	Local Turnover (£m)	UK GVA per £1 of Output (£)	Local GVA (£m)	% of total GVA
Agriculture, forestry & fishing	1,041	0.38	398	7.2%
Production	1,894	0.34	645	11.7%
Construction	1,092	0.41	444	8.1%
Wholesale & retail (inc. motor trades)	2,093	0.52	1,079	19.6%
Transport & Storage (inc. postal)	261	0.52	134	2.4%
Accommodation & food services	1,127	0.52	581	10.6%
Information & communication	293	0.57	167	3.0%
Finance & insurance	44	0.47	21	0.4%
Property	241	0.77	184	3.3%
Professional, scientific & technical	722	0.58	420	7.6%
Business administration & support services	631	0.58	368	6.7%
Public administration & defence	37	0.62	23	0.4%
Education	468	0.62	292	5.3%
Health	824	0.62	514	9.3%
Arts, entertainment, recreation & other services	359	0.63	228	4.1%
Total	**11,124**		**5,498**	**100.0%**

Source: IDBR data for local turnover; GVA ratios from ONS - Input-output supply and use summary tables for 2014; release date 29 July 2016
https://www.ons.gov.uk/economy/nationalaccounts/supplyandusetables/datasets/inputoutputsupplyandusetablessummarytables
Note(s): Some of the turnover data for individual National Parks has been suppressed so that they do not reveal the identity of any individual or business. As a result of this, the overall England National Park figures will provide an underestimate of turnover and GVA.

Table 2-16: Turnover-based GVA Estimates in English National Parks by Sector, 2016

The second approach is to use data from the UK National Accounts to estimate productivity (in terms of GVA per worker) across different sectors and apply this to the estimated employment in those sectors in the National Parks. The results in Table 2-17 suggest that the England National Parks support GVA of £6.5 billion per annum. Using this approach, the accommodation and food services sector is estimated to support the largest GVA, accounting for 14% of the total. This is followed by the wholesale and retail sector (13%), 'production' sector (11%) and the education sector (10%). Agriculture, forestry and fishing activities are estimated to support 7% of all GVA supported in the National Parks, using the employment-based approach. However, as above, it is important to note that it is possible that this approach under-estimates the true level of GVA because some of the employment data in the National Parks has been excluded from these estimates.

	Local Employ- ment	UK GVA per Worker (£)	Local GVA (£m)	% of total GVA
Agriculture, forestry & fishing	16,184	27,843	451	7%
Production	11,241	65,713	739	11%
Construction	7,448	43,662	325	5%
Wholesale & retail (inc. motor trades)	19,519	44,444	868	13%
Transport & Storage (inc. postal)	2,649	50,487	134	2%
Accommodation & food services	31,374	28,755	902	14%
Information & communication	3,372	86,396	291	5%
Finance & insurance	288	105,362	30	0%
Property	3,657	64,544	236	4%
Professional, scientific & technical	8,604	64,544	555	9%
Business administration & support services	7,318	64,544	472	7%
Public administration & defence	162	45,030	7	0%
Education	21,442	30,690	658	10%
Health	16,536	28,924	478	7%
Arts, entertainment, recreation & other services	8,314	37,731	314	5%
Total	**158,108**		**6,461**	**100%**

Source: IDBR data for local employment; productivity estimates from UK National Accounts 2016 and Labour Force Survey

https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/datasets/employmentbyindustryemp13

Note(s): Some of the employment data for individual National Parks has been suppressed so that they do not reveal the identity of any individual or business. As a result of this, the overall England National Park figures will provide an underestimate of employment and GVA.

Table 2-17: Employment-based GVA Estimates in English National Parks by Sector, 2016

The final approach is to calculate estimates of productivity (i.e. GVA per employee) for the relevant county or counties covered by each National Park and apply these to the total employment estimates for each National Park. GVA data is available at the county level and these data are presented in Table 2-18 and show the relevant counties that are covered by each of the National Parks, and the corresponding GVA, employment and productivity ratios.

National Park	County coverage	Total GVA in relevant counties (£m)	Total employ- ment in relevant counties	GVA per employee in relevant counties (£)
The Broads	Norfolk & Suffolk	35,445	676	52,441
Dartmoor National Park	Devon	23,123	485	47,706
Exmoor National Park	Devon & Somerset	43,520	879	49,511
Lake District National Park	Cumbria	11,199	235	47,574
New Forest National Park	Hampshire	50,232	878	57,244
North York Moors National Park	North Yorkshire	18,630	379	49,208
Northumberland National Park	Northumberland	5,029	106	47,623
Peak District National Park	Derbyshire, Cheshire, Greater Manchester, Staffordshire & South & West Yorkshire	205,158	4,261	48,143
South Downs National Park	Hampshire, East Sussex & West Sussex	88,409	1,568	56,369
Yorkshire Dales National Park	North Yorkshire & Cumbria	29,829	614	48,581

Source: ONS - Regional GVA - Nuts 3, 2015 and Employment by Local Authority District, 2015 (accessed 14 August 2017)

Table 2-18: GVA per employee in Relevant Counties, 2015

The relevant county-level productivity ratios have been multiplied by the local level of employment in each National Park to provide an estimate of local GVA and these data are presented below in Table 2-19. These estimates suggest that the English National Park economies generated £8.7 billion of GVA in 2016. This represents approximately 0.6% of all GVA generated in England in 2016 and was concentrated in the South Downs (43%), the New Forest (14%) and the Lake District (12%), which jointly account for approximately 69% of all GVA generated within the English national parks. However, it is important to note that this approach is likely to provide an over-estimate of local GVA in the National Parks, where there is a focus on relatively low value economic activities such as agriculture and tourism.

	GVA per employee in relevant counties (£)	Local employment	Estimated Local GVA (£m)
The Broads	52,441	4,068	213
Dartmoor National Park	47,706	11,741	560
Exmoor National Park	49,511	3,700	183
Lake District National Park	47,574	22,831	1,086
New Forest National Park	57,244	21,465	1,229
North York Moors National Park	49,208	7,981	393
Northumberland National Park	47,623	505	24
Peak District National Park	48,143	15,751	758
South Downs National Park	56,369	67,029	3,778
Yorkshire Dales National Park	48,581	10,246	498
All England National Parks	**52,764**	**165,317**	**8,723**
England	*56,443*	*25,396,500*	*1,433,465*

Source: IDBR data for local employment; ONS data for GVA and employment by local authority

Table 2-19: GVA Estimates based on County-Level Productivity in English National Parks, 2016

The different GVA estimates are presented for each National Park in Table 2-20. As above, it is important to note that some of the turnover and employment-based GVA estimates may be under-estimates of the true level of GVA because of the suppressed data that has been excluded. This is particularly true of the three national parks with the lowest levels of economic activity: the Broads, Exmoor and Northumberland National Parks. In contrast, the county-based productivity estimates are likely to provide an over-estimate, particularly for those National Parks with a high concentration of low value economic activities.

It is therefore most appropriate to consider the GVA estimates as a range. The data in Table 2-20 suggest that GVA in the English National Parks is likely to be between £5.5 billion and £8.7 billion per annum. This suggests that the English National Park economies represent between 0.4% and 0.6% of all GVA generated in England in 2016.

The earlier report "Valuing England's National Parks" (Cumulus and ICF GHK, 2013)[1] estimated GVA at between £4.1 and £6.3 billion. These new estimates represent an increase in estimated GVA of between 33% and 38% in nominal terms between 2012 and 2016. These increases reflect growth in employment and business turnover in the national parks over that period, as well as growth in productivity at national level.

These GVA estimates are comparable to those of a smaller city such as Plymouth, Coventry, Swindon or Sunderland, or the UK textiles/apparel/leather or sector, all of which have a total GVA of between £5 billion and £9 billion according to latest ONS estimates.

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[1] Cumulus Consultants Ltd and ICF GHK (2013) Valuing England's National Parks. Report for National Parks England

	Turnover-based GVA Estimates (£m)	Employment-based GVA Estimates (£m)	County Productivity-based GVA Estimates (£m)
Peak District National Park	670	616	758
North York Moors National Park	209	312	393
South Downs National Park	2,105	2,619	3,778
Lake District National Park	607	892	1,086
Yorkshire Dales National Park	257	400	498
Exmoor National Park	84	145	183
Dartmoor National Park	353	459	560
New Forest National Park	1,094	839	1,229
The Broads Authority	105	159	213
Northumberland National Park	14	20	24
All England National Parks	**5,498**	**6,461**	**8,723**
% of England GVA	*0.4%*	*0.4%*	*0.6%*

Table 2-20: Range of GVA Estimates in English National Parks, 2016