



Visitor Giving Payment for Ecosystem Service Pilot Final Report

February 2014

Project code: NE0142

Prepared for: Defra



Department
for Environment
Food & Rural Affairs

Rev	Date	Details	Prepared by	Checked by	Approved by
3	24 th January 2014	Final draft	Mark Reed* Petrina Rowcroft (URS) Sophie Cade (Nurture Lakeland) Alister Scott (BCU) Jennifer Black (URS) Amanda Brace (ENPAA) Anna Evely (Project Maya) Sue Savege (Nurture Lakeland) Chris White (URS)	Mark Reed	Mark Reed

* Lead author

Centre for Environment & Society Research, Birmingham School of the Built Environment, Birmingham City University, City Centre Campus, Millennium Point, Curzon Street, Birmingham, United Kingdom B4 7XG

Email: Mark.Reed@bcu.ac.uk

Suggested citation

Reed MS, Rowcroft P, Cade S, Savege S, Scott A, Black J, Brace A, Evely AC, White C (2013) *Visitor Giving Payment for Ecosystem Service Pilot Final Report*, Defra, London.

TABLE OF CONTENTS	EXECUTIVE SUMMARY	5
	1. INTRODUCTION	14
	1.1 Background	14
	1.2 Objectives	15
	2. METHODS	16
	2.1 Literature Review	16
	2.2 Survey of Visitor Giving Scheme operators	16
	2.3 Survey of visitors and businesses	18
	2.4 App development	18
	3. LITERATURE REVIEW	19
	3.1 Background	19
	3.2 How do VGS typically operate?	21
	3.3 What do existing VGS cover?	22
	3.4 What is the profile of visitors who contribute to VGS?	23
	3.5 What types of payment mechanisms are used and how suitable are they for PES?	24
	3.6 What are the typical costs involved?	33
	3.7 What is the typical level of revenue generation?.....	34
	3.8 What is the influence of VGS on local spending?	38
	3.9 What are the potential benefits and drawbacks of VGS in different institutional contexts?	38
	3.10 What is the use of smart phone technology in VGS?.....	39
	3.11 What are the barriers and challenges facing VGS?	40
	3.12 Conclusions.....	42
	4. SURVEY WITH UK VISITOR GIVING SCHEME OPERATORS 44	
	4.1 Background	44
	4.2 Results	44
	4.2.1 Sample Characteristics	44
	4.2.2 Scheme objectives	46
	4.2.3 Governance and operation.....	46
	4.2.4 Costs	48
	4.2.5 Revenues	49
	4.2.6 Payment mechanisms	49
	4.2.7 Scheme promotion and communication with donors	51
	4.2.8 Types of projects/initiatives/activities supported	53
	4.2.9 Effects on local spending	54
	4.2.10 Perceived strengths, weaknesses, opportunities and threats to VGS.....	55
	4.2.11 Use of technology	58
	4.2.12 Wider benefits of VGS.....	58
	4.2.13 Monitoring and evaluation	58
	4.3 Implications of the findings for developing PES-based visitor giving schemes	59
	4.3.1 Linking payments to provision of specific ecosystem services encourages participation	59

4.3.2	New PES-based schemes should encourage co-operation rather than competition	60
4.3.3	There are barriers to the adoption of new technologies that might support PES	60
4.3.4	Terminology	60
5.	SURVEY WITH VISITORS AND BUSINESSES	61
5.1	Sample Characteristics	61
5.2	Visitor giving behaviour	62
5.3	Visitor attitudes towards PES	63
5.4	Business perspectives	65
6.	SMART PHONE APPS	69
6.1	South Pennines	69
6.2	Lake District	76
7.	VISITOR GIVING LEARNING NETWORK	83
7.1	Findings from survey of Visitor Giving Forum participants	84
7.2	Development plan	90
7.3	Objectives and outcomes for a National Network for Visitor Giving	90
7.4	Structure of the network	92
8.	DISCUSSION	95
9.	CONCLUSIONS	102
	ACKNOWLEDGEMENTS	104
	LIMITATIONS AND DISCLAIMER	104
	APPENDIX A CATALOGUE OF VISITOR GIVING SCHEMES	
	APPENDIX B INTERVIEW PROFORMA FOR SURVEY OF VISITOR GIVING SCHEME OPERATORS	
	APPENDIX C INTERVIEW PROFORMA FOR LAKE DISTRICT VISITORS	
	APPENDIX D INTERVIEW PROFORMA FOR LAKE DISTRICT BUSINESSES	
	APPENDIX E FOCUS GROUP FACILITATION PLAN	
	APPENDIX F FOCUS GROUP FINDINGS	
	APPENDIX G MANUAL FOR CREATING PAYMENT FOR ECOSYSTEM SERVICE FUNCTIONALITY VIA SMS IN IOS AND ANDROID	
	Sending donations via SMS in iOS	136



• Pre-requisites	136
• Creating the Xcode project.....	136
• Setting up your app's user interface.....	139
• Getting the button to do something	145
• Sending the SMS	147
• Finishing up.....	150
1 Sending donations via SMS in Android	151
• Pre-requisites	151
• Creating the project.....	151
• Getting the button to do something	159
• Sending the SMS	162

EXECUTIVE SUMMARY

The aim of this Defra Payment for Ecosystem Service (PES) Pilot was to investigate whether PES can provide a mechanism for new investment from businesses and visitors in environmental projects through visitor giving¹ schemes (for a full list of objectives, see section 1.2).

The research was designed with reference to definitions, principles and approaches to PES outlined in Defra's PES Best Practice Guide. It identified each of the visitor-giving schemes (VGS) operating in the UK, providing the first comprehensive assessment of their governance, structure, promotion and communication, donor profiles, costs and revenues, payment mechanisms, and the projects and other activities that these schemes support. It also identified a number of opportunities and drawbacks associated with using VGS to elicit payments for ecosystem services (PES). Finally, it identified a number of ways in which it may be possible to enhance VGS and facilitate PES via VGS.

The project started with a literature review, which compiled a catalogue of 32 VGS across the UK. 22 of these were currently active, 8 were proposed or under development, one had since shut down and one where it was not clear whether or not it was still operating. International VGS were also identified. Published evidence from these projects and the wider peer-reviewed and grey literature was assessed to build up a picture of the typical design and operation of VGS, and likely barriers and opportunities for PES in the context of these schemes. We then complemented this by interviewing as many of the schemes identified in the UK as possible, and supplemented this with a small survey of visitors and businesses in the Lake District National Park.

The principal types of VGS found in the UK are described in Table 2. They are typically connected to publically accessible open space in highly valued (often designated) landscapes such as National Parks and Areas of Outstanding Natural Beauty. The majority are local trusts, charities or partnerships. They typically operate in collaboration with local businesses, particularly those linked to hospitality, food and drink and tourism. A survey of visitors to the Lake District conducted for this research found that the majority of those sampled had never donated to a VGS before, and those who had contributed to a VGS donated £3.45 on average (the most common donation amount was £2).

¹ Visitor giving is defined as a voluntary payment (or other assistance) made by visitors to contribute towards the conservation or management of the places they visit (Scott et al., 2003)

Strengths, weaknesses, opportunities and threats to VGS in the UK perceived by scheme operators interviewed in this research included:

<p>Strengths: their ability to tailor schemes to the needs and interests of donors; broad-based support from local residents, businesses and visitors; their ability to build collaborations between organisations and groups in the local area; tangible benefits arising from projects; marketing and brand benefits for participating businesses; and awareness raising for local charities.</p>	<p>Weaknesses: difficulties raising the profile of the scheme among local businesses and communities; underestimating the costs of running VGS; and difficulties monitoring and evaluating VGS and the projects they support. None of the schemes interviewed undertook routine monitoring or evaluations of their scheme or the projects they supported, relying instead on anecdotal feedback from partners.</p>
<p>Opportunities: bringing more businesses into the scheme; product placement; improving flexibility to match donor needs; increasing visitor numbers; and increasing desire among businesses to enhance their social and environmental responsibility.</p>	<p>Threats: heavy reliance on members to support core functions of VGS; lack of participation from local businesses; competition between schemes as new VGS are established; poor links between donations and project benefits; negative language e.g. around “bed taxes” and “visitor payback”; and vulnerability to national and international economic trends.</p>

The costs of operating VGS vary according to the size and complexity of the scheme and are often subsumed within wider organisational and administrative budgets (e.g. paying for the salaries of staff operating the scheme), making it difficult to identify the direct costs associated with operating the scheme. Where costs of running VGS are not met by parent organisations (e.g. National Park Authorities), these are typically met through grant funding (e.g. via LEADER). The main costs of running a VGS are staff costs (for establishing the scheme, creation and maintenance of websites, applying for grant funding and processing donations). Marketing costs can also be significant, varying between 0-20% of total scheme operating costs, depending on the extent to which this is done externally or in-house. IT costs include website hosting charges and PayPal licenses (2.5% of total costs for Nurture Lakeland) and overheads (7.5% of total costs for Nurture Lakeland).

Revenues vary according to the number of businesses participating in the scheme, visitor numbers (particularly staying visitors for schemes relying on accommodation levies) and visitor awareness of the scheme. Donation levels also tend to reflect wider economic trends, for example many schemes noticed a decline or plateauing of revenues during the recession of 2008-2011, despite an increase in the number of staying visitors.

The research found concerns that visitor giving might displace local spending elsewhere were unfounded. There was no evidence of spending displacement in the literature. None of the businesses or visitors surveyed in the Lake District National Park reported any change in spending behavior as a consequence of engaging with VGS.

VGS in the UK support a wide range of projects and activities, ranging from trail maintenance and restoring or protecting habitats for wildlife, to public education and awareness campaigns and the promotion of sustainable tourism. Many VGS run or fund a number of different projects and activities simultaneously, giving businesses and visitors a choice of initiatives to support. Other schemes target specific groups of visitors to support a single project that is likely to be of interest to that group. The primary motivation for businesses surveyed in this research to engage with VGS was to support conservation projects, with brand enhancement a secondary motivation. Although businesses mainly act as intermediaries for visitors to donate, a number of businesses donate directly e.g. as a proportion of profits or via a proportion of the sale price of a product.

None of the schemes interviewed were able to provide specific information on the profile of their donors. However, the literature suggests that visitors who donate to VGS are typically: younger; more educated; visiting the area to explore heritage and countryside; engaged in outdoor activities e.g. walking and climbing; more likely to be foreign visitors; and living in the area or staying for more than one night.

Schemes keep in touch with donors in a number of ways. Websites and electronic newsletters, leaflet and posters are widely used, with social media increasingly being adopted as a way of staying in touch with visitors after their visit. A number of VGS have adopted the "Visit, Give, Protect" brand for their scheme, to increase brand recognition and trust among visitors to participating destinations across the UK.

VGS in the UK use a range of different payment mechanisms to collect donations:

- **Voluntary donations collected through boxes or envelopes** are the most widely used by VGS operators, and are popular with businesses and visitors. Donation boxes rarely raise significant donations, unless they are well designed, positioned and actively promoted. Envelopes distributed by businesses to their customers are more successful at raising funds.
- **Opt-in or opt-out levy schemes** for example charging an optional extra fee on top of food or accommodation are also popular with VGS operators, visitors and businesses. The literature and evidence from this research suggest that opt-out methods are more successful than opt-in methods, and this was the most successful method for raising funds across the VGS.
- **Merchandising schemes**, where a donation to a VGS is added to the price of a product (typically 1-5% of the product price). Although some studies have found visitors are more willing to make donations in this way compared to other payment mechanisms, and merchandising schemes are popular with businesses surveyed in this research, this was not particularly popular among the visitors surveyed, and

concerns have been expressed in the literature about such schemes being perceived by visitors as “commercialising” nature.

- **Membership schemes** offer an opportunity to join a group that supports conservation projects and activities, for example “friends of” schemes and organizational memberships. It is easy to provide feedback to members about projects, but administration costs are typically high, and it is hard to link membership fees to the provision of ecosystem services in specific projects.
- **Participation** via volunteering with projects is an alternative way for visitors and businesses to support VGS projects and activities, instead of (or in addition to) making financial contributions. Some VGS charge volunteers to cover accommodation and food and make a contribution towards the costs of the project. Overall however, only a very small proportion of visitors and businesses engage with VGS in this way.
- **Fundraising campaigns** can raise significant sums of money in a relatively short period of time, if well designed and resourced, but do not typically cover the ongoing costs of running a VGS. They can target specific beneficiaries of ecosystem services, linked to particular projects that are likely to be of interest to that group.
- **Sponsorship** tends to focus on businesses, though some sponsorship schemes are targeted at visitors e.g. adopt a tree schemes. Although time-consuming and expensive to establish, sponsorship can provide a relatively stable ongoing income stream that can support the core functions of a VGS. It is also possible to tailor sponsorship to the needs and interests of participating businesses and target donations towards particular projects and ecosystem services.
- **Loyalty card schemes** tend to be expensive for participating businesses (as they have to offer discounts), but can be attractive for visitors who are willing to pay a membership fee to receive their discounts, part of which goes towards the VGS. None of the schemes surveyed in the UK were using loyalty cards.

Payment mechanisms varied in the extent to which they were able to elicit significant levels of donations, and the extent to which they could be used to facilitate PES (Box 1; Table 2). The requirement of PES schemes to make payments conditional on the delivery of ecosystem services was the most common limitation of payment mechanisms in VGS. A number of payment mechanisms were unable to make a direct link between donations and the provision of ecosystem services through specific projects e.g. where accommodation levies go towards VGS, and not to specific projects within VGS, it may be difficult to make a direct link between payments and the provision of ecosystem services. Participation, sponsorship, fundraising campaigns and smart phone apps all have the potential to support PES. These mechanisms target beneficiaries of ecosystem services, who can then make voluntary contributions, and make direct links between payments and ecosystem service provision for each of these mechanisms. Participation through volunteering is only ever likely to appeal to a small proportion of visitors e.g. linked to ecotourism. However, a combination of business sponsorship, fundraising campaigns that target specific visitor groups to support

particular projects and ecosystem services, supplemented with ongoing payments via smart phone apps from typically younger, more affluent visitors, have the potential to elicit PES.

Although VGS operators identified a range of barriers and challenges relating to the establishment and successful running of VGS, none of these related specifically to the integration of PES. However, VGS operators also identified potential benefits of linking donations to the provision of ecosystem services during interviews, for example:

- Consistent with the literature on visitor giving that identifies the importance of linking donations to specific project outcomes, the conditionality principle in PES can enable VGS to demonstrate specific, tangible benefits from projects to donors. This makes PES schemes well suited for integration with VGS, and on the basis of published evidence about the importance of linking to specific outcomes, may enhance donations
- VGS may raise awareness among visitors and businesses about conservation issues, and hence if more VGS were to elicit PES, it may be possible to raise awareness more widely about the societal benefits of the projects they support
- There was a perception among VGS operators surveyed that linking donations to the provision of specific ecosystem services would further encourage participation in their scheme, helping them avoid the perception that they were levying a “bed tax”

The survey of scheme operators was supplemented by a small survey of visitors in the Lake District National Park. Although due to the same size, these findings can only be treated as indicative, visitors surveyed expressed a stronger preference towards supporting projects that provided ecosystem services, and that could quantify the level of benefits provided as a result of their donation, rather than just supporting projects that matched their personal interests. Respondents were more equivocal about how precisely the relationship between donations and ecosystem service provision should be quantified, but agreed that it was important to be able to see the effects of donations from previous visitors, in order to obtain a qualitative understanding of the likely effect that their donation would have. This further supports the idea that PES-based projects are likely to be well received by visitors, and may elicit proportionally more donations than projects that are not able to quantify their benefits precisely or demonstrate a wider societal value. Visitors were typically motivated to pay for more tangible, visible ecosystem services like providing habitat for wildlife, spaces for recreation and activities that promote health, compared to less tangible services like pollination (Table 10). This presents a risk that visitors may only be prepared to pay for ‘charismatic’ ecosystem services, while other sources of funding need to be found to support less tangible services, which may be just as important to society.

However despite the potential to elicit PES, very few VGS in the UK currently perform this role. Consistent with preferences expressed by visitors surveyed for this research, the few VGS that did support PES projects were focusing on local, highly visible and tangible ecosystem services e.g. climate regulation from tree planting, rather than less visible or tangible services e.g. pollination. The majority of VGS were not supporting PES explicitly, but there were a number of examples of PES-like schemes e.g. footpath restoration and

conservation projects that quantified project benefits in some way, and in some cases linked donations to outcomes, such as an amount of path that could be laid, but without being able to link this to the provision of an ecosystem service (see Table 3 for an overview).

The project sought to explore the potential for mobile digital technologies to reduce the costs associated with administering VGS and elicit payments for specific ecosystem services from visitors, linked to the locations they visit. A suite of smart phone apps were developed as part of the research with co-funding from Community Interest Company, Project Maya. Two apps for iPhone were developed to target walkers and cyclists visiting the Eden Valley in the Lake District and an app for iPhone, Android phones and iPad was developed for walkers in the South Pennines. Although the development of these apps took place in parallel with the research, where possible the approach and design responded to feedback from interview respondents. For example, by adding visitor giving functionality to existing applications, it was possible to reduce or share some of the costs associated with development, branding and marketing. The apps were designed for a generation of smartphones that are all GPS-enabled, so by ensuring maps and content were available in-app, it was possible to track movement through landscapes that have no reception and trigger waypoints via GPS. Payment functionality was designed around payments via SMS to make use of weak mobile network coverage at the sites without having to rely on 3G or 4G connections for web-based payment solutions. A guide for integrating payment functionality to apps designed for visitor destinations has been produced as part of this research and is included in Appendix G.

A number of PES options were developed for each app, linking donations to specific ecosystem service benefits from local conservation projects, based on research evidence. Opportunities to donate were linked to locations in the landscape that could illustrate the projects and/or the ecosystem services they provided, and content explaining ecosystem service provision was integrated into a number of waypoints in each app. The apps linked payments to climate mitigation and improvements in water quality via peatland restoration in the South Pennines, and to climate mitigation via woodland planting and pollination services via wildflower planting in the Lake District. Two PES-like and two non-PES options were also integrated into the Lake District apps, to enable a future comparison between donation levels. The theory is that by learning about the ecosystem services provided by the landscapes they visit, and the projects that can protect and enhance these services, users are more likely to make donations on-site. Statistics will be collected and analysed in future months to evaluate the success of the apps in eliciting PES from visitors.

Finally, to disseminate findings from this research, and to continue sharing experience and good practice on PES across VGS beyond the lifespan of this project, a proposal has been developed for a Visitor Giving Learning Network. As part of this, a series of help-sheets have been produced on Visitor Giving, which are now available on the Visit England website².

To build on this, a survey was conducted with organisations interested in VGS to assess the need for a learning network, and to identify the key roles that such a network might perform. The survey was conducted by Nurture Lakeland with delegates who attended a “Visitor Giving Forum” that they held at the start of this research, in October 2012, to investigate the

² http://www.visitengland.org/england-tourism-industry/DestinationManagersResources/visitor_giving.aspx

potential for such a network. The survey indicated strong demand for the development of such a network, and identified a number of specific needs, some of which have been met through the development of the help-sheets.

Table 1 provides an overview of the project, describing the concept, the buyers, sellers and intermediaries, proof of concept, and a number of transferable lessons from the research.

Table 1: Overview of Visitor Giving PES pilot.

Concept	It may be possible to elicit payments for ecosystem services (PES) from visitors and businesses by integrating PES projects into existing Visitor Giving Schemes (VGS), thereby generating additional funds for investing in natural capital.
Buyers	Visitors and local businesses
Sellers	Organisations running conservation projects as part of VGS
Intermediaries	Visitor Giving Schemes
Proof of concept	There is evidence that PES projects fit well with the aims and (some of the) payment mechanisms of existing VGS. There is interest in PES projects from VGS operators and visitors, and a perception that integrating PES projects into existing VGS may elicit increases in donations and increased awareness about the societal benefits of local conservation projects. Smart phone apps integrating PES projects were successfully developed for VGS, although technical difficulties prevented integration of payment functionality to one app. Despite technical challenges there are no showstoppers.
Transferability	<p>A number of good practice principles may be derived from this research which may be transferable across schemes in the UK and beyond, relating to the establishment and running of VGS generally, and the integration of PES options into these schemes specifically:</p> <ul style="list-style-type: none"> • Target requests for donations clearly towards specific projects and demonstrate how donations will lead to specific, measurable (ecosystem service) benefits • Where schemes offer multiple investment options, take care to target each option clearly towards specific visitor profiles, making it clear to visitors exactly how their investment will benefit specific projects of particular relevance to their interests • Where possible, offer a range of different payment mechanisms to suit the needs of different types of visitor, for example smart phone apps, donation boxes and opt-in levies on accommodation • Visitors are more likely to pay if they can do so quickly and easily, and this consideration should be paramount in the design of payment mechanisms within VGS • Marketing VGS effectively is essential to their success. Although this can represent a significant additional cost, a number of VGS reported declining costs as they moved to online and social media based marketing • To elicit repeat donations from regular visitors, it may be beneficial to rotate the projects a business supports within a VGS • Use positive language e.g. visitor giving, visitor gifting and investment, rather than language with more negative connotations e.g. visitor payback, or language that may imply that levies are a “bed tax” or some other form of stealth tax • Keep running costs to a minimum e.g. using smart phone apps and existing staff

	<p>within an organisation</p> <ul style="list-style-type: none"> • Provide immediate feedback about the effects an individual donation will make, and demonstrate the benefits of donations from previous visitors, making it clear that other visitors are donating • Prioritise local projects and seek funding from visitors only when they visit the area local to the project • Prioritise "feel good" projects for funding where benefits of donations are both clear and motivational • Provide opportunities to donate immediately on-site, rather than later • Decouple from Governmental organisations (e.g. local authorities) and channel payments via independent charities, trusts, partnerships or other not-for-profit organisations (e.g. Community Interest Companies)
<p>Barriers</p>	<p>Some of the key challenges identified by VGS operators included:</p> <ul style="list-style-type: none"> • High administrative costs associated with staffing and recruiting and retaining business participants • Securing sufficient funding to ensure the long-term financial sustainability of the VGS • Cost of developing and implementing new technologies (e.g. touch screens), particularly where there is uncertainty that use of these technologies will recover the costs and result in additional income • Insufficient resources to invest in growing schemes, keeping up to date with emerging technologies and conducting research into ways to improve the efficiency and reach of schemes • Often a lack of a strong brand or clear identity that clearly links business participants and donors with the local environment and the specific projects they support • Poor network coverage in some areas limits opportunities for developing applications that rely on mobile reception for downloads and donations.
<p>Enablers</p>	<ul style="list-style-type: none"> • Increasing interest amongst local businesses in supporting environmental / social initiatives to project an image of responsibility and sustainability but need more effective partnerships between businesses and conservation interests to establish clearly identified projects and objectives • Flexibility that allows businesses and donors to choose the specific projects they wish to support but also to maintain their motivation to donate over time by regularly offering new and exciting initiatives • Making better use of business clusters to spread awareness of VGS • A shift to online social media has facilitated a substantial decrease in marketing costs for many VGS and also allowed visitors to keep abreast with the latest projects and see how their money is being spent. This increases the transparency and legitimacy of the VGS and also encourages repeated giving • VGS accreditation to promote collaboration (rather than competition for donations) and a common message to ensure that all schemes operate to a similar high standard and that the reputation of VGS across the board is not tarnished by a small number of badly-run VGS or perceived of as a 'visitor tax' • Development and facilitation of access to shared resources for learning about and implementing new technologies (e.g. mobile and web-giving) • Establishment of collaborative funding opportunities, e.g. seed funding for new VGS



Legacy and next steps	To disseminate findings from this research and continue learning across the VGS network beyond the lifespan of this project, a series of help-sheets have been developed and a proposal has been outlined for a Visitor Giving Network. Apps will be actively promoted and monitored to assess their efficacy in eliciting PES from visitors.
------------------------------	---

1. INTRODUCTION

1.1 Background

Government funding for conserving and enhancing the natural environment has been under increasing pressure in recent years, due to a reduction in funding from the EU via the Common Agricultural Policy, coupled with contracting Government departmental budgets across Whitehall. The Government's 2011 Natural Environment White Paper sought in part to meet this shortfall by encouraging private investment in the natural environment through Payments for Ecosystem Services (PES). In locations with high visitor numbers or intrinsic landscape or wildlife value, such as National Parks and other highly valued landscapes, it may be possible to enable members of the public to support ecosystem services via Visitor Giving Schemes (VGS).

In these locations, visitor giving³ schemes may have the potential to help fund the management of designated landscapes, improving infrastructure for visitors to the countryside whilst enhancing the provision of vital ecosystem services for UK society (Scott et al., 2001). It is well established that to be successful, visitor contributions must result in tangible, local benefits (Scott et al., 2003). This suggests that VGS may be particularly well suited to paying for ecosystem services. However, current schemes rarely incorporate PES (where payments are made voluntarily to secure specific benefits from nature, such as the provision of clean water or climate regulation) (Defra Best Practice Guide, 2013). Little is known about the potential for PES to increase investment in visitor giving schemes, or the extent to which visitor giving schemes may provide a mechanism to elicit PES from members of the public.

Although there is huge potential to generate revenue from visitor giving⁴, this is rarely realised. Considerations of administration, effective partnerships and lack of clearly identified projects and objectives remain key barriers to further uptake. Nevertheless, there is a growing number of "visitor giving" schemes, which take a variety of forms (e.g. opt in, opt out, donations, merchandising; participation, membership). All of the schemes that have arisen to date are local or regional in nature and are *ad-hoc*. There is limited sharing of experience between existing schemes with evaluations few and far between. Few existing schemes can be considered as Payments for Ecosystem Services, either because payments are not voluntary (e.g. car parking and entrance fees) or because payments are not explicitly linked to the provision of ecosystem services (e.g. voluntary accommodation levies and "friends of" organisations that raise funds from membership fees and events). However, some visitor giving schemes do elicit voluntary payments that are directly linked to the provision of ecosystem services, for example Nurture Lakeland's Woodland Fund.

For PES-based visitor giving schemes to operate successfully, there are a number of other research needs, for example: understanding how likely it is that different social groups will make contributions and what sorts of scheme are likely to attract different types of visitor;

³ Visitor giving is defined as a voluntary payment (or other assistance) made by visitors to contribute towards the conservation or management of the places they visit (Scott et al., 2003).

⁴ Denman & Ashcroft (1997) estimated that if every tourist in Europe donated six pence per night's stay, this would raise over £112 million per annum

likely revenues from PES-based versus more traditional forms of visitor giving (e.g. accommodation levies and membership fees); potential benefits and drawbacks of PES-based visitor giving in different institutional contexts e.g. Nature Improvement Areas (NIAs), Areas of Outstanding Natural Beauty (AONBs) and National Parks; whether such schemes may displace other spending in the local area; and whether smart phone technology might help overcome the prohibitive administration costs of many current schemes, whilst reaching new audiences and helping them learn about ecosystem services.

This Defra funded PES Pilot project addressed these research needs by combining literature review with data from semi-structured interviews, questionnaires and a focus group with VGS participants from across England with in-depth work in the Lake District National Park. The project is co-financed by a Community Interest Company who will help pay for smart phone apps in the South Pennines and the Lake District National Park to explore the viability of using new technologies to enable visitors to pay for ecosystem services.

1.2 Objectives

The aim of this PES Pilot was to investigate whether PES can increase investment in visitor giving schemes, and whether visitor giving schemes may provide a mechanism to elicit PES from members of the public. To do this, we addressed the following objectives:

- Establish a learning network for visitor giving: developing a framework for a virtual learning network; understanding how technologies can support the network; and producing a timeline and development plan for implementation of the network;
- Understand how likely it is that different social groups will make contributions to visitor giving schemes, and what sorts of scheme, including PES-based schemes, are likely to attract different types of visitor;
- Estimate likely revenues from PES-based versus more traditional forms of visitor giving (e.g. accommodation levies and membership fees);
- Investigate potential benefits and drawbacks of PES-based visitor giving in different institutional contexts e.g. Nature Improvement Areas, AONBs and National Parks;
- Investigate whether PES-based and other forms of visitor giving are likely to displace other spending in the local area; and
- With additional investment from Project Maya CIC, explore whether smart phone technology might help overcome the prohibitive administration costs of many current schemes, whilst reaching new audiences and helping them learn about ecosystem services; and
- Build on current best practice guidance by Visit England to develop a national toolkit for developing visitor giving schemes, with an emphasis on using visitor giving to pay for the provision of ecosystem services.

2. METHODS

2.1 Literature Review

The review was undertaken through desktop analysis of both published and grey literature covering '*visitor giving*', '*visitor gifting*', '*visitor payback*', and '*visitor investment*'. Although the review focuses primarily on UK-based VGS, it also touches briefly on international experience where this has been documented and contributes towards addressing the research questions. Using this data, together with information from the project's Advisory Board and other key experts in the area, a catalogue of existing and proposed VGS in the UK and internationally was developed (see Appendix A). The catalogue provides a summary of each of the schemes identified including details of location, institutional setting, operator, status, revenue collection mechanisms employed, activities funded and, where applicable, the targeted ecosystem services.

Once the catalogue was developed, a series of key research questions was identified in order to elicit the information needed to support the objectives of the review. These included:

- How do VGS typically operate?
- What do existing VGS cover?
- What is the profile of contributors to VGS?
- What types of payment mechanisms are typically used?
- What are the typical costs involved?
- What is the typical level of revenue generation?
- What is the influence of VGS on local spending?
- What are the potential benefits and drawbacks of PES-based VGS in different institutional contexts?
- What are the barriers and challenges facing the development and implementation of VGS?
- What are the key ingredients of successful schemes?
- What is the use of smart phone technology in VGS?

Section 3 presents a synthesis of the main findings of the literature review for each of the key research questions listed above.

2.2 Survey of Visitor Giving Scheme operators

As many VGS as possible across the UK were identified and listed. Schemes were identified through an internet trawl using the search terms '*visitor giving*', '*visitor gifting*', '*visitor payback*', and '*visitor investment*' and focusing specifically on those schemes with environmental objectives. An initial version of the catalogue was then circulated amongst the core project team and the project's Advisory Board to review and to add any further schemes of which they were aware.

The catalogue in Appendix A provides a summary of each of the schemes identified including details of location, institutional setting, operator, status, revenue collection mechanisms employed, activities funded and, where applicable, the targeted ecosystem services. The catalogue has been updated during the course of the interviews to reflect the current status of the VGS identified (for example, some identified as active are no longer operational and/or are still under development).

A total of 32 VGS were identified across the UK, 22 of which are currently active, 8 which are proposed or under development, one of which has since shut down and one of which it is not clear whether or not it is still operating. Interviews were then sought with representatives of as many of these schemes as possible. An interview pro-forma was developed to ensure that the discussions were focused around eliciting the information necessary to fill some of the knowledge gaps identified in the literature review and that the nature of information and level of detail provided by the respondents was comparable across the various schemes.

An initial draft of the pro-forma was circulated amongst the project team (including the Project Advisory Board) for review and comment. Feedback on the initial draft was incorporated into a revised version of the draft, which was then used to conduct a pilot interview with the scheme administrator for the Nurture Lakeland VGS. The pilot was an invaluable part of the design process and allowed the design team to check:

- Whether or not the questions were clearly understood and elicited the expected information and/or where rephrasing or additional prompts were required;
- Whether the information requested was likely to be readily available from the VGS operators;
- Whether there were any further questions that could be added that would be of interest to VGS operators in terms of learning from the successes and failures of other schemes; and
- How long the interview took to complete (including the time taken for the respondent to collate the necessary information prior to the telephone interview).

Invitations to participate in the study were emailed to the primary contacts identified for each of the 32 VGS listed in the catalogue. The invitations comprised a covering letter and a copy of the interview pro-forma. The covering letter set out the purpose of the interviews, how long they would take, how the information would be used, the benefits of participation as well as some additional project information. All participants were provided an opportunity to opt out of the survey altogether and/or to respond via email rather than by telephone. National Parks England (which is represented on the Project Advisory Board) issued the invitations to those VGS that are administered by National Park Authorities in a bid to try and encourage its members to respond. All other invitations were emailed by the URS project team.

Those VGS that did not immediately opt out by the given cut-off date were then contacted to arrange a suitable time for the telephone interview. A further follow up email (and/or telephone call) was sent to those who did not respond to the initial mail out to ensure that they had received the request to participate and to ask whether or not they would agree to participate.

Telephone interviews were conducted between 23 April and 13 May 2013. Some of those contacted opted to respond by email and were asked for a date by which they could respond. This was noted in the catalogue and a follow up reminder (telephone call or email) was sent on that date if the response had not been received by then. A record of who was contacted and what follow up action was taken is shown in the accompanying catalogue.

2.3 Survey of visitors and businesses

An initial focus group with employees of URS was held to scope this phase of the research and design a survey instrument. Due to the biased representation of higher socio-economic classes in this focus group, results are only presented for background purposes in Appendix F. Subsequent to this, a total of 49 visitors and 12 businesses in the Lake District National Park were surveyed between 1-22 October 2013 using structured questionnaires, consisting mainly of closed-answer questions. Visitors were surveyed using face-to-face interviews, each lasting approximately 5 minutes, at Lake Windermere. This location was selected through discussion with local partners as a popular destination for visitors from a range of socio-economic classes. Businesses were surveyed face-to-face ($n = 7$) and via telephone ($n = 5$) by Sophie Cade from Nurture Lakeland. All businesses were involved in Nurture Lakeland VGS and were selected to represent a broad cross-section of business sectors. Questionnaires used with visitors and businesses are provided in Appendices C and D respectively. They sought to understand visitor giving behaviour, potential for spending displacement, and preferences around scheme design, with a focus on design features linked to PES.

2.4 App development

Apps were part funded by an investment from Project Maya Community Interest Company, and were developed in two locations with two different software developers and sets of local collaborators:

- In the South Pennines, we worked with software developer Audiotrails in an attempt to make payments to the Moors for the Future partnership (among other local PES projects), in collaboration with local NGO, Pennine Prospects
- In the Lake District, we worked with software developer Changing Horizons to make payments to Nurture Lakeland, who were running a range of PES and other environmental projects in the Eden Valley

App development followed the same generic steps in each site:

1. Create an app providing geo-referenced information and services to visitors that was likely to be of sufficient value to visitors for them to download it (in the South Pennines, this was an app providing walkers with routes around reservoirs, and in the Lake District similar apps were developed, one for walkers and another for cyclists)
2. Create content linked to points of interest that among other things (e.g. history and legend) provide information about the ecosystem services provided by the habitats and landscapes they are travelling through (this was done for apps in both locations)
3. Link to information about geo-referenced PES (and other environmental) projects working to enhance the environment they are travelling through (this was done for

apps in both locations, though for technical reasons this had to be removed from the South Pennines app prior to release)

4. Provide an opportunity for users to donate to PES (and other environmental) projects, detailing the amount of ecosystem service benefit that will be derived from the payment they make (this was done for apps in both locations, but for technical reasons had to be removed from the South Pennines app prior to release)
5. Provide feedback about the benefits derived from previous donations (this has not been possible at this stage, but there are plans to integrate this information to the Lake District apps at a later date, once the impacts of donations is clearer)
6. If possible create apps for multiple devices and operating systems (we targeted Apple's iOS platform initially due to evidence that iPhone and iPad users tend to spend more on apps than users of other platforms, but developed a version for Google's Android operating system in the South Pennines. Versions for both iPhone and iPad were developed in the South Pennines)
7. Test the apps in the field to ensure they function as intended (this was done for apps in both locations)
8. Make the apps available on app stores and market them (apps for both locations are available on Apple's App Store and for the South Pennines also on Google Play. Marketing is being done by Pennine Prospects in the South Pennines and Nurture Lakeland in the Lake District)
9. Keep the apps up-to-date. It is important for to work with partners who will own and maintain apps after the end of a project, paying if necessary for updates, for example when incompatibilities occur with future versions of operating systems (in the South Pennines, the app was initially released with three routes, and there is a plan to release a number of pre-prepared additional routes over the coming months)

The same approach was taken to developing payment functionality across all apps in both sites, and is detailed in Appendix G. The user guide in the Appendix is designed to make it possible for visitor giving app developers to integrate payment functionality cost effectively and easily to their projects.

3. LITERATURE REVIEW

3.1 Background

The rapid growth of tourism and recreation in recent years, both in the UK and globally, has placed considerable pressure on certain destinations and areas of countryside, particularly those which are freely accessible to the public⁵. Moreover, there is an increasing problem of lack of resources (e.g. financial and countryside management services) to manage places affected by visitor pressure, particularly since a large proportion of funding for environmental

⁵ Tribe, J., Xavier, F., Griffiths, N., Vickery, R. & Yale, K. (2000) *Environmental Management for Rural Tourism and Recreation*, London, Cassell.

conservation comes via the public purse, and therefore has to compete with other public sector services such as education and health care¹.

This constraint on funding has led to increasing interest in policy instruments that aim to raise additional funds directly from visitors and tourists. The Defra Rural White Paper, for example, states that the government is in favour of voluntary donation schemes 'rather than introducing new legislation which could become complex and burdensome'⁶. Of particular interest are Visitor Giving Schemes (VGS) (also known widely as Visitor Payback) since they are characterised by voluntary contributions rather than compulsory charges or levies which may damage the competitiveness of the tourism industry.

Visitor giving may be defined as a voluntary payment made by visitors towards the conservation and management of places they visit and value, differing significantly from the compulsory tourist or bed tax practised in other countries⁷. VGS have the potential to generate revenue to help fund the management of the UK's natural environment; improving infrastructure for visitors to the countryside and their understanding about the value of particular environmental assets, whilst enhancing the provision of vital ecosystem services for UK society⁸. In this context, visitor giving can be seen as contributing to physical and natural capital as part of a bundle of measures associated with rural (and potentially urban) regeneration and development⁹.

Although there is potential to generate sufficient revenue from visitor-giving to fully cover the costs of a conservation project¹⁰, in reality this is rarely realised. High administration costs, difficulties securing long term funding and developing effective partnerships between business and conservation interests, together with a lack of clearly identified projects and objectives remain key barriers to successful uptake over the long term. Nevertheless, there is a growing number of VGS, both in the UK and internationally, which incorporate a range of payment techniques such as opt-in/opt-out levies, donations, merchandising, participation fees, membership fees etc. However, the majority of schemes that have arisen to date are local or regional in nature and are *ad-hoc*. As such, there is limited sharing of experience between existing schemes with evaluations few and far between. The academic literature is also extremely sparse with only one substantive publication by Scott *et al.* in 2003¹¹.

While the focus of visitor giving is on securing voluntary donations in order to achieve tangible environmental benefits, few of the current schemes incorporate Payments for Ecosystem Services (PES); where voluntary payments are made explicitly to secure specific benefits from

⁶ Department for Environment, Food and Rural Affairs (2000) The Rural White Paper. Our Countryside: The Future A Fair Deal for Rural England. Stationery Office. London.

⁷ Scott, A., Christie, M. and Tench, H. (2003) Visitor Giving: Panacea or Pandora's Box for Conservation in the UK? *Journal of Environmental Planning and Management*, 46(4), 583–604.

⁸ Scott, A., Christie, M. and Tench, H. (2003) Visitor Giving: Panacea or Pandora's Box for Conservation in the UK? *Journal of Environmental Planning and Management*, 46(4), 583–604.

⁹ Garrod, B., Wornell, R., & Youell, R. (2006). Re-conceptualizing rural resources as countryside capital: The case of rural tourism. *Journal of Rural Studies*, 22, 117–128.

¹⁰ Denman & Ashcroft (1997) estimated that if every tourist in Europe donated six pence per night's stay, this would raise over £112 million per annum.

¹¹ Scott, A., Christie, M. and Tench, H. (2003) Visitor Giving: Panacea or Pandora's Box for Conservation in the UK? *Journal of Environmental Planning and Management*, 46(4), 583–604.

nature, such as the provision of clean water or climate regulation. Little is therefore known about the potential for PES to increase investment in visitor giving schemes, or the extent to which visitor-giving schemes may provide a mechanism to elicit PES from members of the public.

3.2 How do VGS typically operate?

The principal types of VGS found in the UK are described in Table 2. Based on the data gathered in the literature review, VGS are typically connected to publically accessible areas of open space with existing use for recreation or tourism such as Areas of Outstanding Natural Beauty (AONB), National Parks, Forestry Commission Estates, Geoparks, and (more recently) Nature Improvement Areas (NIAs)¹². It should, however, be noted that VGS are also used in the cultural heritage field with stately homes, churches, museums, and other 'heritage' attractions sometimes setting up charitable 'friends' groups for a variety of buildings or nature related issues including local parks.

The type of organisational structure of a VGS can have an impact on the willingness of visitors to donate. In particular, organisations that are seen to operate independently from local authorities appear to be more appealing to visitors who feel less inclined to donate to a body which they feel should fall under the statutory duty of a local authority¹³. However, the recipient body needs to have the trust of the public and new bodies may suffer from a lack of credibility¹⁴.

As a result, there is a significant benefit to operating through well-established local trusts or charities rather than through local authority structures. As such, VGS are often developed and managed through the establishment of independent non-profit trusts. The advantage of this approach is the potential for accessing funding for projects from grant-giving bodies that support trusts. However, it should be noted that some VGS are successfully operated through local authorities in partnership with existing local environmental or community organisations. The Forest of Bowland scheme in Lancashire¹⁵, for example, is operated as a partnership between the local authority and the Lancashire Wildlife Trust.

Another common organisational characteristic of VGS is that they are often operated with the participation of local businesses, offering (for example) accommodation, restaurants, tourist services, etc. In such schemes, local businesses typically offer visitors the opportunity to donate to a chosen VGS (or activity within a scheme) through voluntary donations in a collection box or by placing optional levies on existing charges as part of an opt-in/opt-out scheme¹⁶. In some cases the businesses participate directly in conservation work as part of

¹² Warren, N. (2003) 'Visitor Giving – Converting the Feel Good to Finance'

¹³ *Ibid* p.p.587

¹⁴ Scott, A., Christie, M. and Tench, H. (2003) Visitor Giving: Panacea or Pandora's Box for Conservation in the UK? *Journal of Environmental Planning and Management*, 46(4), 583–604

¹⁵ *Ibid*.

¹⁶ It should be noted that the voluntary supplement method – either opt in or opt out – involves the active and whole hearted participation of the tourism businesses - notably accommodation and restaurants /pubs - while other methods

a business giving scheme running alongside the VGS¹⁷. The advantages of involving local businesses within a VGS include lower administration costs (as businesses bear some of the costs of securing donations), increased education and awareness of environmental issues in the local area, and promotion of the scheme by local businesses.

3.3 What do existing VGS cover?

One of the key advantages of VGS is their flexibility in terms of what they can cover and the potential that this offers to target funding towards a wide range of activities. The review of VGS within the UK illustrated the flexibility and adaptability of VGS and the following list, although by no means exhaustive, demonstrates the wide range of activities that VGS encompass:

- Development, promotion, and upkeep of trails for cycling, hiking, riding and walking;
- Flora and fauna conservation;
- Wildlife habitat rehabilitation and restoration;
- Conservation and restoration of historical buildings;
- Public education and awareness campaigns;
- Promotion of sustainable tourism through local businesses; and
- Creation of sustainable development funds for local businesses.

In addition to the wide range of activities covered across different VGS, in some locations a range of activities are offered within the same scheme. The Nurture Lakeland VGS in the Lake District National Park, for example, involves a scheme that targets activities including 'fixing the fells' through habitat restoration, supporting red squirrel populations, developing and protecting trails such as the Ullswater path, afforestation, as well as encouraging sustainable travel to the site¹⁸. This allows the scheme to secure funding from a range of different visitor types who are interested in different aspects of the local environment.

Similarly, the Arran Trust Visitor Gifting scheme on the Isle of Arran is another example of a single VGS scheme that offers a range of investment opportunities for visitors, including wildlife conservation, conservation of historical buildings, and the development and promotion of paths and trails¹⁹. By contrast, some schemes such as the Cognation Mountain Bike Centre VGS in the Afan Forest Park, focus on a single activity that appeals to a

rely more on a wider range of participants and activities. As will be seen the track record shows that opt out and opt in are the most effective fund raising methods but are least welcomed or agreed to by the tourism businesses.” *Causeway Coast & Glens Heritage Trust Visitor Giving Scheme – Feasibility study, Final Report, February 2004*

¹⁷ Scott, A., Christie, M. and Tench, H. (2003) Visitor Giving: Panacea or Pandora's Box for Conservation in the UK? *Journal of Environmental Planning and Management*, 46(4), 583–604

¹⁸ <http://www.nurturelakeland.org/what-do-we-do/visiting.html> accessed 3rd January 2013

¹⁹ www.arrantrust.org accessed 3rd January 2013

particular group of visitors who have a strong interest in the project; in this case using funds raised by mountain biking visitors for development and maintenance of mountain bike trails²⁰.

This flexibility in terms of the range of activities that can be covered across different VGS schemes, or within a single scheme, mean that they can be tailored to suit the needs of a local area and the particular needs and desires of each location's visitor profile. It should be noted, however, that there is evidence that VGS tend to be most successful when they have a clearly focussed identity and where the funding or other inputs are linked directly to specific projects²¹. Therefore, schemes which offer multiple investment options need to take care to target each option clearly towards specific visitor profiles, making it clear to visitors exactly how their investment will benefit specific projects of particular relevance to their interests. Scott et al (2003)²² also suggest that it may be worth offering a range of different payment mechanisms to suit the needs of different types of visitor, for example donation boxes and opt-in levies on accommodation.

3.4 What is the profile of visitors who contribute to VGS?

The literature review revealed a paucity of available information in relation to the profile of contributors to VGS. A study by Denman and Ashcroft (1997) identified the following factors influencing people's willingness to pay (WTP):

- **Age** – surveys suggest that young people are marginally keener.
- **Educational attainment** – WTP tends to increase with education, but only slightly.
- **Type of holiday interest** – visitors who enjoy exploring heritage and countryside are more likely to pay. The type of activity undertaken by individuals can also impact upon their willingness to engage with VGS. There is evidence that visitors involved in outdoor activities such as walking and climbing tend to donate more than visitors engaged in more sedentary activities or holidays. This may again be due to the fact that those who benefit most from a scheme (such as walkers who benefit from well maintained paths or bikers from well managed trails) are likely to be the most willing to contribute.
- **Nationality** - A survey conducted on visitors to Tenerife highlighted a clear difference in how much individuals from different countries donated to the scheme as well as how often they donated. In particular, the survey revealed that individuals from Britain donated least, while those from Germany and Scandinavia donated most²³. This corroborates well with research in the East of England which showed that overseas visitors have been more supportive of VGS than local domestic visitors²⁴.
- **Ease of payment.** Visitors are more likely to pay if they can do so quickly and easily.

²⁰ <http://www.cognition.co.uk> accessed 3rd January 2013

²¹ Scott et al (2003) Visitor Giving: Panacea or Pandora's Box for Conservation in the UK? *Journal of Environmental Planning and Management*, 46(4), 583–604

²² Ibid

²³ Denman, R. and Ashcroft, P. (1997), 'Visitor Giving; Encouraging Tourists to Give Money Voluntarily to Conserve the Places They Visit', Ledbury: Tourism Company.

²⁴ EETB (2000), 'Visitor Giving in the East of England. Summary report', East England Tourist Board, England.

A study carried out by the East of England Tourist Board (EETB) to establish the profile of contributors to VGS found that visitors who were staying in the area for one or more nights had a higher willingness to pay into the scheme than day visitors²⁵. Similarly, the number of residents stating they were willing to donate was higher than the number of day visitors. This suggests there may be an important link between the extent of the benefits received by visitors and their willingness to contribute, i.e. those who live in a local area or spend more time in the area are more likely to realise the benefits of a VGS and so are more likely to contribute. This finding is also supported by a report commissioned by the Countryside Council for Wales (CCW) in 2002²⁶. As such, targeting fundraising towards activities with demonstrable local improvements and emphasising promotion of the scheme towards locals or visitors who frequent the area regularly may contribute to the success of a VGS.

3.5 What types of payment mechanisms are used and how suitable are they for PES?

The literature review revealed that a variety of different payment mechanisms are used, depending on the type of VGS being offered. Again, the flexible nature of VGS allows the method of payment most appropriate to each individual scheme to be selected. The variety of the payment mechanisms used means that the different methods vary in the degree to which they meet the criteria of Payments for Ecosystem Services (PES) schemes (see Box 1).

Voluntary donations collected through boxes or envelopes seem to be the most widely used method of raising funds for VGS, possibly because of the ease with which they can be set up. These mechanisms are popular with local businesses and visitors as they are non-intrusive and require little in the way of maintenance or administration costs. Despite these advantages, voluntary donations do not usually generate substantial revenues unless they are particularly well designed and/or promoted; the Gift to Nature scheme, for example, on the Isle of Wight, commissioned local artists to design and produce individual donation boxes²⁷.

Most of these mechanisms are not set up to provide donations to specific projects that could provide measurable ecosystem service benefits in return for donations, however it is possible that donations made in this way could be set up as PES with appropriate accompanying information e.g. providing information about the level of ecosystem service benefits that could be derived from different levels of donation, potentially allowing donors to tick boxes to direct their donations to specific projects and ecosystem services.

One of the most common approaches to payment is to use **opt-in or opt-out levy schemes** whereby a local business offering a service, such as accommodation or food, automatically adds a levy to the customer's bill (typically a percentage of the total bill). The customer is informed of this addition and is offered the opportunity to opt-out and have the levy removed from the total. Alternatively, some businesses operate on an opt-in basis whereby the

²⁵ EETB (2000), 'Visitor Giving in the East of England. Summary report', East England Tourist Board, England.

²⁶ Scott, A., & Christie, M. (2002) *Charging for Conservation: Visitor Giving*, University of Wales.

²⁷ Scott, A., & Christie, M. (2002) *Charging for Conservation: Visitor Giving*, University of Wales.

customer is informed of the VGS and the activities covered by donations, then is given the opportunity to add a levy to their food or accommodation bill.

Box 1: Definition of Payments for Ecosystem Services in the context of VGS

In order to be classified as a Payment for Ecosystems Services scheme, five specific criteria should normally be met²⁸. Significantly a number of these requirements equate with the definition of visitor giving schemes themselves. In the context of visitor giving, PES should normally be additional to current donations rather than displacing them. These are as follows:

(A) Beneficiary pays: the scheme must involve direct payments (or payments in kind e.g. labour) from those that benefit from the ecosystem service to the providers of enhanced ecosystem services (though in reality this usually occurs via intermediaries). In the case of VGS, this would include for example, a visitor to a National Park donating money to a Trust that operated conservation projects in the National Park that provide climate regulation benefits or enhance recreational benefits for visitors;

(B) Conditionality: payments must be clearly linked to, and conditional on, the delivery of a specified ecosystem service benefit. In a VGS scheme, this would exclude donations to projects that are unable to specify or fail to communicate the ecosystem service benefits they provide to those who make donations. For example, this excludes many membership based schemes, where it is not clear how donations lead to ecosystem service benefits;

(C) Voluntary: donations to a PES scheme must be entirely voluntary and thus exclude fees such as entrance charges to National Parks or levies that do not include opt-in or opt-out options²⁹;

(D) Additionality: schemes must operate on the principle that payment is only made for benefits that would not otherwise have occurred (e.g. in addition to statutory requirements). Thus, a scheme which enabled a farmer to perform work that simply complied with standard environmental legislation would not be considered PES; and

(E) Ensuring permanence and avoiding leakage: management interventions paid for by beneficiaries should not be readily reversible, thus providing continued service provision, and PES schemes should be set up to avoid leakage, where securing an ecosystem service in one location simply leads to the loss or degradation of ecosystem services elsewhere. These standards should be met in any VGS that aims to facilitate PES.

²⁸ Smith, S., Rowcroft, P., Everard, M., Couldrick, L., Reed, M.S., Rogers, H., Quick, T., Eves, C. and White, C. (2013). Payments for Ecosystem Services: A Best Practice Guide. Defra, London.

²⁹ Wunder, S. 2005 "Payments for environmental services: Some nuts and bolts", in Defra (forthcoming) 'Payment for Ecosystem Services: A short introduction'.

The review found that opt-out methods are generally much more successful in generating revenue³⁰; with one scheme finding only around 2% of visitors refused to contribute to opt-out schemes compared to around a third in opt-in schemes¹⁶. This may be because customers are less inclined to delay their checkout by adding on supplements or levies to their bills³¹, suggesting that 'ease of payment' may be a significant issue in the design of successful VGS. A further factor may be a reluctance to ask for the voluntary item to be removed for fear of appearing 'mean'. The fact that the item has been added and flagged as a 'good thing' may lead people to feel the need to leave it on the bill to feel good about themselves and comply with a perceived social norm.

Although these schemes have been successful in generating income for VGS and are clearly voluntary, they are typically ill-suited to PES because there is not usually any way of linking a payment to the provision of a well-defined ecosystem service benefit (i.e. they fail the 'conditionality' criteria – see Box 1).

Another payment vehicle commonly used in VGS are **merchandising schemes** whereby items such as t-shirts, stationery, and soft toys are sold with a logo or piece of information linking the item to a particular conservation project. The merchandise items usually inform customers that a certain percentage of the purchase price goes directly towards a particular activity or project. Typical percentages range from one to five percent of the purchase price³². Studies looking at the impact of payment mechanisms on contributions to VGS found that the willingness to donate to a product appear to be higher than the willingness to pay a levy on accommodation or a meal – perhaps because levies can be perceived as a stealth tax if they are not directly associated with a conservation project.

Branded merchandise can have further benefits through promotion and advertising of the scheme although they can be viewed negatively by some due to a perceived 'commercialisation' of nature. As such, the quality and legitimacy of the product is important (e.g. avoiding red squirrels toys made in China). Although it is possible to effectively link merchandise to specific projects that deliver particular ecosystem service benefits (i.e. the conditionality criterion could be met), this would be a "PES-like" scheme, given the difficulty of knowing the role that the payment for ecosystem service plays in purchasing decisions, and hence whether the payment is technically voluntary. Also, Scott et al. (2003) found that some visitors in their research had a perception that VGS were "commercialising" nature, citing examples of red squirrel branded pens and T-shirts.

Membership schemes offer the opportunity for visitors to join a group or society which supports a conservation cause. Members who sign up to such schemes typically pay a monthly or annual subscription fee and receive newsletters detailing the progress of the scheme as well as information on how their money is being spent³³. Some schemes offer members a range of discounts, or offer 'loyalty card' schemes whereby visitors receive discounts for using local businesses participating in the VGS and a share of the proceeds go

³⁰ Warren, N. (2001) Visitor Giving – Looking at the Realities Behind the Success Stories

³¹ Scott, A., & Christie, M. (2002) *Charging for Conservation: Visitor Giving*, University of Wales.

³² Ibid

³³ Ibid

to the scheme. Membership schemes can incur substantial administration costs (such as producing regular newsletters) and it can sometimes be difficult to generate interest; perhaps because a proportion of visitors have only a short-term interest in the area which does not last beyond their stay. The majority of these schemes support a wide range of activities, only some of which may be linked to the provision of well-defined ecosystem service benefits, so due to the absence of a clear link between payments and the provision of ecosystem services, membership schemes would not normally provide an opportunity for PES.

More recently, a growing interest in eco-tourism has led to the establishment of participatory projects which offer volunteers the opportunity to get involved with a project activity and have a more 'hands on' experience as part of a VGS. The fee charged to participants typically covers their accommodation and food costs as well as a percentage going towards the project itself (alternatively fees may be paid via labour in some schemes). While the use of such **volunteering** schemes is growing, their adoption is limited by the significant amount of time and money required by participants to get involved.

In a similar manner, Nurture Lakeland has enabled local businesses to volunteer as part of staff development days. Typically this is not because the project needs volunteers; rather this sort of business engagement enables them to communicate more effectively with visitors about the project, so they can generate more positive PR for the business. The use of volunteers in this way is perhaps more widespread but is often not linked to VGS. It may however be possible to make use of volunteering schemes for the public and local businesses alongside existing VGS, for example supporting a particularly popular activity (such as red squirrel conservation). Although not strictly a 'payment' for ecosystem services, such schemes may be seen as a payment in-kind through labour for a particular ecosystem service benefit (e.g. planting a tree).

Another payment vehicle which has been used in VGS schemes is to hold **fundraising campaigns** or events, whereby one-off or periodic events are held to raise money for projects such as the 'Pound for the Peak' week where volunteers collect donations directly at certain sites within the Peak District National Park. While such events can generate significant publicity and revenue, a limitation is that fundraising opportunities are limited to particular periods of time within each year and may not raise enough money to cover the ongoing costs of the scheme. As such they may also be best used as part of a suite of funding mechanisms within a VGS. If designed appropriately and information is provided about the link between certain levels of donation and specific amounts of ecosystem service benefits that this secures, then fundraising events can facilitate PES.

A further potential option is securing company **sponsorship** for a VGS, which can raise significant sums of money although may be difficult to achieve, particularly during the early stages of a scheme. Alternatively **loyalty cards**, such as the 'Omega Card' offered by the Friends of the Ionian, charge membership fees which go towards local conservation projects and in return members receive a card which provides discounts on certain activities. A drawback of such schemes is that businesses involved may make a loss by providing discounts and visitors can be put off by the commercialisation of the process.

A brief comparison of the strengths and weaknesses of each payment vehicle is set out in Table 2. This table also sets out the capacity of each payment method to meet the criteria for PES schemes (see Box 1). It should be noted that the table displays the *potential* that a mechanism can meet PES criteria if designed appropriately; such that boxes coloured green represent a scheme which could meet the criteria and red if it cannot. For example, while donations are often not linked to the delivery of a specified ecosystem service and so typically would violate the conditionality criteria (B), a donation scheme could be designed to meet this criteria if, for instance, each donation of a certain amount was linked to the planting of a tree as in the Nurture Lakeland Woodland Fund³⁴. Those payment mechanisms which are coloured green across all criteria could, in theory, support a PES scheme, while mechanisms which do not meet all of the criteria could only support PES-like schemes.

³⁴ <http://www.nurturelakeland.org/current-news/woodland-fund.html>, accessed 27/02/2013

Table 2. Strengths and weaknesses of different payment mechanisms, and their suitability for supporting PES³⁵

Vehicle	Strengths	Weaknesses	PES
Suitable for PES			
Participation	<ul style="list-style-type: none"> ✓ Encourages active involvement ✓ Raises awareness ✓ Can change behaviours ✓ Lowers labour costs 	<ul style="list-style-type: none"> * Training and supervision is expensive * Health and safety issues 	A
			B
			C
			D
			E
Fundraising	<ul style="list-style-type: none"> ✓ Generates public awareness ✓ Can earn substantial revenues ✓ Can be linked to specific projects via discreet fundraising campaigns 	<ul style="list-style-type: none"> * Requires significant commitment and organisational time * Time-specific funding sources may not cover ongoing costs 	A
			B
			C
			D
			E
Sponsorship	<ul style="list-style-type: none"> ✓ Can raise large sums of money, especially if projects effectively target beneficiaries with significant Corporate Social Responsibility budgets 	<ul style="list-style-type: none"> * Difficult to set up, particularly during early stages 	A
			B
			C
			D
			E
Smart phone apps	<ul style="list-style-type: none"> ✓ Cheap to administer ✓ Easy to keep project information up-to-date and provide users with feedback ✓ Payments easy via SMS in sites where there is mobile network coverage (even if weak) 	<ul style="list-style-type: none"> * Perception among visitors that payments will not be safe or expose them to fraud * Less suited to demographics where adoption of smart phones is lower (e.g. lower socio-economic classes and older people) 	A
			B
			C
			D
			E
Less suitable for PES			
Donation boxes	<ul style="list-style-type: none"> ✓ Simple and easy to set up and administer ✓ Popular with local businesses ✓ Suitable for a range of situations 	<ul style="list-style-type: none"> * Requires active promotion * Collection can be cumbersome * Difficult to link payments to provision of ecosystem services, given the variation in donations made 	A
			B
			C
			D
			E
Levies (opt-in / opt-out)	<ul style="list-style-type: none"> ✓ Effective at raising money ✓ Easy for visitors to use 	<ul style="list-style-type: none"> * Sometimes difficult to get business involved 	A
			B

³⁵ Adapted from Scott, A., & Christie, M. (2002) *Charging for Conservation: Visitor Giving*, University of Wales.

Vehicle	Strengths	Weaknesses	PES
		<ul style="list-style-type: none"> * Less of a 'feel good' factor * Difficult to link levies to specific projects, so difficult to link levy to an amount of ecosystem service provided 	C D E
Merchandise	<ul style="list-style-type: none"> ✓ Generates publicity and awareness ✓ Effective at getting money from people who are not otherwise willing to donate ✓ Possible to link specific merchandise to specific projects and tell customers how much of a particular ecosystem service is delivered from their purchase 	<ul style="list-style-type: none"> * Typically low revenue * Large initial upfront costs * Risk people don't like product * Perception of commercialisation of nature * Customers do not have a choice about whether or not to donate as the payment is built into the cost of the item 	A B C D E
Not suitable for PES			
Membership	<ul style="list-style-type: none"> ✓ Long term funding source ✓ Strong feedback and involvement with members ✓ High 'feel good' factor 	<ul style="list-style-type: none"> * Administration cost often high * Membership is usually with an organisation rather than a project, so hard to link membership fees to specific ecosystem services * Members have no choice over whether (and which) projects are supported, and may not be beneficiaries of the ecosystem services provided 	A B C D E
Loyalty cards	<ul style="list-style-type: none"> ✓ Raises money for projects ✓ Provides visitors with tangible benefits ✓ Business demand and reputation improvements 	<ul style="list-style-type: none"> * Businesses have to take a loss per visit to give discount * May be perceived as a commercial gimmick focusing on discounts rather than the environment * Hard to link payments from cards to specific projects and hence ecosystem services * Card holders have no choice over whether (and which) projects are supported, and may not be beneficiaries of the ecosystem services provided 	A B C D E

The assessment presented in Table 2 shows that each method has its own advantages and disadvantages. The best approach to setting up a successful VGS may therefore be to

involve a combination of one or all of these payment mechanisms in order to make it as easy as possible for visitors to contribute and to encourage local businesses to get involved in the scheme³⁶. It is also apparent from the table that many of the existing payment mechanisms do not fully satisfy the PES criteria (Box 1). However, participation, sponsorship, fundraising campaigns and smart phone apps all have the potential to support PES. Although these mechanisms have limitations and drawbacks (see Table 2), they are able to target beneficiaries who can make voluntary contributions, and it is possible to make direct links between payments and ecosystem service provision.

Although a number of payment mechanisms can in theory support PES, the literature review showed that few of the existing VGS directly facilitate PES. However, a number of existing visitor giving schemes do have PES-type elements, such as offering the public opportunities to donate directly to conservation schemes with specific ecosystem service benefits in the area that they are visiting. Increasingly VGS are giving visitors detailed information about the project to which they are donating. Social media and websites have become powerful media that enable visitors to keep up to date with the latest projects and to see how their money is being spent. This increases the transparency and legitimacy of the VGS and also encourages repeated giving (see Section 2.9).

Although the quantification of ecosystem service benefits ideally needs to be clearer, PES-like VGS schemes include the “Fix the Fells” project that offers visitors the opportunity to contribute towards repair and maintenance of fell paths and a Red Squirrel Conservation scheme through which visitors can help protect the endangered red squirrel. Visitors to Cumbria can also participate in the Nurture Lakeland Woodland Fund by donating five pounds to cover the cost of planting a tree as well as its ongoing care³⁷. Caremoor for Exmoor, a VGS operating in Exmoor National Park, operates along similar lines to Nurture Lakeland, whereby visitors can voluntarily choose to pay opt-in levies to donate to conservation projects, which provide a range of specific ecosystem service benefits (though payments are not directly tied to an amount of ecosystem service provided).

Figure 1 shows the breakdown of visitor donations by ‘project’ for the Nurture Lakeland VPS over the periods 2011/2012 and 2012/2013. Over half of all donations go towards footpath restoration. This may, at least in part, suggest that donors are more willing to contribute towards projects that yield tangible or visible benefits.

³⁶ Scott, A., & Christie, M. (2002) *Charging for Conservation: Visitor Giving*, University of Wales.

³⁷ <http://www.nurturelakeland.org/current-news/want-to-see-more-woodlands-planted.html>, accessed 27/02/2013

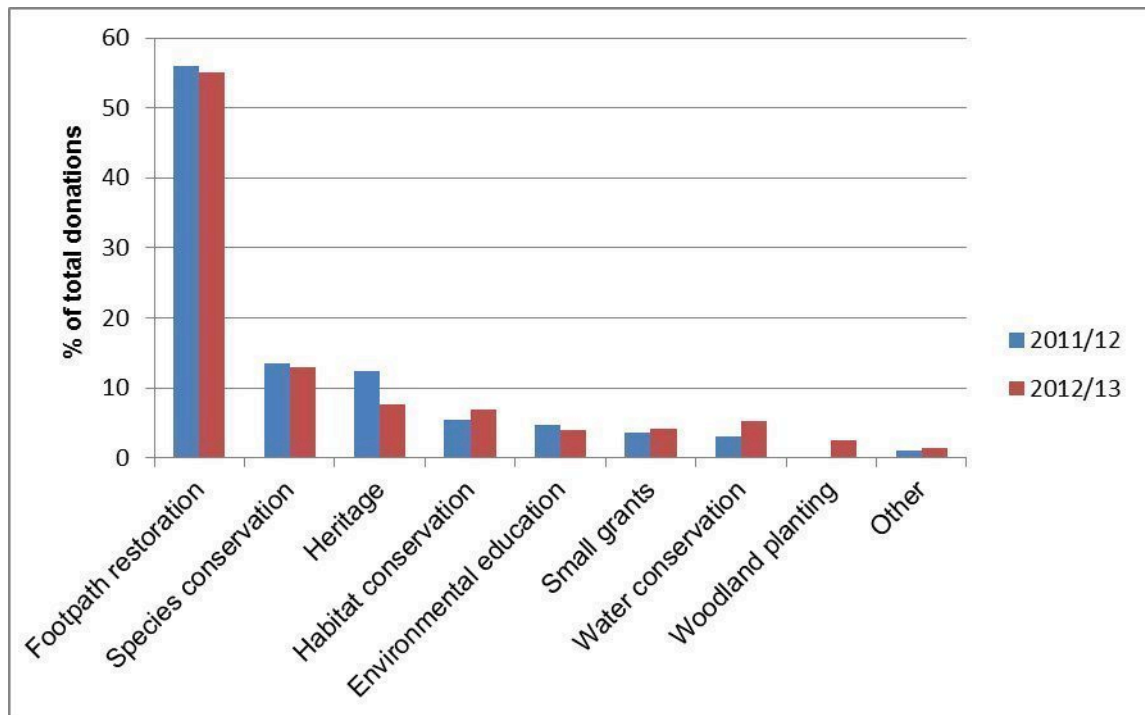


Figure 1. Breakdown of donations by project for Nurture Lakeland

Given that studies suggest VGS are most successful when donations are linked to specific projects with specific benefits³⁸, VGS providing PES mechanisms that meet the criteria in Box 1 are likely to be perceived positively by visitors, and attract higher levels of donations than schemes that have less tangible links to specific benefits. However, Table 2 suggests that some of the most efficient payment mechanisms (e.g. opt-out levies) are less well suited to delivering PES. This is one reason for exploring new payment mechanisms in Section 2.9.

Table 3 provides an overview of current, on-going projects that offer visitors the opportunity to contribute to conservation projects, although they are not specifically marketed as PES VGS. It may be possible to adapt many of the PES-like activities that are listed in this table to meet the criteria for PES listed in Box 1, potentially enhancing visitor satisfaction with VGS, increasing donations and enhancing the delivery of ecosystem services from VGS. However, there may be costs associated with such adaptations, including additional costs of administering more complex schemes and monitoring costs, which should be taken into account.

³⁸ Scott, A., & Christie, M. (2002) *Charging for Conservation: Visitor Giving*, University of Wales.

Table 3. PES elements in VGS

Name	Location	PES-like activity supported
Nurture Lakeland	Lake District, Cumbria	Fix the Fells, Red Squirrels Conservation, Osprey Project, Ullswater paths amongst others
Caremoor for Exmoor	Exmoor National Park, Devon	Rights of way, nesting boxes for dormice and upkeep of river crossings
Peak Pound Partnership	Peak District,	Conservation, environmental & community projects
Pagham Harbour Visitor Giving Scheme	West Sussex	Bird sanctuary amongst other environmental conservation projects
Friends of OUR Park Visitor Giving Scheme	Loch Lomond and the Trossachs National Park	Promotion of sustainable tourism & local environmental projects
Arran Trust Visitor Gifting	Isle of Arran	Wildlife conservation, path & trails, conservation of historical buildings
Love the Broads	Norfolk Broads	Biodiversity, conservation education for general public & improving visitor access
Step into the Cotswolds	Cotswolds	Conservation Projects

3.6 What are the typical costs involved?

Nurture Lakeland is one of the most well known VGS in the UK. It was established in 1993 and by 2002 had raised over £150,000 in voluntary donations. Approximately 80% of funds raised by the scheme were generated from four large businesses that operate voluntary levy schemes. Between 1999 and 2000, the total income from the VGS was £42,148, which was supplemented by a further £34,692 generated from corporate and associate membership³⁹.

During the same period, the total expenditure of 'Invest in the Lakes' amounted to £68,672; of which staff and office costs totaled around £26,524⁴⁰. Core funding is therefore still used to cover the administration costs of the scheme – more than the average annual donations. If core funding was not available for administration costs, the scheme would not be in a position to cover its core costs via donations and could not support conservation projects⁴¹.

This example demonstrates a general finding that emerged from the literature review; VGS schemes are typically characterised by high costs (particularly due to staffing) relative to voluntary revenues. As a result, even the most successful schemes are often highly dependent on additional funding and, while it is important to secure initial funding for start-up

³⁹ Council for National Parks report (2002) 'Landscape protection- the voluntary approach'.

⁴⁰ Council for National Parks report (2002) 'Landscape protection- the voluntary approach'.

⁴¹ Scott, A., & Christie, M. (2002) *Charging for Conservation: Visitor Giving*, University of Wales.

costs, schemes cannot depend on this initial funding for the life of the scheme and need to be able to cover ongoing costs if they are to succeed.

The Peak Environment Fund, for example, reported that their VGS became a liability after EU funding came to an end, because much of the Fund's fundraising effort had to be diverted to schemes with high costs, largely incurred due to the appointment of a full time director and part time secretary⁴². A smaller, more organic administrative structure may have been more appropriate and less costly.⁴³ Likewise, the Yorkshire Dales Millennium Trust established in 1997, reported that staff salaries accounted for approximately 50% of core costs that doubled over a three-year period, largely due to increased staff numbers and increased expenditure on fundraising and publicity⁴⁴.

VGS that involve participatory activities tend to incur higher costs due to significant requirements of staff time, with such schemes needing to utilise experienced staff to fulfil health and safety obligations on training and supervision⁴⁵.

As schemes grow in size, greater levels of administrative resources are required. Whether schemes have the potential to cover these costs once initial funding dries up should be a major consideration prior to the commencement of any VGS. This issue is clearly illustrated by The Exmoor Path Partnership, which was set up in September 1997 as a three-year project funded by the European Agricultural Guidance and Guarantee Fund. During the three year period the project improved 225 kilometres of paths and over 80 businesses signed up to help raise funds, resulting in over £15,000 being generated from voluntary contributions⁴⁶. However, the scheme's running costs, at around £180,000 p.a., greatly exceeded revenues and, as result, the project was shut down after the initial funding was used up⁴⁷.

It appears from the literature review that VGS schemes are typically characterised by high costs (in particular staffing costs are likely to be most significant). As a result, in many VGS it may be unrealistic to expect voluntary donations to cover the schemes expenses. An essential aspect of designing a successful VGS therefore lies in reducing costs of the scheme, particularly those related to staffing.

3.7 What is the typical level of revenue generation?

With regards to revenue generation, the literature suggests there are potentially significant levels of revenue that could be generated by VGS. One study, for example, suggested there is potential to generate six pence per night per tourist within Europe for conservation activities through VGS, creating an estimated £112 million per annum⁴⁸. Likewise, research

⁴² Council for National Parks (2002) "Landscape Protection – the Voluntary Approach, A study of the development of not for profit organisations in the management of protected areas in the UK" 2002

⁴³ Chapman, C. (2008), Visitor Giving –Developing and implementing effective schemes

⁴⁴ Council for National Parks report (2002) 'Landscape protection- the voluntary approach'.

⁴⁵ Scott, A., Christie, M. and Tench, H. (2003) Visitor Giving: Panacea or Pandora's Box for Conservation in the UK? *Journal of Environmental Planning and Management*, 46(4), 583–604.

⁴⁶ Exmoor Paths Partnership (2001) A paths improvement scheme with tourism support, available online at: <http://www.exmoor-nationalpark.gov.uk/Projects/EPP/epp.htm>

⁴⁷ EETB (2000), 'Visitor Giving in the East of England. Summary report', East England Tourist Board, England.

⁴⁸ Ibid p.p. 586

conducted by The Peak Tourism Partnership on visitors' attitudes to donating to conservation projects, revealed that 74% of visitors supported the principle of supporting local conservation work and expressed a willingness to contribute through donations or voluntary levies (e.g. on car park charges and accommodation costs).

However, further studies suggest that there is a disparity between the amount of visitors that say they are willing to pay in surveys, relative to the amount that are likely to donate if a scheme is actually put in place. A report by Christie and Matthews⁴⁹, for example, compared stated donations to actual donations and revealed a significantly higher number of visitors stated they were willing to donate than actually made a donation. Further studies also suggest that the size of stated donations can be up to twice as high as the actual donations collected⁵⁰.

Despite these factors, on the whole, the available research concludes that there is a considerable willingness to pay for conservation activities through voluntary schemes and the difference between stated donations and actual donations should not act as a deterrent to the establishment of VGS. In addition to the revenue raised directly by VGS, several studies have suggested that they can secure significant intangible benefits such as developing positive relationships between tourism and conservation at a local level, improving residents' attitudes towards visitor impact, and encouraging tourism businesses to act in an environmentally sustainable manner^{51,52}. There has, however, been little research into quantifying such benefits or looking at whether they outweigh the costs of VGS.

With regard to the success of different payment mechanisms in generating revenues, levy schemes have proved far more effective in raising money than voluntary donation boxes. For example, the Exmoor Paths Partnership, established in 1997, reported that during the period 1997 and 2003⁵³, a single small hotel raised an average of £1,000 each tourist season from placing a levy on meals and accommodation. The Partnership reported that almost all visitors were happy to pay these levies and a small number of local businesses offered to match visitor contributions with donations of their own. Likewise, car park levies in the Peak District VGS have proved effective in raising funds.

By contrast, the Exmoor Paths Partnership reported that donation boxes placed in tourism related businesses tended to raise very little and the amount raised was heavily dependent on the extent to which staff promoted the scheme. Similar results for donation boxes at the Peak District Tourism & Environment Fund project have also been reported; with unattended boxes left on counters generating very poor returns.

⁴⁹ Scott, A., & Christie, M. (2002), *'Charging for Conservation: Visitor Giving'*, University of Wales.

⁵⁰ Ibid

⁵¹ Denman, R. and Ashcroft, P. (1997), *'Visitor Giving; Encouraging Tourists to Give Money Voluntarily to Conserve the Places They Visit'*, Ledbury: Tourism Company.

⁵² Scott, A. & Christie, M. (2002) *Charging for Conservation: Visitor Giving*, University of Wales.

⁵³ Causeway Coast and Glens Heritage Trust (2004), *'Visitor Giving Scheme – a feasibility study'*.

The literature review also suggests that merchandising schemes tend to yield poor returns, this is particularly the case where cheap or 'tacky' foreign made goods are sold⁵⁴, with some visitors reporting a dislike of the 'commercialisation' of nature. Here, the cumulative impact of VGS might become a key factor. For example, if a visitor has an opt-out scheme for booking a one week cottage, followed by a boat trip and three visits to different restaurants all with VGS, and then sees VGS merchandise, they may reach saturation point. Hence there is a need for different components of VGS to be targeted to different visitors⁵⁵.

A focus group conducted by Scott et al. (2003)⁵⁶ to assess the public's attitude to VGS, determined that of all the techniques available within the VGS, merchandising attracted the most negative responses. The focus group reported a general mistrust for merchandising, stating that they felt that the merchandise produced for the Kite Country project was "tacky" and an "underhand attempt by business to profit from a charitable activity"⁵⁷. However, the focus group also revealed that the public are willing to pay for high quality factual booklets with the proceeds being donated to a conservation project as this complemented the aim of the projects rather than trivialised them into commercial products⁵⁸.

Findings from the European Visitor Giving Project⁵⁹ suggest that the sale of stickers and badges tends to be less successful than other forms of merchandising, however, there is potential for awareness raising if distributed for free, for example, in response to a donation. Overall, the European Visitor Giving Project found that merchandising in general generated the least amount of funds for the projects. It also revealed that buyers are more motivated by the item than by the cause that it supports, thus it is vital to produce quality merchandise that the public are interested in and willing to purchase. Pilot sales of merchandise could help eliminate merchandise that is less likely to be successful. Furthermore, merchandising placed in areas where visitors intend to shop, such as gift stores, are typically more successful in generating higher revenues than merchandising placed in areas such as information points, where visitors are more likely to be seeking information rather than intending to shop. These findings were also similar to results from the Tarka Project in Devon, however, given the right merchandise, it can be an effective method of generating donations from visitors who would otherwise be unlikely to donate⁶⁰.

Fundraising events such as the 'Pound for the Peak' scheme, an annual collection operated by volunteers at 'Pound for the Peak' events, have been more successful in terms of raising money, although volunteer collectors at 'Pound for the Peak' reported a somewhat hostile reaction from some visitors who felt they were being hassled for money in addition to the

⁵⁴ Scott, A., Christie, M. and Tench, H. (2003) Visitor Giving: Panacea or Pandora's Box for Conservation in the UK? *Journal of Environmental Planning and Management*, 46(4), 583–604

⁵⁵ *Ibid*

⁵⁶ *Ibid*

⁵⁷ *Ibid* p.p.597

⁵⁸ *Ibid*

⁵⁹ Denman, R. and Ashcroft, P. (1997), 'Visitor Giving; Encouraging Tourists to Give Money Voluntarily to Conserve the Places They Visit', Ledbury: Tourism Company.

⁶⁰ Scott, A., Christie, M. and Tench, H. (2003) Visitor Giving: Panacea or Pandora's Box for Conservation in the UK? *Journal of Environmental Planning and Management*, 46(4), 583–604.

amount they had already paid for visitor facilities and through their local and government taxes⁶¹.

Overall, a review of the available literature suggests that, due to the high costs involved with running a VGS, the best strategy may be to diversify the sources of revenue as much as possible within a set marketing strategy that minimises VGS saturation. Looking at the contribution of different payment mechanisms to a single VGS in more detail, an analysis of the income and expenditure account for the Peak District Tourism and Environment Fund (see Table 4) illustrates that between 1997-1999, total fundraising from donations, levies, merchandise, and events amounted to £22,611, while the net income generated (total income from fundraising minus costs of fundraising schemes) was £8,899. The total income over the same period was £159,834 meaning that only approximately 13% of the Fund's income was generated by these donations. This figure is significantly lower than was estimated in the business plan for the Fund, which forecast for approximately 70% of income to be generated through donations⁶².

Table 4. Income and expenditure account for the Peak District Tourism and Environment Fund 1/10/97 to 31/7/99⁶³

	£	£		£	£
INCOME			EXPENDITURE		
<i>Fund-raising:</i>		22,611	<i>Core Costs:</i>		112,738
Car park donations	5,764		Management Fees and NI	93,068	
Accommodation scheme	53		Rent	1,456	
Badge scheme	2,757		Travel and subsistence	1,320	
Levy scheme	1,414		Office costs	16,149	
Pound for the Peak	6,746		Training	745	
Donations	3,212		<i>Fundraising scheme costs</i>	13,712	13,712
Standing Orders	1,220		<i>PR</i>	15,430	15,430
Other	1,445		<i>Grants to projects</i>	6,030	6,030
<i>Grants/sponsorship:</i>		114,564	<i>Other</i>	5,699	5,699
Objective 5b	52,283		Total Expenditure		153,609
Tarmac	25,000				
Rolls Royce	25,987				
Britannia Building Society	6,000				
Sainsbury	250				
YTV	250				
Nestle	300				
Gift Aid	4,194				
<i>Event/product specific sponsorship</i>	7,505	7,505			
Transfers	14,705	14,705			
Total Income		159,834			
			INCOME/EXPENDITURE BALANCE		+ 6,226

While it proved considerably harder than envisaged in the Business Plan for the Peak District Tourism and Environment Fund to generate funds through such methods, the scheme has been particularly successful at raising revenue through corporate grants and sponsorship (£144,564).⁶⁴ This enabled it to meet its ongoing administration costs (£112,738) as well as

⁶¹ Ibid

⁶² Ibid

⁶³ Council for National Parks (2002), 'Landscape Protection – the Voluntary Approach: A study of the development of not for profit organisations in the management of protected areas in the UK'.

⁶⁴ Ibid.

contribute grants towards project activities, lending weight to the idea that successful VGS should adopt a range of payment mechanisms in order to cover costs.

The lack of PES schemes found in the review, other than certain aspects of the Nurture Lakeland VGS, makes it difficult to assess whether the revenues from PES-based VGS are likely to be higher or lower than more traditional methods such as accommodation levies and membership fees. Potentially, they be more successful at raising revenues than traditional approaches due to the fact that they are strictly voluntary so are less likely to be perceived as a tax⁶⁵, directly linked to observable changes in ecosystem service provision, and can secure multiple funding sources for the same project by selling the benefits of a project to different buyers (for example, planting trees could raise revenues from water companies who may pay to secure water quality improvements as well as companies and individuals who want to offset their carbon emissions). However, the literature suggests that multiple payment mechanisms are often needed to cover costs and so PES schemes may best be incorporated as an additional source of revenue alongside other payment mechanisms.

3.8 What is the influence of VGS on local spending?

The literature review did not reveal any research into the impact of VGS on wider spending patterns in the area. As this is a key issue in the design of VGS schemes, this question was investigated further during the survey with visitors and businesses (section 4).

3.9 What are the potential benefits and drawbacks of VGS in different institutional contexts?

The literature review did not uncover sufficient evidence to enable a detailed comparison of the potential benefits and drawbacks of VGS within different institutional contexts.

The evidence that does exist suggests that visitors are more willing to contribute towards VGS if the scheme is perceived to be separate from local authorities and is an independent charity. This may be due to the feeling that activities carried out by local authorities are already paid for through the tax system, and should be covered by the existing budget rather than by asking for voluntary donations. Charities, on the other hand, are associated with fundraising and are typically expected to be funded through voluntary donations, so people are usually more willing to donate. This factor may have given rise to the increase in the establishment of Trusts linked to AONBs, for example, Tarka Country Trust in Devon⁶⁶.

The potential for non-profit organisations to take the lead in fundraising is demonstrated by the success amongst organisations such as the Yorkshire Dales Millennium Trust, the Lake

⁶⁵ Professor T Stevens (2002). Sustainable Tourism in National Parks and Protected Areas: An Overview. Scottish Natural Heritage Commissioned Report F01NC04.

⁶⁶ Scott, A., Christie, M. and Tench, H. (2003) Visitor Giving: Panacea or Pandora's Box for Conservation in the UK? *Journal of Environmental Planning and Management*, 46(4), 583–604

District Tourism and Conservation Partnership, and the Mourne Heritage Trust. The Mourne Heritage Trust reported a return of approximately £4 for every £1 spent by the public sector, while the National Trust and the Lake District NPA spent £15,000 between 1999 and 2000 on the Lake District Tourism and Conservation Partnership and generated £42,000 in visitor giving, a return of almost 3 to 1. Similarly and most significantly, the Yorkshire Dales Millennium Trust had a leverage ratio of approximately 1 to 9; for every £1 invested by the public sector they raised an additional £9 in VGS⁶⁷.

Interestingly, the psychological aspects of all aspects of the structure and design of a VGS appear to be of significant importance. The literature review for example identified that activities with a clear 'feel good' factor, in particular local conservation projects, can increase the willingness of visitors to donate; with projects that have a direct and explicit link between donations and activities tending to yield higher donations⁶⁸. This suggests that establishing a clear positive benefit from contributing, whether it is due to demonstrable environmental improvements or from feeling good about donating, is important in the success of a scheme.

This is further support by the results of a focus group conducted by Scott *et al.* (2003) which found that the group 'expressed hostility' towards the term 'visitor payback as they felt the word payback implied something negative⁶⁹. A more favoured term was 'visitor investment', where the negative connotation of payback was replaced with a more positive image of investing in the area. It is evident from the review that terms like 'visitor giving' are becoming increasingly popular, reflecting a move away from terms like 'payback', which is perceived to be a detrimental term and is associated with guilt⁷⁰.

Key issues in the design of a scheme therefore suggest that VGS should aim to ensure that payments are seen as donations to non-profit organisations, be designed with a clear focus, clearly linked to local benefits (including ecosystem services), and be phrased in positive terms such as 'investment' or 'giving' rather than 'payment', 'levy', or 'tax'. PES schemes could therefore provide benefits in that they provide clear links to environmental benefits, although could have a disadvantage if they are perceived as fundraising for local authorities or seen as imposing a tax or levy rather than a chance to invest in the local area.

3.10 What is the use of smart phone technology in VGS?

Much of the VGS literature tends to predate the emergence of 'smartphone' technology and, as a result, there is little discussion of the use and potential role that technology can play in VGS in the UK. However, internationally, a scheme operating in the Hoge Kempen National

⁶⁷ Council for National Parks (2002), 'Landscape Protection – the Voluntary Approach: A study of the development of not for profit organisations in the management of protected areas in the UK'.

⁶⁸ Denman, R. and Ashcroft, P. (1997), 'Visitor Giving; Encouraging Tourists to Give Money Voluntarily to Conserve the Places They Visit', Ledbury: Tourism Company.

⁶⁹ Scott, A., Christie, M. and Tench, H. (2003) Visitor Giving: Panacea or Pandora's Box for Conservation in the UK? *Journal of Environmental Planning and Management*, 46(4), 583–604

⁷⁰ <http://www.cognition.co.uk/about/get-involved>, accessed 26/02/2013.

Park in Belgium uses an innovative E-Park Digital Visitor Giving System⁷¹. The scheme developed the concept of a 'digital VGS' where visitors who donate receive a specially designated 'Donator' Car E-park. Visitors' send their licence plate number together with the donation via SMS and receive an SMS reply to confirm their car space at the Park. Further options include paying digitally for route maps to complete a plant or animal treasure hunt and paying for a calorie burn counter which computes the calories burned during the time at the Park and, when the visitor has reached a certain level burned, earning a free slice of cake at the Park café.

Within this system a further technological development includes an Android 'Disconnect' app for mobile phones, which allows users to set their status to "disconnected" while they are in the Park, providing them with a sense of getting away from it all. The app is available on Google Play for €1.98 and 100% of the profit is donated to the National Park foundation. Since the scheme and its innovative use of technology is relatively recent, there is little in the way of an analysis of its success in terms of reducing administration costs. However, the scheme does point to the fact that innovative uses of technology can be integrated into the traditional VGS framework. If they could be used to reduce the administration costs of a VGS (by, for example, reducing promotion and collection costs and reducing the number of staff required to run the scheme) and make it easier for visitors to contribute, then they could significantly increase the viability of new VGS.

Drawing on the previous literature, it is important to avoid apps becoming associated with the "commercialisation" of the countryside (e.g. apps with advertising). Linked to this, many people visit the countryside to escape the use of technology and thus there will be a group of people who are not interested in this more specialist payment vehicle.

3.11 What are the barriers and challenges facing VGS?

A common theme running through the literature review is that VGS vary widely according to the local situation, meaning that each scheme faces unique barriers and challenges to successful operation. Nevertheless a number of broad lessons regarding the challenges facing VGS can be drawn from the experiences of the various schemes surveyed in this review:

Design of schemes: many schemes for VGS are predicated on a false assumption that they will be financially sustainable in the long-term in the absence of core grant funding. As such some VGS are set up using grants and then fall by the wayside after a few years when the grant runs out. They lack a sustainable model and business plan for the long term.

Visitor perceptions: if a VGS is perceived as a stealth tax or further charge it can lower visitor's willingness to contribute significantly and lead to a loss of the 'feel good factor', which drives many donations⁷². As such, visitors are more willing to pay towards a scheme if it is perceived to be separate from local authorities and is an independent charity. This

⁷¹ <http://www.boondoggle.eu/>, accessed 26/02/2013.

⁷² Causeway Coast & Glens Heritage Trust (2004), 'Visitor Giving Scheme – Feasibility study: Final Report'.

means that local authorities who wish to set up a VGS will typically need to work with a non-profit organisation who leads the fundraising for the scheme.

Resources: one of the key constraints to VGS is access to time, finance, and human and physical resources. The experience of multiple schemes revealed that staffing costs, in particular, are a major constraint to the success of VGS schemes and the income from VGS typically need to be supplemented by other revenues. Furthermore VGS that have a large bureaucracy may put people off donating as they like to feel that most of their money goes to the administration of the scheme and not to providing environmental benefits.

Willingness to donate: one challenge to VGS is the discrepancy between what visitors' state they are willing to pay when asked in a survey versus what they actually donate in practice. Due to the fact that stated willingness to pay tends to be significantly higher than the funds actually collected at VGS sites, designing an effective Business Plan that covers ongoing staff and administration costs can be difficult⁷³.

Donations: voluntary donations through donation boxes tend to yield very poor results, particularly when left unattended and on counters. Yields can be increased by involving volunteers with donation collections who can supply information and verbally encourage donations⁷⁴. Likewise, strategies which increase the ease of donation can improve yields. For example, providing opportunities to pay immediately on site rather than later (such as, for example, mail-in envelopes) as well as providing opportunities to donate in the donors' own currency can increase yields. Opportunities to donate regularly through membership schemes also tend to increase the amount donated.

Participation of business: small businesses may be reluctant to participate in VGS due to a perceived potential for loss of price competitiveness and a fear of providing a disincentive to customers by pressuring or cornering them into donating. The extra time and administration can also act as a disincentive. This can make generating significant interest and participation within the tourism business community a challenge. However, the evidence suggests that businesses participating in VGS do not lose customers and, in fact, visitors are very receptive to VGS⁷⁵. A further challenge lies in reassuring visitors that the funds raised through donations are directly linked to the services they are paying for⁷⁶. Regarding opt-in levies, such schemes can be more time consuming to administer and therefore may suffer from customer impatience leading to lower revenues.

Membership schemes: membership based VGS schemes can be both costly and time consuming to administer, and yield poor returns if there is insufficient demand for membership. Promoting the scheme can also be challenging and requires significant staffing time input to meet members' expectations for regular newsletters etc.

⁷³ Scott, A., & Christie, M. (2002), *Charging for Conservation: Visitor Giving*, University of Wales.

⁷⁴ Denman, R. and Ashcroft, P. (1997), 'Visitor Giving; Encouraging Tourists to Give Money Voluntarily to Conserve the Places They Visit', Ledbury: Tourism Company.

⁷⁵ <http://www.celticfringe.org.uk/fundraising-environment.pdf>, accessed 26/02/2013

⁷⁶ Denman, R. and Ashcroft, P. (1997), 'Visitor Giving; Encouraging Tourists to Give Money Voluntarily to Conserve the Places They Visit', Ledbury: Tourism Company.

Merchandising: these schemes can be riskier than other forms of VGS due to the level of upfront capital required to purchase the initial stock which may or may not sell well and could generate little revenue if left unsold. Linking in with local artists and suppliers can reap bigger dividends but care must be taken to avoid over commercialisation.

3.12 Conclusions

The literature review revealed that, while there are a number of VGS in the UK, all of the schemes that have arisen to date are local or regional in nature and there is limited sharing of experience between schemes and few evaluations of their success (or failure). Notably, the academic literature on VGS is limited. Further, the use of PES in VGS in the UK is not widespread and its potential to increase investment in VGS has not been fully explored. As a result, while some of the research questions can be answered based on the findings in the literature, there are some areas of uncertainty over the use of PES and VGS. The key conclusions and knowledge gaps are summarised in Table 5.

In order to fill these knowledge gaps, the next section attempts to provide a more detailed understanding of the characteristics of existing visitor giving schemes and the key challenges and barriers through a series of semi-structured interviews with VGS operators across the UK. Subsequent sections will consider these questions from the perspective of visitors and businesses using a case study in the Lake District National Park.

Table 5. Conclusions and knowledge-gaps surrounding the use of PES in VGS

Research Question	Conclusions	Knowledge Gaps
Contributor profile	VGS cover a range of different activities and this flexibility means they can be tailored to suit the needs of a local area and the location's unique visitor profile. Groups are likely to contribute to schemes which provide the most tangible benefits to them (e.g. walkers pay for path restoration) and those who benefit most (e.g. locals and frequent visitors) are most likely to contribute.	<ul style="list-style-type: none"> – What is the detailed breakdown of the type of people who contribute to schemes? – How does the amount they are willing to contribute differ across different groups?
Revenues	Revenues are often lower than expected as each payment vehicle has advantages and disadvantages. Using a combination of different payment mechanisms is a good method of maximising revenues. PES could open up new revenue sources particularly if it is easy to contribute and if payments are directly linked to tangible changes (e.g. increase in the number of trees).	<ul style="list-style-type: none"> – For schemes using multiple payment mechanisms, what is the % share of revenues from each source? – What share is PES likely to contribute? – What intangible benefits are generated by different schemes?
Costs	Ongoing costs are typically very high, particularly staff costs. In most VGS, it may be unrealistic to expect voluntary donations to cover the scheme's expenses. An essential aspect of designing a successful VGS therefore lies in reducing costs, particularly those related to staffing.	<ul style="list-style-type: none"> – How have existing VGS successfully reduced costs? – What scope could 'apps' have for reducing costs? – Are PES schemes likely to incur additional costs?
Context	A successful scheme should engage local businesses, be perceived as independent from local authorities, frame contributions positively, and offer demonstrable benefits.	<ul style="list-style-type: none"> – What are the potential advantages of using PES schemes in different institutional contexts?
Displacement	<i>No evidence in the literature.</i>	<ul style="list-style-type: none"> – What are the impacts of VGS on spending in the local area of existing schemes?
Technology	The ease of payment is key to success as is reducing administration costs. If an app can achieve these two things it could significantly increase the chance of success of the scheme.	<ul style="list-style-type: none"> – Have use of apps ever been proposed or trialled by any existing schemes? – If so, why were they not adopted?

4. SURVEY WITH UK VISITOR GIVING SCHEME OPERATORS

4.1 Background

The review of the available evidence (see previous section) revealed a number of important gaps in our understanding of how visitor giving schemes (VGS) operate, the nature and significance of costs they incur relative to the benefits, the characteristics of people who donate to such schemes and their preferences for the different types of activities that VGS typically support and/or for specific ecosystem services. Moreover, there is limited sharing of information between existing schemes and formal evaluations are few and far between. These are all important considerations for assessing the potential for using Payment for Ecosystem Service (PES)-based VGS as a means of securing specific benefits from nature and, ultimately, increasing investment in VGS.

This section sets out the findings from a series of telephone interviews held with a cross-section of people involved in running VGS around the UK. The objective of the interviews was to explore in more detail how these schemes operate, their benefits and drawbacks and what lessons they may offer for others who may wish to adopt the approach, as a basis for paying for ecosystem services.

The aim of the telephone interviews was to bring together the experience of various VGS in order to identify the barriers and challenges to developing and operating a successful scheme, and provide an evidence base for developing new approaches to visitor giving schemes that could facilitate PES. Ultimately, the interviews were designed to build upon the findings of the literature review in order to elicit a more detailed understanding of how VGS schemes in the UK operate and, more particularly, to explore the extent to which VGS may be used to secure specific benefits from nature, such as the provision of clean water or climate regulation, and whether or not, payments for ecosystem services (PES) could increase investment in visitor giving schemes.

4.2 Results

4.2.1 *Sample Characteristics*

Of the 32 schemes contacted, 12 opted out (6 immediately, 6 later on) either because they felt they had little to contribute because their scheme was not yet sufficiently mature, or because they lacked the resources to respond⁷⁷. There was no response from 11 of the schemes contacted⁷⁸. Nine surveys were completed. At least one further response is expected (taking the response rate to 31%) and will be added to the analysis included in the final report.

A summary of the responses to the invitation to participate is shown in Table 6 and Figure 2.

⁷⁷ Two of the people contacted felt that they had insufficient knowledge of the Scheme to respond and that those that had been more closely involved had subsequently left the organisation.

⁷⁸ In some cases, the original contact person referred the request to participate on to someone else. A 'no response' was only counted where there was no response to emails, telephone calls or voice messages.

Table 6. Number of responses to VGS operator questionnaire

<i>Total contacted</i>	32
Opt outs	12 (38%)
No response	11 (34%)
Complete response	9 (28%)

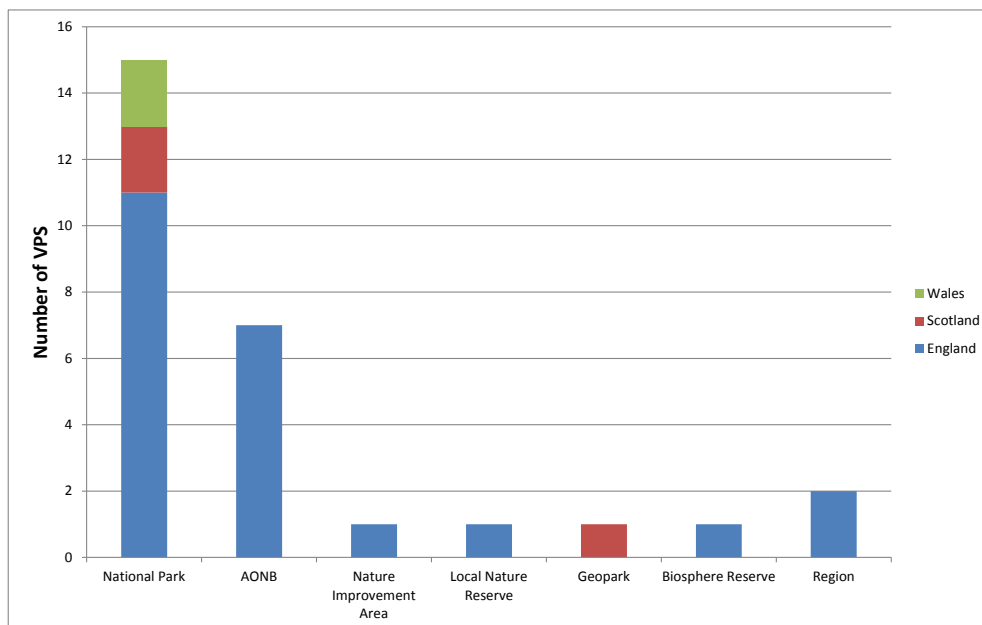


Figure 2. Distribution of VGS in the UK by setting and country

More than half (15) of the 32 VGS identified across the UK are situated within National Parks, 7 are in Areas of Outstanding Natural Beauty (AONB) and one in a Nature Improvement Area (NIA) – see Figure 2. A breakdown (by setting and country) of the VGS interviewed is also shown in Figure 2. All but one of the schemes interviewed had been operational for at least 3 years. Only one scheme (Dartmoor ‘£ for the Park’) had been operating for less than one year while the longest-running scheme (Nurture Lakeland) had been running for 18 years.

4.2.2 **Scheme objectives**

All the VGS shared a common overarching aim: to secure resources for initiatives to protect and enhance the local environment, which would not otherwise be funded⁷⁹. Some also had more specific objectives, including:

- to build business, community and visitor interest in conservation through awareness-raising and participation (e.g. through activity days);
- to attract funding to support initiatives to protect and enhance landscape, heritage, communities and wildlife;
- to improve access to, and enjoyment of the natural environment; and
- to promote more sustainable tourism.

4.2.3 **Governance and operation**

The schemes were administered in a variety of ways. Day-to-day administration was usually performed by between one and three paid part-time professional staff who reported to a management group or, in the case of schemes registered as charitable organisations, to a Board of Trustees. The Board typically oversaw the management of the scheme and decided which projects/initiatives to support.

Half of the six respondent schemes that were situated in National Parks were administered by the relevant National Park Authority (NPA), while the rest were administered by charities (in the form of Trusts or Friends organisations).

The schemes took a number of different forms. In many cases, they formed part of wider awareness- and fund-raising strategy that sometimes also included corporate sponsorship, volunteering opportunities and specific fundraising events.

VGS were often operated with the participation of local businesses offering, for example, accommodation, food and beverages, merchandise, etc. In such schemes, local businesses typically offer visitors the opportunity to donate to a chosen VGS (or activity within a scheme) through voluntary donations in a collection box or by placing optional levies on existing charges as part of an opt-in/opt-out scheme⁸⁰ (see section 3.6). Business participants are usually Bed and Breakfast (B&B) or other small independent accommodation establishments.

Participation in the schemes was generally open to all local businesses (e.g. within a National Park and/or wider region). Businesses were recruited by invitation, through meetings between scheme staff and business representatives, or through the local or regional Destination Management Organisations (DMOs)⁸¹. Several survey respondents commented that while this process can often be challenging in the early stages of scheme development, as the schemes

⁷⁹ One of the responses was subsequently removed from the analysis because the scheme is run by a private business enterprise (holiday lettings) where the primary objective of the scheme is to promote goodwill amongst the community (and thereby gain acceptance of the business) by channelling all the donations received into local community infrastructure (e.g. community centres, local schools and hospices, etc.) rather than environmental improvement projects.

⁸⁰ Opt out schemes were more commonly used than opt-in schemes. Businesses were not explicitly asked why they had chosen to use opt-out rather than opt-in schemes but research by Denman and Ashcroft (1997) revealed that opt-out is generally perceived to be more effective, as few people request to opt-out (approximately 2% compared to about a third in opt-in schemes), allowing small amounts of money to be collected from large numbers of people.

⁸¹ Organisations responsible for marketing a region's destinations.

matured and more businesses became aware of it and the potential benefits it offered, businesses would themselves sometimes approach the scheme, asking how they could get involved. The Cotswolds 'Step into the Cotswolds' pilot scheme was able to tap into existing relationships with businesses who were already participating in a 'green' tourism scheme (sustainable tourism partnership) operated by the Cotswold Conservation Board, etc.).

In the case of the '£ for the Park' scheme administered by the Dartmoor National Park Authority (DNPA), event organisers were made aware of the scheme through a central event booking scheme operated by the DNPA. As part of the booking process, event organisers were invited to participate in the scheme. Participating event organisers then asked event entrants to supplement their entry fee with a voluntary £1 donation to the Park. Organisers then sent in a single payment to the VGS after the event.

Scheme participants typically received advice from the scheme on how to support the aims of the VGS Trust set up to receive and disburse funds (hereafter referred to as the Trust). Scheme participants also benefited from the publicity provided by the scheme through, for example, listings on the scheme website (typically with hyperlinks to their preferred webpage) and in newsletters. Some also used the scheme to advertise their commitment to corporate sustainability and/or social responsibility.

Several of the respondents remarked that flexibility and the ability to tailor the scheme to the business models of participating enterprises and organisations was crucial to securing participation and maintaining on-going business support⁸². Money collected by the individual businesses was deposited into the Trust's bank account on a regular (typically monthly) basis. The funds were then disbursed to the relevant projects, initiatives or charities. Income from the schemes was typically ring-fenced for specific projects or causes. The scheme managers often worked closely with participating businesses to identify projects that best matched the business's ethos and sustainability policies and that also met the aims and objectives of the scheme. Once a business agreed on a project to support, they would market the projects they were supporting, with the assistance of marketing materials from the scheme and the businesses were then responsible for operating the mechanism to solicit donations from public⁸³.

Where online giving facilities were available (for example, the Friends of Loch Lomond & the Trossachs National Park Visitor Giving scheme), individual donors tended to be offered a menu of projects (and suggested donations) from which they could select the option that most closely matched their interest and willingness to pay.

Projects were sometimes developed and implemented by the scheme itself and in some cases were developed via a grant application process (e.g. Nurture Lakeland and Arran Trust invited proposals for project funding). Following the latter approach, the VGS simply acted as a broker between individual projects or community groups seeking funding to support their work and businesses. Applications were then scored by the Trustees against a number of criteria.

⁸² For example, the Caremoor for Exmoor VGS allows businesses to decide whether or not an opt-out levy on accommodation is an appropriate means of eliciting donations. Similarly, Nurture Lakeland works closely with business participants to tailor the scheme to their needs, including selection of projects and marketing materials and the '£ for the Park' VGS reported one of its strengths as having the flexibility to allocate the income generated to specific projects.

⁸³ For example, the Langdale Estate, a country house hotel and time share cottages Cumbria, adds £2 onto a booking via an opt-out scheme and informs its guests that the money collected through the levy is used to support a conservation scheme in the local valley. The time share cottages add a time share levy onto the annual maintenance of the cottage and all money raised goes towards maintenance of footpaths etc. in the protected valley which most of the guests are likely to benefit from during their stay.

4.2.4 Costs

The costs of operating VGS varied according to the size and complexity of the scheme and were often subsumed within wider organisational and administrative budgets, so scheme respondents were unable to provide any information on the costs directly associated with operating the scheme. For example, the staffing and administrative costs of schemes administered by NPAs were typically absorbed by the core NPA budget. Staff were not dedicated to the scheme full-time and administration of the VGS would be one duty amongst many for a member of staff employed full time by the NPA or charity.

For schemes not administered by NPAs, staff and operating costs were covered by funds raised by the charity as a whole (i.e. not specifically by the visitor giving scheme) or from grants. For example, the Arran Trust received funding from the Highlands & Islands LEADER programme⁸⁴ to cover staff wages. This was split between Visit Arran and Arran Trust.

Many schemes ran a loss in the early stages of development as participation in the scheme was slow to take off while, at the same time, they had to invest in the development of the scheme (including websites, marketing materials, etc) and projects early on to enthuse and engage prospective participants.

The principal costs associated with the operation of a VGS included time and resources spent on:

- Establishing the scheme, including developing branding, marketing materials and then promoting it amongst businesses
- Awareness raising and website maintenance
- Processing of grant applications and donations

Because of the different ways in which the schemes accounted for staff and overhead costs, it was difficult to draw comparisons between them or to draw any general conclusions. Marketing costs were reported to represent anything between 0 and 20% of total scheme operating costs depending on whether or not publicity was produced in-house. One scheme reported marketing as the single biggest operating expenditure item while another reported it as a zero cost. There was no apparent correlation between the type of scheme or organisation and the size of the marketing budget for those schemes that were able to provide costs.

The Caremoor for Exmoor scheme reported that wages for administrative staff were paid through core Park budgets and that these costs represented no more than around 5% of a FTE job. As the most mature VGS scheme in the UK, Nurture Lakeland was the only scheme that was able to provide a comprehensive breakdown of its costs. Staff wages and marketing represented around 86% and 5% of total costs respectively. The cost of fundraising was around 36% of the funds generated. Only 20% of this came out of the donations (i.e. 20p in each pound donated) and they made up the shortfall by subsidising fundraising activity from other incomes streams such as membership. IT costs, including website maintenance and

⁸⁴ The LEADER Programme is designed to support local businesses, farmers, foresters, community groups, those involved in tourism and a range of rural enterprises. The fund can cover 50% of the cost of a project up to £50,000. LEADER grant money comes from the European Agricultural Fund.

PayPal⁸⁵ licences, accounted for around 2.5% of total costs while overheads represented around 7.5% of costs.

All the schemes interviewed were looking at ways to reduce administrative costs. Several reported a substantial reduction in marketing costs through shifting from more traditional forms of printed marketing materials to online social media.

4.2.5 **Revenues**

Scheme revenues depended on *inter alia* the number of businesses/organisations participating in the Scheme, visitor numbers (and particularly staying visitor numbers for schemes that relied on accommodation levies) and awareness of the scheme. The level of donations was also sensitive to wider economic trends. Schemes established prior to the recent recession noted either a decline or plateauing of revenues between 2008-2011, despite an increase in the number of 'staycations' in 2009 where many people chose to take a holiday at home, rather than go abroad, resulting in an uplift of 18% in the number of holiday trips taken in England during that year⁸⁶. All the schemes reported a rise in income after 2011, which is attributed to economic recovery and big marketing campaigns both by national tourist boards (VisitEngland, VisitScotland, etc) and the schemes themselves.

Revenues came from a variety of sources including accommodation levies, donation boxes, profits from the sale of merchandise and food, membership fees and sponsorship. Accommodation levies tended to account for most of the income, but for those schemes that did not operate opt in/opt out levies on accommodation, donation boxes were the most important source of income.

4.2.6 **Payment mechanisms**

Figure 3 shows how many of the schemes interviewed used different mechanisms for collecting funds. Donation boxes and accommodation levies were the most popular form of collection mechanisms and also tended to be the largest sources of revenue within schemes. Donation boxes tended to be placed in accommodation, food and retail establishments and visitor centres. Caremoor for Exmoor built donation boxes into dispensers for free National Park Pocket Guides to allow visitors to make a voluntary donation in exchange for a map. These captured around 50% of total revenue⁸⁷. Caremoor also promoted volunteering as an alternative form of giving. Although loyalty cards were presented as an option to respondents, none of the schemes interviewed used loyalty cards as a means of eliciting additional income.

⁸⁵ PayPal is a method of paying online for goods and services, without sharing financial details, sending or receiving money or accepting credit and debit cards as a seller.

⁸⁶ Visit England (2010) Understanding the "Staycation" [online] available at http://www.visitengland.org/Images/Understanding%20the%20Staycation%20-%20Research%20Summary_Layout%201_tcm30-19712.pdf (last accessed 25 June 2013).

⁸⁷ There was insufficient data available to support an assessment of the effectiveness of donation boxes alone compared to those which offered a 'good' in exchange for a donation.

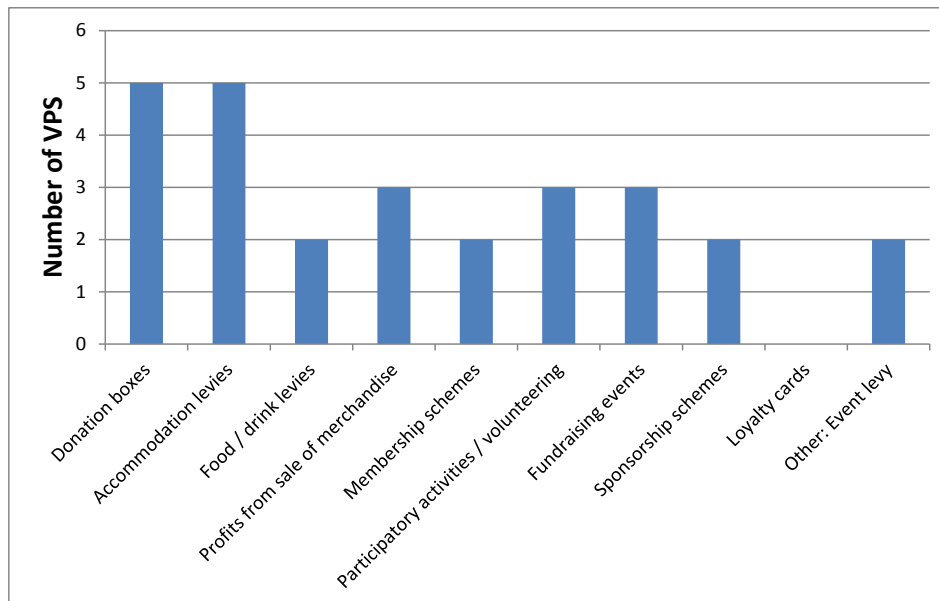


Figure 3. Methods of collecting donations

Table 7. Relative importance of different types of collection mechanisms (% share of total income)

Revenue collection method	Nurture Lakeland	Caremoor for Exmoor
Accommodation levies	60	15
Donations (boxes, envelopes and for small events, talks, guided walks, etc)	2	65
Food/drink levies		10
Profits from sale of merchandise	5	
Membership schemes	25	
Participatory activities / volunteering	3	
Event levies		10
Occasional individual donations (online or cheques payments)	5	

Table 7 shows the relative importance of different types of collection mechanisms for two schemes – Caremoor for Exmoor (administered by Exmoor National Park Authority) and Nurture Lakeland (a charitable trust). These schemes were selected as they offered the most complete sets of data.

In the Nurture Lakeland scheme, 25% of contributions were from individuals, members of the public and businesses. Nurture Lakeland’s core funding came from membership payments. Business membership was very well subscribed and accounted for 25% of Nurture Lakeland’s total membership. Nurture Lakeland offered training and presentations and volunteer days for businesses e.g. group of hotels or corporate days out which may include site visits to projects they support. They also supported businesses to promote environmental awareness.

Donation envelopes left in hotels and holiday cottages run by participating businesses provided an easy way for small businesses to collect funds on behalf of the scheme,

especially those without websites. Donations gathered this way could amount to £1,000 per year per business using them so could be a significant source of funding.

Nurture Lakeland also worked with a small number of retailers who participated by passing on a percentage of profits from sales of a particular product (often one with a place-based association) to the Scheme. They also recently entered an arrangement whereby 5p from every pint of Lakeland Beer sold is donated to a specific project. The opportunity arose when they sought sponsorship from the 'Marstons' beer chain that had a local presence as "Jennings", and already had an existing relationship with them.

They also worked with local food producers to brand and sell certain goods, e.g. bags of locally-produced flour. Sales were, however, adversely affected by the recession and therefore only generated a small amount of income.

The Caremoor for Exmoor VGS commented that visitor donations had on occasion been used to leverage match funding from business members.

4.2.7 Scheme promotion and communication with donors

The VGS used a wide variety of media for publicising their respective Schemes and keeping members and donors informed about the types of projects that their donations funded. For example, in the case of the Dartmoor National Park Authority VGS, the scheme was promoted through placing flyers in local hotels, restaurants, cafés and visitor centres amongst others. The DNPA website had a page dedicated to the '£ for the Park' scheme which was aimed specifically at event organisers who would come across it whilst looking for information on how to organise an event in the Park. A letter of acknowledgement is sent to donors and the Scheme organisers' aim to distribute an e-newsletter in the future in order to maintain communication with donors and to promote the projects that benefitted from the £ for the Park donations. Furthermore, the organisers make use of online social media sites such as Facebook to stay in touch with donors, inform potential donors of the scheme activities and to promote the scheme and keep donors up-to-date with project progress.

The Three Peaks Project promoted their scheme and communicated with donors using similar promotional materials, such as flyers in hotels, a website, social media and a limited number of promotional events. A twice yearly newsletter proved the most successful form of communication for the project overall. The organisers attempted to monitor the success of their promotional and communication methods by conducting an online survey of Three Peaks walkers in Autumn 2011; 58.2% of the 426 respondents responded positively that they had heard of the Friends of the Three Peaks scheme or were existing members.

'Step into the Cotswolds' used all forms of media for promotion. For the new scheme they are currently developing, they are making use of online social media sites Twitter and Facebook. While the Scheme doesn't currently have a separate website or web page, the organisers plan to build on existing relationships that they have through a sustainable tourism partnership, a rural skills website and Escape to the Cotswolds website in order to promote the Scheme online. They also aim to drip feed good news stories and project updates to the local media and online media to sustain interest in the Scheme.

Furthermore, the VGS makes use of the 'Visit, Give, Protect' brand developed by Nurture Lakeland to enable visitors and tourism businesses alike to connect with the scheme across a variety of



destinations. Several destinations have already signed up to a Visitor Giving Network⁸⁸ established by Nurture Lakeland at the start of this research project, and therefore the Cotswolds scheme believes that in time a segment of the market may begin to look for this brand when making visiting decisions, as an indicator of or an opportunity to contribute towards sustainable tourism.

The Arran Trust VGS used a full range of media to promote their scheme including, flyers, booklets, posters on the local Cal Mac ferry service and local media methods. They also stayed in touch with donors through social media sites and the Arran Trust website itself.

Caremoor for Exmoor had a dedicated website, a Facebook page and held one off appeals, for example in response to flooding events. They also had opt-in donation boxes for National Park Pocket Guides. Overall the scheme communicated primarily via business donors, except in the case where they conducted a specific appeal after which, they updated donors on the outcome. The Donate to the Dales VGS has a website and displays information on badge boxes. The scheme organisers also stay in touch via newsletters, direct mail and events. Their donor day events and newsletters are reported as being their most successful promotional activities.

Finally, Nurture Lakeland conducted the majority of their promotions (over 60%) via flyers and posters. These flyers and posters were hosted by local businesses, mainly accommodation providers, who placed the posters, leaflets, notices in lounges etc. They offered templates for bespoke leaflets (for example, X hotel supports Y project) and these leaflets were then personally branded to suit the business. Nurture Lakeland also promoted their scheme via Facebook, YouTube accounts and other online social media sites. Furthermore, the Scheme organisers promoted and communicated the scheme through press releases, magazine articles, promotions at outdoor and other relevant events. As 60% of all donations came through accommodation levies, Nurture Lakeland drew the conclusion that most information and awareness came from leaflets and posters etc. in accommodation. The website and Twitter account is also successful in terms of generating interest and disseminating information, demonstrated via website traffic and social media statistics. However, it was difficult to determine the proportion of donors that were attracted through these methods. The organisers stayed in touch with business donors through face-to-face meetings and via phone and in order to maintain relationship they had an internal target where each business must be contacted at least once every year to sustain the relationship. This was backed up with a monthly e-news to all subscribers.

Figure 4 illustrates the range of marketing media that the various VGS used in the promotion of their schemes and for communicating with their donors. Marketing and communicating through websites was the most popular method, with 7 of the 9 schemes either hosting a dedicated website for the scheme, or more commonly, having a page dedicated to the VGS hosted by a relevant organisation such as, the National Park or local tourism board website. Online social media platforms such as Twitter and Facebook and more traditional forms of marketing such as flyers and posters were the second most utilised method, with promotional events, pieces or appeals in the local media following third.

⁸⁸ See <http://www.nurturelakeland.org/item/the-visitor-giving-conference-2012.html>

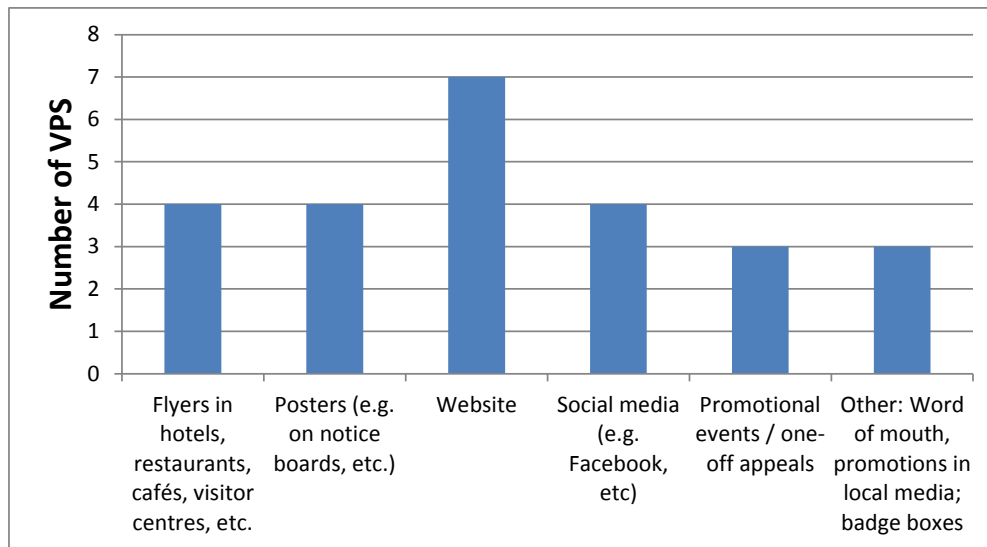


Figure 4. Media used to publicise schemes

4.2.8 **Types of projects/initiatives/activities supported**

The schemes typically supported a wide range of activities, including:

- Native woodland planting (to support heritage landscapes, wild species diversity and carbon sequestration);
- Wildlife and habitat protection (e.g. red squirrels, ospreys, etc);
- Conservation of cultural heritage (e.g. restoration of historic buildings and other structures of cultural interest);
- Restoration of footpaths, bridleways and other rights of way;
- Improving accessibility for the disabled and deprived communities; and
- A range of specific, time-limited campaigns on local issues (e.g. to protect a National Park from large-scale wind farm development)

In most cases, donors could choose where they would like their donation to go. For example, the Visitor Giving scheme operated by Friends of Loch Lomond & the Trossachs National Park, offered online donors a menu of options ranging from planting of native tree species, to sponsoring outdoor experiences for youth, or contributing to a campaign to protect the visual amenity offered by the natural landscape from the threat of 100m wind turbines. A short explanation of each project was provided, together with a suggested amount for donation.

In all of the schemes interviewed, all of the funds collected through levies and donations, etc. were allocated to specific projects/activities to enhance the natural environment and the visitor experience, rather than to administration (Figure 5).

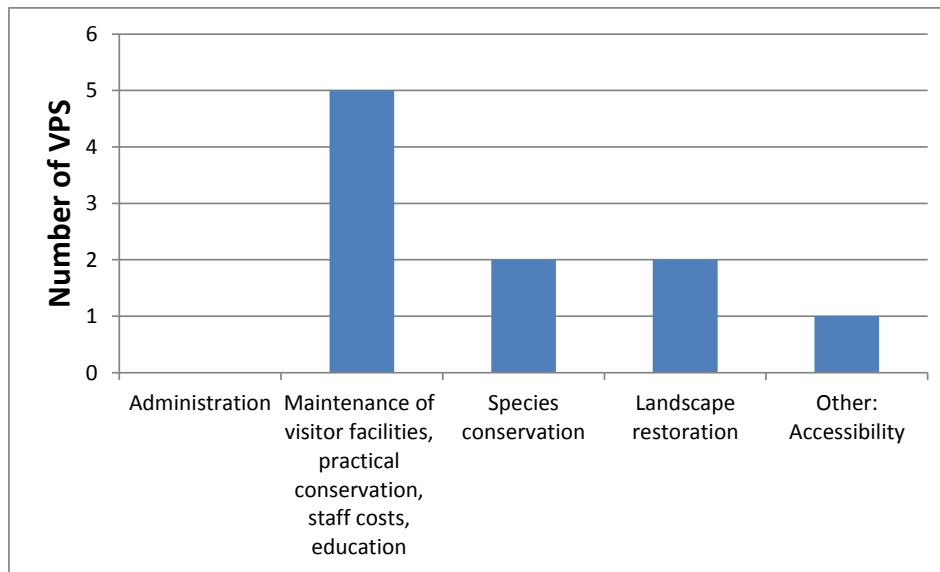


Figure 5. Allocation of income from visitor and business contributions

The administrators did not monitor how the funds were spent within individual projects (e.g. % spend on capital goods, wages, administration, etc.). It is therefore possible that the income directed towards maintenance, conservation and restoration projects would cover at least some of the administrative / staff costs (e.g. the costs of employing a ranger) but in most cases the VGS interviewed reported that the administrative and staff costs associated with operating the scheme were covered from sources (e.g. National Park budgets) other than donations. It is possible to obtain information on the proposed (rather than actual) breakdown of expenditure for each project by reviewing the details contained in proposals accompanying grant applications.

4.2.9 *Effects on local spending*

None of the schemes interviewed had any data on the effects of their schemes on local spending. Most felt that the schemes were unlikely to affect the spending habits of donors given the minimal amounts involved. Instead, they suggested that there could be an overall positive impact on tourism spending, as projects supported by the schemes enhance the overall visitor experience and could thereby attract more visitors to the area.

Another positive knock-on effect may occur if donors are able to visit the projects that they support, e.g. an Osprey conservation project at a local forest centre. This may generate visits that would not otherwise have occurred and lead to referred spend (e.g. in cafés, gift shops, etc.).

One respondent reported that some businesses had questioned whether participation in the scheme may damage their revenue, but pointed out that visitors may be unconsciously making several 'donations' throughout their stay through various purchases (e.g. where a percentage of the profits from sales of food, drink or merchandise is put towards a specific initiative) and could therefore contribute to business income.

4.2.10

Perceived strengths, weaknesses, opportunities and threats to VGS

Respondents were asked to think about the specific strengths and weaknesses of their schemes, the opportunities these present and the specific threats to the sustainability and effectiveness of the schemes. Table 8 sets out some of the main strengths and weaknesses identified. Some of the key opportunities and threats identified are listed in Table 9. Some of these are scheme or context specific while others may apply more generally across schemes.

Table 8. Strengths and weaknesses related to VGS schemes, as identified by respondents

Strengths	Weaknesses
<ul style="list-style-type: none"> • Flexibility to allocate income generated to different projects while at the same time being transparent about where donations are going. • Flexibility to tailor schemes to donor preferences (e.g. in terms of providing various options for fundraising methods to suit each business's brand, ethos and image). • Broad-based support from local residents, visitors, businesses, event organisers and partners for a well-established brand. This has knock-on effects as other businesses and organisations want to become involved through sponsorship or membership. • Large membership provides a means of raising awareness and disseminating information more widely. • Willingness of staff to get involved and a clear sense of ownership evidenced by the enthusiasm, hard work and plethora of ideas. • Building bonds between different groups (businesses, conservation, visitors, NPA departments etc) who come together to achieve a common outcome. • Focus on projects/activities that protect and/or enhance the local environment • Tangible benefits from project investments. These may be both physical (e.g. enhanced visitor experience from improvements to footpath networks) and financial (e.g. regular maintenance reduces risk of erosion and section failures that would be more expensive to address). • Connects the people with place and businesses with immediate environment and visitors with local environment • Additional marketing opportunity for businesses • The scheme plays a valuable role in raising awareness of the charity, which operates the scheme as part of a wider fundraising strategy. Donations from the scheme contribute only a small proportion to total income. 	<ul style="list-style-type: none"> • Difficulty in raising profile of the scheme amongst local businesses and communities • Inability to elicit donations directly from participants • Underestimating the costs involved in establishing and maintaining a VGS, including, for example: <ul style="list-style-type: none"> ○ The costs (primarily staff time) required to engage businesses, particularly in the early stages of the project and to maintain those relationships over time. ○ High costs associated with collecting and processing membership fees. This is partly because direct debit or standing order payment options are not always available and members may be less inclined to renew their membership when this entails effort on their part (completing and submitting forms online or by post). ○ Time and resources to invest in growing the scheme, keep up with latest technologies and conduct research into improving the efficiency and reach of the scheme. • Difficulties in monitoring and evaluating the effectiveness of the scheme when it is subsumed within an overall fundraising strategy for the National Park.

Table 9. Opportunities and threats to VGS schemes identified by respondents

Opportunities	Threats
<ul style="list-style-type: none"> • To bring more businesses into the scheme • Product placement (developing and selling products that have a clear link to the environment in which they were produced) • Flexibility of the scheme allows it to be adapted / redeveloped to fit the aims of the charity in which it operates. • A constantly improving market with continued growth in domestic and international visitor numbers. • Businesses increasingly interested in projecting an image of responsibility and sustainability. VGS can assist them in developing and promoting their sustainability credentials. • Growing trend for outdoor recreation and mass participation events. There is an opportunity to work with event organisers to elicit donations (e.g. optional levies on entry fees) from participants. • Making use of local business networks to spread awareness of the scheme by working more closely with local business clusters rather than trying to target individual businesses. 	<ul style="list-style-type: none"> • Heavy reliance on or lack of support from members (businesses, event organisers) • Lack of willingness of local businesses to participate, particularly when the general economy is performing poorly. • Establishment of more, similar schemes within the landscape causing conflict and confusion, especially if they are competing for donations from the same visitors. • No clear identity. Where donations are channeled into multiple projects or spread over a large area (e.g. whole National Park and wider area), it may be difficult for donors (and schemes) to see what discernible difference they are making. • Competition between different VGS around the UK as more and more are developing. However, where schemes work together to promote the message that 'together we are stronger' rather than competing with each other then this should be a positive development. There is, nevertheless, always the risk of badly run schemes damaging the reputation of all schemes reputation or being perceived a 'visitor tax'. • Language – schemes that are perceived to be a 'bed tax' will deter donors⁸⁹. • Economic climate - Visitor numbers and their willingness to donate is closely linked to wider economic trends. Visitors may be less inclined to donate when the economy is performing poorly. Nationally, people are donating 20% less now than they were 5 years ago. However, the time at which people are asked to donate may also influence their propensity to donate. People will generally be less willing to donate to a VGS if they are asked to prepay while making the reservation. • Declining public and third sector funds may make initial investment in schemes unlikely in future and there is a possibility that existing schemes may lose existing in kind support

⁸⁹ Several respondents raised terminology (and specifically the use of the term 'visitor giving') as an issue. The preferred terminology is 'visitor giving' or 'visitor gifting'.

4.2.11 Use of technology

Smartphone and other information technology was not in widespread use by the schemes. Although most have websites and make use of social media (Facebook and Twitter), the costs associated with developing and maintaining real-time applications (apps) for smartphones and tablets and implementing touchscreens were seen as a significant barrier, especially when the level of additional benefits that these would bring (in terms of the level of additional donations received) are uncertain. Mobile coverage was also identified as an issue in some of the more rural and remote locations.

However, most of the schemes said that they would be open to the idea of developing or introducing apps in future, or building donation options into to apps that have already been developed for use in the National Parks and/or by the local tourism and associated industries.

4.2.12 Wider benefits of VGS

All of the schemes interviewed believed that VGS offer more than simply generating funding to support activities that would not otherwise have happened. In several instances, respondents felt that the schemes were as important, if not more so, in raising awareness amongst businesses and communities about conservation and the environment, as they were in providing an additional source of conservation funding. The wider benefits delivered by VGS include:

- Developing positive relationships between tourism and conservation at a local level and improving residents' attitudes towards visitor impact;
- Making use of relationships with businesses and their networks to promote the work of the wider organisation and activities supported (not just the visitor giving element)
- Engendering a sense of ownership amongst many of the individual and business members who become keen to put something back into the area rather than expect a great deal out of membership of the scheme.

Nurture Lakeland in particular has done some work on evaluating the impacts of visitor giving on businesses' understanding of the natural environment and their support for activities to protect or enhance it. By conducting surveys at the start of the project and again at the end of the project, they were able to establish that businesses felt they had learned more about the natural environment and were keen to stay involved. A perception survey amongst Japanese visitors showed that 97% of them would be willing to participate in visitor giving.

They also surveyed an outdoor event, looking at both residents' and participants' attitudes to the event and its impact on the local economy. Visitor giving was widely perceived to make a positive and significant contribution. Event organisers are seen as a growth sector and a single event can raise up to £2,000 by linking the event to a specific project and asking for a £1 or £2 donation through an opt out ticket levy.

4.2.13 Monitoring and evaluation

None of the schemes conducted routine monitoring or undertook formal evaluations of their schemes. They did, however, sometimes occasionally elicit or receive anecdotal feedback from business members with whom they had established good relationships. Although the businesses did not profit from the schemes, they reported that they and their visitors got a

sense of pride and satisfaction from being involved. Some businesses have also noticed that, in order to keep repeat visitors motivated to donate to the scheme, they needed to change the projects they support every few years.

One of the schemes reported that monitoring and evaluation of the impacts of the scheme would become an integral part of its wider sustainable tourism strategy.

4.3 Implications of the findings for developing PES-based visitor giving schemes

Overall, the findings from the interviews suggest that there is significant scope for VGS to focus on maintaining or enhancing specific ecosystem services. Many existing schemes already do so, at least to some extent, recognising that flexibility is an important criterion for success. To this end, most of the schemes interviewed put significant effort into working with participating businesses to understand their preferences for projects so that these can be more closely aligned with the particular image, brand or ethos that the business may want to promote. Similarly, those schemes offering donors the opportunity to contribute directly (e.g. through online payments) usually offered a menu of options from which to select.

There is insufficient quantitative evidence to say to what extent focusing on specific ecosystem services (or defined bundles of services) would increase investment in VGS. However, there were a number of issues raised during the course of the interviews that highlight the factors that are likely to make a PES-based VGS more sustainable and effective. These are summarised below.

4.3.1 *Linking payments to provision of specific ecosystem services encourages participation*

Many of the schemes investigated had PES-like elements. Very few schemes elicited mandatory payments and most sought to avoid the perception that their VGS was a “bed tax”. The voluntary nature of donations across the VGS makes them compatible with PES schemes, where payments must also be voluntary. A number of schemes were flexible enough to allow donors to select the projects/activities that most closely match their interests and from which they are therefore more likely to derive satisfaction. There was, however, insufficient evidence available to determine whether or not offering this choice attracted more funding to the scheme (or to particular types of projects) than would otherwise be the case.

However, evidence from interviews supports evidence from the literature about the importance of linking donations to specific projects that deliver tangible benefits to visitors and wider society. As such, the requirement for PES schemes to make payments conditional on the delivery of specific levels of ecosystem service delivery, makes them well suited to VGS. Consistent with this literature, the VGS that were already supporting PES focussed on local schemes that delivered highly visible and tangible benefits e.g. tree planting schemes for climate regulation, rather than less visible or tangible ecosystem services such as pollination. The extent to which these VGS can technically be described as PES schemes varies from scheme to scheme. The main element that tended to be missing was the level of quantification of ecosystem service benefits that would normally be required in a PES scheme (e.g. the climate mitigation potential of tree planting measured in tonnes of CO₂-equivalent or carbon, rather than number of trees planted). Given the emphasis in the literature on the delivery of specific and tangible benefits from donations, in theory this level of quantification could be expected to enhance donations. However, the quantification of ecosystem service benefits may in some cases require technical expertise not possessed within the VGS.

Based on the survey data, (predominantly opt-out) accommodation levies and donation boxes were the most important mechanisms for collecting voluntary payments from visitors. However, both of these mechanisms have shortcomings for collecting PES (Table 2). In particular, since neither of these mechanisms is typically able to give visitors the ability to choose the projects they support, this suggests that businesses and those responsible for operating VGS could do more to understand visitors' preferences for certain types of projects (e.g. infrastructure provision vs wildlife conservation) and tailoring schemes to satisfy these preferences. Where preferences are not clear, it is possible to provide a selection of projects for which contributors can vote (e.g. by dropping money or a token into a particular slot of a compartmentalised donation box where each compartment corresponds to a different project).

4.3.2 *New PES-based schemes should encourage co-operation rather than competition*

A plethora of VGS across the landscape may generate conflict between schemes and confusion amongst participants and donors as to what the scheme they are supporting actually delivers. As a result, there appeared to be a preference for extending existing VGS to include PES-based elements where possible, rather than encouraging a proliferation of new PES-based VGS schemes that may compete with each other and existing schemes. The "Visit, Give, Protect" brand developed by Nurture Lakeland may go some way to ensuring that members of the Visitor Giving Network that adopt this brand promote the same message and work towards an outcome that is positive for the environment as a whole and does not generate a situation where funding becomes too thinly spread across too many different projects.

4.3.3 *There are barriers to the adoption of new technologies that might support PES*

Despite the apparent promise of smart phone apps for eliciting PES in Table 2 and interest from VGS operators interviewed for this research, the survey identified barriers to using these technologies because of perceived issues with reception in remote sites, costs in developing, implementing and maintaining them and no evidence to assess whether or not their use would generate significant additional funding. If it is possible to make use of existing applications by adding visitor giving functionality, then some of the costs associated with development, branding and marketing could be reduced. It should be noted that reception is not an issue for modern smartphones, which are all GPS-enabled, so as long as maps and content are available in-app, it is possible to track progress through a landscape that has no reception and trigger waypoints via GPS. However, some level of mobile network coverage (even if weak) would be required to make donations via SMS.

4.3.4 *Terminology*

Consistent with evidence from the literature, several of the schemes interviewed suggested a move away from use of the term "visitor payback" as they perceived this to have negative connotations, associated with compensating for damage done (potentially eliciting feelings of guilt) rather than investing for future benefits. There were also concerns that certain schemes, particularly those that collect donations through levies on accommodation or food, may be perceived as a form of tax. It was suggested that terms such as 'visitor giving' and 'visitor gifting' may be more likely to make visitors feel as though they are contributing towards schemes in a more positive way.

5. SURVEY WITH VISITORS AND BUSINESSES

5.1 Sample Characteristics

Within the time and resource constraints of this pilot project it was only possible to conduct a small survey of visitors to the Lake District, to supplement findings from interviews with VGS operators. A total of 49 visitors were interviewed face-to-face using a structured questionnaire (Appendix C). Of these, 43% (n = 21) were male and 57% (n = 28) were female. There was a bias towards older respondents due to the time of year (October, but not in the English mid-term break) and location (a destination popular with older visitors going on boat trips) (Figure 6). There was a relatively normal distribution of income, clustering around the national average (Figure 7)⁹⁰. The majority of visitors went to National Parks, AONBs and nature reserves 2-3 times per year (48%); 21% and 7% of visitors went to these locations at least once a month or at least once a week respectively, and 10% went once a year (14% stated that they lived in one of these locations).

In addition to this, 12 Lake District businesses were surveyed at training events and business meetings, using an adapted version of the questionnaire that was used for visitors. Figure 8 shows the number of businesses surveyed from accommodation, retail, visitor attractions and food & drink.

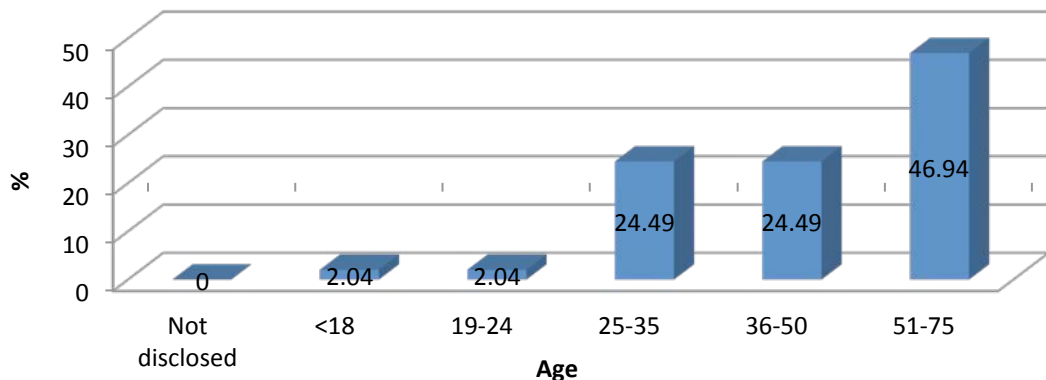


Figure 6. Age distribution of the visitors sampled

⁹⁰ Examples of the occupations of visitors with a gross household income less than £25,000 included Council administration, beauty therapy, gardening, restaurant management, legal assistant, fundraising, chef, mechanic, driving and cleaning. Examples of occupations of visitors with a gross household income over £25,000 included environmental consultancy, police, lecturing, teaching, engineering, insurance claims management, geology and sales.

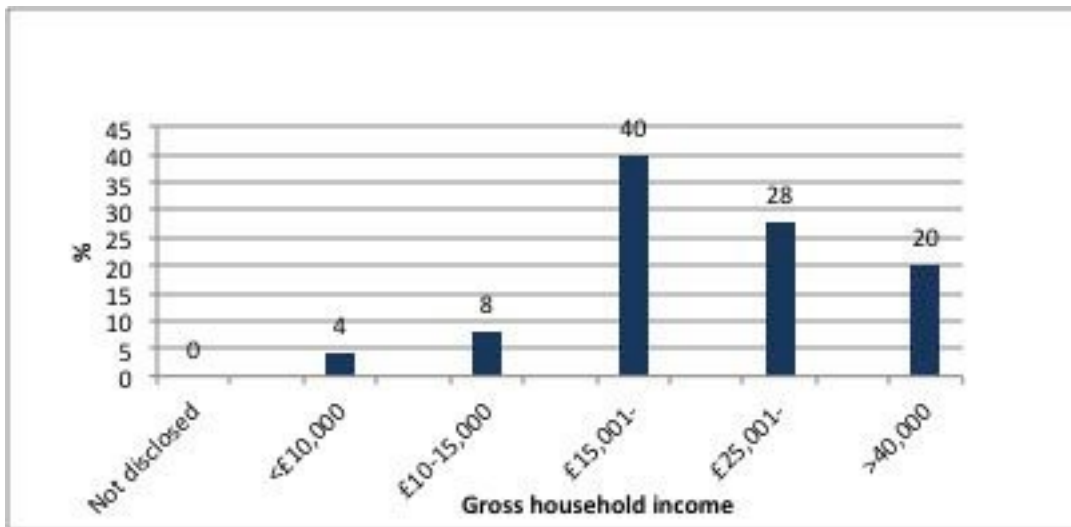


Figure 7. Gross household income of visitors sampled

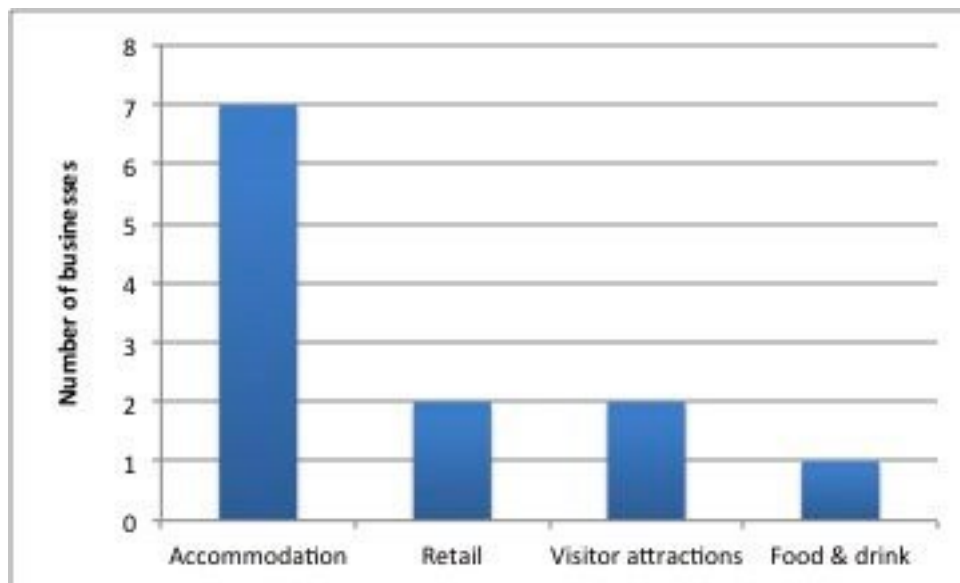


Figure 8. Number of Lake District businesses from different sectors responding to questionnaires

5.2 Visitor giving behaviour

The majority of those sampled (69%; n = 25) had never donated to a VGS before. Of those who had previously donated (n = 11), a similar proportion had donated 2-3 times a year (11%; n = 4), once a year (8%; n = 3) or less than once a year (11%; n = 4). For the twelve

visitors who had donated and could recall the amount that they had donated, the average donation was £3.45 (with a standard deviation 2.6). The most common amount to be donated was £2 (50% of the donations; n = 6). Of those who had donated in the past, only 27% (n = 3) had found out what had happened to their donations (usually in the form of a letter of thanks, for those who had given their contact details when they donated).

These respondents were then asked if their donation had altered their spending behaviour subsequently that day or during that visit. Other respondents were asked this as a hypothetical question, asking them to imagine that they had just made a £2 donation (as the most common amount to be donated) to a VGS. Every person who was asked (100% of the sample), said that a donation of this size would not affect their spending behaviour in any way, either later that day or subsequently during their visit.

Respondents were asked to identify the method they would be most likely to use for donating to a VGS (whether they had donated in the past or not). Respondents could select more than one option, if they would feel comfortable donating in a number of ways. The most popular method was via donation boxes (50%; n = 24). The next most popular method was via opt-out (19%; n = 9) and opt-in (15%; n = 7) levies on accommodation, followed by donating via SMS in a smart phone app (10%; n = 5) and paying as a percentage added onto a product or service (6%; n = 3).

Finally respondents were asked how important it was for them to have a choice of different environmental projects they could choose from when donating, versus paying into a fund that would be distributed to a range of projects on their behalf. 53% thought it was slightly or very important to have a choice of projects to donate to, whereas 44% thought it was slightly or very unimportant, preferring rather to donate into a fund that would distribute their donation to the most relevant projects at any given time (3% were undecided).

5.3 Visitor attitudes towards PES

Visitors were asked to consider a number of aspects of VGS design, with a particular focus on elements that may be required for PES. This work used the definition of PES as “A **voluntary** transaction in which a well-defined **environmental service (ES)**, or a form of land use likely to secure that service is bought by at least one **ES buyer (beneficiary)** from a minimum of one **ES provider** if and only if the provider continues to supply that service (**conditionality**)”⁹¹. The questionnaire therefore assessed visitors’ interest in PES by gauging the extent to which they were interested in: i) supporting environmental projects that provided societal benefits, such as tackling climate change or providing clean drinking water; and ii) quantifying the societal benefits derived from their donation.

The first question attempted to disentangle whether visitors were primarily interested in PES because they perceived that the benefits derived by such schemes might match their personal interests, whether they were more interested in donating to projects that would

⁹¹ Wunder, S. (2005). Payments for environmental services: Some nuts and bolts. CIFOR Occasional Paper No. 42, Center for International Forestry Research, Bogor, Indonesia.

deliver wider societal benefits, or whether it was the quantification of benefits (or “conditionality” according to the definition quoted above) that was most important to them. Respondents could choose more than one option or none of the options (everyone chose at least one option). The majority of respondents selected a single option, but four respondents chose two options. The most popular choice was for projects that provided a wider societal benefit i.e. ecosystem services (43%; n = 23), followed by projects that could quantify the benefits derived from donations precisely (36%; n = 19) and projects that matched respondents’ personal interests (21%; n = 11).

The second question attempted to rank the sorts of ecosystem services that could feasibly be delivered via VGS. Respondents were asked to identify which (if any) of the ecosystem services might motivate them to donate to a VGS. Although biodiversity sits relatively uneasily in the ecosystem services framework (usually described as a cultural service), given the prominence of projects that support wildlife in VGS across the UK (see section 2), this was included in the list. Again, respondents were able to select more than one ecosystem service. Table 10 shows that the most popular ecosystem service was the protection of habitats for wildlife, followed by “spaces for recreation, spiritual practice or activities that promote health”, climate regulation, provision of clean water and pollination services.

Finally, to understand visitor preferences for quantifying ecosystem service benefits from donations, two questions were asked. The first sought to understand how important it was to be able to judge the likely benefits of their donation in more qualitative terms, by seeing examples of the benefits that had been achieved from previous donations. 74% (n = 28) of visitors thought it was slightly or very important to see the difference made by previous donations (Figure 9). The second question sought to understand how important the concept of conditionality was to visitors in terms of precisely quantifying the effects of donations. Only 53% (n = 20) of visitors thought it was slightly or very important to be able to know precisely what benefit their donation had “bought”, for example in terms of a number of tonnes of carbon or litres of clean water produced (Figure 10). A number of those who said that they thought it was very important, said that part of the reason for their answer was a desire to understand the proportion of their donation that would go towards administration versus actually delivering benefits on the ground.

Table 10. Ecosystem services most likely to motivate donations from visitors to Lake Windermere, ranked in order of times selected in questionnaires

Rank	Ecosystem Service	Number of times selected
1	Protection of habitats for wildlife	27
2	Spaces for recreation, spiritual practice or activities that promote health	18
3	Climate regulation	17
4	Provision of clean water	16
5	Pollination services	13

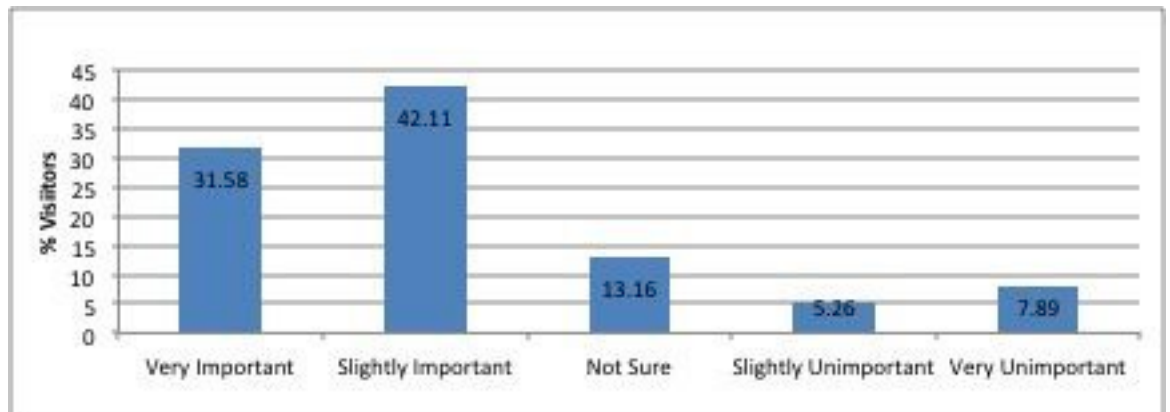


Figure 9. Percentage of visitors to Lake Windermere who considered it important to be able to see the difference other visitors' donations had made to an environmental project before they donated.

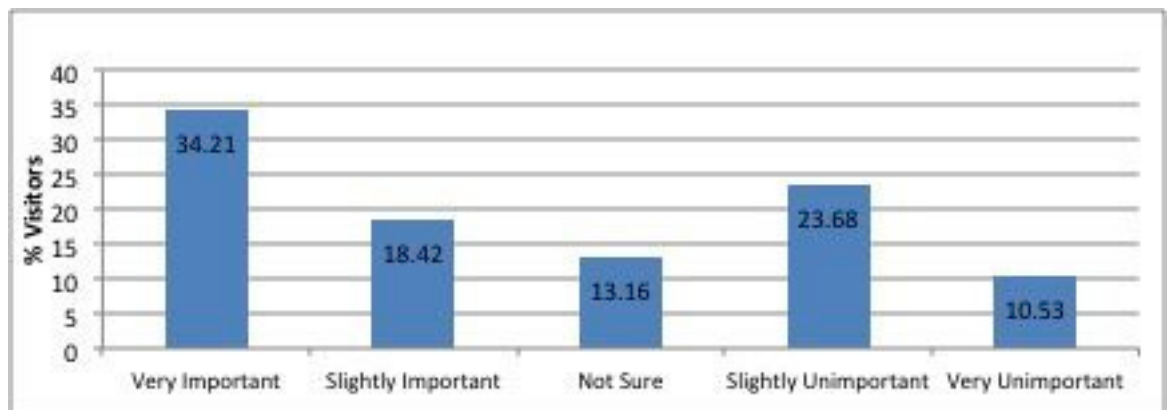


Figure 10. Percentage of visitors to Lake Windermere who thought it was important to know precisely what benefit their donation would provide in units of ecosystem services

5.4 Business perspectives

The businesses who answered the questionnaire said that they were primarily interested in VGS because they wanted to contribute towards the conservation of their local environment, with secondary interests in enhancing their brands (Figure 11). Offsetting the impacts of their customers on the environment was a less important consideration. Businesses cited a range of projects that they were interested in supporting, with footpath restoration and species conservation most frequently cited (5 and 3 times respectively; Figure 12). Looking across all businesses partnered with Nurture Lakeland, these preferences were reflected more broadly (Figure 13). Businesses were most interested in supporting projects they perceived would be of interest to their customers (42%; n = 5), projects that are local to them (33%; n = 4), followed by projects that interested decision-makers within the business personally (25%; n = 3). All businesses thought that it was important to be kept informed of progress in the

projects they were supporting. Seven out of twelve businesses (58%) weren't sure whether visitor donations might displace spending elsewhere, and five out of twelve businesses (42%) did not think it was likely that visitor giving would displace spending elsewhere. Finally, Figure 14 shows preferences for different methods of visitor giving among the 12 businesses surveyed, showing that opt-out levies were the most popular option for businesses, followed by adding a percentage to sales and merchandise and donation boxes. This set of preferences was reflected across all the businesses partnered with Nurture Lakeland, though donation boxes are more widely used elsewhere in the Lake District (Figure 15).

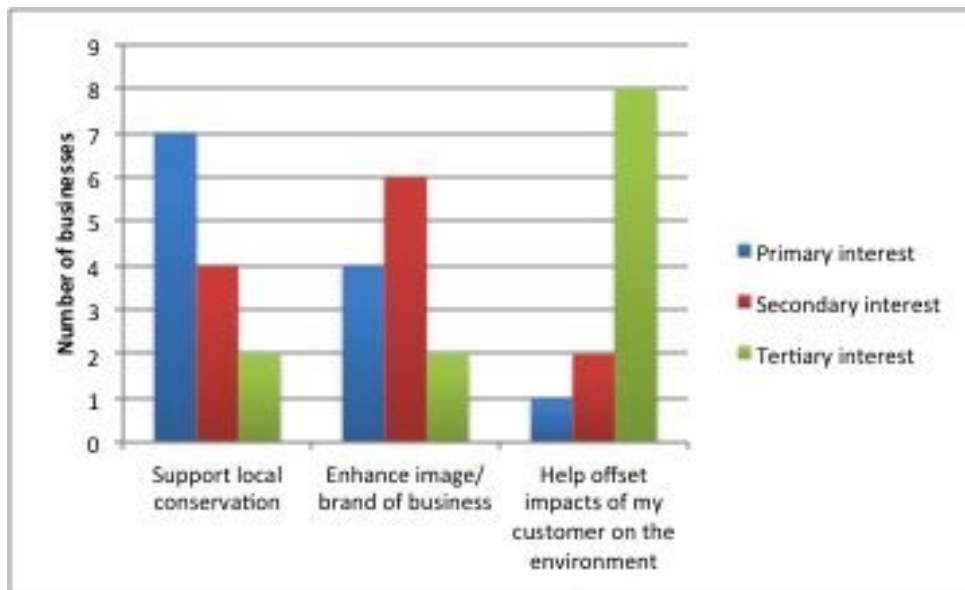


Figure 11. Primary, secondary and tertiary interests of Lake District businesses in joining VGS

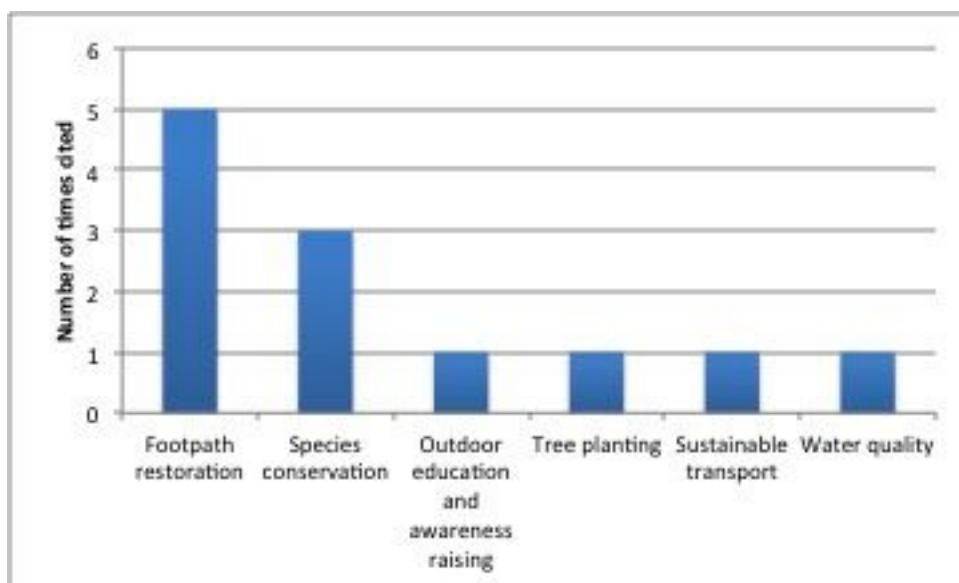


Figure 12. Types of projects that Lake District businesses were most interested in supporting

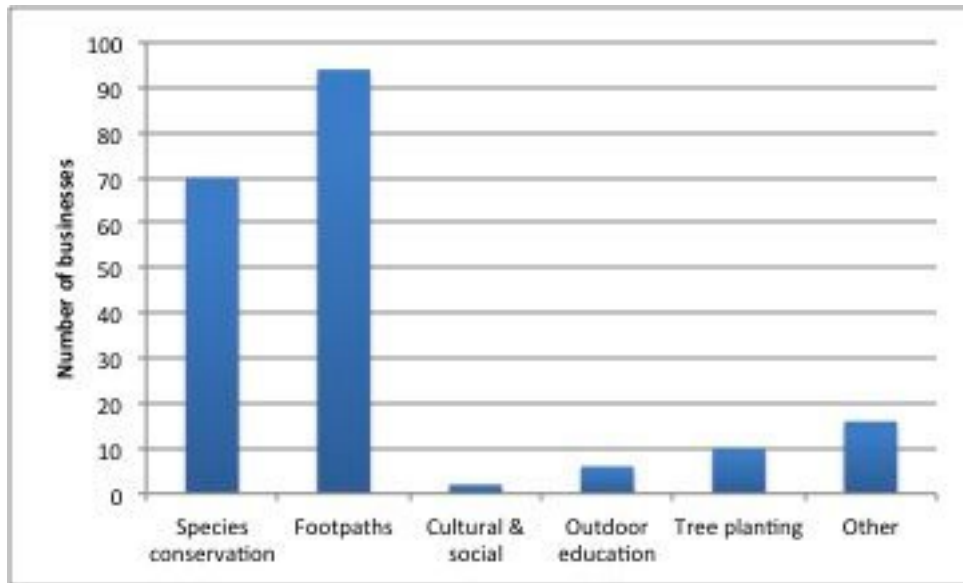


Figure 13. Preferences for different types of project among all businesses partnered with Nature Lakeland

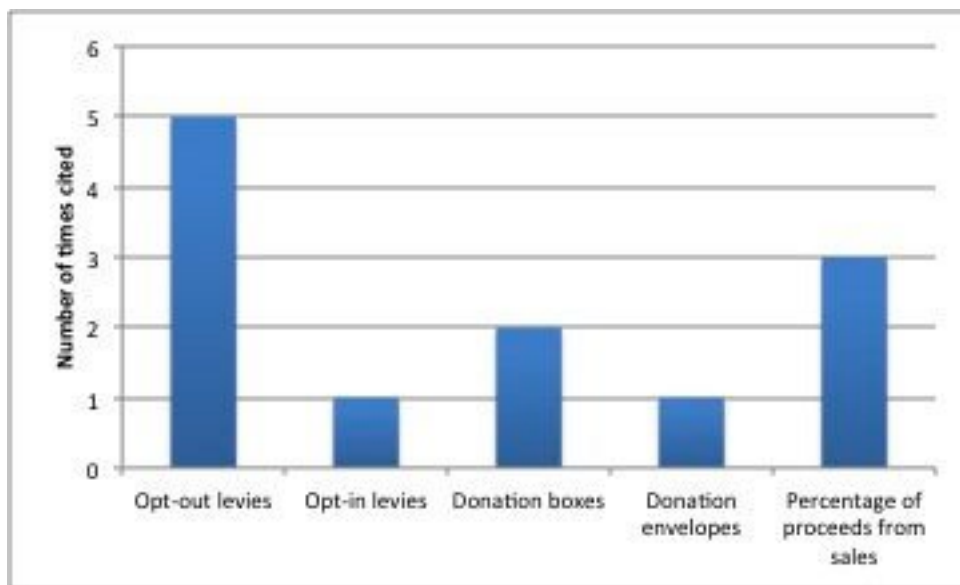


Figure 14. Preferred methods of eliciting donations to VGS according to twelve Lake District businesses surveyed

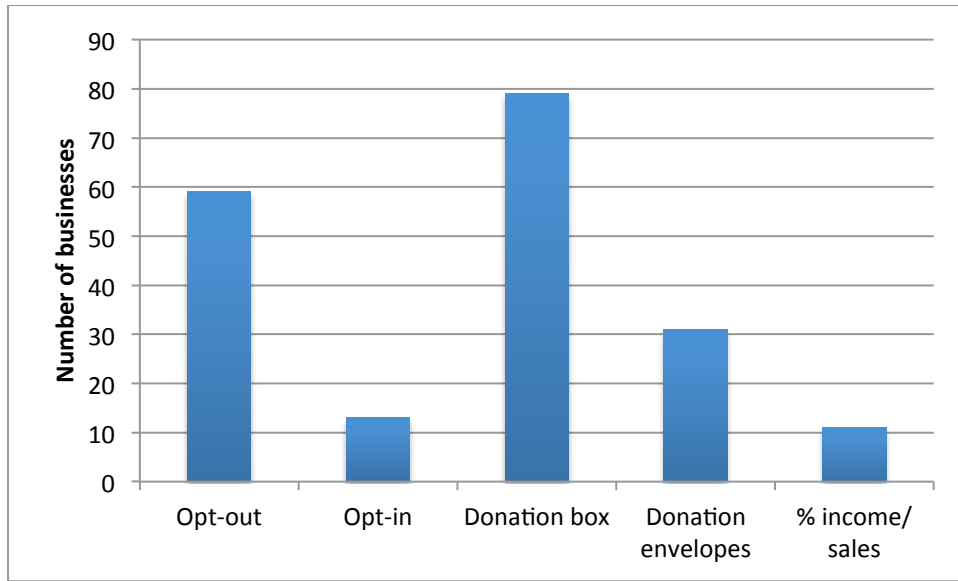


Figure 15. Methods of eliciting donations used across all businesses partnered with Nurture Lakeland

6. SMART PHONE APPS

6.1 South Pennines

An app was developed for Apple and Android smartphones and iPad to provide visitors to the South Pennines with walking routes around reservoirs linked to Payments for Ecosystem Services, in collaboration with Pennine Prospects. The app was part of a Heritage Lottery Funded project run by Pennine Prospects, with additional funding from Project Maya Community Interest Company (as part of this research project) to develop new content and create payment functionality (see Figure 16 for screenshots of the home screen, introduction and main menu). The app was developed by Audiotrails. The app is available (free) from Apple App Store and Google Play. The app has not yet been publically launched, but publicity is planned for the app by Pennine Prospects.

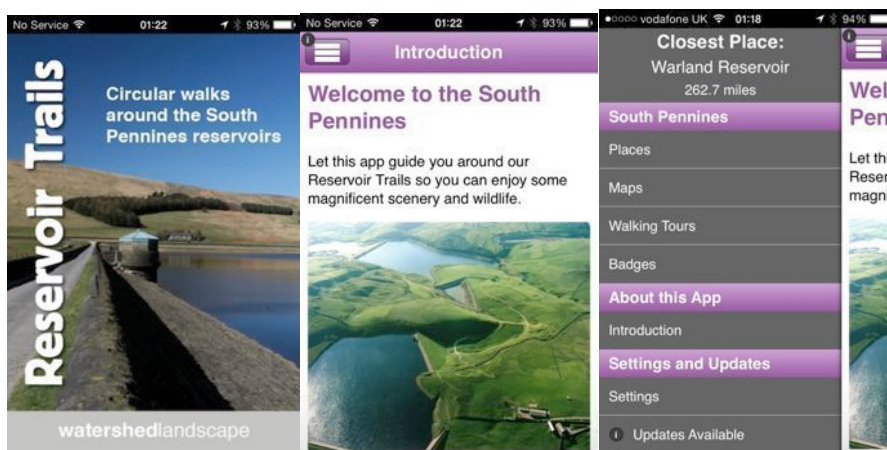


Figure 16. Screenshots of home screen, introductory screen and main menu for South Pennines app

The app is designed to provide walkers with routes, and provides users with information about the locations they pass, triggered via GPS (it is possible to turn off automatic notifications). Information includes a range of material, from history and folklore to information about the ecosystem services provided by the landscape and efforts being made to restore or enhance the local environment. Figure 17a provides screenshots of the user interface. The app identifies the nearest route at the top of the main menu, based on the user's current location. Alternatively, users may browse four routes. Waypoints provide directions along the route and locations provide information about the landscape the user is looking at (e.g. Warland Reservoir in Figure 17a). Each location has a range of photographs (designed for viewing on both iPad and smartphones) and in some cases video material. Some have a collapsible section of "further information" with links to external sites. Table 11 provides examples of content for locations, showing the breadth of material included, and the way that this links to ecosystem services that are being protected or enhanced by projects that they can donate towards. Content can be easily updated via a password protected Content Management System.

Each location is “badged” with a different theme (in the first release of the app, there are: landmarks x11; nature x6; recreation x2; reservoirs x7; trails x1 and transport x3). As a user visits each location, they collect the relevant badge, with a cumulative total being recorded on the badges page (see Figure 17b), showing how many of each type of location has been visited so far. It is possible to filter locations in the map view to show only locations from a particular badge group, so walkers can focus on visiting locations that match their interests. Content has been prepared for a total of 12 routes, and this will form a series of updates over the coming months.

Content was prepared for three PES projects to receive donations via the app:

- Pennine Edge Forest: a community woodland initiative on the eastern edge of Greater Manchester, delivered through a partnership between four local authorities, Forestry Commission and United Utilities (for more information, visit: <http://www.pennineedgeforest.org.uk>)
- Twite Recovery Project: planting wildflower meadows to create habitat for Twite, through a collaboration between Pennine Prospects and RSPB (for more information, visit: <http://www.watershedlandscape.co.uk/care/the-pennine-twite/>)
- Moors for the Future: restoring blanket bog habitats for wildlife, carbon and water quality benefits, through a partnership between Peak District National Park Authority, National Trust, Natural England, United Utilities, Severn Trent Water, Environment Agency, Yorkshire Water, Derbyshire County Council and RSPB (for more information, visit: <http://www.moorsforthefuture.org.uk>)

Payment functionality within the app was achieved following the method described in Appendix G. Unfortunately, a number of problems were encountered establishing mechanisms to channel payments to these organisations via SMS (the project avoided using online payment services due to poor reception in the site). The key problem was that none of the projects was a registered charity (the RSPB project’s finances were run through Rochdale Council, which meant the project itself was not eligible to be considered as a charity). This meant that it was not possible to use any of the SMS payment services established for use by charities. The organisation JustGiving however were prepared to accept payments if the organisations were registered for GiftAid (it is possible for certain organisations with charitable objectives to obtain GiftAid status without being charities). This was a long and complex process however, and only Moors for the Future was prepared to apply for GiftAid status. In the meantime, to avoid delays, Moors for the Future were set up to receive payments via a commercial SMS payments company via a sole trader intermediary who was prepared to pay for registration with the premium rate phone services watchdog PhonePayPlus (a branch of Ofcom) and take on the liability associated with any fines that may arise from misuse of the service (the project’s PI). This was only ever seen as a short-term solution until GiftAid status could be achieved, because the mobile phone operators were not prepared to waive their fees for non-charitable transactions, and charged an average of 45% of all donations. At this point, the app was ready for launch with a

temporary SMS payment service in place. However, concerns were expressed about the lack of transparency in this short-term solution due to the involvement of the third party intermediary, and the danger that auditors acting for Pennine Prospects may object to the arrangement. The decision was therefore taken to disable payment functionality prior to launching the app, with the option to re-integrate this once GiftAid status had been achieved. However, it then transpired that JustGiving only accepted payments to GiftAid-only organisations via their online service, and not via SMS. It is therefore not possible to re-integrate payment functionality to the app for the foreseeable future with the current projects.

Two PES options were developed to pay for peatland restoration work by Moors for the Future. These were worded to be as concise and easy to understand as possible, with a two minute video explaining how donations would lead to ecosystem service benefits in greater detail (see Figure 18):

1. **Clean water:** £2 restoration for clean water. Your donation to Moors for the Future will stop 3 kg of peat and brown colour getting into the water every year
2. **Store carbon:** £5 restoration for climate. Your donation to Moors for the Future will save 4.4 kg carbon dioxide going into the atmosphere every year, equivalent to 32 km emissions in an average UK car

These figures rested on a number of assumptions, which were based on evidence from the peer-reviewed literature. Donations paid for the purchase and distribution of *Sphagnum* “moss beads” on sites where drainage ditches had been blocked – the final step in the restoration process that is essential to turn these sites into actively building peat bogs that are able to sequester and store carbon from the atmosphere. It costs Moors for the Future £10 to restore 133 m² of blanket bog with moss beads. Calculations were as follows:

1. **Clean water:** Worrall et al. (2011)⁹² show that revegetation with peat-forming species (principally *Sphagnum* moss) leads to revegetation leads to a reduction of 170 gC/m²/yr of Particulate Organic Carbon losses and a reduction of 30 gC/m²/yr of Dissolved Organic Carbon losses in water, making a total of 200 gC/m²/yr total. A donation of £2 would buy 26.6 m² *Sphagnum* regeneration, and at a rate of 200 gC/m²/yr, this would derive a saving of 5.32 kg C/yr. The average cut taken by phone companies for using a commercial SMS payment system is 45%, so this means the buyer would be able to purchase 2.93 kg (rounded up to 3 kg) carbon per year with their donation.
2. **Store carbon:** Evidence published by Quick et al. (2013)⁹³ suggests there would be a 36,000 t CO₂-equivalent per year emissions saving if all 30,000 ha of South Pennine degraded peatland were restored. This is equivalent to 1.2 t CO₂e/ha/yr. This equates to 0.12 kg CO₂e/m². Using moss bead prices from Moors for the Future, £5 buys 66.5

⁹² Worrall, F., Rowson, J. G., Evans, M. G., Pawson, R., Daniels, S. & Bonn, A. (2011). Carbon fluxes from eroding peatlands – the carbon benefit of revegetation following wildfire. *Earth Surface Processes and Landforms* 36: 1487-1498.

⁹³ Quick T, Reed MS, Smyth M, Birnie D, Bain C, Rowcroft P (2013) *Developing place-based approaches for Payments for Ecosystem Services*, Defra Final Report (available online: <http://publications.naturalengland.org.uk/publication/6620042472980480>)

m² restoration, so this would buy 7.98 kg CO₂e. After the phone company cut of 45%, this would leave 4.39 kg CO₂e. An average new car sold in 2011 had emissions of 138.1 g CO₂/km, which equates to 0.1381 kg CO₂/km. This means £5 restoration would be equivalent to 31.78 km in an average UK car.

Table 11. Example content available on both Nurture Eden apps, linking locations to the ecosystem services they provide

Location Name	Example Content
Summit Brickworks	<p>Today the flat area to the right of the path is used for events, but if you were here 70 years ago you would have been stood next to the huge kiln of the Summit Brickworks.</p> <p>The materials for the bricks would have been dug out of the quarry face to be formed and the fired in the kiln. The Rochdale Canal would then have transported the products right across the region.</p> <p>You wouldn't know it, but this site lies at the intersection between three very different types of soil. Between you and the canal, there are river clays and sand, which could have been used for making bricks (traditionally bricks would have been made with approximately 70:30 clay to sand). Looking up the hill to the south-east, this turns to deep, fertile loams would have been good for growing crops, which may in turn have provided fibrous materials for mixing with clay and sand to provide bricks with additional strength. Looking in the opposite direction to the north, the soils are more shallow and sandy.</p>

Location Name	Example Content
Pennine Way	<p>Opened in 1965, The Pennine Way was Britains first long distance national trail. It runs for 268 miles (431km) along the Pennine Hills - sometimes called "The Backbone of England".</p> <p>Starting at Edale in the Park District, and winding up the country to finish at Kirk Yetholm on the Scottish Borders, it is seen as a real test for the nations walkers. This route is considered amongst the finest upland walks in England. Walkers completing the whole Pennine Way typically take three weeks.</p> <p>Hidden carbon</p> <p>Few walkers on the Pennine Way realise that under their feet is the UK's largest store of carbon. Peatlands cover less than 3% of the land surface of the Earth yet they contain twice as much carbon as the world's forests. Damaged peatlands are responsible for at least 7% of the world's carbon dioxide emissions. The UK has the 17th largest peatland area, out of 175 nations with peat deposits and is in the top 20 countries with the most damaged peatlands. Remedial action currently being undertaken in the UK to restore peatlands could set a leading example worldwide.</p> <p>Further information [collapsible]</p> <p>Find out more about carbon in peatlands from the International Union for tthe Conservation of Nature's UK Peatland Programme and see videos and read about research on balancing carbon with other demands from these landscapes from the Sustainable Uplands project.</p> <p>Watch this video about the hidden beauty and value of peat bogs (external link).</p>
Fothergill and Harvey Mills	<p>The mill complex you are now walking through was created by the Fothergill and Harvey company. Established in 1848 by two people in the cotton industry, they purchased what was then Sladen Wood Mill in 1859.</p> <p>The last cargo of cotton arrived at the Fothergill and Harvey Mills in 1929. The Mills would have been powered by water, supplied from the reservoirs that you can visit near here.</p> <p>Progressive owners</p> <p>The owners of the company were very progressive for their time, and you can see the facilities they built for their workers around the site - including a cricket ground, bowling greens and landscaped gardens.</p>

Location Name	Example Content
Lower and Upper Chelburn Reservoirs	<p>The two reservoirs at Chelburn were built to supply water for the Rochdale Canal. Along with Hollingworth Lake, they were, and are, a crucial part of the canal system. These reservoirs were originally built by the Rochdale Canal Company, and sold to the combined water committees of Rochdale and Oldham in the 1920s.</p> <p>If you took the detour into Summit Quarry, you will have noticed the large pond in the centre of the site. This pond is being fed by water from Lower Celburn Reservoir, and is providing a great habitat for water loving plants and animals.</p> <p>Why is the water brown?</p> <p>When there's lots of rain, some of the carbon stored in the peat is gets dissolved in the rainwater, and leaks into the streams that feed this reservoir, making the water look a transparent brown colour. A damaged peatland will release much more brown water than a healthy peatland, and it is expensive for water companies to remove this colour before it reaches our taps. The brown colouration is perfectly safe to drink, but when combined with chlorine it creates a compound that can cause cancer, so there are strict limits on the amount that is allowed to remain in our water supply.</p> <p>By blocking drainage ditches and gullies and re-vegetating bare peat, it is possible to minimise the amount of brown water seeping into streams and reservoirs and stop peat and pollutants being washed downstream.</p> <p>Further information [collapsible]</p> <p>Watch this video (external link) based on research with Moors for the Future about what this landscape might be like if it were fully restored and managed less intensively.</p> <p>Watch this video about the hidden beauty and value of peat bogs (external link).</p>

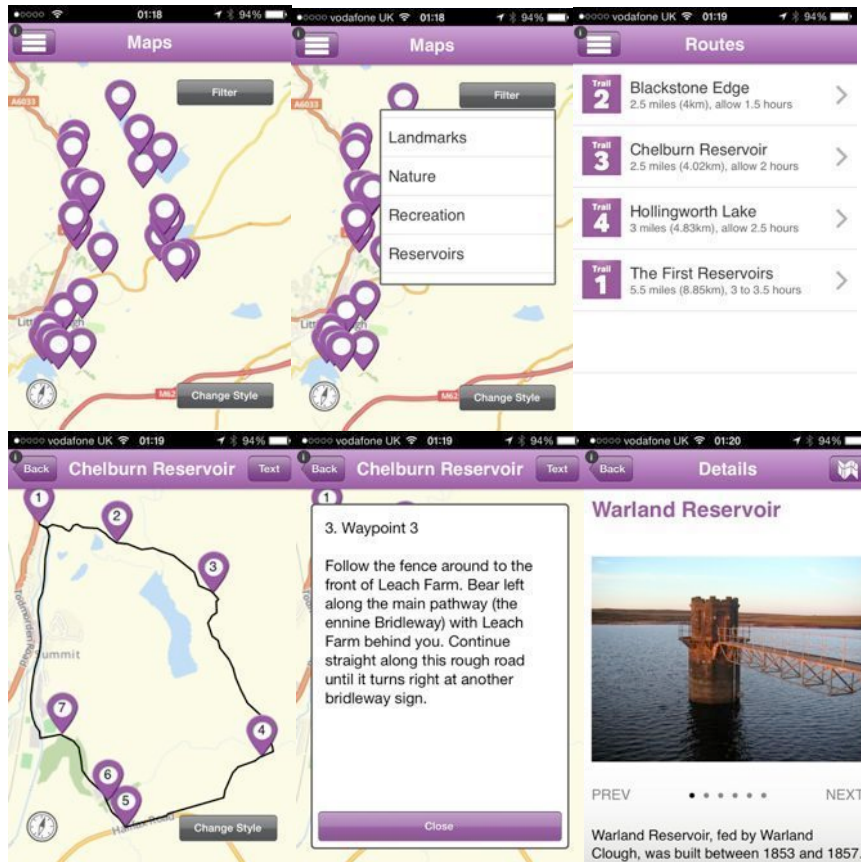


Figure 17a. Screenshots of locations in the app, viewable on a map (that can be filtered to show locations under different themes) or viewable by walking route, with directions and detailed information available at certain points on each route



Figure 17b. Screenshot of “badges” page

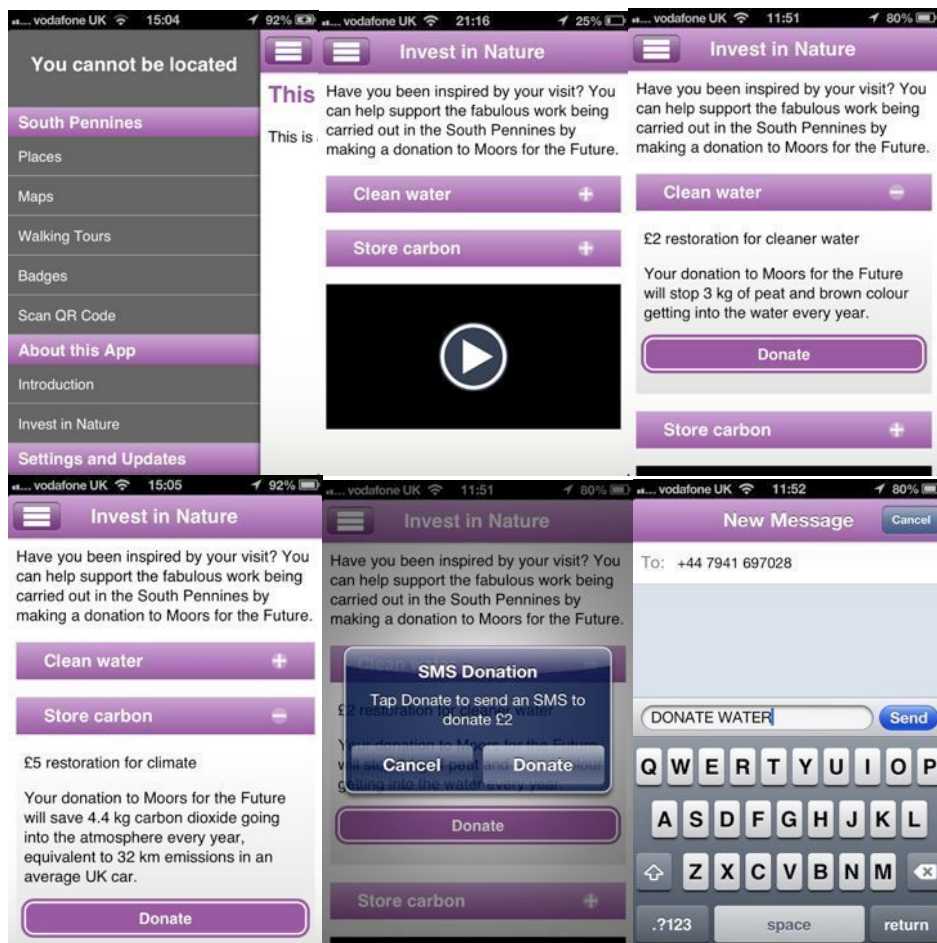


Figure 18. Payment functionality in the South Pennines app, showing the location of payment functionality in the main menu, information about donating towards climate mitigation or the provision of clean drinking water (with videos explaining the benefits), and SMS donation (note: payment functionality had to be removed prior to release)

6.2

Lake District

The Explore More Eden and Cycle More Eden mobile applications were developed in collaboration with Nurture Lakeland, as a resource for visitors to enable them to engage with low impact tourism activities in the Eden Valley, Cumbria. The apps were funded by Nurture Lakeland via RDPE funding from Defra, with additional funding from Project Maya Community Interest Company (as part of this research project) to develop new content and create payment functionality. The app was developed by Changing Horizons. Both apps are available (free) from the Apple App Store and also Google Play for Android users. There was a soft launch for the apps during the summer 2013, with continued promotion into 2014.

The apps' primary function is to provide information on activities, things to do and sustainable travel options whilst also offering the visitor the opportunity to learn more about local conservation projects in the area (see Figure 19 for screenshots of the home screen for each app and an example of a walking route).

Each cycle ride or day out contains information about the historical and natural environment, including information about ecosystem services (see Table 12 for example content) and nearby conservation projects that are supported by the Nurture Eden Visitor Giving scheme. Table 13 details the six projects that are currently in the Nurture Eden Visitor Giving scheme. Two of these are PES projects, where there is a quantifiable and conditional link between payments and the provision of ecosystem services based on published evidence. Two are PES-like, as they provide a quantifiable and conditional link between donations and tangible benefits (in this case footpath creation and maintenance), but it was not possible to convert these benefits into ecosystem services (e.g. cultural ecosystem services such as the health or spiritual benefits of being able to access areas via footpaths). Finally, there are two non-PES projects, one that pays for the management of a nature reserve for multiple benefits that it was not possible to disaggregate and quantify, and one that pays into a fund that may be distributed to a range of projects.

The user can view details of the project, location on the map and furthermore has the option to make a £2 donation via SMS. Once the user chooses to do this, an automatic SMS text message is generated to the relevant text donation code and the user simply presses 'send' to complete the donation. The user then receives a SMS asking if they would like to add GiftAid to their donation (to which they can reply YES to, to add GiftAid). Finally, the user receives a "thank you" SMS, which includes a link they can click to enter their email address to receive updates from the Nurture Lakeland about the benefits donations are providing (it is not yet possible to provide information per individual project in this way) (Figure 20).

For the two PES projects, calculations were based on evidence from peer-reviewed sources where possible to derive the likely ecosystem service benefits arising from a donation:

1. **Pollination services** (Culgaith Tarn): The project is being perennial wildflower seed for £295 per 170 g and spreading it at a rate of 2 g/m². Wildseed costs are therefore £3.47 per m², so a £2 donation will pay for approximately 0.5 m² of wildflower planting. On average, pollen from 3.4 wildflower plants are required to raise a single bee larva (based on data for 35 species of bee⁹⁴). Typical wildflower planting densities range from 6-10 plants per square meter. So assuming 3.5 plants per half square meter, £2 would plant enough wildflowers to raise a single bee larva.
2. **Carbon sequestration** (Orton Community Woodland): Assuming a broadleaf tree absorbs approximately 1 t CO₂ over 100 years, and a tree costs £14 to plant, £2 buys a 7th of a tree, which is equivalent to a seventh of a tonne of CO₂ (0.143 t CO₂). An average new car sold in 2011 had emissions of 138.1 g CO₂/km, which is equivalent

⁹⁴ Müller A, Diener S, Schnyder S, Stutz K, Sedivy C, Dorn S (2006) Quantitative pollen requirements of solitary bees: Implications for bee conservation and the evolution of bee-flower relationships *Biological Conservation* 130: 604–615.

to 0.0001381 t CO₂/km. Therefore, a £2 donation purchase carbon sequestration equivalent to 1035 km emissions (643 miles) over the lifetime of the tree.



Figure 19. Screenshots of home screens for each of the Visit Eden apps (left and middle), and a screen shot of a walking route from the Explore More Eden app (right)

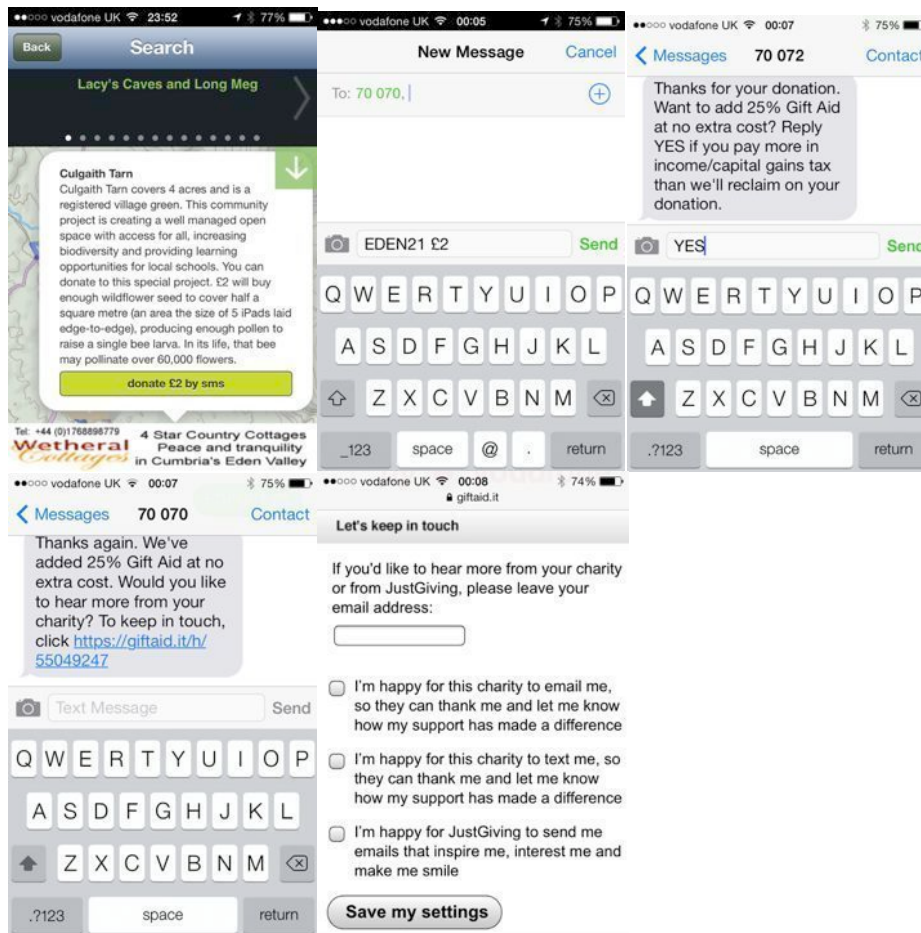


Figure 20. Screenshots showing donation functionality on Visit Eden apps.

The approach behind the positioning of PES information and the donation function was to integrate the option to donate within the core function of the apps, particularly highlighting the locality and relevance of projects. The rationale for this was that a visitor to the area is more likely to download an app that assists with activities related to their visit rather than functioning solely for the purpose of generating donations.

This trial has generated a number of challenges and questions which need addressing in order to refine functionality and communication with the visitor/donor, including:

- Is it possible to thank donors and provide them with information about the effects that their donation has had for the different projects they support?
- Can we make the positioning of the conservation projects and donate function more prominent throughout the app?
- Should we be looking at promoting the delivery organisations for each project more prominently in the app (e.g. Cumbria Wildlife Trust and The Woodland Trust) as

potentially better known charities to the visitor than the Visitor Giving coordinator Nurture Eden?

Essentially the next steps in developing a more robust text donation function needs to be consumer research with app users to clearly identify at which point they would be motivated to donate and how best to achieve this.

It is also important to note that the success of any in-app donation method is inextricably linked to the success of the app itself (i.e. number of downloads) and that in creating a mobile app, whether linked to a specific project or more general fundraising objectives, the managing organisation should consider how they will effectively market this product to the visitor, clearly selling the benefits to the consumer.

Table 12. Example content available on both Nurture Eden apps, linking locations to the ecosystem services they provide

Location Name	Example Content
Ancient Road	If you look at the landscape around you, you may notice parallel indentations in the ground. They are particularly obvious if you look over to the left of the Hartside Cafe. These drainage ditches attempted to improve the ground for agriculture, but because the ground became drier, many of specialist plants and animals that used to live here could no longer survive. A lot of the carbon that was stored in the dark, peaty layer of the soil has been lost as the Greenhouse Gas Carbon Dioxide, which contributes towards climate change. Carbon has also washed down ditches in chunks (which often silt up reservoirs) or dissolved in brown water (where it costs water companies millions to clean up).
Beacon Hill (on Orton Scar)	The Western side of the hill is covered in heather. If you look carefully, you should be able to see a geometric patch-work of different colours in the heather, caused, caused by gamekeepers burning it. They do this in narrow strips to create young heather for Red Grouse to feed on (for sporting clients to shoot). The Grouse can use nearby longer heather to nest in and hide from predators. This habitat also benefits other ground-nesting birds, like Golden Plover, many of which are of international conservation significance.

Location Name	Example Content
Castlerigg Stone Circle	<p>At certain times of year, these hills turn purple as the heather comes into bloom. If you look carefully at heather-covered hills, you may notice a patchwork of geometric shapes in the vegetation. This is caused by gamekeepers burning the heather to create habitat for Red Grouse. However, critics argue that too much burning (especially if near watercourses) can turn stream water brown (which is expensive for water companies to clean up) and result in the loss of carbon from the soil into the atmosphere, where it can contribute towards climate change.</p>
Swinhope Moor	<p>Dropping down from Swinhope Head there is a superb view down Swinhope Burn to Weardale. On your left the hillside curves to form a natural amphitheatre. The steep hillsides are underlain by thick shale layers and because shale is a soft rock, the slopes are eroding away. At the top of the ridge above the head of Swinhope Burn the peat is also eroding, forming dark peat hags. The reasons for peat erosion here are unclear but may relate to a combination of factors such as land management and changing climate over the past 1000 years. Some of this peat washes down streams and rivers and then silts up reservoirs, but these areas also leak carbon into the water (where it costs water companies millions to clean up the brown water that this causes).</p>
A good picnic place with an ancient history	<p>Scandal Beck is a Site of Special Scientific Interest because of the unique "Carboniferous Limestone" rocks that can be found in and around the stream. These rocks formed between 363 and 325 million years ago under what was then sea - if you look carefully, you can see evidence of corals and other organisms (e.g. brachiopod shell fish and spirobid worms).</p>

Table 13. Projects visitors can donate to via the Visit Eden apps, showing which operate as PES projects, PES-like project or non-PES projects

Project name	Description (as it appears in the app)
PES projects	
Orton Community Woodland	Grazing land has been transformed to create new native, broad-leaved woodlands and nature trails, surrounded by hedgerows and dry-stone walls. Local schools and volunteers are involved in practical conservation. You can make a donation towards planting further trees via the Nurture Eden Visitor Giving Scheme by tapping the button below. £2 worth of tree planting will remove carbon dioxide from the atmosphere equivalent to 643 miles of emissions from an average UK car over the life of the trees.
Culgaith Tarn	Culgaith Tarn covers an area of 4 acres and is a registered village green. This community inspired project aims to create a well managed open space with access for all, increasing biodiversity on the site and providing fantastic learning resources for local schools. You can donate to this special project via the button below. £2 will buy enough wildflower seed to cover half a square metre (an area as large as 5 iPads laid edge-to-edge), which would produce enough pollen to raise a single bee larva. In its life, that bee may pollinate over 60,000 flowers. A third of the food we eat depends on pollination. Donate now by hitting the button below.
PES-like projects	
Dufton Ghyll	Dufton Ghyll is a 25 acre area of ancient woodland that is one of the few remaining Northwest outposts for red squirrels. It has nationally recognised geology due to exposures of St Bees sandstone. The Woodland Trust are improving footpaths in the forest to allow better access. You can make a donation towards conserving Dufton Ghyll now. Every £2 donated pays for 7 cm of new footpath. Every little helps, and together we can enable more people to enjoy this special place.

Project name	Description (as it appears in the app)
Ullswater Paths	This Lake District National Park-led project is working to look after the many miles of footpaths and bridleways which are so popular with the many visitors who visit the stunning Ullswater valley each year. The project has 12 interpretation boards at beautiful locations around the Lake to explain Ullswater’s wonderful landscape, wildlife and heritage. You can donate to help to keep the paths accessible to everyone, including in certain places special limited mobility routes. £2 will pay for 20 cm of revegetation next to eroding paths or 80 kg of stone moved to site.
Non-PES projects	
Eden Small Grants	The Eden Small Grants Fund provides grants of up to £1000 to small community projects which would otherwise struggle to get funding. The money raised has helped plant new woodlands, repair popular paths, improve access to the local countryside, restore wildflower meadows and much, much more. You can make a donation towards this important conservation work by tapping the button below.
Smardale Gill Nature Reserve	Smardale Gill National Nature Reserve runs along a section of disused railway line and is dominated by the magnificent structure of Smardale Viaduct. The railway cuttings and embankments have developed into limestone grassland and are rich in plant species and a variety of butterflies. Red squirrels can also be seen here, and bird species such as long-tailed tit, treecreeper, pied flycatcher and wood warbler. You can donate to the work of the Cumbria Wildlife Trust who are managing the grassland areas through grazing and cutting. Your donation can help pay to remove non-native trees from the woodland and coppice some areas to allow light to the woodland floor, to increase the range of wildlife that can live there.

7. VISITOR GIVING LEARNING NETWORK

To disseminate findings from this research, and continue collating and learning from experience with visitor giving and PES across the UK, this project aimed to investigate the most appropriate structures for delivering a central pool of information and resources relating to Visitor Giving, develop a development plan for the implementation of the Visitor Giving

network, and consider options for an online platform for delivering and sharing information. The next sub-section describes findings from the questionnaire sent to participants in the 2012 Visitor Giving Forum co-ordinated by Nurture Lakeland. The rest of this section describes the plans that have been made for a national network, based on discussions and feedback from a range of interested parties.

7.1 Findings from survey of Visitor Giving Forum participants

The survey was completed online and analysed using the Survey Monkey questionnaire software. The survey was sent out through e-mail to 40 people who attended Nurture Lakeland's Visitor Giving Forum on October 17th 2012. A total of 26 responses to the survey were gained representing a response rate of 65.5%.

Respondents represented a broad geographical coverage of the UK, including many of the large protected areas such as National Parks and AONBs, with most respondents coming from the conservation sector and local authorities (Figure 21). Specifically, respondents represented the following organisations:

- Arran Trust
- Bowland Tourism Environment Fund
- Broads Authority
- CoaST - One Planet Tourism Network
- Cornish Mining World Heritage Site
- Cotswolds Conservation Board
- Exmoor National Park Authority
- Forest of Bowland Area of Outstanding Natural Beauty
- Friends of Loch Lomond & The Trossachs
- Government - Forestry Directorate
- Gwynedd Council - Outdoor Tourism Project
- Gwynedd Council / Cyngor Gwynedd
- Lake District National Park
- Neath Port Talbot CBC
- Neath Port Talbot County Borough Council

- New Forest Trust
- North York Moors National Park Authority
- Our Land (South East Protected Landscapes sustainable tourism initiative)
- Peak District National Park Authority
- Pennine Prospects
- RSPB
- Shropshire Hills AONB Partnership
- South Copeland Tourism Community Interest Company
- South Downs National Park
- Suffolk Coast & Heaths AND Dedham Vale AONBs
- Yorkshire Dales Millennium Trust

Given that the target sample for the survey were delegates of the Visitor Giving Forum it was not surprising that the majority are either considering running Visitor Giving in their destination or running a scheme already (Figure 22).

To determine how a new national Visitor Giving Network may be best utilised, a number of questions were asked around the type of challenges facing those wishing to run Visitor Giving and what support they might find helpful. The survey suggests that the barriers and challenges are wide-ranging across finance, knowledge & expertise and stakeholder engagement, with each type of organisation experiencing similar issues – although we have noted that responses from Local Authorities did not rate ‘finance’ as a barrier as often as other types of organisation (Figure 23). Respondents cited a range of organisations that they had access to, for support in relation to Visitor Giving (Figure 24).

Areas of support most needed to aid the set-up of new Visitor Giving schemes were marketing, business engagement and business planning (Figure 25). The overwhelming majority of responses stated that an online resource bank would be a helpful way of accessing this support, with ‘help sheets’ and a regular annual event also proving to be popular methods too (Figure 26). Particular ‘help sheet’ topics that scored highly were those relating to the business management side of Visitor Giving, such as tax and VAT, legal matters and e-commerce/technology, as well as the ‘key steps’ needed in business planning and the set-up of a new scheme (Figure 27).

Regarding potential income from a national network, participants were asked if they would be willing to pay to join/access the services provide and if how this might be set-up. 82% said that they would be willing to pay to join a national network, the most popular method being a monthly/annual membership. These ideas were developed further through open questions which suggested that while the majority of interested parties would be willing to

pay there is much ambiguity as to what fees would be appropriate, with many stating that they would need to know more about the potential for return on investment. The idea that some services may be charged out on a 'pay as you go' basis was also raised, suggesting that there may be opportunity to create different levels of membership or flexible payment options for particular services. It should be noted that 5 respondents chose to skip these questions all together and several others only answered them in part.

Finally participants were asked to outline their objectives for a new Visitor Giving scheme, common responses included wishing to sources alternative income streams to fund conservation and aims to increase community and business engagement. Further comments on the development of a national network focused on the availability of best practise examples and case studies. On the whole each participant responded positively to the concept of a national network for Visitor Giving and the survey in general has shown that there are many shared challenges, goals and learning opportunities that could be addressed with the creation of such a network.

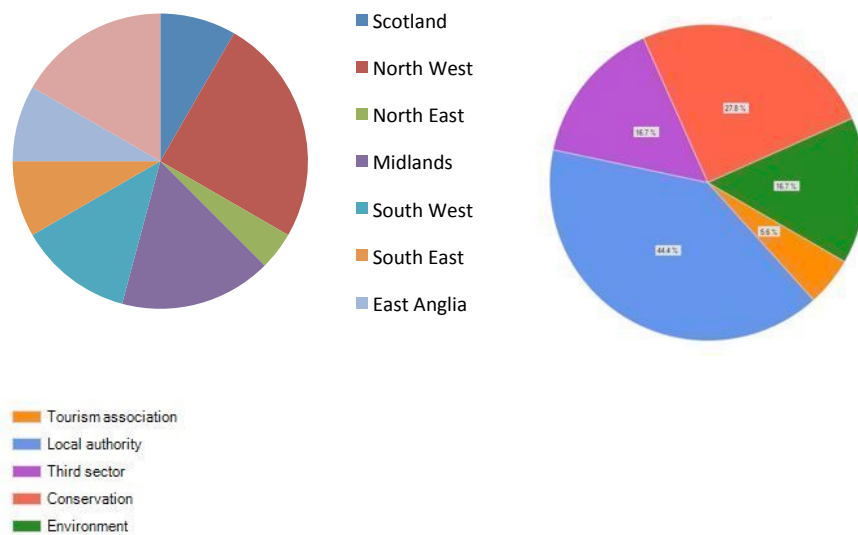


Figure 21. Representation across the UK (left) and across different sectors within the sample (right)

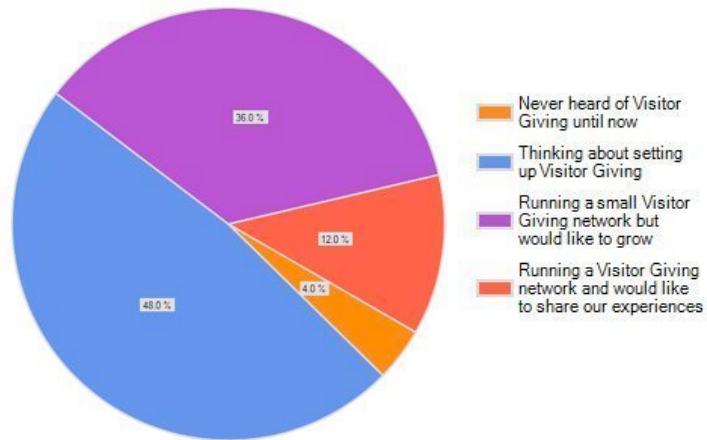


Figure 22. Status of survey respondents in relation to Visitor Giving



Figure 23. Barriers to participation in VGS

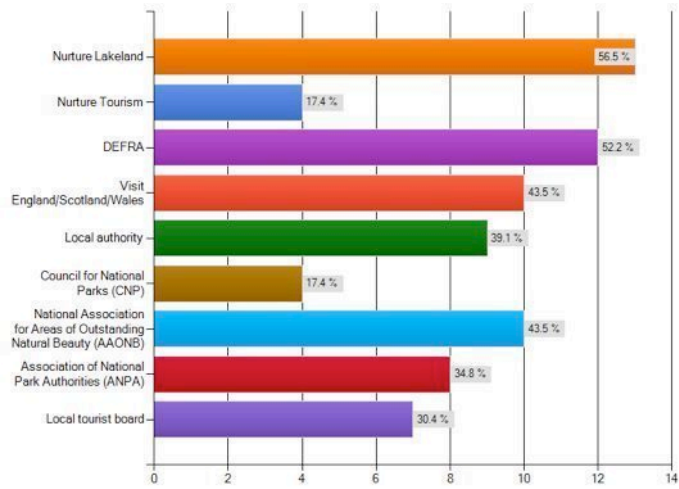


Figure 24. Organisations that support Visitor Giving, who participants stated they had access to

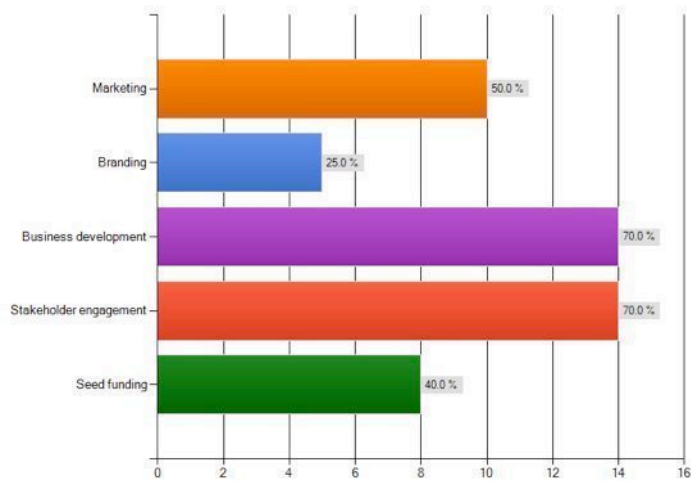


Figure 25. Support needed to set up or grow VGS

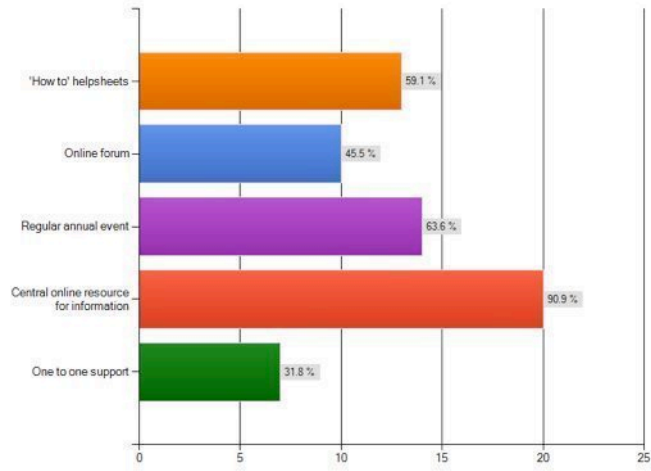


Figure 26. Resources respondents stated that they would find helpful to support VGS

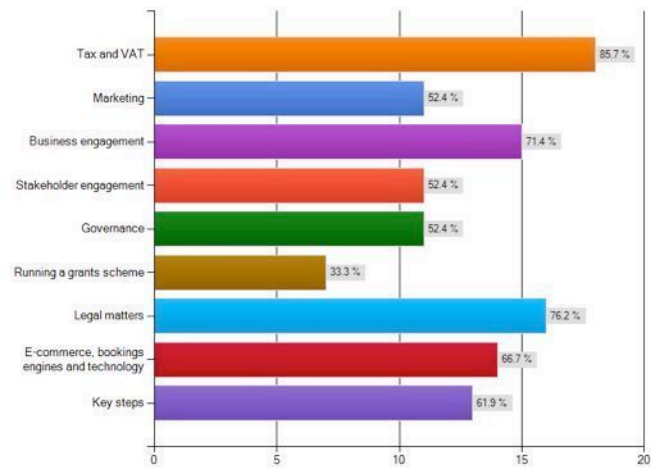


Figure 27. Topics of VGS helpsheets that participants said they would find most helpful

7.2 Development plan

There are numerous Visitor Giving schemes of varying scales in operation around the country; some of which have grown organically in response to specific fundraising needs and conservation issues, and others that have been designed and implemented as part of a wider funding strategy for the destination (see sections 3 and 4). Although there is potential to generate sufficient revenue from Visitor Giving to fully cover the costs of a conservation project, in reality this is rarely realised. High administration costs, difficulties securing long term funding and developing effective partnerships between business and conservation interests, together with a lack of clearly identified projects and objectives remain key barriers to successful uptake over the long term (see sections 3 and 4).

In response to these challenges, in October 2012 Nurture Lakeland hosted the first national Visitor Giving Forum, a gathering of tourism and conservation professionals from 30 destinations around the UK to share learning and experiences of Visitor Giving. The main achievement of the Visitor Giving Forum was the opportunity for professionals working on Visitor Giving to share their experiences; delegate feedback stressed the importance of this networking element and the desire to continue contact between people working in this field.

The development of a National Network for Visitor Giving will enable destinations and conservation bodies managing or setting up a scheme to continue dialogue on the barriers and challenges faced and cultivate responsive and collective solutions to overcome these. It will create an opportunity for the sharing of resources and expertise, as well as the potential to develop more unified approaches to elements of Visitor Giving such as fundraising platforms and marketing nationwide.

7.3 Objectives and outcomes for a National Network for Visitor Giving

From initial consultation of forum delegates and information gathered as part of the literature review, the following objectives should be considered as the basis of a network:

- To share learning and experience of Visitor Giving, with a particular emphasis on developing 'best practice'
- To develop an accessible pool of knowledge
- To lobby government/policy makers/industry
- To offer support and advice to destinations and conservation bodies
- To co-ordinate/align resources, share efficiencies and economies of scale

There are a number of ways in which these objectives could be realised, and given the diversity of potential members and their geographical spread, it is likely that a network will need to deliver a number of outputs in order to enable participation and engagement of a widest number of people.

Potential outputs include a web-based network with an online forum and resource area, enabling members to easily access shared helpsheets, examples of best practice and to communicate informally. The CoaST One Planet Tourism network is a good example of how online communications can work to encourage and facilitate knowledge sharing amongst a diverse community. Whilst the network managers have a regular input on content it is very easy for any member to participate, whether that is to share knowledge, ask questions or respond to another members' post. This is done mainly via emails amongst the membership and also through regular updates and posts on the website. With 2,600 members, this network covers many aspects of sustainable tourism and offers a simple and effective opportunity for individuals, businesses and organisations to become part of a like-minded community.

An annual event was a popular suggestion in the delegate feedback from the Visitor Giving Forum. Creating networking opportunities on the ground would be an important output for the network. Events may be on a local, regional or national level and this will vary as a network develops and grows. In the beginning another nationwide event may be most useful in order to 'kick-start' the network and formalise expectations in terms of objectives and outcomes. This event would also be used to identify the different obstacles facing destinations in implementing Visitor Giving. Once contact within the network has been established it may be useful to tackle specific barriers or challenges in working groups, utilising the expertise and experience of members and partners.

Internal and external communications will be another important output of the network, co-ordinating a regular update/newsletter for members to deliver internal information on success, challenges and innovation will enable engagement throughout the year and also a create a centralised point for information. External communications to target audiences may also be appropriate when significant achievements arise or in response to relevant strategic/policy developments.

Finally another output of the network will be the creation of guidelines and/or criteria to aid destinations in setting up Visitor Giving as a model of 'best practice', ensuring a quality experience for visitors, businesses and beneficiaries.

As a result of the outputs identified above a successful network will work to achieve the following outcomes:

- Increased income from more effective and efficient visitor giving schemes
- Improved recognition and marketing to the visitor
- Access to knowledge and learning for professionals implementing Visitor Giving
- Evidence and data to back up policy changes and secure future funding
- A more realistic perspective on challenges to Visitor Giving and collaborative approach to tackling these

7.4 Structure of the network

The structure of the network will need to be developed as part of a business plan to ensure that sustainable resource allocation and capacity is available to facilitate the network outputs in the long term. At this point, consultation and research suggests that the following stakeholders may be involved:

Partners (structural development of a network)

- Nurture Lakeland (lead partner)
- Campaign for National Parks
- National Parks England
- National Parks UK
- National Association of AONBs
- Visit England
- Visit Britain
- Visit Scotland
- Visit Wales
- DEFRA
- Natural England
- International Centre for Responsible Tourism

The target audience for members will be destinations/organisations who are managing, administering or considering setting up Visitor Giving, for example:

- Destination Management Organisations
- Protected landscape partnerships
- Conservation organisations – e.g. The RSPB, English Heritage, The National Trust
- Public sector workers involved in tourism and/or conservation, heritage, communities
- Tourism industry professionals at a destination level

The delegate survey conducted, after the Visitor Giving Forum, indicated that there is a willingness amongst this community to make a financial contribution towards membership of a network. A basic business model will use this income to fund a modest amount of staff time

providing the basis for administering communications and knowledge sharing using online platforms and social media.

At this level, members will be able to explore the barriers and challenges to setting up and running Visitor Giving, share success and best practice and inspire creative solutions. There will be an important emphasis on participation and inclusiveness, aiming to produce reciprocal learning between members with 'bottom-up' innovation, rather than a 'top-down' approach of information dissemination from a central source.

Issues and topics explored within the network will inform what other resources and services may be provided and could lead to the development of deeper, more integrated collaboration on some levels. In order to fully develop the potential outputs of the network beyond a knowledge sharing platform, realising the potential benefits of working in collaboration and developing more shared resources, further consultation is needed to identify any resources/support that partners can contribute. This will create a structure for governance and finance that will work to produce the desired outputs sustainably over time, enabling a network to grow and respond to meet the needs of destinations developing Visitor Giving. Figure 28 summarises the proposed development of the network in three stages.

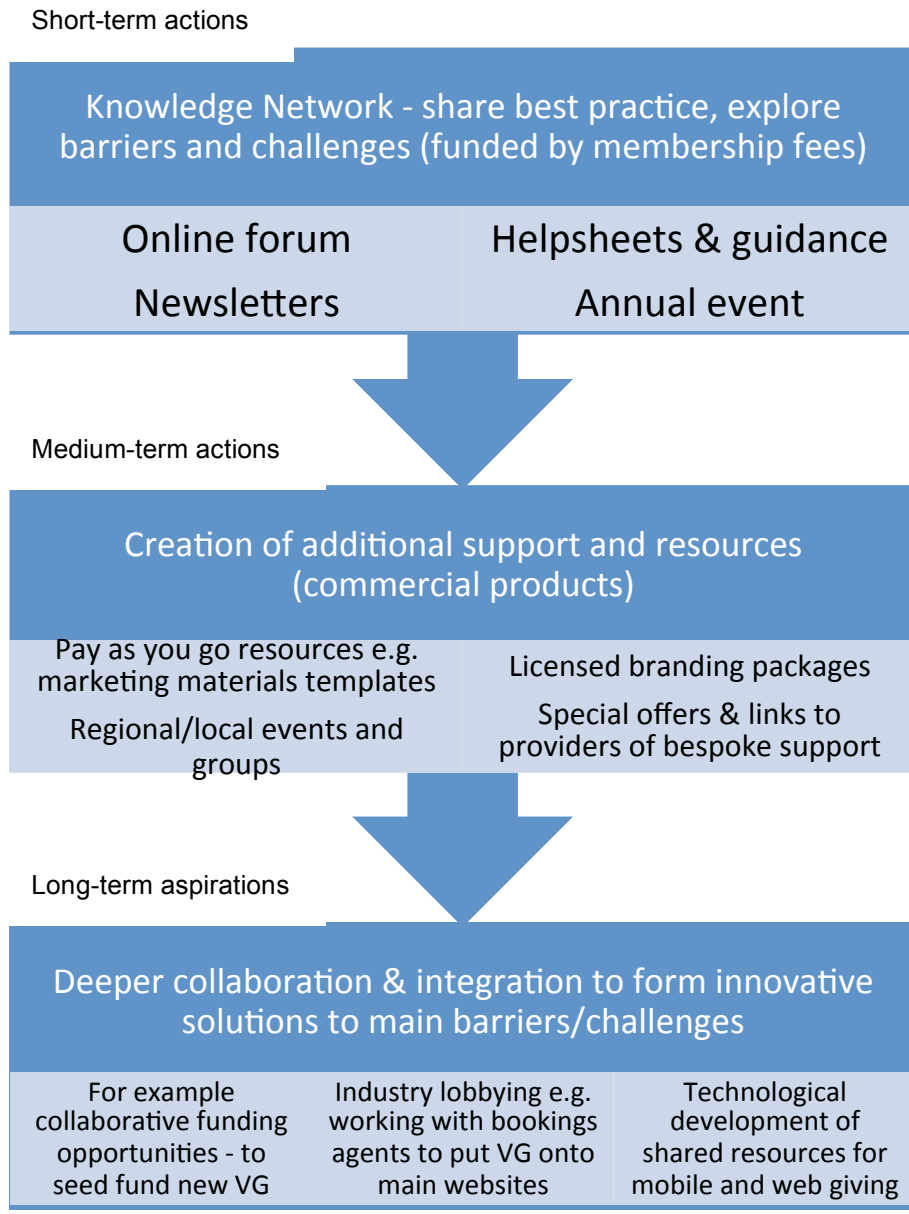


Figure 28. Three phases of development for future national network for visitor giving

8. DISCUSSION

This report has identified the range of visitor-giving schemes (VGS) operating in the UK, providing the first comprehensive assessment of their governance, structure, promotion and communication, donor profiles, costs and revenues, payment mechanisms, and the projects and other activities that these schemes support. It has also identified a number of opportunities and drawbacks associated with using VGS to elicit payments for ecosystem services (PES). Finally, it identifies a number of ways in which it may be possible to enhance VGS and facilitate PES via VGS.

The principal types of VGS found in the UK are described in Table 2. They are typically connected to publically accessible open space in highly valued (often designated) landscapes such as National Parks and Areas of Outstanding Natural Beauty. The majority are local trusts, charities or partnerships. They typically operate in collaboration with local businesses, particularly those linked to hospitality, food and drink and tourism. The most prevalent business members were small independent accommodation establishments. Business members were typically recruited through invitation, via meetings with the VGS or Destination Management Organisations. Day-to-day administration was typically performed by 1-3 part-time staff reporting to a management group or Board of Trustees. VGS had a range of goals, but all those surveyed shared a common overarching aim: to secure resources for initiatives to protect and enhance the local environment, which would not otherwise be funded.

A small survey of visitors to the Lake District was conducted for this research, to supplement findings from interviews with VGS operators. Given the small sample size ($n = 49$), it is not possible to make firm generalisations from these findings, however, they provide some indications of likely visitor preferences around the design of VGS for PES. The survey found that the majority of those sampled had never donated to a VGS before, and those who had contributed to a VGS donated £3.45 on average (the most common donation amount was £2). Only a small proportion had been subsequently provided with information about the projects they had donated towards. In contrast to evidence from the literature and findings from surveys with VGS operators and businesses, opinion was split among visitors about the importance of having a choice of projects to which they could donate. Approximately half thought that this was important, while the other half preferred to allow the VGS to decide which projects to distribute funds to.

The costs of operating VGS varied according to the size and complexity of the scheme and were often subsumed within wider organisational and administrative budgets (e.g. paying for the salaries of staff operating the scheme), making it difficult to identify the direct costs associated with operating the scheme. Where costs of running VGS were not met by parent organisations (e.g. National Park Authorities), these were typically met through grant funding (e.g. via LEADER). The main costs of running a VGS were staff costs (86% of total scheme operating costs for Nurture Lakeland, the only scheme able to provide a comprehensive break-down of costs). Staff time was required for establishing the scheme, creation and maintenance of websites, applying for grant funding and processing (and sometimes following up on) donations. The other main cost was marketing, which varied between 0-20% of total scheme operating costs, depending on the extent to which this was done externally

or in-house. IT costs included website hosting charges and PayPal licenses (2.5% of total costs for Nurture Lakeland) and overheads (7.5% of total costs for Nurture Lakeland).

Revenues varied according to the number of businesses participating in the scheme, visitor numbers (particularly staying visitors for schemes relying on accommodation levies) and awareness of the scheme. Donation levels also reflected wider economic trends, for example many schemes noticed a decline or plateauing of revenues during the recession of 2008-2011, despite an increase in the number of staying visitors.

Concerns that visitor giving might displace local spending elsewhere appear to be unfounded, on the basis of this research. There was no evidence of spending displacement in the literature, and the businesses surveyed were split between those who thought there would be no displacement and those who were unsure. In a sample of 49 visitors in the Lake District National Park, none of those surveyed who had donated to a VGS reported any change in their spending behavior later that day or during that visit, and all those who had not previously donated did not believe that a typical donation of £2 would have any effect on their spending behavior.

VGS in the UK support a wide range of projects and activities, ranging from trail maintenance and restoring or protecting habitats for wildlife, to public education and awareness campaigns and the promotion of sustainable tourism (Section 3.3). Many VGS run or fund a number of different projects and activities simultaneously, giving businesses and visitors a choice of initiatives to support. Other schemes target specific groups of visitors to support a single project that is likely to be of interest to that group (e.g. Cognation Mountain Bike Centre's VGS in the Afan Forest Park raising funds for development and maintenance of mountain bike trails). Most of the businesses interviewed for this research stated that they were most interested in supporting projects and activities that matched the interests of their customers and were local to them. Their primary concern was supporting conservation projects, with brand enhancement a secondary motivation for engaging in VGS. Footpath restoration and species conservation projects were the most commonly supported among business respondents.

None of the schemes interviewed were able to provide specific information on the profile of their donors. However, the literature suggests that visitors who donate to VGS are typically: younger; more educated; visiting the area to explore heritage and countryside; engaged in outdoor activities e.g. walking and climbing; more likely to be overseas visitors; and living in the area or staying for more than one night.

Schemes kept in touch with donors in a number of ways. Websites and electronic newsletters, leaflet and posters were widely used, with social media increasingly being adopted as a way of staying in touch with visitors after their visit. A number of VGS had adopted the "Visit, Give, Protect" brand for their scheme, to increase brand recognition and trust among visitors to participating destinations across the UK.

VGS in the UK use a range of different payment mechanisms to collect donations:

- **Voluntary donations collected through boxes or envelopes** was the most widely used by VGS operators, and were popular with businesses and visitors. Donation

boxes rarely raised significant donations, unless they were well designed, positioned and actively promoted. Donation boxes and envelopes were important for some schemes though e.g. representing 65% of total income for the (relatively small) Caremoor scheme, mostly through donation boxes built into map dispensers. Envelopes distributed by businesses to their customers were more successful at raising funds, with one scheme earning up to £1000 per year per business.

- **Opt-in or opt-out levy schemes** for example charging an optional extra fee on top of food or accommodation were also popular with VGS operators, visitors and businesses. The literature and evidence from this research showed that opt-out methods were more successful than opt-in methods, and this was the most successful method for raising funds across the VGS surveyed (in the Nurture Lakeland VGS, only 2% of visitors did not contribute to opt-out schemes, compared to a third who did not contribute to opt-in schemes).
- **Merchandising schemes**, where a donation to a VGS is added to the price of a product (typically 1-5% of the product price). Although some studies have found visitors are more willing to make donations in this way compared to other payment mechanisms, and merchandising schemes were popular with businesses surveyed in this research, this was not particularly popular among the visitors surveyed, and concerns have been expressed in the literature about such schemes being perceived by visitors as “commercialising” nature.
- **Membership schemes** offer an opportunity to join a group that supports conservation projects and activities, for example “friends of” schemes and organizational memberships. It is easy to provide feedback to members about projects, but administration costs are typically high, and it is hard to link membership fees to the provision of ecosystem services in specific projects.
- **Participation** via volunteering with projects is an alternative way for visitors and businesses to support VGS projects and activities, instead of (or in addition to) making financial contributions. Some VGS charge volunteers to cover accommodation and food and make a contribution towards the costs of the project. Overall however, only a very small proportion of visitors and businesses engage with VGS in this way.
- **Fundraising campaigns** can raise significant sums of money in a relatively short period of time, if well designed and resourced, but do not typically cover the ongoing costs of running a VGS. They can target specific beneficiaries of ecosystem services, linked to particular projects that are likely to be of interest to that group.
- **Sponsorship** tends to focus on businesses, though some sponsorship schemes are targeted at visitors e.g. adopt a tree schemes. Although time-consuming and expensive to establish, sponsorship can provide a relatively stable ongoing income stream that can support the core functions of a VGS. It is also possible to tailor sponsorship to the needs and interests of participating businesses and target donations towards particular projects and ecosystem services.

- **Loyalty card schemes** tend to be expensive for participating businesses (as they have to offer discounts), but can be attractive for visitors who are willing to pay a membership fee to receive their discounts, part of which goes towards the VGS. None of the schemes surveyed in the UK were using loyalty cards.

With the exception of business sponsorship, all of the VGS surveyed donated all the funds they raised via other payment mechanisms directly to projects (although it was not possible to say what proportion of these funds were used by projects for administration versus conservation work on the ground).

Payment mechanisms varied in the extent to which they were able to elicit significant levels of donations, and the extent to which they could be used to facilitate PES (Box 1; Table 2). Conditionality was the most common limitation of payment mechanisms that were unable to make a direct link between donations and the provision of ecosystem services through specific projects e.g. accommodation levies sometimes go towards VGS, and not to specific projects within VGS, making it difficult to make a direct link between payments and the provision of ecosystem services. Partly this is due to the short-term nature of projects, which come and go as objectives are met, which would require new material to be written and provided to accommodation providers as projects change. Partly this is because visitors do not have time to engage with extensive written material when paying their bill and deciding whether or not to opt-in or out of a payment to a VGS, and adding a choice of projects to support would further complicate and delay the process of checking out. Similarly, although it may be possible to create donation boxes for specific projects, it is difficult to explicitly link donations to an amount of ecosystem service provision, given the variation in donations made to boxes. Membership and loyalty card schemes were particularly problematic, given that these tend to operate for or donate to organisations that run multiple projects. A number of factors may drive decisions to adopt loyalty cards or membership, which may or may not be because the member is a beneficiary of ecosystem services provided by the projects that the organization supports (the beneficiary pays principle in Box 1). Even if members do benefit from the ecosystem services provided by the projects that the organization or scheme supports, they would not typically have control over whether or not the organization or scheme supports projects and which projects it supports, violating the principle that payments should be voluntary.

In contrast, participation, sponsorship, fundraising campaigns and smart phone apps all had the potential to support PES. These mechanisms were all able to target beneficiaries of ecosystem services, who could then make voluntary contributions, and it was possible to make direct links between payments and ecosystem service provision for each of these mechanisms. Participation through volunteering is only ever likely to appeal to a small proportion of visitors e.g. linked to ecotourism. However, a combination of business sponsorship, fundraising campaigns that target specific visitor groups to support particular projects and ecosystem services, supplemented with ongoing payments via smart phone apps from typically younger, more affluent visitors, have the potential to elicit PES.

Although number of barriers and challenges relating to the establishment and successful running of VGS were identified by VGS operators, none of these related specifically to the integration of PES. However, a number of potential benefits of linking donations to the

provision of ecosystem services were identified by VGS operators during interviews, for example:

- Consistent with the literature on visitor giving that identifies the importance of linking donations to specific project outcomes, the conditionality principle in PES can enable VGS to demonstrate specific, tangible benefits from projects to donors. This makes PES schemes well suited for integration with VGS, and on the basis of published evidence about the importance of linking to specific outcomes, may enhance donations
- VGS operators surveyed for this research emphasized the wider benefits of VGS beyond funding projects. In particular, there was an acknowledgement that VGS raised awareness among visitors and businesses about conservation issues, and it became possible to raise awareness and mobilise action through relationships with businesses and their networks. Building on this, if more VGS were to elicit PES, it may be possible to raise awareness more widely about the societal benefits of the projects they support
- There was a perception among VGS operators surveyed that linking donations to the provision of specific ecosystem services would further encourage participation in their scheme, helping them avoid the perception that they were levying a “bed tax”

VGS operators emphasized the development of PES-based schemes as options within existing VGS to provide enhanced choice for businesses and visitors, rather than the establishment of competing schemes.

Visitors surveyed for this research expressed a stronger preference towards supporting projects that provided ecosystem services, and that could quantify the level of benefits provided as a result of their donation, rather than just supporting projects that matched their personal interests. Respondents were more equivocal about how precisely the relationship between donations and ecosystem service provision should be quantified, but agreed that it was important to be able to see the effects of donations from previous visitors, in order to obtain a qualitative understanding of the likely effect that their donation would have. This further supports the idea that PES-based projects are likely to be well received by visitors, and may elicit proportionally more donations than projects that are not able to quantify their benefits precisely or demonstrate a wider societal value. Visitors were typically motivated to more tangible, visible ecosystem services like providing habitat for wildlife, spaces for recreation and activities that promote health, compared to less tangible services like pollination (Table 10).

However despite the potential to elicit PES, very few VGS in the UK currently perform this role. Consistent with preferences expressed by visitors surveyed for this research, the few VGS that did support PES projects were focusing on local, highly visible and tangible ecosystem services e.g. climate regulation from tree planting, rather than less visible or tangible services e.g. pollination. The majority of VGS were not supporting PES explicitly, but there were a number of examples of PES-like schemes e.g. footpath restoration and conservation projects that quantified project benefits in some way, and in some cases linked

donations to outcomes, such as an amount of path that could be laid, but without being able to link this to the provision of an ecosystem service (see Table 3 for an overview).

The project sought to explore the potential for mobile digital technologies to reduce the costs associated with administering VGS and elicit payments for specific ecosystem services from visitors, linked to the locations they visit. Mobile digital technologies are increasingly being used around the world to facilitate donations to VGS, with a range of innovations including “e-parking” where donors get access to a reserved car park in return for donations via SMS including their car registration. A number of smart phone apps exist that provide walking and cycling routes, but few of these enable users to donate. One exception is an app that sells walking routes in return for free cake once a certain number of calories have been expended during a walk. Other apps contribute towards VGS via the royalties from selling the app. VGS operators expressed interest in the technology, but also voiced a number of fears, including perceived issues with reception in remote sites, the costs of developing apps and keeping them up-to-date, and the lack of evidence about the additional funding they might generate.

A suite of smart phone apps were developed as part of the research with co-funding from Community Interest Company, Project Maya. Two apps for iPhone were developed to target walkers and cyclists visiting the Eden Valley in the Lake District and an app for iPhone, Android phones and iPad was developed for walkers in the South Pennines. Although the development of these apps took place in parallel with the research, where possible the approach and design responded to feedback from interview respondents. For example, by adding visitor giving functionality to existing applications, it was possible to reduce or share some of the costs associated with development, branding and marketing. The apps were designed for a generation of smartphones that are all GPS-enabled, so by ensuring maps and content were available in-app, it was possible to track movement through landscapes that have no reception and trigger waypoints via GPS. Payment functionality was designed around payments via SMS to make use of weak mobile network coverage at the sites without having to rely on 3G or 4G connections for web-based payment solutions. A guide for integrating payment functionality to apps designed for visitor destinations has been produced as part of this research and is included in Appendix G.

A number of PES options were developed for each app, linking donations to specific ecosystem service benefits from local conservation projects, based on research evidence. Opportunities to donate were linked to locations in the landscape that could illustrate the projects and/or the ecosystem services they provided, and content explaining ecosystem service provision was integrated into a number of waypoints in each app. The apps linked payments to climate mitigation and improvements in water quality via peatland restoration in the South Pennines, and to climate mitigation via woodland planting and pollination services via wildflower planting in the Lake District. Two PES-like and two non-PES options were also integrated into the Lake District apps, to enable a future comparison between donation levels. The theory is that by learning about the ecosystem services provided by the landscapes they visit, and the projects that can protect and enhance these services, users are more likely to make donations on-site. The Lake District apps are being trialled using an SMS payment mechanism through which donations can be logged and information on app usage can be collected, to better understand and enhance the end user experience.

Finally, to disseminate findings from this research, and to continue sharing experience and good practice on PES across VGS beyond the lifespan of this project, a proposal has been developed for a Visitor Giving Learning Network. As part of this, a series of help-sheets have been produced on Visitor Giving, which are now available on the Visit England website⁹⁵, covering:

- What is visitor giving?
- Building partnerships
- Marketing visitor giving
- Effective use of technologies
- The business model
- Tax, VAT and financial matters
- Transparency and accountability
- Resources and support
- Case studies
- Linking visitor giving to ecosystem services (under development)

To build on this, a survey was conducted with organisations interested in VGS to assess the need for a learning network, and to identify the key roles that such a network might perform. The survey was conducted by Nurture Lakeland with delegates who attended a “Visitor Giving Forum” that they held at the start of this research, in October 2012, to investigate the potential for such a network. The concept was launched and discussed during the plenary session at the Forum, at which point delegates expressed an interest to continue communication in the form of a network and also to be able to share knowledge and best practice. The survey followed up these themes by investigating which issues/topics member would like further support on, formats of information that would be useful and also the willingness to contribute towards the cost of a network and resources.

On the assumption that funding for a network would be modest and most likely based on a membership subscription, it appeared that the most cost effective way of delivering the short term actions of the network would be to provide an online platform for communication between members which could administered and facilitated by a lead partner (Nurture Lakeland). Looking at other online networks and forums it became clear that whilst the website hosting the network platform needs to be fit for purpose in order to provide the

⁹⁵ http://www.visitengland.org/england-tourism-industry/DestinationManagersResources/visitor_giving.aspx

functions that enable communication and discussion, it is actually the role of the network manager that is key in facilitating the outputs of the network.

The role of the manager needs to generate opportunities for discussion, encourage active participation and create an inclusive learning environment conducive to sharing of knowledge and learning. Beyond the discussion/forum element of the online network there can also be space for uploading resources such as helpsheets and guidance notes, examples of best practice and case studies, as well as relevant news pieces. Again the management of this area to keep it fresh, up-to-date and responsive to members is key in retaining interest and engagement. Further consultation is needed with strategic policy level organisations who may wish to be involved at a partner level in the development of the network.

9. CONCLUSIONS

Although very few existing VGS in the UK enable visitors to pay for the provision of ecosystem services, a number of benefits of integrating PES with VGS were identified in this research. In particular, the conditionality principle in PES projects (that requires payments to be conditional on receipt of a specified amount of ecosystem service benefit) is consistent with evidence from VGS that the most successful schemes make a clear link between donations and specific, measurable project outcomes. Integrating PES projects into existing VGS has the potential to raise awareness about the wider societal benefits of sustainably managing and restoring the natural environment amongst visitors, and help schemes avoid the perception that they are levying stealth taxes. VGS operators and visitors surveyed for this research viewed projects that met PES principles favourably, in particular the emphasis on societal benefits and the quantification of benefits. The negative reaction of interviewees (backed up by evidence from the literature) to the term “visitor payback” may have implications for communicating about “*payments* for ecosystem services” or “*paying* for nature’s services”, and future research might usefully explore how this term is perceived and if there are alternatives that may be perceived more positively e.g. investing in nature.

A number of potential PES is likely to suit certain types of projects that are able to provide a clear link between donations and the provision of specific and measurable improvements in the provision of ecosystem services. PES-based projects are most likely to complement existing projects as part of an extended suite of options within existing VGS. A combination of business sponsorship, fundraising campaigns targeted at specific visitor groups and mobile digital technologies are likely to enable PES within VGS. The development of smart phone apps was explored in some detail, leading to the production of a suite of apps for two different sites, and a user guide for developers to integrate PES payment functionality into apps that target visitors.

To disseminate findings from this research and continue learning across the VGS network beyond the lifespan of this project, a series of help-sheets have been developed and a proposal has been outlined for a Visitor Giving Network.

A number of good practice principles may be derived from this research, relating to the establishment and running of VGS generally, and the integration of PES options into these schemes specifically:

- Target requests for donations clearly towards specific projects and demonstrate how donations will lead to specific, measurable (ecosystem service) benefits
- Where schemes offer multiple investment options, take care to target each option clearly towards specific visitor profiles, making it clear to visitors exactly how their investment will benefit specific projects of particular relevance to their interests
- Where possible, offer a range of different payment mechanisms to suit the needs of different types of visitor, for example smart phone apps, donation boxes and opt-in levies on accommodation
- Visitors are more likely to pay if they can do so quickly and easily, and this consideration should be paramount in the design of payment mechanisms within VGS
- Marketing VGS effectively is essential to their success. Although this can represent a significant additional cost, a number of VGS reported declining costs as they moved to online and social media based marketing
- To elicit repeat donations from regular visitors, it may be beneficial to rotate the projects a business supports within a VGS
- Use positive language e.g. visitor giving, visitor gifting and investment, rather than language with more negative connotations e.g. visitor payback, or language that may imply that levies are a “bed tax” or some other form of stealth tax
- Keep running costs to a minimum e.g. using smart phone apps and existing staff within an organisation
- Provide immediate feedback about the effects an individual donation will make, and demonstrate the benefits of donations from previous visitors, making it clear that other visitors are donating and this is the norm
- Prioritise local projects and seek funding from visitors only when they visit the area local to the project
- Prioritise "feel good" projects for funding where benefits of donations are both clear and motivational
- Provide opportunities to donate immediately on-site, rather than later
- Decouple from Governmental organisations (e.g. local authorities) and channel payments via independent charities, trusts, partnerships or other not-for-profit organisations (e.g. Community Interest Companies)

ACKNOWLEDGEMENTS

Thanks to Amanda Brace (National Parks England), Charles Cowap (Harper Adams University), Lisa Bainbridge (Campaign for National Parks) and Jason Freezer (Visit England) for feedback and support as part of the project advisory board. Thanks to Syed Kabir for assistance with data entry and analysis.

LIMITATIONS AND DISCLAIMER

Birmingham City University has prepared this report for the sole use Defra (“Client”) in accordance with the Agreement under which our services were performed (Project number: NE0142). No other warranty, expressed or implied, is made as to the professional advice included in this report or any other services provided by BCU. The copyright for this report belongs to the authors, and no other copying or reproduction of this report is allowed without written permission from the authors. The authors retain the right to publish parts of this report in other publications, with full acknowledgement of funding from Defra. Some of the conclusions and recommendations contained in this report are based upon information provided by sub-contractors and upon the assumption that all relevant information provided by those parties is accurate. Information obtained by BCU has not been independently verified by BCU, unless otherwise stated in the report. The methodology adopted and the sources of information used by BCU in providing its services are outlined in this report. The work described in this report was undertaken between 01/11/12 and 31/08/13 and is based on the conditions encountered and the information available during the said period of time. The scope of this report and the services are accordingly factually limited by these circumstances. Where assessments of works or costs identified in this report are made, such assessments are based upon the information available at the time and where appropriate are subject to further investigations or information which may become available. BCU disclaim any undertaking or obligation to advise any person of any change in any matter affecting the report, which may come or be brought to BCU’s attention after the date of the report. Certain statements made in the report that are not historical facts may constitute estimates, projections or other forward-looking statements and even though they are based on reasonable assumptions as of the date of the report, such forward-looking statements by their nature involve risks and uncertainties that could cause actual results to differ materially from the results predicted. BCU specifically does not guarantee or warrant any estimate or projections contained in this report.

APPENDIX A: CATALOGUE OF VISITOR GIVING SCHEMES

Table A1: Catalogue of UK VGS

Scheme	Location	Setting	Area (sq. km)*	Operator	Status	Activities supported	Ecosystem services targeted	Payment Vehicle	Link to further information
North Wales Tourist Payback Scheme	Snowdonia National Park	National Park	2,176	Tourism Partners hip North Wales http://www.tpnw.org/index.html	In development - Feasibility underway	Wildlife, path & trails, conservation of historical buildings, sustainability	Carbon management, Biodiversity, geodiversity, flood management, recreation	Optional levies (e.g. on accommodation, meals, activities)	http://www.bbc.co.uk/news/10172181 http://www.tpnw.org/ebulletins/ewelcome19.pdf http://www.welshcountry.co.uk/index.php/news-from-around-wales/231-mid-wales/7181-the-cambrian-mountains-initiative-launches-new-projects
Nurture Lakeland	Lake District National Park	National Park	2,292 (but the charity operates throughout Cumbria)	Nurture Lakeland	Active	Fix the Fells, Red Squirrels Conservation, Osprey project, Ullswater paths, World Owl Trust <i>et al.</i> Drive Less See More, Mobile app	Carbon management, biodiversity, woodland, awareness surrounding water management	Optional levies (e.g. on accommodation, meals, activities)	http://www.nurturelakeland.org/home/vp-home.html
Arran Trust Visitor Gifting	Isle of Arran	Nature Improvement Area	432	The Arran Trust	Active	Wildlife, path & trails, conservation of historical buildings, sustainability	Biodiversity, woodland promotion of native species	Online / app	http://www.arrantrust.org/

Scheme	Location	Setting	Area (sq. km)*	Operator	Status	Activities supported	Ecosystem services targeted	Payment Vehicle	Link to further information
Cognition Mountain Bike Centres VPI	Afan Forest Park	Forestry Commission Estate	120	Cognition and Neath Port Talbot County Borough Council (along with along with Caerphilly and Merthyr Tydfil councils and the Forestry Commission)	Established Jan 2013	Mountain biking & competitive events	Forestry management, carbon storage, flood management (sustainable forest management)	Membership fees	http://www.cognition.co.uk/
7Stanes	Mountain biking centres across south Scotland	Forestry Commission Estate	Spread over several sites	7Stanes	Proposed / under-development	Mountain bike trails	Forestry management & sustainability for recreation	Merchandise	http://7stanesmountainbiking.com/Businesses
Love the Broads	Norfolk and Suffolk Broads	AONB	305	Norfolk and Suffolk Broads Charitable Trust	Active	Biodiversity, conservation education for general public & improving visitor access	Biodiversity of water bodies, water resource management	Online / app	http://www.broadscharitabletrust.org.uk/enjoy-give-protect.html

Scheme	Location	Setting	Area (sq. km)*	Operator	Status	Activities supported	Ecosystem services targeted	Payment Vehicle	Link to further information
Community and Conservation Fund	Suffolk Coast and Heaths AONB	AONB	403	Suffolk Coast and Heaths AONB team of 26 organisations based in Melton	Active	Conservation of the AONB, "Keep it Special" campaign, grass roots conservation, access & education programmes.	Biodiversity & water resource management	Membership fees	http://www.suffolkcoastandheaths.org/grants-and-funding/community-and-conservation-fund/
Pin badge scheme (looking to develop VPS)	Forest of Bowland	AONB	802	Bowland Tourism Environment Fund	Active	Promote, enhance, improve, protect and conserve the physical and natural environment and its natural beauty for the public benefit & educate the public on same.	Biodiversity and forest management (soil, water), meadow restoration and conservation, bio diversity	Donation boxes	http://www.bowlandexperience.com/fund_raising
CareMoor for Exmoor	Exmoor	National Park	694	Exmoor National Park Authority	Active	Conservation, archaeology, rights of way	Biodiversity & species and building conservation	Optional levies (e.g. on accommodation, meals, activities)	http://www.exmoor-nationalpark.gov.uk/visiting/donate-caremoor-for-exmoor http://exstage97.peak1.titaninternet.co.uk/index/visiting/keeping-exmoor-special/caremoor.htm

Scheme	Location	Setting	Area (sq. km)*	Operator	Status	Activities supported	Ecosystem services targeted	Payment Vehicle	Link to further information
On the right tracks	South Hams (south Devon)	AONB	337	South Hams District Council	Active	Rights of way: improved access & development of historic green lanes for walkers, biodiversity & heritage conservation	Conservation, biodiversity	Optional levies (e.g. on accommodation, meals, activities)	http://www.southhams.gov.uk/ontherighttracks.pdf
Venus Beach Wildlife Fund	Devon & Cornwall	AONB	337 (South Devon AONB) 958 (Cornwall AONB)	Venus Company, on behalf of the Devon & Cornwall Wildlife Trusts	Active	Education, conservation & biodiversity	biodiversity	Optional levies (e.g. on accommodation, meals, activities)	http://www.lovingthebeach.co.uk/sustainability-what-we-do.html
Step into the Cotswolds	Cotswolds	AONB	2,038	Cotswolds Conservation Board and West Oxfordshire District Council	Active	Conservation & education of public	biodiversity	Optional levies (e.g. on accommodation, meals, activities)	http://www.oxfordshirecotswolds.org/dbimsgs/Advice_Step_into_theCotswolds.pdf
Friends of OUR Park Visitor Giving	Loch Lomond and the Trossachs	National Park	1,865	Friends of Loch Lomond & Trossachs	Active	Promotion of sustainable tourism & local environmental projects	Biodiversity, woodlands & carbon management (energy)	Optional levies (e.g. on accommodation, meals, activities)	http://www.argyllandtheisland sleader.org.uk/?p=157

Scheme	Location	Setting	Area (sq. km)*	Operator	Status	Activities supported	Ecosystem services targeted	Payment Vehicle	Link to further information
New Forest	New Forest	National Park	570	Hampshire and Isle of Wight Community Foundation on behalf of the New Forest Trust.	Active	Education on forest husbandry, conservation & biodiversity of flora, fauna	Forest management, biodiversity	Online / app	www.newforesttrust.org.uk
Good Nature Fund	Northumberland and National Park	National Park	1,048	Northumberland National Park Environment Association	Active	Local community projects e.g. Harshaw Linn a walk up a wooded valley to a waterfall	Biodiversity, parkland conservation	Donation boxes	http://northumberland.peak1.titaninternet.co.uk/grantsandsupportgoodnaturefund
Peak Pound Partnership	Peak District National Park	National Park	1,437	Friends of the Peak District	Active	Conservation, environmental and community projects promoting awareness	Biodiversity	Optional levies (e.g. on accommodation, meals, activities)	http://www.friendsofthepeak.org.uk/Support_us/Corporate_Support/Peak_Pound_Partnership/
Name not found	Pembrokeshire Coast	National Park	Unknown	Not an NPA run payback scheme but a local cottage letting agency	?	?	?		No NPA run payback scheme but a local cottage letting agency has set one up to put funds into conservation and access projects

Scheme	Location	Setting	Area (sq. km)*	Operator	Status	Activities supported	Ecosystem services targeted	Payment Vehicle	Link to further information
				has set one up to put funds into conservation and access projects					
Donate to the Dales	Yorkshire Dales National Park	National Park	1,769	Yorkshire Dales Millennium Trust	Active	?	?		http://www.yorkshiredalesandharrogate.com/donate.html
Three Peaks Project	Yorkshire Dales National Park	National Park	160	Yorkshire District National Park Authority	Active	Footpath maintenance and restoration, awareness raising, promotion of walk, horseriding and cycle routes; and wildlife habitat conservation within the Three Peaks area	Biodiversity, recreation	Membership fees	http://www.yorkshiredales.org.uk/threepeaks

Scheme	Location	Setting	Area (sq. km)*	Operator	Status	Activities supported	Ecosystem services targeted	Payment Vehicle	Link to further information
Cannock Chase AONB Membership Scheme	Cannock Chase AONB	AONB	68	Staffords hire County Council	Active	Environmental & conservation awareness raising, volunteer scheme, offers a sustainable development fund to local businesses	cultural (recreational) and regulating services	Membership fees	http://www.cannock-chase.co.uk/assets/downloads/September2011.pdf
Cairngorms Visitor Payback Initiative	Cairngorms National Park	National Park	4,528	Cairngorms Sustainable Tourism Forum	Proposed / under-development	Biodiversity conservation and enhancement	cultural (recreational) and regulating services	Optional levies (e.g. on accommodation, meals, activities)	http://cairngorms.co.uk/resource/docs/boardpapers/31102012/CNPA.Paper.5334.Sustainable%20Tourism%20Forum%20Working%20Group.Paper.3.-Volun.pdf
Outdoor Capital VPS	Lochaber Geopark	Geopark	Not stated	Lochaber Geopark Association?	Active	Biodiversity conservation & awareness raising	cultural (recreational) and regulating services	Optional levies (e.g. on accommodation, meals, activities)	?
COAST Visitor Gifting Scheme	Cornwall		Not clear	coast Social Enterprise	Active	Promote responsible & sustainable tourism & conservation activities	cultural (recreational)	Volunteering	http://www.coastproject.co.uk/search/visiting

Scheme	Location	Setting	Area (sq. km)*	Operator	Status	Activities supported	Ecosystem services targeted	Payment Vehicle	Link to further information
Peninsular Payback Scheme	Cornwall	AONB	958 (Cornwall AONB); Lizard Peninsular (a Natural England NCA, covers an area of approx. 529 sq. km)	Lizard Holiday Cottages	Active	Fundraising for community services e.g. schools	Cultural	Donation boxes	http://www.lizardholidaycottages.co.uk/
Pagham Harbour Visitor Payback Scheme	West Sussex	Local Nature Reserve	0.6	West Sussex County Council with potential future partnership with RSPB	Active	Conservation of nature reserve	Cultural services & bird sanctuary	Optional levies (e.g. on accommodation, meals, activities)	http://www2.westsussex.gov.uk/ds/cttee/ses/ses250511i5.pdf
South Downs	South Downs National Park	National Park	1,600	South Downs NPA	Proposed / under-development				http://www.naturalengland.org.uk/ourwork/conservation/biodiversity/funding/nia/projects/southdowns.aspx
Brecon Beacons	Brecon Beacons National Park	National Park	1,344	Brecon Beacons NPA	Proposed / under-development				

Scheme	Location	Setting	Area (sq. km)*	Operator	Status	Activities supported	Ecosystem services targeted	Payment Vehicle	Link to further information
Dartmoor £ for the Park	Dartmoor National Park	National Park	953	Dartmoor NPA	Active	Conservation	Cultural services	Optional levy on registration fees for events	http://www.dartmoor-mpa.gov.uk/visiting/visiting-dartmoor/visiting-dartmoor-for-the-park-and-recent-press-release http://www.dartmoor.gov.uk/aboutus/news/aboutus-interestnews/cycling-club-donates-1,000-for-the-park
North York Moors	North York Moors National Park	National Park	1,434	North York Moors NPA	Active	Conservation of park	Cultural services	Donation boxes	http://www.northyorkmoors.org.uk/Press-Office/News-Articles/fun-in-the-great-outdoors-this-easter
The Tarka Trust	North Devon Biosphere Foundation	Biosphere Reserve	3,802		Proposed / under-development				www.tarka-country.co.uk/tarkaproject/trust.html
Valleys Regional Park Green Loyalty Card pilot scheme	Valleys Regional Park	Regional Park	2,000	Groundwork Wales	Proposed / under-development	The marketing of the opportunity and financing of agreed flagship environmental projects.	None specifically mentioned	Green Loyalty Cards	http://www.thevalleys.org.uk/workpackage3.html and http://www.wefundthevalleys.com/green-loyalty-card
Business in the Community (BITC) VPS	Unknown			BITC	Proposed / under-development				

* Note that areas are approximate and in most cases correspond to the areas of the designations within which the schemes are located. In some cases the reach of the schemes will extend beyond the boundaries of the National Parks, AONBs, etc in which they are located.

Table A2: Examples of international VGS

Scheme	Location	Setting	Operator	Status	Activities supported	Ecosystem services targeted	Payment Vehicle	Link to further information
Trail Kilkenny	Kilkenny, Ireland		Trail Kilkenny	Proposed / under-development	Upkeep and development of walking trails	Cultural services (recreational)	Envelope donation	http://www.trailkilkenny.ie/wp-content/uploads/2011/03/TK-Final-Report-EH+-PHT.pdf , http://www.trailkilkenny.ie/wp-content/uploads/2011/07/Trail-kilkenny-Farmers-Journal-Article-Page-1.PDF , http://www.business2nature.eu/index.php?option=com_sobi2&sobi2Task=sobi2Details&catid=9&sobi2Id=17&Itemid=47&lang=en
Cnoc Suain Hill Village	An Spidéal, Galway, Ireland		Cnoc Suain	Proposed / under-development	Conservation of Conamara Blanket Bogland and act as a carbon offset	Carbon management, biodiversity	unclear	http://www.cnocsuain.com/index.php?page=ecotourism
Geo tourism	UK-France		Torbay Coast and Countryside Trust (lead partner organisation)	Proposed / under-development	Creation of a new cross border quality mark and visitor payback scheme for providers. Pilot and create new cross border tourism	?	?	http://www.interreg4a-manche.eu/index.php?option=com_modoffr&view=project&id=161&Itemid=12&lang=en

Scheme	Location	Setting	Operator	Status	Activities supported	Ecosystem services targeted	Payment Vehicle	Link to further information
					packages focusing on the natural world			
E-Park Digital Visitor Payback System	Belgium	National Park	Hoge Kempen National Park	Proposed / under-development	Recreation and nature activities in the national park. Use the Disconnect App to switch off mobile phones while in the park and to inform your friends through social media that you are disconnected.	Cultural services (recreational)	Digital Apps; E-Park app and Disconnect App	http://www.europarc.org/home/ http://mmv.boku.ac.at/downloads/mmv5-proceedings.pdf?bcsi_scan_E956BCBE8ADBC89F=0&bcsi_scan_filename=mmv5-proceedings.pdf http://disconnectapp.com/
Friends of Yosemite	USA	National Park	Yosemite National Park	Active	Maintenance of the park	Cultural services (recreational), biodiversity	Annual donation or membership subscription	http://www.yosemiteconservancy.org/friends-yosemite

Scheme	Location	Setting	Operator	Status	Activities supported	Ecosystem services targeted	Payment Vehicle	Link to further information
Membership scheme	Canada	National Park	Canadian Parks and Wilderness Society	Proposed / under-development	Maintenance of the park	Cultural services (recreational), biodiversity	Monthly donation	https://www.gifttool.com/donations/Donate?ID=36&AID=85



APPENDIX B INTERVIEW PROFORMA FOR SURVEY OF VISITOR GIVING SCHEME OPERATORS

Respondent details

Contact name: _____

Contact telephone number: _____

Contact email: _____

Date: _____

Confidentiality

We would like to report scheme names for most aspects of the questionnaire and potentially for use as case studies.

If you would prefer the identity of your scheme to remain confidential for any questions relating to scheme finance, please tick the box below.

- I would like my answers to questions B1, B3, B4, B6 and B7 to remain confidential
- I would like all information provided to remain confidential

A. Scheme details

A1. Name of Scheme:

A2. Location / coverage

A3. How long has the Scheme been in operation?

A4. Who administers the Scheme and how is the Scheme governed?

A5. What are the principal objectives of the Scheme?

A6. Please provide a brief description of how the Scheme operates, e.g.

- **How are businesses / other Scheme participants recruited?**
- **How are individual projects/causes, to which donations from visitors are channelled, selected?**
- **What is your organisation's role, e.g. as an intermediary?**
- **What support is provided to Scheme participants?**
- **How do Scheme participants elicit donations?**
- **What happens to the donations?**

B. Income and expenditure

B1. Are you able to provide us with data on annual revenues from the VPS over its operational life (i.e. for each year of operation)? If annual figures are not available, are you able to say whether revenues have increased, decreased or have remained unchanged over the life of the VPS, specifying, where possible, the periods over which revenues increased, decreased or remained relatively constant?

B2. What mechanisms do you employ to elicit payments from visitors? Please tick all that apply and provide a brief example/description of where and to what extent each of these mechanisms would typically be used (e.g. donation boxes – in shops and most accommodation establishments; accommodation levies – in hotels, B&Bs and some campsites, etc)

Donation boxes

Accommodation levies

Food / drink levies

Profits from sale of merchandise

[Types of merchandise and % applied]

Membership schemes

[Are there different types of membership e.g. corporate, individual etc., where does most membership come from and what are the benefits of membership?]

Participatory activities / volunteering

Fundraising events

Sponsorship schemes / match funding

Loyalty cards

Other, please specify



B3. If possible, please provide an approximate breakdown of annual revenues (year on year or most recent year if time series data is not possible) collected through each of the mechanisms employed to elicit payments from visitors.	Source	% or £
	Donation boxes	
	Accommodation levies	
	Food / drink levies	
	Profits from sale of merchandise	
	Membership schemes	
	Participatory activities / volunteering	
	Fundraising events	
	Sponsorship schemes	
	Loyalty cards	
Other, please specify		
B4. Are you able to provide a rough breakdown of how the income raised through the VPS is spent (e.g. maintenance of facilities, staff wages, species conservation, landscape restoration, etc.)?	Allocation of income	% or £
	Administration	
	Maintenance of visitor facilities (e.g. toilet blocks, car parks, pathways, cycle tracks, etc.), practical conservation, staff costs, education	
	Species conservation	
	Landscape restoration	
Other, please specify		

B5. Are you able to provide any information on the profile of donors to your Scheme (demographic, geographic, etc.) or on the typical profile of visitors to the region in general?

B6. If possible, please can you provide data on the annual costs of administering the Visitor Payback Scheme over the life of the Scheme to date (i.e. for each year of operation)? Alternatively, please provide a brief description of how the cost profile has changed over the life of the Scheme, together with likely/known reasons for increases/decreases in costs.

B7. If possible, please provide a breakdown of the costs of operating the Scheme (e.g. administration, marketing, etc.)?

Operating costs	% or £
Staff wages	
Marketing	
Maintenance (e.g. of donation boxes)	
Other, please specify	
Total cost of administration	

B8. Have you implemented any measures to try to reduce the operational costs of the Scheme and, if so, what are these and how successful have they been?

B9. Do you think that the Visitor Payback Scheme has had a positive, negative or neutral effect on other spending in the local area? Do you have any data on local visitor spending patterns with and without (before) the Scheme?

C. Marketing

C1. How do you promote your scheme? Please provide details/examples where possible.

Flyers in hotels, restaurants, cafés, visitor centres, etc.

Posters (e.g. on notice boards, etc.)

Website

Social media (e.g. Facebook, etc)

Other, please specify

C2. What proportion (roughly) of donors find out about the Scheme through each of the methods listed in the previous question (C1)?

(Alternatively, if the data is not available, please rank the methods in order of importance)

Method

% of donors who find out about the Scheme using this method

Flyers in hotels, restaurants, cafés, visitor centres, etc.

Posters (e.g. on notice boards, etc.)



	Website
	Social media
	Other, please specify
C3. How do you stay in touch with your donors?	
C4. What do you think has been your most successful mode of communication with donors to date?	

D. Strengths	Weaknesses
D1. What do you consider to be the main strengths of the Scheme?	D2. What do you consider to be the main weaknesses of the Scheme?

Opportunities	Threats
D3. What do you consider to be the main opportunities for the Scheme?	D4. What do you consider to be the main threats to the Scheme?

E. Other questions
E1. Do you currently make use of Smartphone or other information technologies to elicit payment from visitors, (e.g. through the use of touch screens, mobile phone apps, etc.?)
E2. If you don't already make use of such technologies, would you consider doing so in future? If not, why not?



E3. Are you aware of any non-revenue benefits to the Scheme such as developing positive relationships between tourism and conservation at a local level or improving residents' attitudes towards visitor impact?

E4. Have you attempted to monitor or evaluate these impacts? If so, what were the results?

E5. Is there anything else you would like us to know about your Scheme or any lessons that you have learnt that you think might be useful for the purposes of our research?

Further information

For further information about the project please contact:

Professor Mark Reed
Tel: 0753 8082 343
Email: Mark.Reed@bcu.ac.uk



APPENDIX C INTERVIEW PROFORMA FOR LAKE DISTRICT VISITORS



PARTICIPANT QUESTIONNAIRE

	Please mark with an 'x'
I confirm that I am happy for my answers to the questionnaire to be used for the purposes of this research	<input type="checkbox"/>

A PARTICIPANT INFORMATION

1. Age range

Not disclosed	<18 years	19-24	25-35	36-50	51-75	>75
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. Gender

Male	Female
<input type="checkbox"/>	<input type="checkbox"/>

3. What is your occupation?

4. What is your gross household income?

Not disclosed	<£10,000	£10-15,000	£15,001-£25,000	£25,001-£40,000	>£40,000
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. How often do you visit National Parks, AONBs and Nature Reserves, etc?

I live in one	At least once a week	At least once a month	2-3 times per year	Once a year	Never
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

C. VISITOR GIVING

1. Have you ever donated to a Visitor Giving Scheme before? How often do you make donations?

Once a month	2-3 times a year	Once a year	Less than once a year	Never donated
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



2. Roughly how much would you give in a single donation?

£1
 £2
 £3
 £4
 £5
 £10
 £50
 >£50

3. Would you be likely to spend less elsewhere in your visit as a result of making a donation to a Visitor Giving Scheme?

Yes
 No
 Not sure

4. What sort of activities/projects are you most likely to donate to support?

- Projects that match my personal interests
- Projects that can tell me exactly what my donation will buy e.g. number of trees
- Projects that aren't just good for nature, that also clearly benefit society e.g. help tackle climate change or improve drinking water quality

6. What sort of benefits from nature are you most likely to donate to support?

- Climate regulation Wildlife
- Provision of clean water Pollination
- Spaces for recreation, spiritual practice or activities that promote health

7. Which ways do you prefer to make donations?

- Donation boxes Opt-in levies on accommodation, food etc. within the Park
- Smartphone apps Opt-out levies on accommodation, food etc. within the Park

Other (please specify):

8. Have you ever been contacted or followed up to find out what difference your donation made?

Yes
 No
 Not sure

9. On a scale of 1 (very important) to 5 (unimportant), how important are the following for you?

To have a choice of different projects to donate to	1	2	3	4	5
Being able to see the difference other people's donations have made	1	2	3	4	5
Knowing precisely what benefit my donation will make in terms of amount of carbon stored, clean water produced etc.	1	2	3	4	5



APPENDIX D INTERVIEW PROFORMA FOR LAKE DISTRICT BUSINESSES

The Department for Environment, Food and Rural Affairs (Defra) is funding an important research project to investigate the extent to which 'Visitor Giving Schemes' may be used to secure benefits from nature, such as clean water, recreation or habitat for threatened species and whether new approaches to such schemes could attract additional donations. For example, the Nurture Lakeland scheme in the Lake District National Park supports a number of different projects including osprey, red kite and red squirrel conservation, native tree planting, footpath restoration and young adult outdoor education experiences.

Part of this research aims to find out if there are ways to offer donors the ability to select the specific projects that they would be most interested in supporting.

What will happen to the information provided?

The completed questionnaires will help us to develop an understanding of business' motivations for participating in visitor giving schemes and the ways in which they participate.

The information obtained through this questionnaire will complement information collected from visitors to National Parks, Areas of Outstanding Natural Beauty and Nature Improvement Areas as well as from the operators of visitor giving schemes. Together, this information will inform the development and testing of a novel approach to visitor giving that is more targeted towards securing specific benefits from nature and that could potentially increase visitor interest and investment in such schemes.

The research findings will be published in a research report for Defra and may also be used as case study material in a national toolkit for developing visitor payback schemes.

Your participation in the survey

We hope that you will agree to complete the questionnaire so that we can draw on your experience to help build up a comprehensive and useful resource that can be used to support the development of successful visitor payback schemes throughout the country. All responses will be anonymous. Raw data from questionnaires will be held by Birmingham City University and will only be used for the purposes of this research.

The survey should take no more than 5 minutes of your time.

Further information

For further information about the project please contact:

Professor Mark Reed
Tel: 0753 8082 343
Email: Mark.Reed@bcu.ac.uk



3. What was your main motivation for joining the scheme? (Please rank in order of importance where 1 is the most important)

- | | | | |
|---------------------------------------|--|---|------------------------|
| To support local conservation efforts | To enhance the image/ brand of my business | To help offset the impacts of my customers on the environment | Other (Please specify) |
|---------------------------------------|--|---|------------------------|

4 How do you collect donations from your customers?

- | | | | | |
|--|---------------------------------------|----------------|---|------------------------|
| Opt-out levies on accommodation / food | Opt-in levies on accommodation / food | Donation boxes | Percentage of proceeds from sale of merchandise | Other (Please specify) |
|--|---------------------------------------|----------------|---|------------------------|

5 Who donates the most (most often or highest value)?

- | | | | | |
|------------|--|--|---|------------------------|
| Don't know | Local visitors (who travel less than 10 miles) | Regional visitors (travel between 10 and 50 miles) | National visitors (travel more than 50 miles) | International visitors |
|------------|--|--|---|------------------------|

6. What is the approximate value of donations you collect each year?

- | | | | | | | |
|------------|--------|----------|----------|-----------|------------|---------|
| Don't know | < £100 | £100-250 | £251-500 | £501-1000 | £1001-5000 | >£5,000 |
|------------|--------|----------|----------|-----------|------------|---------|

7. Do you think Visitor Giving displaces other spending by visitors? If so, how much do you think the visitors who donate to you each year are not spending elsewhere as a result of their giving?

Don't know:

No displacement – they'll spend the same whether they give to the scheme or not:

- | | | | | | | |
|-----------------------|--------|----------|----------|-----------|------------|---------|
| Giving will displace: | < £100 | £100-250 | £251-500 | £501-1000 | £1001-5000 | >£5,000 |
|-----------------------|--------|----------|----------|-----------|------------|---------|

8. Do you ever get told or follow up on the projects you support to find out how they are progressing?

Yes No

9. Do your customers ever ask for further information about the project(s) you support?

Never Sometimes Always

Any other comments?

APPENDIX E FOCUS GROUP FACILITATION PLAN

Objectives

- To understand how likely it is that different social groups will make contributions to visitor payback schemes;
- To understand what sorts of scheme, including PES-based schemes, are likely to attract different types of visitor; and
- To investigate whether PES-based and other forms of visitor payback are likely to displace other spending in the local area

Key research questions to be addressed

- What are the factors that motivate visitors' decisions to contribute to VPS schemes?
- What sorts of schemes/ecosystem services are most likely to attract support from visitors, e.g. footpath restoration, habitat/species conservation, native tree planting, etc?
- To what extent do visitors/contributors like to have a choice in the types of projects / outcomes to which funds are allocated?
- To what extent might contributions displace spending elsewhere (e.g. giving to the VPS rather than giving a donation to a wildlife/conservation charity or limiting spending on other goods and services within the area)?
- What are visitor preferences for contributing to schemes, e.g. donation boxes where amount given is determined by the visitor, smartphone apps, optional levies on accommodation/food/drink, etc?
- Do visitors follow up to see how their contributions have made a difference? (Or would they be interested in knowing this information?)

Design

1. Tea/coffee/cake/meal and fill in questionnaires [20 mins]
 - a. [no names or addresses to be collected]
 - b. Gender
 - c. Age
 - d. Distance travelled to reach LLTNP
 - e. Number of nights staying in LLTNP this trip (if any)
 - f. How many times do you visit LLTNP? *Once a week or more frequent; once a month; 2-3 times a year; once a year (including if this is your first visit)*
 - g. Main reasons for visiting LLTNP
 - h. Have you ever donated to a Visitor Payback Scheme before [provide definition and examples]? Y/N
 - i. If so, how often do you make contributions? *Once a month; 2-3 times a year; once a year; less than once a year*
 - j. Roughly how much would you typically give in a single donation? *£1, £2, £3, £4, £5, £10, £50, more than £50*

2. Brief overview of the research project [5 mins]
 - a. What is a Visitor Payback Scheme? Examples of VPS including in LLTNP
 - b. Project objectives and outputs
 - c. Outline of focus group

3. Carousel with three stations: divide group into three groups and rotate groups clockwise every 10 mins or so [25 mins]
 - a. Title: Why contribute?
 - i. Reasons TO contribute
 - ii. Reasons NOT to contribute
 - b. Title: Best schemes
 - i. What sort of activities/projects are you most likely to donate to support?
 - ii. What sort of benefits from nature are you most likely to donate to support? For example, climate regulation, provision of clean water, wildlife, pollination, spaces for recreation, spiritual practice or activities that promote health
 - c. Title: making donations easier and better
 - i. What do you like most/least about each of the following, and how could they be made better?
 1. Donation boxes
 2. Smartphone apps
 3. Opt-in levies on accommodation, food etc. within the Park
 4. Opt-out levies on accommodation, food etc. within the Park
 - ii. What other ways do you think people might like to give to VPS in future?

4. Discussion (group gather round each station in turn, starting at station B) [35 mins]
 - Station B:
 - To what extent do visitors/contributors like to have a choice in the types of projects and outcomes to which funds are allocated?
 - To what extent do activities/projects map onto the provision of benefits from nature listed by people in this station (draw lines to link them)
 - In an environment like LLTNP, to what extent are you motivated to fund projects that provide people with benefits from nature (e.g. tree planting to provide climate, wildlife and recreational benefits), versus purely social benefits e.g. supporting disadvantaged groups or funding a community centre? Why?
 - If you're paying for projects that provide people with benefits via nature, do you want to know how much benefit your donation buys (e.g. tonnes of carbon or amount of clean water) or are you content just to see the project has worked (e.g. there's now a forest planted)? Why?
 - Station C: Did anyone talk about ways of finding out what difference their donations had made? If you've made a donation before, did you follow up to see how your contribution made a difference? Would they be interested in knowing this information?
 - Station A:

- Do you think any of the suggestions you thought about in station 3 might help overcome some of the reasons why people said they wouldn't contribute? Can you think of any other ways you might get people to contribute who wouldn't otherwise consider giving?
 - To what extent might contributions displace spending elsewhere (e.g. giving to the VPS rather than giving a donation to a wildlife/conservation charity or limiting spending on other goods and services within the area)
5. Conclusion (round-robin): if LLTNP were to introduce a new VPS, tell us the one most important piece of advice you would give the National Park, based on what you've learned today [5 mins]
6. Close

APPENDIX F FOCUS GROUP FINDINGS

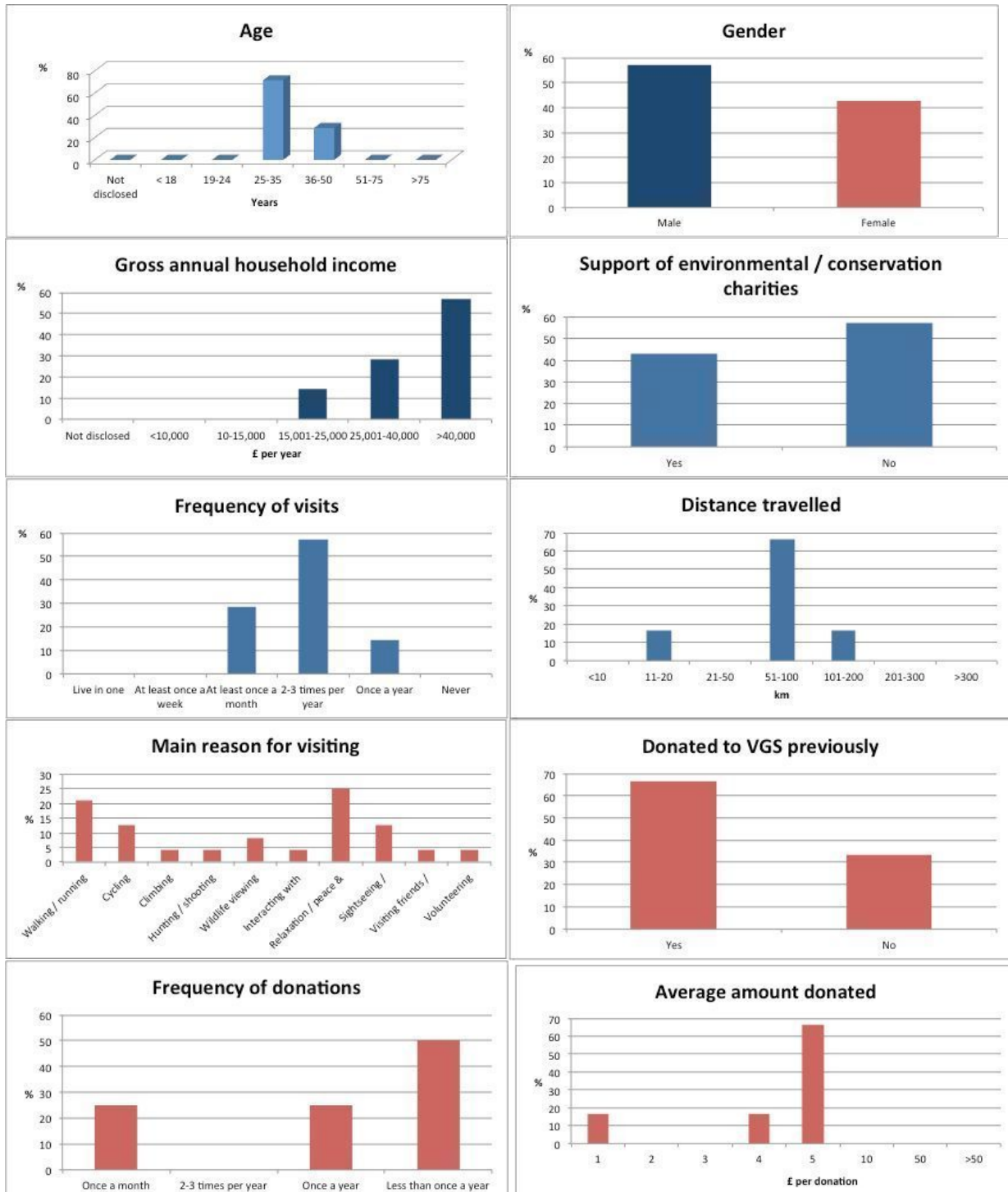


Figure A1: Graphs showing age, gender, income, support for environmental charities, frequency of visits to National Parks, AONBs and nature reserves, distance travelled to reach these locations, reasons for visiting, whether they had

donated to VGS previous, how much and how often, based on answers to a survey prior to a focus group with employees of URS Infrastructure Ltd in London in September 2013.

Table A3: Answers to discussion topics in carousel

Activities / projects most likely to support

Protection of endangered / protected species (especially charismatic species)
Measures to enhance the natural characteristics of the particular National Park
Measures to stop pollution (e.g. upstream activities)
Reintroduction of species
Carbon sequestration through tree planting
Habitat creation
Prevent /repair erosion (footpath restoration)
Wildflower meadows
Control / eradication of invasive species (including rabbits and grey squirrels)
Trees (more woodland)
Wild / unmanaged habitat
Fining people for littering
Educational projects

Benefits from nature most likely to support

Clean air
Clean water (i.e. able to drink directly from streams)
Biodiversity
Enhanced access to natural environment, while respecting land owners' rights
Improved health
Having nature restored as a tool to manage stress

Reasons to contribute

Enjoy using the places and want to keep them in good condition
Support under-funded resources (i.e. perceived lack of central funding needed to maintain places)
Support local paid employment as much of the work often undertaken by volunteers (i.e. help improve the service offered)
Tends to be a free resources so feel as though have to pay something for its upkeep
improvement of places (accessibility and biodiversity)
Knowing more about the place (history and local fauna and flora)
Seeing improvements in places through use of past donations
Enhance an increasingly scarce resource
Makes me feel good
Pay costs of my impacts
To be part of a positive change
Having the resource available for my children to enjoy and learn from

Reasons not to contribute

- Free resource - why introduce a charge?
- Distrust of where the donation goes
- Already have existing funds and not investing them effectively
- Not enough examples of success stories
- Already paid for through taxes
- Not having enough information about the projects to which I might consider contributing
- Getting tired of multiple payments for things
- Not being sold to me appropriately
- Already giving to other charities

Table A4: Advantages and disadvantages of different payment mechanisms

Donation vehicles	Advantages	Disadvantages
Donation boxes	Voluntary	If no information provided, not keen
	Easy	Location by till; most often in a hurry so won't take the time to find out what the money is for and to dig change out
	Good way to collect spare change	Tends only to attract very small amounts (spare change)
	No pressure	Not big revenue generator
Smartphone apps	Contemporary (the future)	Not associated with philanthropic purposes
	Convenient (easier than handing over cash)	Challenge to gain visibility (e.g. marketing and raising awareness)
	Option of choosing specific benefit (e.g. carbon sequestration)	Link between using apps for 'needs'
	Low / no admin costs	Disconnected from project
	Could add in extra info	Have to download it and find it online (too much trouble)
		Have to have a smartphone
Opt-in levies	Already paying; hardly notice it	Puts you on spot - pressurised
	Personal; generally comes in information	Over-kill
	Feel choice inhibited	Time factor - hurry
	More flexible	Easy to overlook
		Could already feel that the bill has been set (e.g. extra pressure to add)
Opt-out levies	Feels like popular; worth donating to	Sneaky
	Info provided	Feel robbed
	Gives option	Embarrassed to ask for it to be removed
	Clearly stated information	Not what you signed up for unless indicated at start
		Seen as a 'tourist tax'

Table A5: Notes from final discussion in URS focus group

<p>To what extent to visitors / contributors like to have a choice in the types of projects and outcomes to which funds are allocated?</p> <p>Choice is considered important; donors like to feel that they have some degree of control / influence over the allocation of funds and the intended outcomes. They are also more interested in supporting projects/activities/funds where there is clear evidence that previous initiatives have been successful and delivered the desired outcomes as this gives them greater trust / confidence that their funds will be used as they say they will be.</p> <p>The importance of having a choice also depends to some degree on the organisation that is collecting the funds. If it is a well-known, reputed organisation then donors have more faith that the funds will be directed towards those projects that will yield the greatest benefits or where action is most needed.</p> <p>It also depends on how much donors are paying; if it is a relatively small amount then not really worried about how the funds are being used (assume that they are used wisely) but if it is a bigger donation, then want a greater say in how the funds are spent.</p>
<p>In an environment such as a National Park or AONB, to what extent are visitors motivated to fund projects that provide people with benefits from nature (e.g. tree planting to provide wildlife, climate and recreational benefits), versus purely social benefits (e.g. supporting disadvantaged groups or funding a community centre). Why?</p> <p>Mixed responses - some feel that humans are more important and therefore they would feel more motivated to donate towards projects with higher social benefits while others felt that humans could look after themselves and therefore the environment was more worthy of their donations.</p> <p>Some felt that the more local they were to a particular NP/AONB (e.g. if they lived there) then would probably be more motivated to fund community developments with social benefits. Also, by investing in social development then more likely to gain more local knowledge/involvement which will benefit the environment. Depends on level of deprivation and quality of life</p> <p>Others argued that as visitors, their main impact is on the environment and therefore they would be more motivated to offset their impact. Also, don't want to attract more people to the National Park (social infrastructure just invites more people in)</p> <p>Social -want to engage local people in the environment</p>
<p>If you're paying for projects that provide people with benefits via nature, do you want to know how much benefit your donation buys (e.g. tonnes of carbon sequestered or amount of clean water) or are you content just to see the project has worked (e.g. there's now a forest planted)? Why?</p> <p>Like to know the detail about how money is spent but may also question how amounts have been calculated; also, in case of carbon, for example, don't know whether tonnes of carbon stored/sequestered is significant or not.</p> <p>Most agreed that do like to know how money is being spent. Also in terms of number of jobs (FTEs) created</p> <p>Assume that organisations behind the schemes have "best intentions" and therefore that money is being wisely spent.</p> <p>Mostly just want to get the feel good factor / perceive that doing the right thing.</p> <p>Like the link to agreed delivery of natural environment improvements - paying for someone dedicated to a task is preferred strategy.</p> <p>Others were less bothered and felt that they give under assumption that the organisation behind the scheme will act with best intention unless there is ongoing commitment to the cause.</p>
<p>Do you think any of the suggestions you thought about in station 3 (making donations easier and better) might help overcome some of the reasons why people said they wouldn't contribute?</p> <p>Feel that the National park is a public good and therefore access should be free. Hesitant to support anything that appears to be for commercial gain or which seeks to commodify nature.</p> <p>Must have confidence in what the money is going to be used for and the outcomes it will deliver. Payments must be entirely voluntary; not feel coerced</p> <p>Could also consider making the scheme(s) more popular through aggressive marketing to the right audience (e.g. Macmillan Cancer Research appeals, etc). This then becomes a mainstream 'product' and everyone wants to be associated with it in order to be seen to be doing the right thing.</p>
<p>To what extent might contributions displace spending elsewhere (e.g. giving to the VPS rather than a donation to a wildlife / conservation charity or limiting spending on other goods and services within the area)?</p>

The donations are generally quite small so unlikely to make a difference

Also most people have already 'budgeted' for their visit in advance and will therefore factor in intended expenditure on other goods and services before deciding whether or not they can afford to donate and how much to donate

Donation becomes same as a product (e.g. visit to a stately home includes an entrance fee) such that people associate their visit with a 'donation'

Also depends on what is socially acceptable, .e.g. service tips are driven by social behaviour

APPENDIX G MANUAL FOR CREATING PAYMENT FOR ECOSYSTEM SERVICE FUNCTIONALITY VIA SMS IN IOS AND ANDROID

Sending donations via SMS in iOS

- **Pre-requisites**

To follow this tutorial you will require:

- A Mac running OS X 10.7.x or later

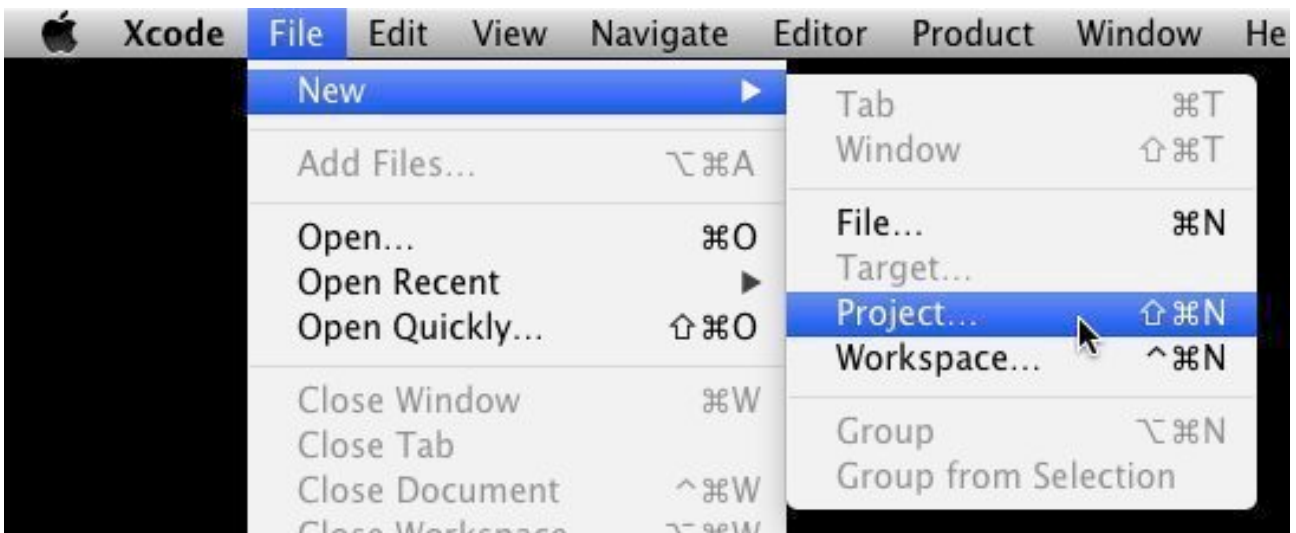
- Xcode 4.6 or later. This can be installed from the Mac App Store for free.

- **Creating the Xcode project**

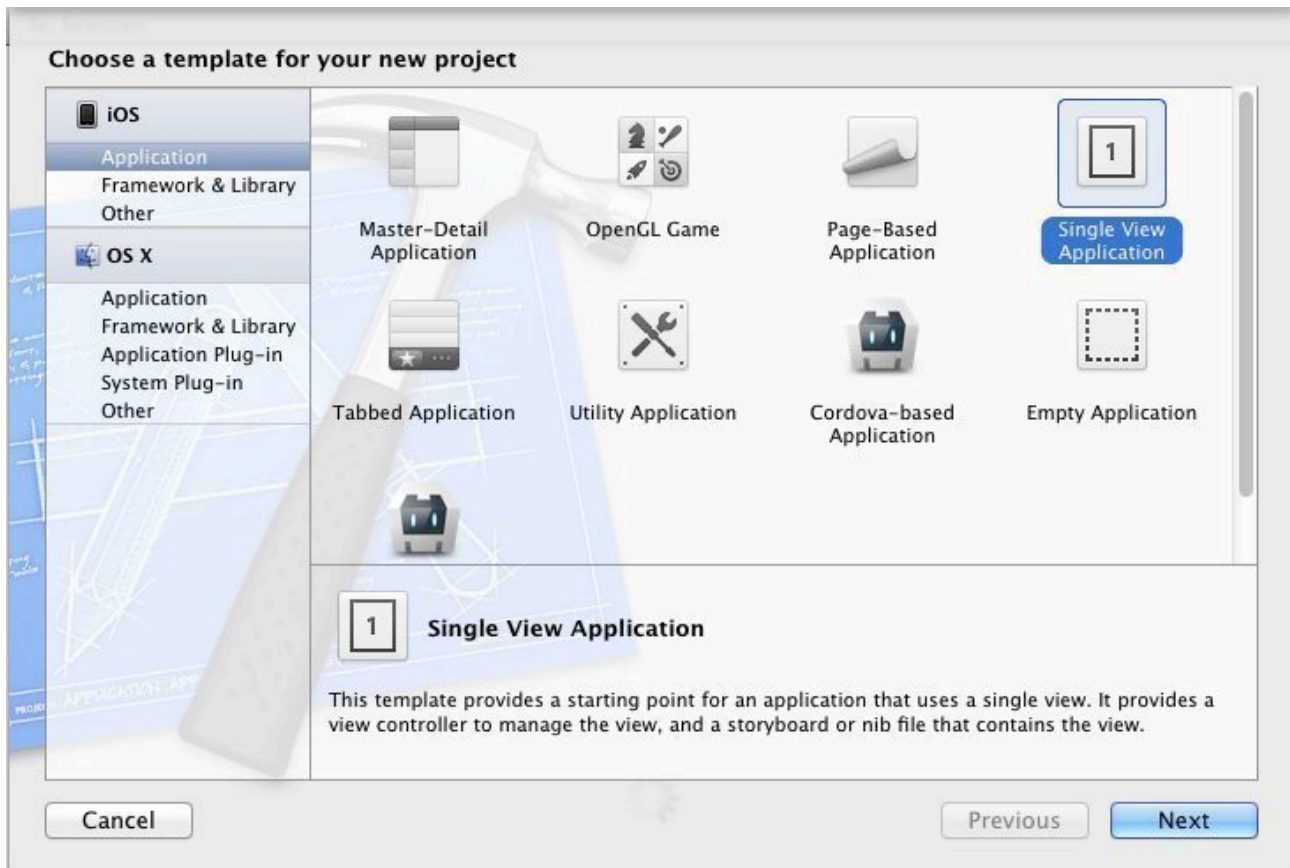
Start by opening Xcode:



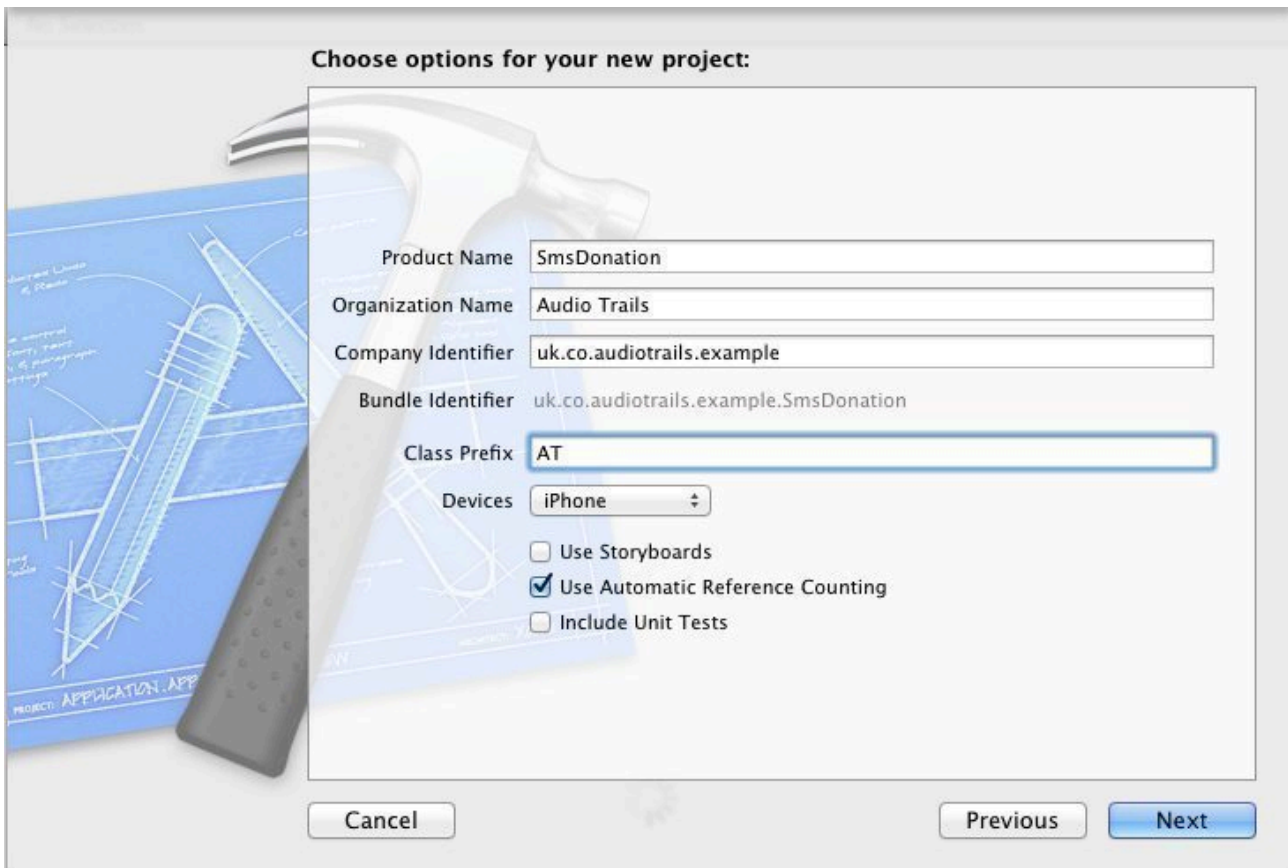
When Xcode has started create a new project:



In this tutorial we will create a very simple app with a single screen. Select the project template “Single View Application”:



Give your project a product name. In this example the name is “SmsDonation”. The “Company Identifier” is used to identify your app. If you want to put your app on the App Store then this will need to be unique to your app out of all the apps already on the store. This will usually be your organisations domain name reversed. The class prefix is used to separate any classes you create from third party libraries and classes supplied by Apple. This is usually two letters long and formed from the project or organisation name.



When prompted choose a location to save your project. If you were developing this into a full app you would also want to think about version control at this point.

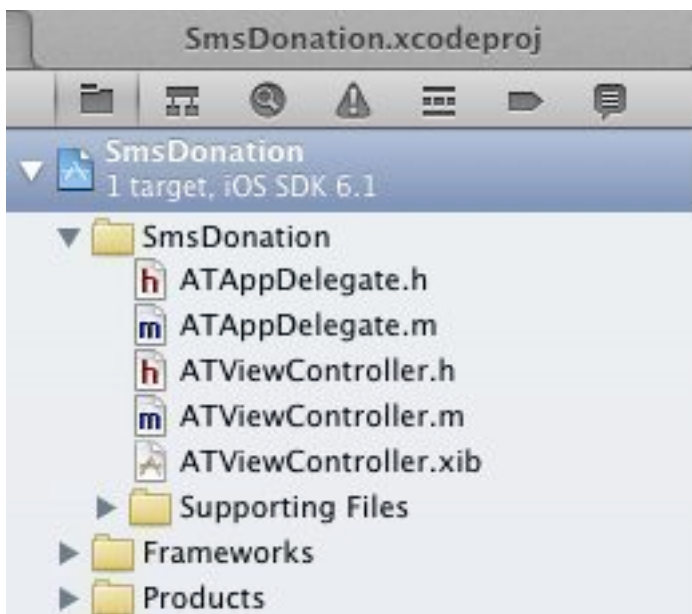
When the project has been created you should review the presented settings. One important settings is the “Deployment Target” - this is the earliest version of iOS that the app will run on.



- **Setting up your app's user interface**

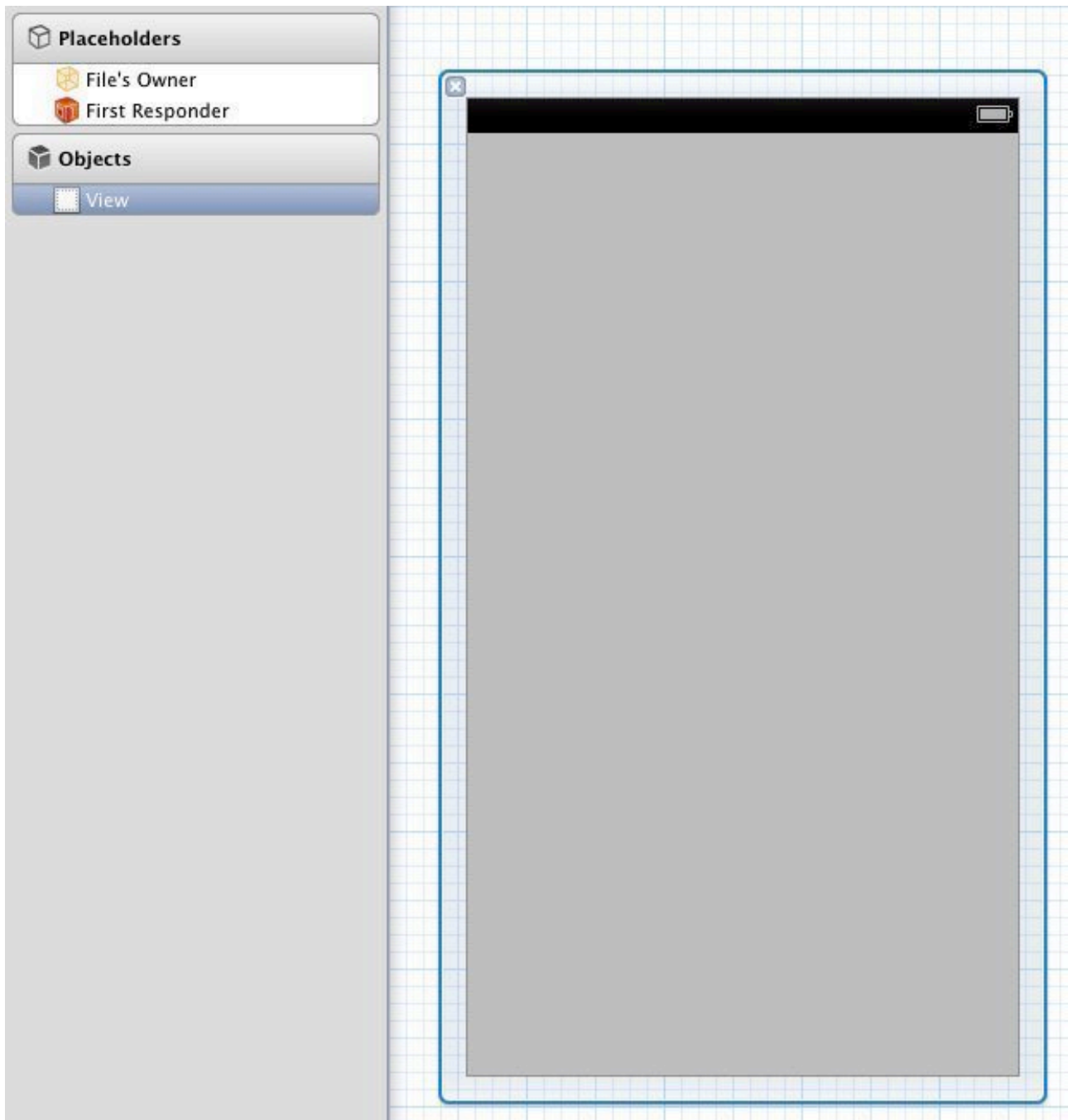
We are going to start by creating the app's user interface (UI). Xcode includes a tool for creating interfaces visually by dragging and dropping components. This tool is called Interface Builder.

All Interface Builder files have the extension `.xib`. If you look in the list of files currently in the project you will find one that was created for you by Xcode - `ATViewController.xib`. Notice that the two letter prefix, in this case `AT`, that was defined above has been used to prefix the class name.

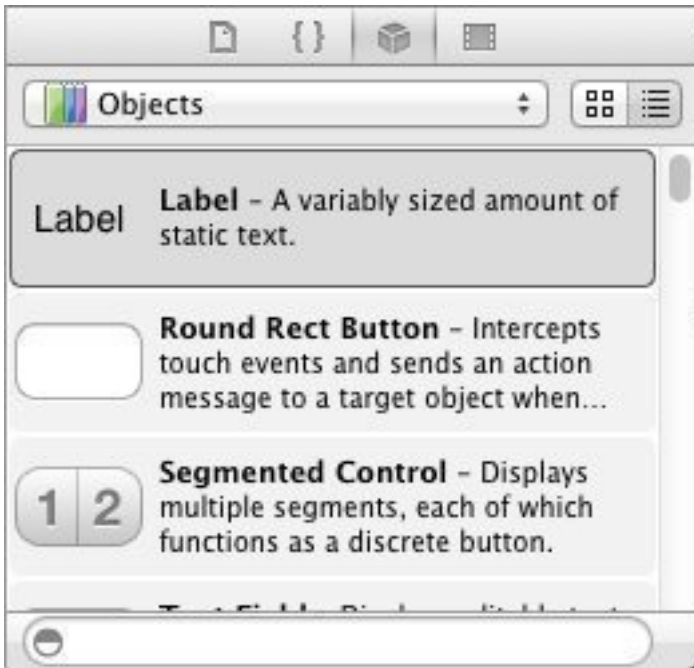


Click on the file `ATViewController.xib` to load the interface for that view controller. A view controller usually represents one screen in an app. For example you may have `ATLoginViewController` which will allow the user to enter their username and password, then another called `ATMessagesViewController` which shows the user a list of messages.

You should now see an empty view. By default this will be as it would appear on an iPhone 5.

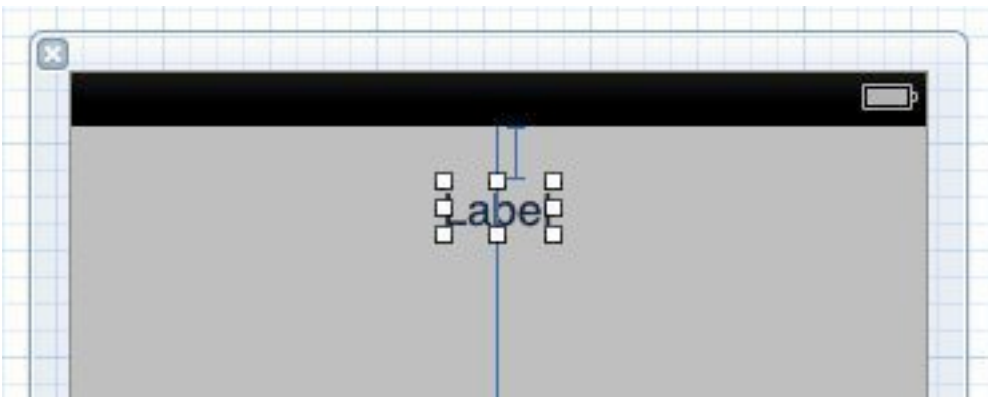


On the right hand side of the Xcode window you will see a list of objects which can be used to build the interface:



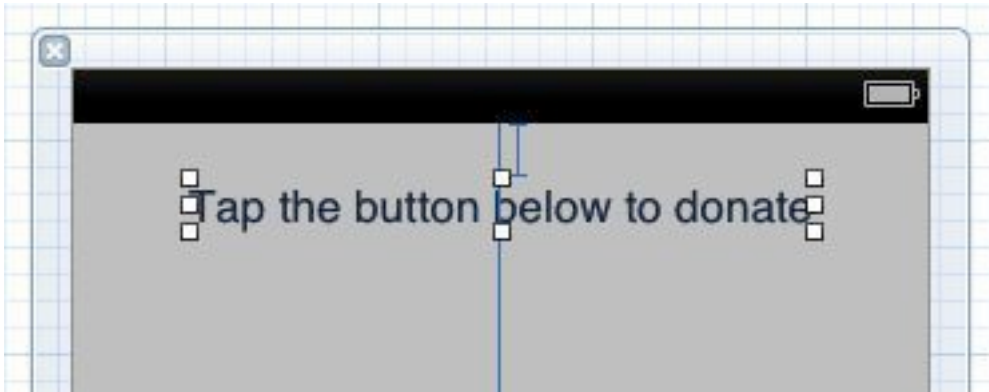
Lets add some instructions to the user and a button.

First drag in a label object. As you hover the label over the view you will see some guides help you place it. Add it towards the top of the screen so that it is centered horizontally:



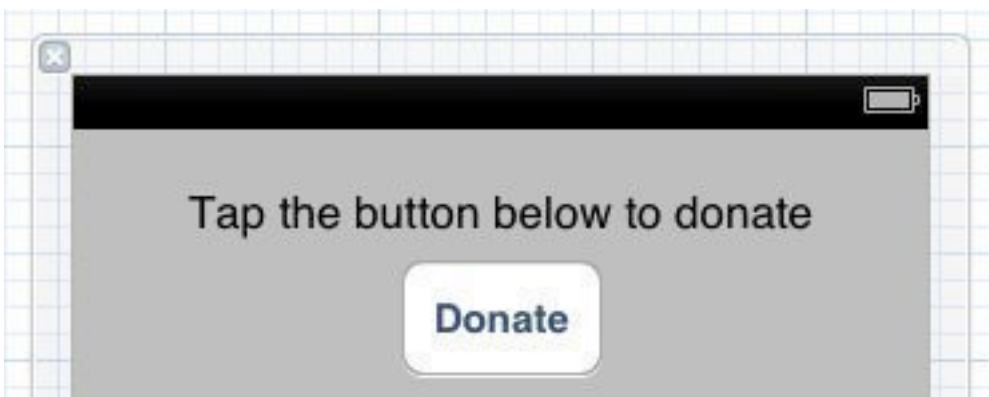
The blue lines represent constraints. With iOS 6 Apple introduced a new way of creating user interfaces which would look good on screens of different sizes and dimensions. It is a system called Autolayout. If you use Autolayout you cannot use the same interface file on devices running iOS 5 or below.

Double click the newly added label so that the text reads "Tap the button below to donate":



Now the instructions are in place add a button. The user will click the button to initiate sending the SMS.

From the list of objects drag the “Round Rect Button” just below the label. Again use the guides to ensure it is centered horizontally. Once the button is in place double click it and set its text to “Donate”.



It's finally time to start writing some code - well almost. So that the button knows what to do when tapped it is necessary to define an outlet and connect one of the buttons events to that outlet.

A button can send lots of different events. The most common one, for a button, is the event “Touch Up Inside”. That is when the users finger has touched the button and released whilst still inside the button.

On the right hand side of the Xcode window, towards the top, is a list of events and connected outlets. You may need to click the tab “Show the Connections Inspector”:



At the moment there are no connections made.

Lets define an outlet to which we can connect a button event.

Tap the file “ATViewController.h”. This is the header file which defines the properties and methods of the view controller which are publicly accessible (well accessible to other objects in our app).



We are going to add a method and tag it as an action method. An action method will be called when our button “Touch Up Inside” event is generated. The tag for an action method is `IBAction`. It is put in place of the methods return type. In fact it is just a macro and will actually compile as `void` - that is a method which doesn’t return anything. The tag is just there so that Interface Builder will recognise it as an action method.

In the interface definition, between the `@interface` line and the `@end` line, add the text:

- `(IBAction)donateTapped:(id)sender;`

Your file should now look like this:



```
1 //
2 //  ATViewController.h
3 //  SmsDonation
4 //
5 //  Created by Matt on 21/05/2013.
6 //  Copyright (c) 2013 Audio Trails. All rights reserved.
7 //
8
9 #import <UIKit/UIKit.h>
10
11 @interface ATViewController : UIViewController
12
13 - (IBAction)donateTapped:(id)sender;
14
15 @end
```

A circle has appeared in the gutter on line 13 to indicate that Xcode has picked up that this is an action method to which an event can be connected.

Back now into Interface Builder to connect the event to our `donateTapped` method.

Tap on the button and then drag the “Touch Up Inside” event to the left side of the screen where it says “File’s Owner” (underneath the title Placeholders). You will see a list of action methods appear. In this case there should only be one - `donateTapped`:. Click `donateTapped`: and check that it appears in the Sent Events list.



Excellent! Now time to start telling the app what to do when the button is clicked.

- **Getting the button to do something**

We have looked so far at .h and .xib files. The next file type are the .m files. These are where the code is written. Click the ATViewController.m file. You should see:

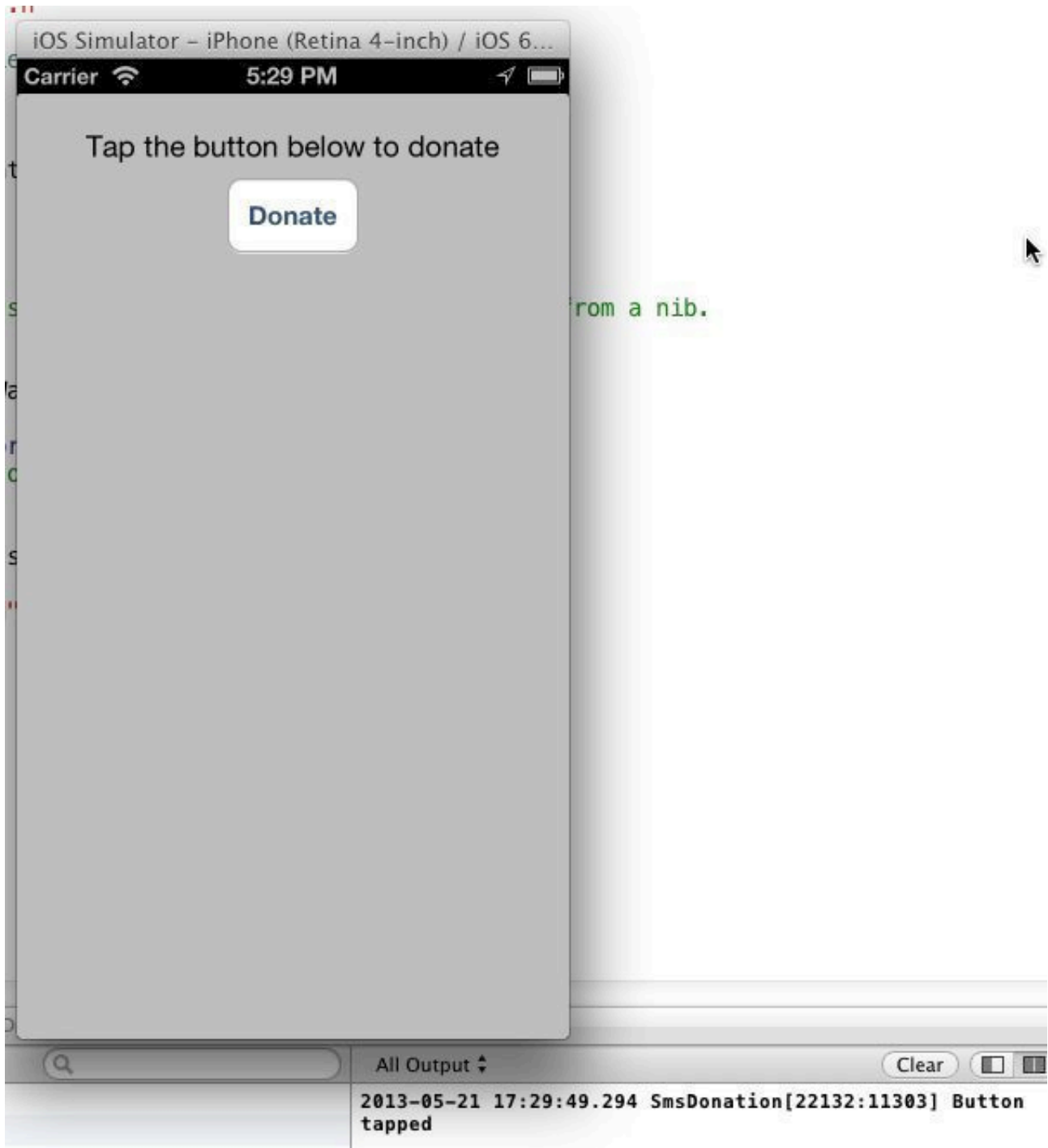
```
SmsDonation > SmsDonation > ATViewController.m > No Selection
1 //
2 // ATViewController.m
3 // SmsDonation
4 //
5 // Created by Matt on 21/05/2013.
6 // Copyright (c) 2013 Audio Trails. All rights reserved.
7 //
8
9 #import "ATViewController.h"
10
11 @interface ATViewController ()
12
13 @end
14
15 ⚠ @implementation ATViewController
16
17 - (void)viewDidLoad
18 {
19     [super viewDidLoad];
20     // Do any additional setup after loading the view, typically from a nib.
21 }
22
23 - (void)didReceiveMemoryWarning
24 {
25     [super didReceiveMemoryWarning];
26     // Dispose of any resources that can be recreated.
27 }
28
29 @end
30
```

The slightly worrying yellow warning symbol is because you have declared a method in the header file but not implemented it. Lets define the method. On the line above @end add the following:

```
- (IBAction)donateTapped:(id)sender
{
    NSLog(@"Button tapped");
}
```

This tells the app that when the button is tapped to log the text "Button tapped". This is not text the user will see, however can be seen by you - the developer.

Try running the app and see what happens! Simply click Run on the Xcode toolbar and wait for the simulator to start. Tap the button and watch the output change at the bottom of the Xcode window:

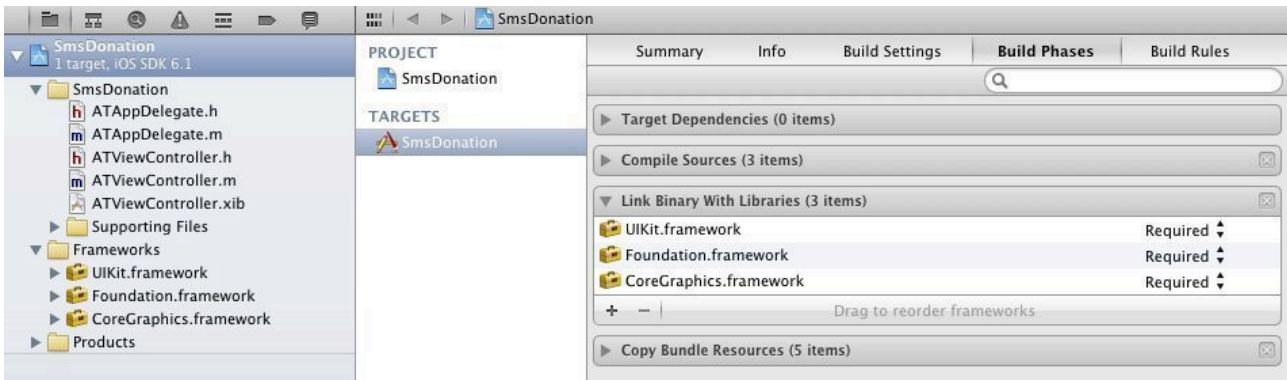


- **Sending the SMS**

iOS includes a whole bunch of functionality for you to use to create great apps. The functionality is compartmentalised into libraries. By default new project links against the libraries UIKit, Foundation and CoreGraphics. A library is referred to as a Framework.

Before the functionality which allows the user to send an SMS can be used the relevant framework must be added.

Click the project root in the project navigator, select the Build Phases tab and expand the Link Binary With Libraries section:



To add the required framework click the + underneath the last framework (in the example above CoreGraphics.framework).

Start typing MessageUI.framework and you should see the needed framework appear. Select MessageUI.framework and click Add.

Now hop back to the ATViewController.m file to write the code.

The first requirement is to add an import for the MessageUI header file. This will allow us to use the functionality from the MessageUI framework.

Near to the top of the file you should see the line:

```
#import "ATViewController.h"
```

Under this add:

```
#import <MessageUI/MessageUI.h>
```

We will now write some code in the donateTapped: method to replace the NSLog. Replace the NSLog with the following:

```
MFMessageComposeViewController *viewController =
[[MFMessageComposeViewController alloc] init];
```

```
viewController.messageComposeDelegate = self;
viewController.body = @"Test donation";
viewController.recipients = @[@"447951123456"];
```

```
[self presentViewController:viewController animated:YES completion:nil];
```

Lets go through each chunk of code:

The first line creates an instance of the view controller. The view controller provides the interface for the user to review and choose to send the message.

The next line sets the delegate to the current instance - that is the instance of `ATViewController`. This allows us to respond to messages coming from the `MFMessageComposeViewController` instance.

The next two lines set the message we are going to send and the recipients. Hopefully you should note that the recipients is an array and in this case we are sending the message to just one phone number.

The final line shows the view controller to the user.

You may notice when typing the code that a warning is flagged on the line where we set the `messageComposeDelegate`. To fix this we need to ensure that class adheres to the `MFMessageComposeViewControllerDelegate`. To do this add the text `<MFMessageComposeViewControllerDelegate>` to the private interface at the top of `ATViewController.m`. It should now look like this:

```
@interface ATViewController () <MFMessageComposeViewControllerDelegate>

@end
```

Finally we need to respond when the user taps Send. We are going to implement a method defined in the `MFMessageComposeViewControllerDelegate`. Underneath the `donateTapped:` method add the following:

```
- (void)messageComposeViewController:(MFMessageComposeViewController *)controller
    didFinishWithResult:(MessageComposeResult)result
{
    switch (result) {
        case MessageComposeResultCancelled:
        {
            NSLog(@"Cancelled");
            break;
        }

        case MessageComposeResultSent:
        {
            NSLog(@"Sent!");
            break;
        }

        case MessageComposeResultFailed:
        {
            NSLog(@"Failed");
            break;
        }

        default:
        {
            NSLog(@"Not sent");
        }
    }
}
```

```
    }  
    [self dismissViewControllerAnimated:YES completion:nil];  
}
```

This method is called by the MFMessageComposeViewController instance after the message has either been cancelled or attempted to be sent. All the above code does is log to the console what happened and then dismisses the message view controller.

If you run the code as it stands in the Simulator you will find it crashes as soon as you tap the Donate button. This is because the Simulator cannot send (or simulate sending) SMS messages. Run the app on an iPhone to see it working and sending the message.

• Finishing up

It is good practice to not have your apps crash if a specific feature is not available. It is easy to ask the device whether or not it supports sending text messages. Lets add some code to donateTapped:

```
- (void)donateTapped:(id)sender  
{  
    if ([MFMessageComposeViewController canSendText] == NO) {  
        NSLog(@"Cannot send text messages");  
        return;  
    }  
  
    MFMessageComposeViewController *viewController =  
    [[MFMessageComposeViewController alloc] init];  
  
    viewController.messageComposeDelegate = self;  
    viewController.body = @"Test donation";  
    viewController.recipients = @[@"447951123456"];  
  
    [self presentViewController:viewController animated:YES completion:nil];  
}
```

The first three lines in the method body to a check to see whether a text message can be sent. If the answer is no then a message is logged to the console. If this was an app for real users you would want to replace that with the code to show an alert dialog to the user - for example:

```
UIAlertView *alertView = [[UIAlertView alloc]  
    initWithTitle:@"SMS Donation App"  
    message:@"This device cannot send text messages"  
    delegate:nil  
    cancelButtonTitle:@"OK"  
    otherButtonTitles:nil];  
  
[alertView show];
```

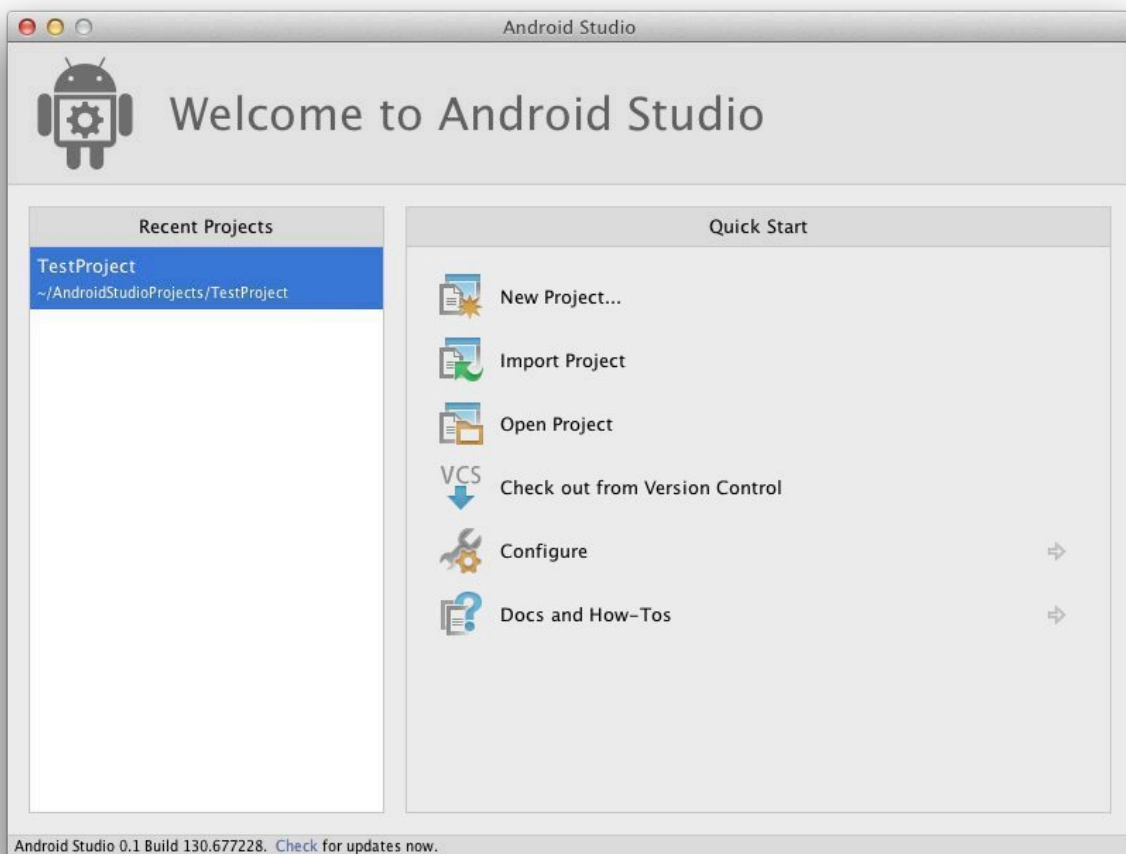
1 Sending donations via SMS in Android

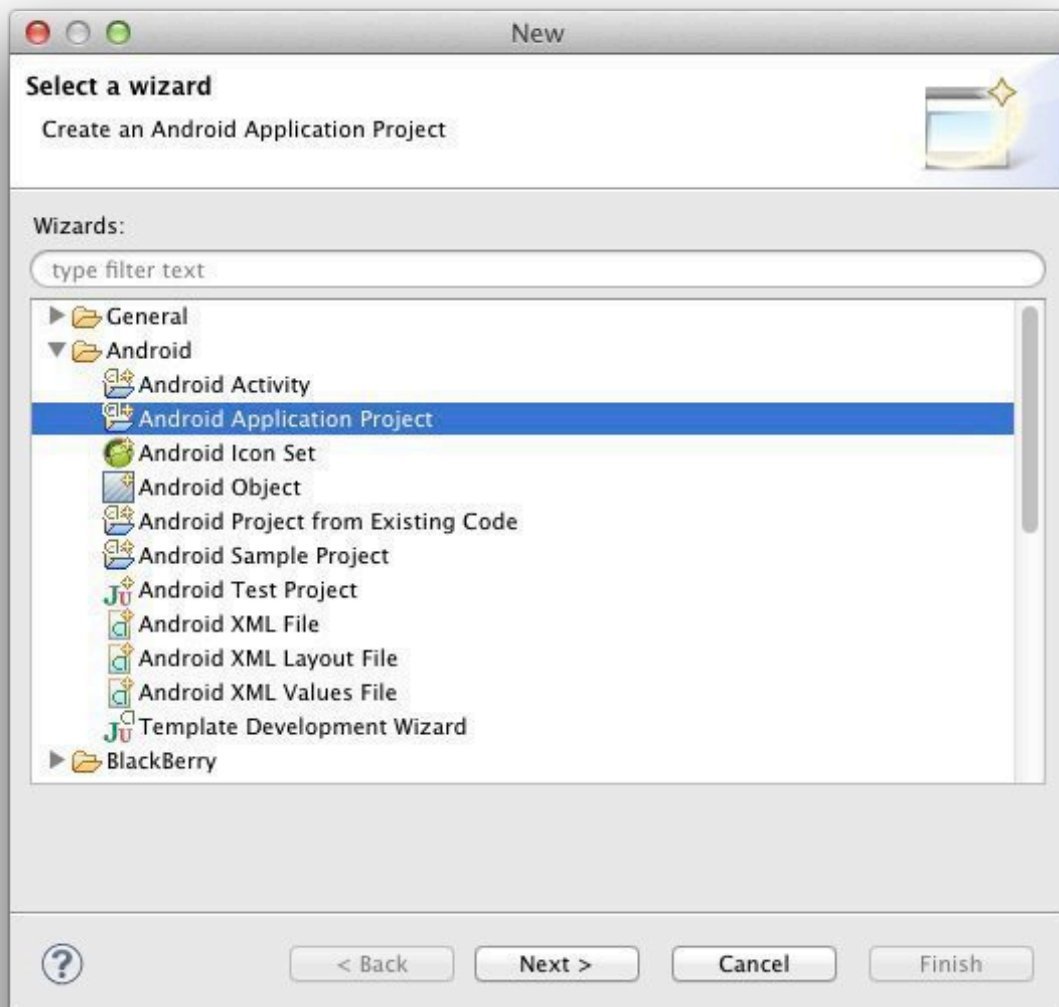
- **Pre-requisites**

The Android SDK installed onto a computer running Windows, Linux or Mac OS X
This tutorial will use the new Android Studio IDE that Google released at Google I/O in May 2013. This is replacing the previous Eclipse based IDE.

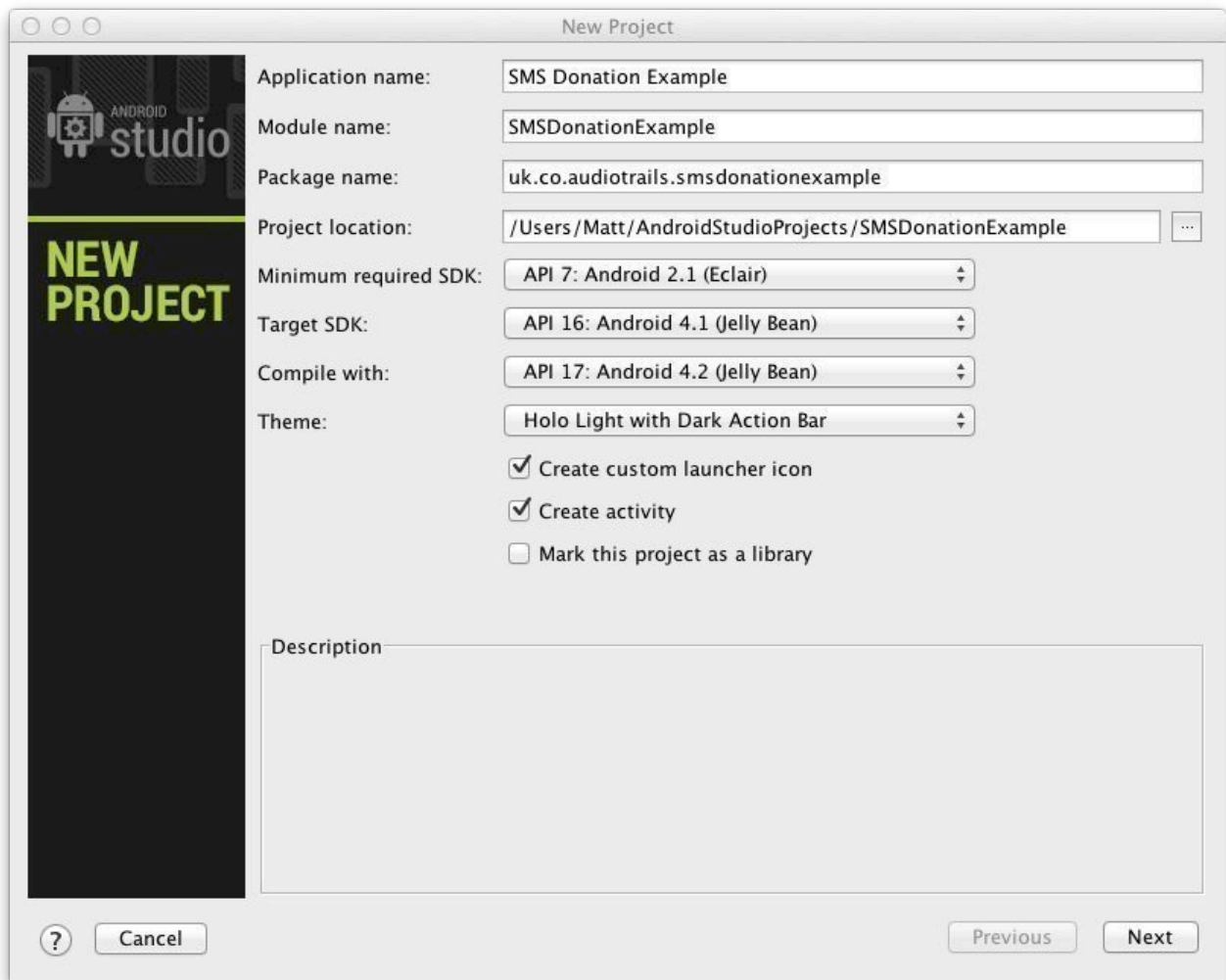
- **Creating the project**

Once you have started Android Studio create a new project:

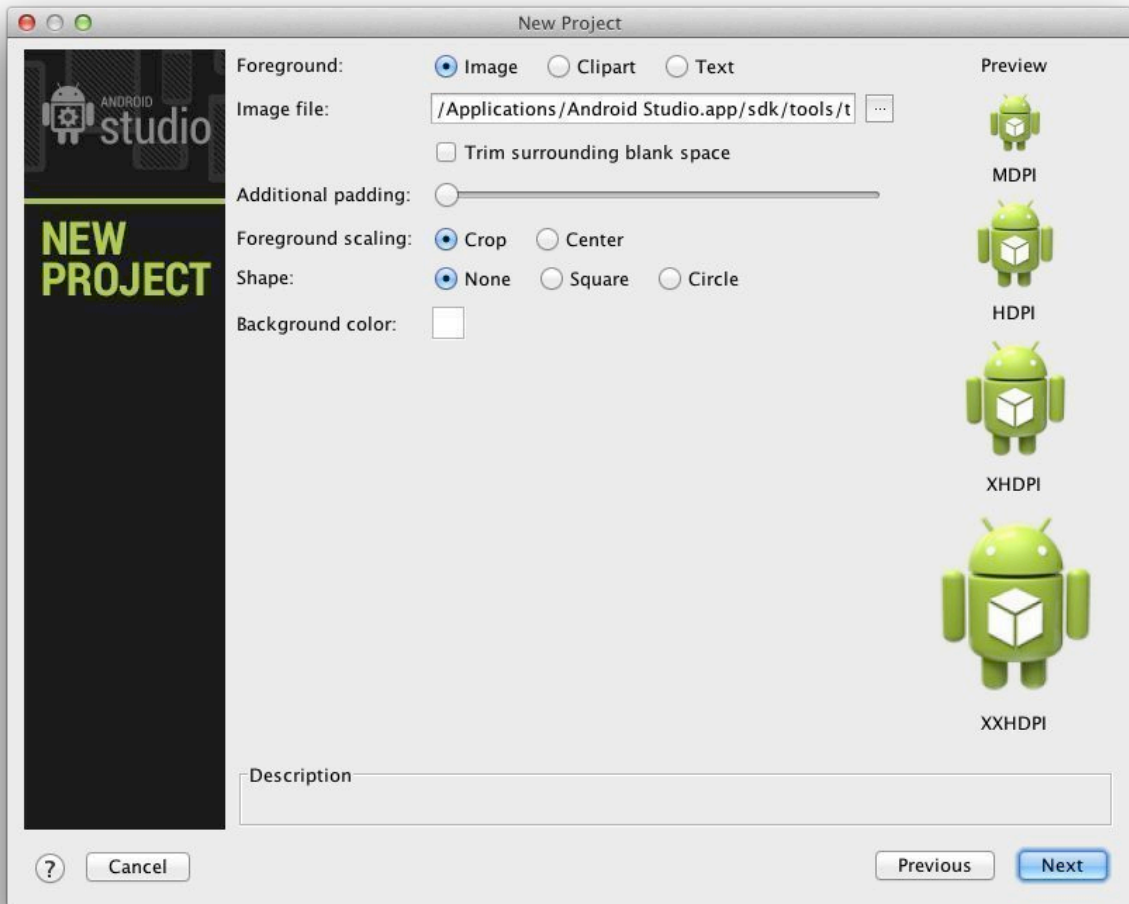




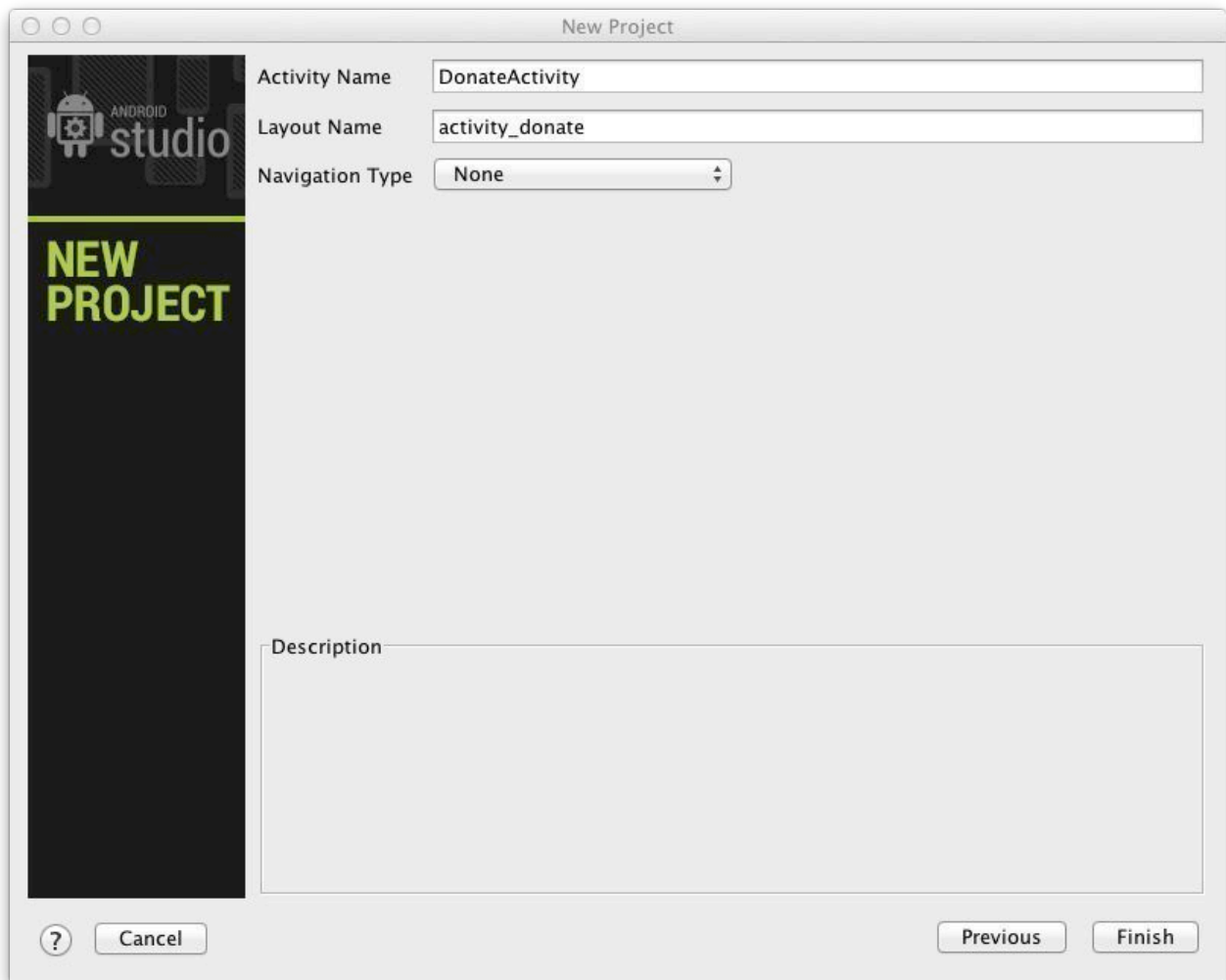
Enter an application name, and change the package name:



Android Studio will now offer to help you create an icon for the app:



Finally select for Android Studio to add a blank activity - when prompted call it DonateActivity with a layout named activity_donate:

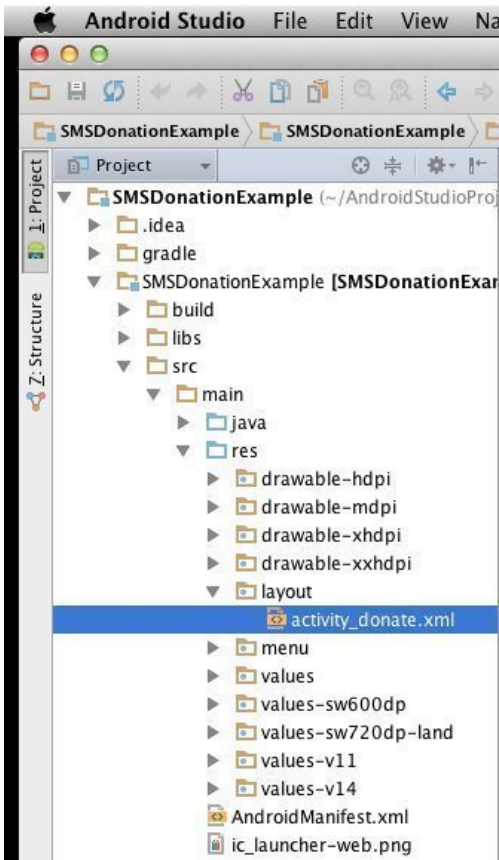


Setting up your app's user interface

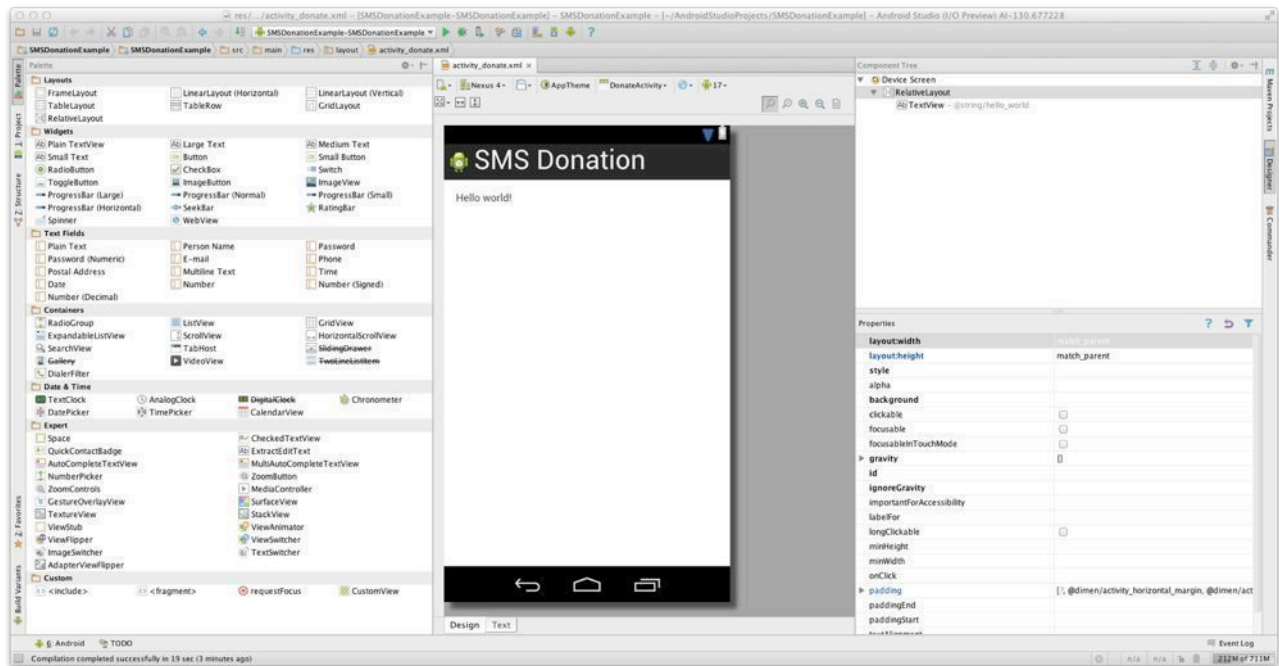
An Android app comprises, amongst other things, one or more activities. The user interface is usually specified in a layout XML file. Android Studio has a graphical editor or you can write the XML directly. In this example we will be writing the XML ourselves.

Start by finding the XML layout file for the activity that was created as part of the project wizard. Click the Project tab, which will be at the top left. Then expand the project tree so you can see

`SMSDonationExample/SMSDonationExample/srv/main/res/layout/activity_donate.xml`.



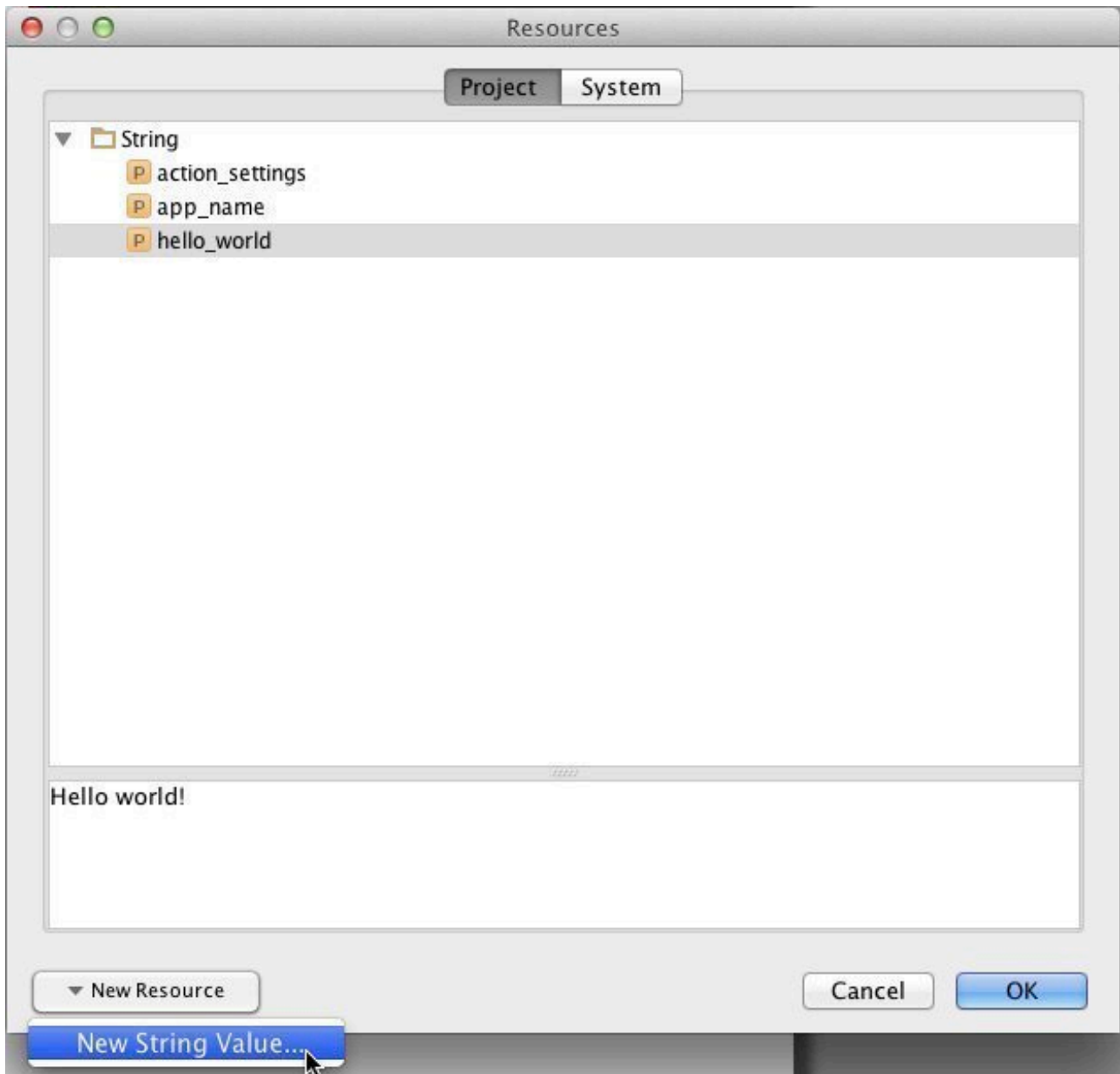
Double click the XML file. This by default will open up the graphical editor.



Start by changing the label so that it says “Tap the button below to donate”. Double tap the label. This will show you its currently assigned text and id. The id is so that you can find the component from the Java code. We will not be needing to modify the label so leave the id blank.

The text will be set to `@string/hello_world`. This refers to a string resource. Android encourages localisation so rather than embedding the string “Hello world!” in the layout, we refer to a string resource. String resources are stored in a file called `strings.xml`. This can be easily swapped for a file containing strings in different languages.

Click the ... next to `@string/hello_world`. This will show you the current string resources. Click New Resource at the bottom of the dialog, and then New String Value...:



Give the new resource the name `donate_label` and value “Tap the button below to donate”.



Drag the label so that it is in the center. You should see the guides appear and the words `centerHorizontal` and `alignParentTop`.

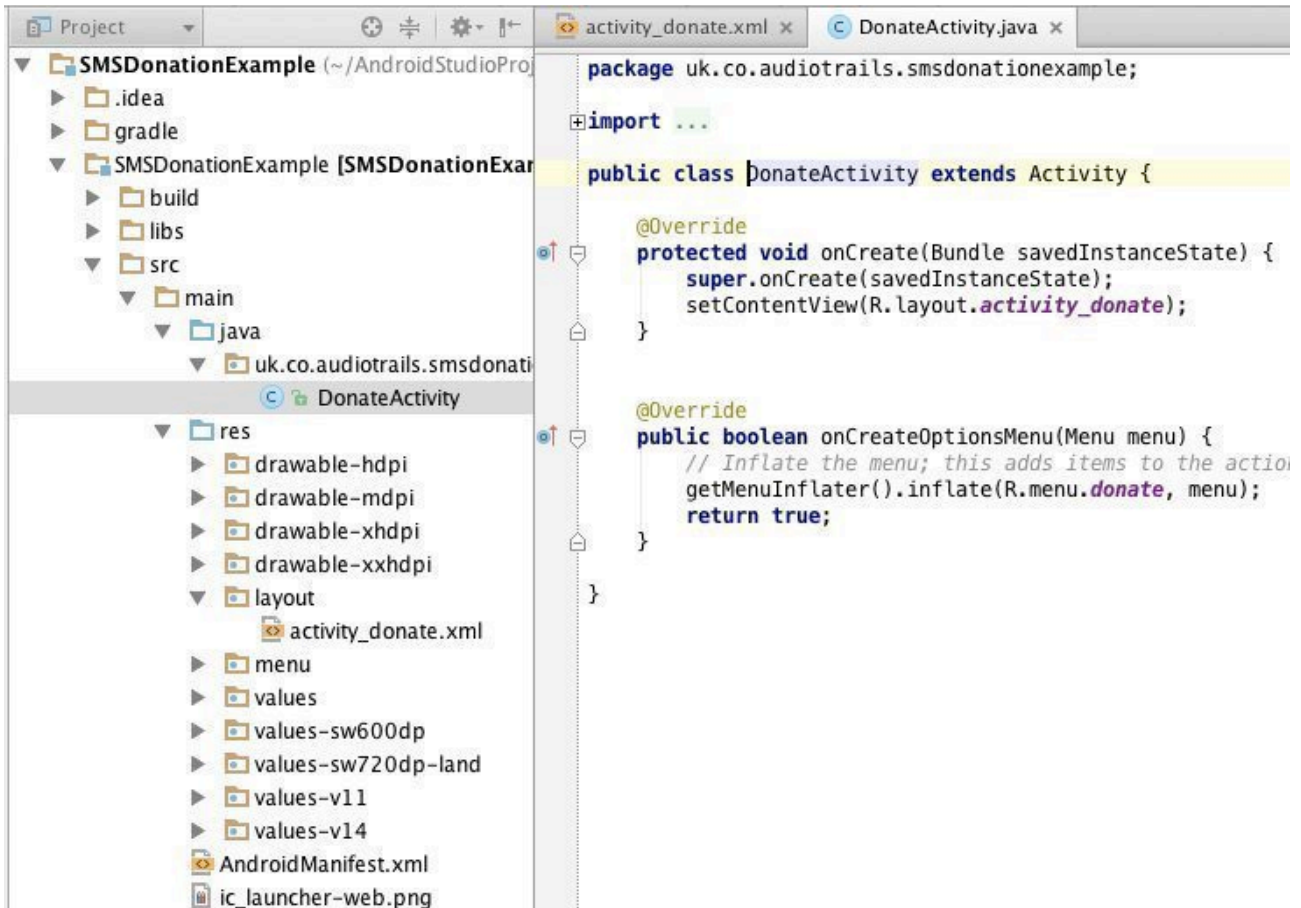
We will now add a button below the label. Drag a Button from the palette and put it below the label, also in the center. The guides should say `centerHorizontal` and `below=<generated>`.

Double click the button and using the same technique as above set the text so that it displays as Donate. Set the id of the button to `donate_button`.

- **Getting the button to do something**

Go back to the list of project files. Look for the `DonateActivity` Java class. You will find this in

SMSDonationExample/SMSDonationExample/src/main/java/uk.co.audiorails.smsdonationexample/DonateActivity.



```
package uk.co.audiorails.smsdonationexample;

import ...

public class DonateActivity extends Activity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_donate);
    }

    @Override
    public boolean onCreateOptionsMenu(Menu menu) {
        // Inflate the menu; this adds items to the action
        getMenuInflater().inflate(R.menu.donate, menu);
        return true;
    }
}
```

To start with lets get the donate button to output to the log when tapped.

If you are unfamiliar with Android it is a good idea to study the lifecycle of an activity. See <http://developer.android.com/training/basics/activity-lifecycle/starting.html> for details.

The onCreate method is run before the activity appears on the screen to the user. It is therefore an ideal place to set stuff up, such as adding event handlers to buttons.

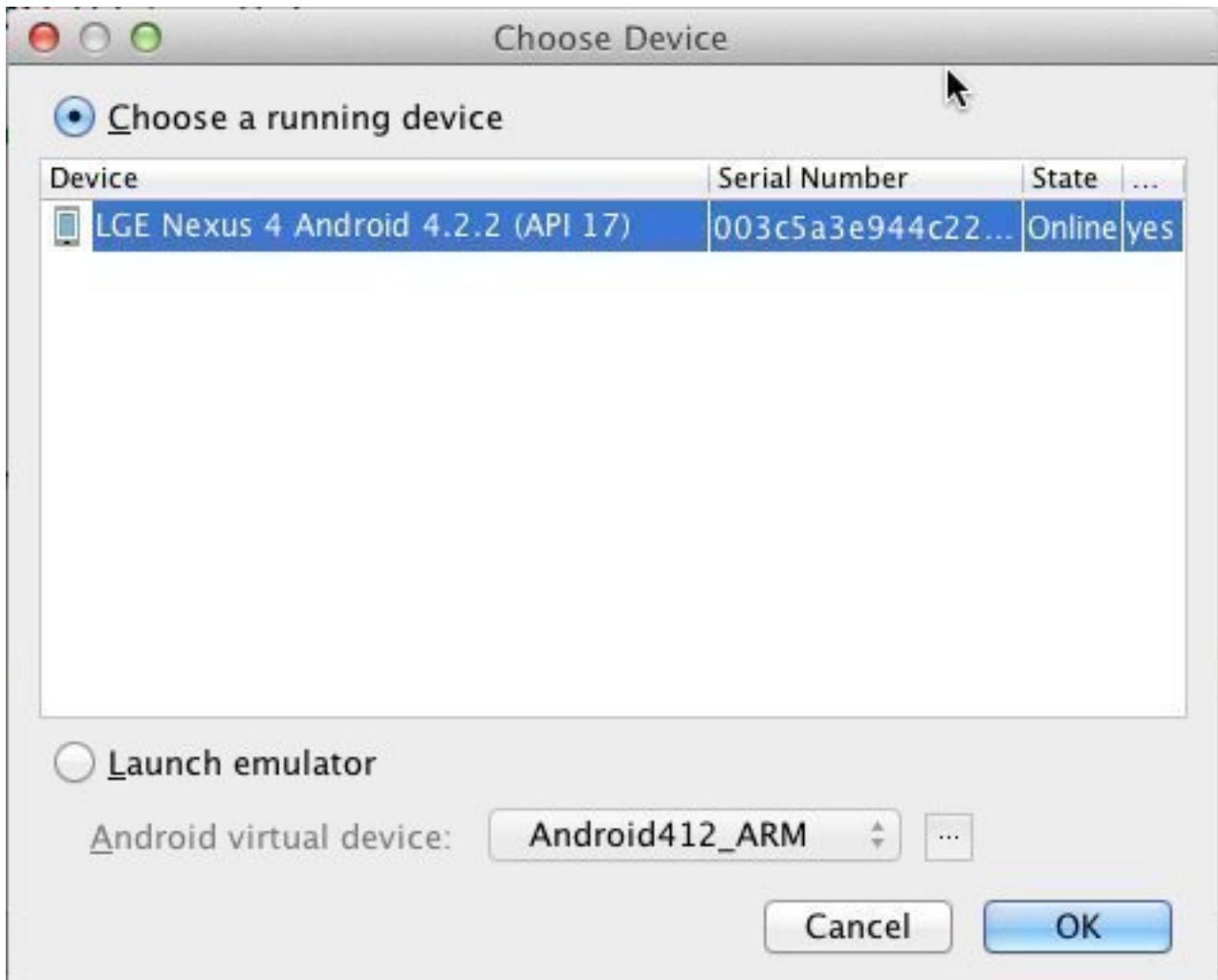
Underneath the line which starts setContentView add:

```
Button donateButton = (Button) findViewById(R.id.donate_button);
```

In Java you need to import the classes you are going to use. You should see that the word Button is shown in red. If you wait a few seconds it should get underlined and a blue bubble will pop up above it. Press ALT+ENTER on the keyboard and an import statement will be automatically added by Android Studio.

The previous statement will find the button we defined in the layout XML file.

Now add a listener which will run some code when the button is tapped:



- **Sending the SMS**

Lets replace the code which logs the message with code to actually sending the text message.

Android is a very loosely coupled operating system. What we are going to do is create an intent which tells the system we want to send a text message. It is then up to the system to present the user with the text message sending interface so that the message can be sent.

Replace the Log.d line with the following:

```
Intent intent= new Intent(Intent.ACTION_VIEW,  
Uri.parse("sms:07123456789"));  
intent.putExtra("sms_body", "DONATE");  
startActivity(intent);
```

Taking this line by line:

A new intent is created with the action `ACTION_VIEW`. A URI is passed which contains the number we want to send the SMS to.

The next line adds some additional information - the message to send.

The third line starts an activity which starts an activity which will be able to send an SMS.

It is possible that the device is not able to send an SMS message. In which case we should handle the error gracefully. Surround the `startActivity` with a try/catch block as follows:

```
Intent intent= new Intent(Intent.ACTION_VIEW,
Uri.parse("sms:07123456789"));
intent.putExtra("sms_body", "DONATE");
try {
    startActivity(intent);
} catch (ActivityNotFoundException e) {
    Log.d("DonateActivity", "Cannot send SMS message");
}
```

You may wish to display a dialog rather than logging to the console, which users will not be able to see. See <http://developer.android.com/guide/topics/ui/dialogs.html> for information on creating dialog boxes in Android.