

An evaluation of Cydcoed: the social and economic benefits of using trees and woodlands for community development in Wales



Final Report for Forestry Commission Wales November 2008

Social & Economic Research Group
Environmental & Human Sciences Division
Forest Research

The Research Agency of the
Forestry Commission, Great Britain

This report was prepared by:

Roz Owen, Forest Research, with John Powell, Matt Reed, Carol Kambites and Nick Lewis of the Countryside and Community Research Institute (CCRI).

Acknowledgements

- Forestry Commission Wales and Corporate Forestry Support for funding the research
- The Cydcoed delivery team, for their support and input throughout the project: Barbara Anglezarke, Bob Griffiths, Mark Proctor, Ben Reynolds, Alan Underwood, Steve Crosby, Ben Maxted, Rob Seymour and Michelle Jones.
- The many groups and individuals involved in Cydcoed projects who gave their time and knowledge through interviews, focus groups, site visits and surveys.
- Andrew Peace, Economics and Statistics, Corporate Forestry Support and Gregory Valatin, Social and Economic Research Group, Forest Research for their advice and comments
- Forestry Commission Wales staff who gave their time and knowledge through interviews and discussions.

Contents

Acknowledgements	2
Contents	3
List of tables	6
Executive Summary	8
Section 1: Background to the project	17
1.1 Introduction	17
1.2 Wales: the strategic context for Cydcoed	18
1.3 FCW: the strategic context for Cydcoed	20
1.4 Objectives of evaluation	22
1.5 Methods and indicators	23
Section 2: Thematic research	31
2.1 The Cydcoed programme: development, positioning, structures, skills partnerships and processes	31
Internal positioning of Cydcoed	32
Cydcoed team structure	36
Cydcoed team skills	39
Assessing the need for a Cydcoed project	40
Cydcoed processes	45
Managing risk	47
Managing change	48
Managing land ownership	49
Cydcoed and partnership working	51
Cydcoed Group Status	54
2.2 Measuring the impact of Cydcoed intervention	57
Sample characteristics	57
2.3 Health and Well-being benefits	60
Key findings	60
Background	60
Indicator HWB1: Public involvement in physical activity in woodland	62
Indicator HWB2: public perception of health and wellbeing in relation to woodland	65
Examples from the case studies	66
Health and well-being values	67
2.4 Social and human capital benefits	69
Key findings	69
Background	69
Indicator SHC1: Public involvement in woodland decision making	71
Indicator SHC2: Public involvement in events and other community activities	72
Indicator SHC3: Changes in community trust and wellbeing	74
Case study examples	77
2.5 Education and learning benefits	79
Key findings	79
Background	79
Indicator EL1: improved education and learning opportunities provided	80

Indicator EL2: benefits of participating in a woodland learning activity	82
Case study examples	84
Educational and learning values	88
2.6 Recreational benefits	90
Key findings.....	90
Background	91
Indicator RA1: the use of Cydcoed project woodlands for recreational purposes..	91
Indicator RA2: improved recreational facilities provided	94
Case Study examples	95
Recreational values.....	96
2.7 Environmental benefits.....	101
Key findings.....	101
Background	101
Research findings	102
Environmental values.....	103
2.8 Employment and local economy.....	105
Key findings.....	105
Background	106
Indicator ELE1: Use of woodland to create employment	109
Indicator ELE2: Woods that provide long term economic benefits.....	109
Case Study examples	110
Economy and livelihoods values	111
Section 3: Discussion and recommendations	114
Cydcoed and the strategic context in Wales	114
Cydcoed and community development	117
Recommendations	121
Section 4: Case studies	124
Case Study 3: North Gower Woodlands, Llanrhidian, South Wales	129
Case Study 4: Glyncorwg Ponds, Afan Argoed, South Wales.....	131
Case Study 5: Blaen Bran Community Woodland, Upper Cwmbran, South East Wales	133
Case Study 6: Cuckoo Woods, Pembroke Secondary School Pembroke, West Wales	135
Case Study 7: Silent Valley, Cwm, South East Wales	137
Case Study 8: Glan Morfa, Rhyl, North Wales.....	139
Case Study 9: Beaufort Hill Community Woodland, Beaufort, Ebbw Vale, South East Wales	141
Case Study 10: Longwood Community Woodland, Lampeter, West Wales	143
References.....	144
Appendix 1: Cydcoed Project Phases.....	150
Appendix 2: Cydcoed Methodology for monitoring jobs created and or safeguarded.....	151
Appendix 3: Targets and Outputs by County.....	155
Appendix 4: Cydcoed postal survey questionnaire.....	157
Appendix 5: Questionnaire to sample projects.....	169
Appendix 6: Survey instruments for vulnerable groups and schools	172

Appendix 7: Teacher telephone interview schedule	174
Appendix 8: Literature review	177
Appendix 9: A critique of non-market valuation approaches	186

List of tables

Table 1: Summary of non market public benefits.....	14
Table 2: Woodlands for Wales themes and objectives	21
Table 3: Cydcoed indicator suite.....	24
Table 4: number of responses to questionnaire survey	25
Table 5: Projects chosen for in-depth qualitative research	26
Table 6: Cydcoed structures and future recommendation	38
Table 7: Cydcoed staff skills and recommendations.....	39
Table 8: Questionnaire responses by region	58
Table 9: Sample project characteristics	59
Table 10: health and wellbeing events.....	62
Table 11: Engagement in physical activity	63
Table 12: Self-reported impact of the project on physical health	64
Table 13: Scored statements related to physical health	64
Table 14: Self-reported impact of the project on overall wellbeing	65
Table 15: Scored statements related to health and wellbeing	65
Table 16: non market benefit estimates for health	67
Table 17: Number of Cydcoed group members	71
Table 18: Hectares under Cydcoed group management	72
Table 19: Public involvement in decision making events	72
Table 20: Public involvement in Cydcoed events.....	72
Table 21: involvement in non-Cydcoed projects	72
Table 22: Membership of local groups	73
Table 23: Membership of national groups.....	74
Table 24: Involvement in groups / organisations: Living in Wales Survey 2004	74
Table 25: Scored statements regarding community and social capital	75
Table 26: Neighbourhood trust and attitudes: Living in Wales Survey 2004.....	76
Table 27: Affect of the project on the number of people known.....	76
Table 28: Affect of community involvement in the woodland project on households.....	77
Table 29: Perceived benefits of learning. (Wales - moving towards a learning country, WAG, 2007)	80
Table 30: Courses organised by Cydcoed groups	81
Table 31: Courses organised by others but attended by Cydcoed group members ..	81
Table 32: type of information provision	82
Table 33: educational events	82
Table 34: education establishments.....	82
Table 35: learning benefits of woodlands.....	83
Table 36: Development of Skills and/or knowledge as a result of project involvement	84
.....	84
Table 37: breakdown of school visits	85
Table 38: non market benefits of education and learning	89
Table 39: attendance at recreational events	91
Table 40: recreational use of woodland	92
Table 41: type of recreational use of the woodland	93
Table 42: recreational facilities provided.....	94
Table 43: barriers to using the woodland	95
Table 44: non market benefits of recreational activity.....	98
Table 45: hectares of woodland created on non agricultural land.....	102
Table 46: hectares of woodland brought into sustainable management.....	102
Table 47: scored statements of environmental benefits.....	103
Table 48: non market environmental benefits	104
Table 49: Spend per head of population	108
Table 50: Jobs created.....	109
Table 51: Jobs safeguarded.....	109

Table 52: timber and woodland businesses supported.....	110
Table 53: Public perceptions of economic benefits.....	110
Table 54: non market employment benefits.....	112

List of figures

Figure 1: Cydcoed in relation to FCW and others.....	35
Figure 2: Geographic spread of Cydcoed projects.....	36
Figure 3: Phase 1 projects by WIMD ranking.....	42
Figure 4: Phase II projects by WIMD ranking.....	42
Figure 5:Phase 1 West WIMD.....	43
Figure 6:Phase 1 North WIMD.....	43
Figure 7:Phase 1 South WIMD.....	43
Figure 8:Phase 1 South East WIMD.....	43
Figure 9:Phase II West WIMD.....	44
Figure 10:Phase II North WIMD.....	44
Figure 11:Phase II South WIMD.....	44
Figure 12:Phase II South East WIMD.....	44
Figure 13: Cydcoed project partnership networks.....	53
Figure 14:Cydcoed group status prior and subsequent to funding.....	55
Figure 15:group type as per project bid document.....	55
Figure 16: Phase 1 project themes.....	61
Figure 17; Phase II project theme.....	61
Figure 18: engagement in physical activity by age.....	63
Figure 19: Cydcoed projects indicating education or learning outputs.....	80
Figure 20: New or improved recreational facilities at Cydcoed projects.....	91
Figure 21: level of use of woodland (n=105).....	93
Figure 22: total grant spend per county.....	106
Figure 23: Cydcoed projects in Heads of the Valleys area.....	115
Figure 24: Cydcoed projects in Communities First area.....	116
Figure 25: The circle of beneficiaries mapped against the axes of community development (CCRI 2008).....	118
Figure 26: Figures indicating economic health of communities - England case studies.....	185

All maps are reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings.

Forestry Commission, 100025498, 2007

© Crown Copyright. All rights reserved.

Forestry Commission 100025498, 2007

Executive Summary

1. Background

Wales is the only country in the UK with a legislative responsibility to incorporate sustainable development principles within every policy and strategy. All Assembly Government policy is focussed on creating a more prosperous, healthier and better educated country. Cydcoed, developed within the *Woodlands for Wales* (FCW 2001) strategy, demonstrates integration and synergy with the Assembly's forward vision.

Cydcoed was funded through the EU Objective 1 programme and the Assembly Governments Pathways to Prosperity scheme. The programme was aimed at, but not exclusive to, two key areas: communities classified by the Wales Index of Multiple Deprivation as being the most deprived and; communities where the population has no access to community greenspace for relaxation and exercise. Funded over two phases (2001-2004; 2003-2008), Cydcoed was a £16 million programme that gave 100% grants to 163 community groups across the Objective 1 (West Wales and the Valleys) region.

The core objectives of Cydcoed were to use community forestry to deliver social inclusion and to create social capital; to help create and maintain high capacity community groups able to influence decision about their locality; woods that provide long term social, economic and environmental benefits and; individuals able to play a positive role in their communities.

For Forestry Commission Wales (FCW) Cydcoed contributed across four major themes within *Woodlands for Wales*: woodlands for people; a new emphasis on woodland management; a diverse and healthy environment and; tourism, recreation and health. It is the social and economic contribution made to these themes that this evaluation presents.

1.1. Objectives of the evaluation

This evaluation was commissioned by Cydcoed and FCW. Joint funding was secured from Corporate Forestry Support (CFS) and from Cydcoed. We provide an independent evaluation of Cydcoed, analysing the extent to which it has achieved the long term desired outcomes of the programme, and the impact on the communities in which projects occurred. In addition an economic analysis examining the public benefits of Cydcoed is presented. Our results, whilst robust, have been restricted by the lack of baseline data, indicator development and ongoing monitoring within the programme.

1.2. Methods and indicators

The methods used for this evaluation were developed as a result of the existing structure of the Cydcoed programme, and the requirements of the external funding body (the Welsh European Funding Office). In order that both objective (quantitative) and subjective (experiential or qualitative) outcomes be captured, it was important to develop a suite of indicators prior to any research taking place. The researchers utilised interdisciplinary methods, focusing on surveys of each Cydcoed group; surveys of a representative sample of groups and woodland users; semi-structured interviews, focus and discussion groups; telephone interviews; qualitative case studies; an economic analysis of the non market public benefits of Cydcoed and; desk research and literature reviews.

2. Thematic Research

2.1. The Cydcoed Programme: development; positioning; structures; skills partnerships and processes

FCW utilised Cydcoed as a mechanism to encourage community interaction with trees and woodlands on and off the Assembly Estate. Whilst innovative for FCW, it fitted well with *Woodlands for Wales* and complemented other Assembly policy.

Cydcoed was delivered at arms length from FCW: first under the auspices of Tircoed¹ and subsequently under the umbrella of FCW, but as a separate, semi autonomous body. This resulted in confusion, both within and outwith FCW. A lack of internal communication about the ethos and remit of Cydcoed was compounded by Project Officers being home based: Officers often felt isolated and tensions arose in relationships between Cydcoed and other FCW staff. These relationships were fundamental in shaping the way Cydcoed worked- and delivered- within FCW. Issues were compounded by a lack of guidance and protocol for staff, who in some instances had not understood that Cydcoed was an internal programme.

The Cydcoed Officers had a wide geographic remit, yet the team structure was cohesive and functioned well. A more structured, phased, approach to the development and funding of projects could have lessened the pressure for Officers operating over a large spatial area. Project groups cited the Officers presence on a local area basis, and their ability to act as facilitators and advisors, as a key success factor of Cydcoed.

Officers were expected to have a diverse range of skills and to be flexible, adaptable and knowledgeable on a wide range of issues. In some instances this was felt to be onerous and Officers indicated that in some instances they did not feel confident in approaching FCW colleagues for help or advice. It is apparent there is a lack of consistency in attitudes to community involvement in woodland across the FCW Districts.

Cydcoed Officers were employed for their knowledge and expertise in the field of community development. This knowledge has proved crucial to the Cydcoed programme and the way it has evolved on the ground: engaging with both individuals and other organisations at a local and national level.

Partnerships at all levels have proved important to the majority of groups. Difficulties were cited where there was a perceived loss of control for the group, where partner bodies failed to deliver or took control of the project. Cydcoed did not establish partnerships *per se*, but acted as a facilitator for partnership formation. Many of these have remained sustainable and some have led to higher levels of community representation in local governance issues.

Partnership working accrues social capital for the people involved. The formalised status of the project groups (a prerequisite of funding) acted as an indicator of competence for potential partners.

Although limited by the finite nature of the programme and the associated funding, the strength of allowing groups to identify woodland projects and providing finance to achieve their goals has proved an empowering experience for the people involved, reflecting the diverse range of communities and needs across Wales.

¹ www.tircoed.org.uk

2.2. Health and well being benefits

Over 90% of respondents to the survey felt the woods to be an important part of creating a sense of well being through offering a relaxing and stress free area: a half of those questioned indicated an improvement in their overall well being since being involved in a Cydcoed project.

A larger proportion of the younger age groups (<45 years) have benefited from a 'considerable improvement' in well being compared to the other groups. Over 90% of those questioned felt safe visiting the woodlands.

Just over a half of people involved in a Cydcoed project agreed that taking part had led them to take more regular exercise and over 40% stated their physical health had improved since becoming involved.

Analysis reveals that males, rather than females, benefit more from increased exercise, but that the 45-64 age group of both sexes report the least benefit accrued.

Both questionnaire and focus group work support the tenet that Cydcoed project woodlands help increase regular physical activity. This is most likely to be the case because of the woodlands proximity to residential areas (60% of respondents indicated they walked to the woodland) and because no expenditure is required in order to use the woods.

Insights from the case studies show that many groups are using the woodlands for 'walk your way to health' schemes in conjunction with Local Authorities and that the physical benefits of the woodland are widely recognised. Comments included:

It'll get people out more, walking or riding their bikes, it'll be nice out there
(Cydcoed group member, Glan Morfa Rhyl)

2.3. Social and human capital benefits

Social capital takes time – often years – to accrue. It would be beneficial to revisit Cydcoed project communities in the future to examine the longer term effects of the intervention.

To date, approximately 18,000 school children have been involved to some degree in Cydcoed projects. Project groups have 8,955 members and work with a further 6,490 people from other community groups. Over half of those questioned agreed their level of trust in the community had increased as a result of taking part in a Cydcoed project and around 75% agreed that they knew more people as a result of Cydcoed.

Eighty five percent indicated that the quality of life for the community had improved by being involved in Cydcoed and 79% thought the projects had helped develop stronger ties between people in their community.

Almost half of those questioned indicated that Cydcoed had provided them with an opportunity to volunteer. This suggests a latent desire to be involved in community activities.

Over a third of respondents to the research claimed the project had reduced, or stopped, anti social behaviour in and around the woodlands and one third indicated the projects had provided a place for children to play.

Case study research shows that knowledge and skills developed through Cydcoed are now being cascaded through the community. Whilst it is difficult at this stage of

Cydcoed to ascertain the true depth of increased social capital, there is little doubt that projects have increased trust, networks and relationships at the individual and community level.

2.4. Education and learning benefits

Whilst primary schools were able to use the projects to help meet some national curriculum objectives, secondary school involvement was, in the main, restricted to those exempt from curricular activities but involved in key skills work. The national curriculum was cited as a restricting influence on visits to the woods, but this was prior to the introduction of the new Foundation Phase of education for 3-11 year olds in Wales, where more emphasis is given to outdoors education.

Teachers reported that children were more confident and more relaxed when in the woodlands, but they were hesitant to agree that this was transferred to the classroom.

Twenty nine percent of those involved indicated that they had gained general work experience, but only a small increase in professional qualifications as a result of involvement was reported. This may be owing to the fact that many of those involved indicated that they were retired from employment.

Case study research shows that several projects have established student placement schemes with local colleges and universities. Other projects have developed apprenticeship schemes and open college accredited courses.

Over 3,000 people have attended courses organised by Cydcoed community groups, and over 7,000 people have attended events with an education and learning theme organised by Cydcoed groups.

Seventy eight percent of respondents agreed that being involved in the project had given them a better understanding of the local environment and over 83% agreed that visiting the woodlands helps people to learn about nature.

2.5. Recreational benefits

Our research shows that woodlands are receiving increased and new recreational use as a result of Cydcoed. This is the case even where there are existing public forestry sites, but at a greater distance from where people live. Cydcoed woodlands are situated close to centres of population and the majority of people access them on foot.

The most popular activities included walking, watching wildlife and birds and just enjoying the countryside. An average of 420 metres of new path, or track, was created by each Cydcoed project. A total of 326 new access points were created with another 326 improved and upgraded.

Seventy five percent of those questioned identified recreation as a benefit for their household and about half indicated that their recreational use of the woodland had increased since being involved in the Cydcoed project.

Case study research shows that informal play has increased in Cydcoed woodlands, and that many woods are now being used as 'shortcuts' to schools, shops and to visit friends.

2.6. Environmental benefits

An evaluation of the environmental contribution of projects to the environment was not an integral part of the research brief. It is recognised that environmental improvements are very site specific and measurement of these requires definitive and site specific measures. However, the research was able to capture several environmental outputs from projects and gathered qualitative evidence of improvements.

Cydcoed projects have created 80 new community woodlands, covering approximately 205 hectares. There are currently over 340 new sustainable woodland management plans in place, which cover some 8,915 hectares.

Survey results indicate that the majority of respondents have benefited from the woodland by learning about the environment and over 98% of respondents agree that woodlands are an important part of the community.

Qualitative research with groups elicited the following comments, amongst others, concerning the environmental impact of projects to their areas:

The environmental enhancement of a housing site, where there had previously been little or no planting (Tredegar Community Woods)

As a result of the project the site has been designated as a local nature reserve (Fairy Glen)

2.7. Employment and local economy benefits

Our survey to Cydcoed groups returned negligible information on the creation and safeguarding of jobs: only 5% of households reported as benefiting from full time work and 2% from part time employment. This data only applies to those involved in implementing projects, where a significant number (40%) indicated that they were 'retired'.

Projects report that over 60 jobs have been created in the wider community and over 280 posts safeguarded. It was not within the remit of this evaluation to ascertain the nature of these posts, or their sustainability over time.

Projects report having supported over 40 timber and woodland businesses. Project groups were not asked to monitor the value of this support or its contribution to the sustainability of local businesses.

Case study research indicates that there are concerns amongst the groups about the long term sustainability of posts created once funding has ceased. Some groups have been adept at drawing down additional funding from other sources, ensuring some jobs will be maintained. Groups expressed concern over the grant dependency of employment created through programmes such as Cydcoed.

Groups cited anecdotal evidence of increased visitors to the woodlands, and suggested that this would benefit the local economy.

2.8. Summary of non market public benefits

In the analysis benefit estimates are presented at two scales: community and programme:

- '*Community*' refers to the average benefits per community where a Cydcoed project has been implemented
- '*Programme*' refers to total benefits arising from the 163 projects implemented in the Cydcoed programme throughout the Objective One area of Wales.

Not all benefits can be scaled-up from community to programme and some benefits only exist in communities where a specific type of activity takes place (e.g. a sculpture park). In these cases the limited application of the benefit has been taken into account when aggregating measures across all projects.

Table 1, below summarises the monetised non-market benefits from the Cydcoed programme. Benefits are a mix of annual cost avoided, annualised benefits to society and one off benefits to individuals relating to skills training and employment. Total benefits at the community scale are not calculated due to:

- variability in school use of woodlands within communities (may be primary only, secondary only, or both);
- variability of recreational benefits that might be on offer;
- variability in environmental benefits resulting from Cydcoed investments
- variability in the range of ecological benefits arising in each woodland.

The community and national level total benefit measures are dominated by recreational benefits. Health benefits (high estimate) and environmental benefits are both also significant. The greatest recreational benefits are for walking, due to the large numbers of person indicating they engage in this activity, and the proximity of many of the Cydcoed woodlands to residential neighbourhoods. At the national level recreational benefits for walking range widely from £0.67 million up to £10.8 million per year. The variability is based on assumptions about the numbers of persons in a community engaged in walking.

Benefits from improved health and well-being are conservative and based purely on expenditure averted from reductions in the number of cases of heart failure, and do not include measures of benefit to individuals from living longer, or being engaged in full-time employment for longer periods. Increases in physical exercise identified in the study will also have a positive impact on a number of illnesses, as well as on overall well-being and quality of life of individuals, none of which have been evaluated in this study.

Local economic impacts are also underestimated as the analysis has not incorporated the effects of the Cydcoed programme money on local communities.

It should be noted that, with the exception of the employment and skills benefits, the values presented are annual benefits, and this will continue for as long as the woodlands continue to be utilised in the same manner. Benefits are also based on the assumption that woodlands and woodland access will be maintained in the future at current levels. There are clearly on-going maintenance costs (e.g. fencing, maintenance of gates and pathways, managing vegetation) in order to provide the flow of benefits indicated in the tables here. Some benefits, such as health benefits also require continuation of physical activity levels into the future.

Summary of benefits from the Cydcoed Programme 2001 – 2008

	Community scale (£ per year)	Programme scale (£ per year)
Education (annual costs avoided)		
Primary	900	64,800
Secondary:		
National curriculum	765	25,245
Vocational/other	500	16,500
Special		800
Total annual costs avoided		107,345
Recreation (annual benefits)		
<u>Walking</u>		
High	84,843	10,350,846
Medium	44,667	5,449,374
Low	1,292	157,624
<u>Cycling</u>		
High	581	3,487
Low	290	1,743
Sculpture trails	334	2,687
Wildlife/bird watching	3,672	297,432
Informal play	2,645	214,245
Total annual benefits		
High		10,867,725
Medium		5,962,766
Low		672,759
Healthcare (annual costs avoided)		
High estimate	£5,000	£815,000
Low estimate	£64	£10,000
Environment		
Landscape	6,534	261,360
Carbon sequestration	na	na
Ecological improvements	12,234	599,466
Air quality improvements	na	na
Total annual benefits		860,826
Skills acquisition and work experience		
(Note: these are <u>total</u> benefits over the programme period 2001-2008)		
Acquisition of new skills		
High estimate	5,350	875,000
Low estimate	1,000	163,000
Work experience		
Full-time work	10,400	1,695,200
Part-time work	1,000	81,000
Total benefits		
High estimate	18,150	2,879,400
Low estimate	13,800	2,167,400

Table 1: Summary of non market public benefits

2.9. Discussion

Whilst further research would be needed to assess the community benefits of Cydcoed in the longer term, the contribution Cydcoed projects have made towards the Assembly Governments strategic agenda has been considerable.

The main group of beneficiaries have been those directly involved in the projects, whilst the more diffuse include professionals and other organisations. The key successes of Cydcoed have been improved social cohesion and social capital. Less significance can be given to environmental and economic benefits. Environmental improvements have been very site specific. Similarly economic development has generally been low key, with some exceptions.

Cydcoed contribution to community development across Wales has been extensive. It has been successful in addressing local people, in building connections between individuals, communities and organisations and focusing on localised environmental issues. The aims of projects have been important but it is the process that is significant in terms of building confidence and capacity within the groups.

The concentration on forests, trees and woods has been valuable, as they have provided a focus for projects. Qualitative research suggests that this acted as a catalyst for involvement: many individuals stated that they would not have been so keen to become involved in community action had projects not taken place in and around trees, woods and forests. This is important as, although there are many other organisations in Wales offering community development expertise, the use of woodland as a mechanism through which to offer such opportunities is unique, in Wales, to FCW.

2.10. Recommendations

1. This evaluation was asked to determine the social outcomes of the Cydcoed programme and this has been provided based on the data available. We recommend:
 - a. Appropriate indicators be defined at the time of programme development
 - b. Appropriate baseline data is collated either prior to or as projects commence
 - c. A programme of ongoing monitoring is established and adhered to during the project/programme
2. The role of the Project Officers was cited as key to the success of the majority of projects. As demonstrated by Cydcoed, working with communities required a specific, and wide ranging, skill set. Future work with communities, on or off the Assembly estate, may require considerable investment in developing staff skills.
3. The type of support offered by Cydcoed has been valued by communities and has contributed towards multiple WAG policy objectives. We suggest that any future intervention is delivered on a pan-Wales basis but with particular emphasis placed on highly deprived rural and urban areas.
4. We would suggest that it would be beneficial for FCW to consider closer collaboration with other organisations in order to maximise the delivery of public benefit and value for money. This approach is particularly suited to spatially targeted delivery and would provide additional opportunity to

demonstrate the adaptability of woodland in meeting multiple, cross cutting objectives

Section 1: Background to the project

1.1 Introduction

Forestry Commission Wales (FCW) serves as the forestry department of the Welsh Assembly Government (WAG) to advise on and implement forestry policies. FCW also manage the national forest estate to deliver public benefits. The responsibility for forestry policy and its financial framework rests with the Minister for Rural Affairs. The Welsh Assembly set out its vision for forestry in Wales in *Woodlands for Wales*, published in July 2001. It describes a vision to provide real social and community benefits, both locally and nationally, whilst supporting thriving woodland-based industries and contributing to a better quality environment throughout Wales. FCW aims and objectives flow from *Woodlands for Wales* and from the wider objectives of the Welsh Assembly Government. Described within the strategy as a predominately rural activity, forestry is seen as playing a major part in delivering rural development, and has an increasingly important role in helping to deliver other objectives such as urban regeneration, social and environmental justice, renewable energy and healthier lifestyles. FCW has five strategic, outcome-related objectives expressed in its Corporate Plan (2005), each of which the Cydcoed programme is designed to deliver against. These are:

- Sustainable woodland management.
- Woodlands supporting effective and durable communities.
- Woodlands making a positive contribution to a thriving and sustainable Welsh economy
- Woodlands contributing to a more healthy and resilient environment.
- Effective and efficient customer focused delivery

(FCW 2005:6)

Cydcoed Phase I was a £4M, 3 year grant programme run by FCW with funding from the European Union (Objective 1², Priority 5, Measure 3) and the Assembly managed Pathways to Prosperity grant programme. It gave support and grants covering up to 100% of costs to community groups in the Objective 1 region of Wales (West Wales and the Valleys) to help them make use of woodland for community development. Cydcoed Phase 1 ran from 2001 to 2004, giving grants totalling £3,986,295 to 40 individual projects across the defined Objective One area.

A £12M Cydcoed Phase II funded by the European Union (again under Objective 1, Priority 5, Measure 3) and the Assembly, was launched in January 2003 running until September 2008. Phase II has 123 projects spread across the same geographic area of Wales as Phase 1. Despite the fact that both Phases of Cydcoed are separate projects, for the purposes of this evaluation they can be viewed largely as a single programme and the terms 'Cydcoed programme, or 'the programme' will be used to discuss Phases 1 and II together. Where appropriate, differences under discussion within each Phase will be referred to individually as Phase 1 or Phase II.

² *Objective 1* helped regions whose development was lagging behind, where the Gross Domestic Product per head is less than 75% of the EU average. Attention is focused on basic infrastructures, developing human resources, investing in research and innovation, and the information society (www.lga.gov.uk). It has now been superseded by Convergence Funding, the new EU scheme.

The Cydcoed programme has been targeted at, although not limited to, two key areas:

- Communities that are recognised by the Welsh Assembly's Index of Multiple Deprivation as being the most deprived in Wales;
- Communities where the population has no access to community green space for relaxation and exercise.

The three themes of the programme are:

- Creating green woodland space for communities;
- Making green woodland space more accessible for communities;
- Encouraging community involvement in sustainable development around woodlands.

The physical targets or outputs for Cydcoed are set by those in the Objective 1 programme complement, Priority 5, Measure 3. Cydcoed programme activities contributing to these outputs were:

- Additional sustainable woodland management schemes;
- New community woodland on non-agricultural land;
- Woodland and timber related businesses supported;
- Woodland schemes with community participation.

The quantifiable outputs required by the Wales European Funding Office (WEFO) to be monitored were:

- Hectares of woodland brought in to sustainable management;
- Hectares of new community woodland on non agricultural land;
- Hectares of woodland benefiting from community participation;
- Gross woodland and timber related jobs safeguarded.

Following a mid-term review of Objective One in Wales in 2004, the WEFO added a new output to Priority 5, Measure 3 – jobs created. In January 2005, Cydcoed were notified that a 'jobs created' target had to be included in both the Phase 1 and Phase II projects, despite the fact that at this time Cydcoed Phase 1 had been completed.

1.2 Wales: the strategic context for Cydcoed

Woodland can help deliver 11 of the UK government's 15 headline quality of life indicators (*Woodland Trust 2004:3*). Moreover, numerous studies on greenspace and woodland have shown that they are highly valued by communities (*ibid:4*) and that access to woodland is not only important for health benefits through exercise but makes visitors feel relaxed, happy and close to nature (*Coles R W & Bussey S.C 2000*)

The WAG has at the crux of its strategy development and implementation the vision of a sustainable Wales. The framework underpinning their work remains to be *Starting to live differently: the sustainable development scheme of the National Assembly for Wales (2006)*. This sets out the vision of a sustainable future for all of Wales where action for social, economic and environmental improvement work together to create positive change. This framework, coupled with the recently adopted *National Framework for Community Development in Wales*, developed by

Community Development Cymru (CDC) and endorsed by the WAG in February 2007, helps set the scene for the role of programmes such as Cydcoed within the WAG and within communities across Wales.

FCW, as the WAG body with overall responsibility for estate forests and woodland in Wales has a remit that impacts upon 6% of the land area of Wales – 40% of the woodland in Wales. However, the majority of Cydcoed projects have been undertaken on Local Authority owned land (81 projects) with 46 on either private land or land owned by the group, with only 19 on FCW managed land.

Cydcoed, developed within the 'Woodland for People' strand of the FCW Strategy for Trees and Woodlands '*Woodlands for Wales*' (2001) demonstrates outcomes that impact across much of the strategy, and across the WAG social justice agenda.

Social justice, as defined by the WAG, is '*about every one of us having the chances and opportunities to make the most of our lives and use our talents to the full*' (<http://new.wales.gov.uk/topics/socialjustice>). All WAG policies and programmes, across areas of health, education, economic development, transport, housing and the environment are focused on making Wales a more prosperous, healthier and better educated country. The social justice agenda is built into strategy, policy and programmes developed by and for WAG. Aimed at, but not exclusive to, the most deprived communities in Wales, Cydcoed encompasses community woodland projects with outcomes that promote health and wellbeing, education and learning, access and recreation and economic sustainability within those communities. Where projects can demonstrate that they have delivered on these outcomes, we would argue that they are delivering not only benefits to the immediate locality but contributing in a wider sense to the Assembly's social and environmental justice agenda.

Further, since the inception of the coalition government between Labour and Plaid Cymru in June 2007, the *One Wales (June 2007)* document details the agreement reached between the two parties for the strategic development of Wales across the next term of office. Cydcoed demonstrates synergy with this forward vision, in particular contributing towards the stated aim of enabling:

... people to rebuild the social, economic and cultural fabric of their communities and we [WAG] will engage positively and purposefully with community representatives. (WAG 2007:27)

This complements the FCW vision statement for Wales detailed in the *Woodlands for Wales*' strategy (p5) where woodlands in Wales will:

- *Provide real social and community benefits both locally and nationally;*
- *Support thriving woodland based industries; and*
- *Contribute to a better quality environment throughout Wales*

Cydcoed contributes to realising these aims through its core objectives of:

... using community forestry to deliver social inclusion and the creation of social capital...; and

to help create and / or maintain high capacity community groups able to influence decisions about their locality; woods that provide long-term local social, economic, and environmental benefits; and individuals able to play a

positive role in their local community (both Cydcoed EAGGF applications 2001,2004).

In recent months the local agenda in Wales has again become politically topical. The Rural Affairs and Regeneration departments of the WAG are particularly interested in understanding the benefits and constraints inherent within schemes that allow the transfer of public or private assets into community control or ownership. Whether this interest will become a strategic objective is to be debated, but what is clear is that should the WAG commit to such a programme then it will affect the way in which FCW work and interact with communities in a fundamental way.

1.3. FCW: the strategic context for Cydcoed

Cydcoed demonstrates outcomes that impact upon objectives across four of the strategic themes contained within the *Woodlands for Wales* strategy. An analysis of the strategy indicates the themes, aims and objectives against which Cydcoed was designed to deliver: These are presented in table 2, below:

Table 2: Woodlands for Wales themes and objectives

Strategy theme	Objective	Aim	Contribution by Cydcoed
Woodlands for People	2.2.1: to use woodlands as a social and cultural asset for some of our most disadvantaged communities	We will encourage the use of woodlands as catalysts for regenerating local communities with effort being concentrated in those communities with the greatest disadvantage	✓
		We will develop a series of community woodlands throughout Wales, using existing woods or creating new woods, with local people involved in their management for the benefit of their communities	✓
	2.2.2: to maximise the use of woodland for learning	We will promote the use of woodland for further education and lifelong learning	✓
	2.2.3 to provide opportunities to have their say in the management of woods close to where they live	Mechanisms will be created to involve local people and build consensus amongst communities	✓
		The understanding of woodland issues in Wales will be promoted through partnerships with professional bodies, private owners and managers, voluntary groups and the education sector	✓
A new emphasis on woodland management	2.3.1 to promote best practice in woodland management	We will develop ways of encouraging the use of best practice in managing woodland and of extending long term planning	✓
	2.3.3: to find appropriate sites for new trees and woodlands	We will encourage landowners and managers to take opportunities for appropriate woodland expansion, seeking to maximise the value to society of new woodlands	✓
		We will work with community groups and landowners, encouraging the use of trees and woodlands to improve air quality and urban landscapes	✓
A diverse and healthy environment	2.5.1:To conserve and enhancement the biodiversity of our woodlands	We will increase the area of native woodland, targeting extension and connection of existing woods and incorporating the concept of increasing the core area of native woodland habitats	✓
	2.5.2:To conserve and enhance the landscapes of Wales	We will use woodlands to restore the landscapes of areas affected by past mineral extraction and other industrial activities	✓
Tourism, recreation and health	2.6.1:To use woodlands to help create a high quality visitor experience	Using existing partnerships we will promote the use of woodlands to develop a high quality visitor experience	✓
		We will promote the development of specialist recreation in woodland including wildlife observation and artistic pursuits as well as more noisy and physical sports	✓
	2.6.2:To promote health through access to woodlands for all communities	we will extend access to woodland particularly for disadvantaged communities, using good design and community	✓

		involvement, to help overcome some peoples perceptions of risk when using woodland on the urban fringes	
		We will look for opportunities to use trees and woodlands in urban settings to maximise emotional and physical wellbeing	✓

It is apparent from this tabulation that Cydcoed had a very wide and cross cutting remit. The implications of this are examined further in Section 2.1 *The Cydcoed Programme*.

The current *Woodlands for Wales* strategy is under review with a revised version due to be published in the autumn of 2008. The Social Policy Unit of FCW is developing a suite of policy positions aimed at defining the importance and relevance of social outcomes to the work of FCW. This evaluation is timely in as much as it can feed into this process. The strengths of Cydcoed can be incorporated into future initiatives, whilst lessons can be learnt at an institutional and practical level from any weaknesses highlighted in the programme.

1.4 Objectives of evaluation

Forest Research (FR) was approached by FCW in June 2006 with a proposal to evaluate Cydcoed Phases 1 and II. Joint funding was secured from CFS and FCW (utilising Cydcoed funds) to carry out the evaluation and the final brief was accepted by FR in January 2007. The evaluation commenced at the end of February 2007 and continued over 20 months until November 2008.

The evaluation described here was an independent evaluation of Cydcoed Phase I and II analysing the extent to which they achieved the longer term desired outcomes of the programme, and the impact on the communities in which they operated. The longer term expected outcomes of the programme are:

- High capacity community groups able to influence decisions about their locality;
- Woods that provide long-term local social, economic, and environmental benefits and
- Individuals able to play a positive role in their local community

The social outcomes of Cydcoed revolve around building social and human capital; access to woodland having a positive impact upon health and well-being in communities; increased participation in governance; and woodlands for education and learning. This evaluation assesses the impact of Cydcoed projects on these outcomes and on the communities within which Cydcoed projects have taken place. In addition an economic analysis examining the public benefits of the Cydcoed programme is presented.

The evaluation will be used to inform policy and programme development for FCW, particularly relating to the *effective and durable communities* objective of their corporate plan (*ibid*). We discuss to what extent Cydcoed has contributed to achieving the objectives of the corporate plan, the *Woodlands for Wales 2000 – 2050* strategy and, where appropriate, the strategic fit of Cydcoed with other WAG objectives. The evaluation also discusses the processes of the Cydcoed programme and presents this in Section 2.1, *the Cydcoed Programme*.

1.5 Methods and indicators

The methods used for this evaluation were developed as a result of the existing structure of the Cydcoed programme, and the requirements of the external funding body, WEFO.

Being funded through the Objective One programme, Cydcoed of necessity made quarterly returns to WEFO. Whilst programme spend was updated, with WEFO's agreement progress against projected outputs was not updated quarterly. These figures were updated as and when individual projects completed their physical targets. This resulted in a situation where, although each individual project officer knew if a project was achieving their aims, there was no formal monitoring of output progress until the completion report was filed for each project. In addition there was no requirement within the programme to gather baseline data prior to project commencement, or to monitor progress of outcomes during the project. As a result, Stage 2 (below) of our approach to this research involved the creation of relevant indicators to measure outcomes.

The methods required for this evaluation were mixed and included both quantitative and qualitative data collection in a seven stage process.

Stage 1: Desk research established the baseline performance for projects against the aims, objectives and targets of both the Cydcoed programme and the individual projects. This involved analyses of both the individual grant applications and the final completion reports for each project. This stage of research assesses the Cydcoed programme in terms of its contribution both to the FCW strategy, *Woodlands for Wales 2000 – 2050* and in terms of any wider fit with WAG strategy. In addition it aims to describe the social outcomes of projects over and above the physical outputs detailed in the Cydcoed funding application.

To add context to our study, semi structured interviews were also used. These were undertaken with key employees within the Cydcoed programme and within the wider organisation of FCW. These inform the research of both the impact and understanding of Cydcoed within the organisation and further an understanding of the aspects of Cydcoed from which lessons can be learnt. In all, ten semi-structured interviews have been conducted with FCW staff.

Stage 2: In order to provide a realistic assessment of the outcomes of Cydcoed intervention on communities and individuals in Wales it has been necessary to develop a suite of indicators through which measurements of involvement and the benefits of such can be examined. No such indicator suite was developed either prior to or during the Programme itself, over and above those measuring the physical outputs of the programme.

The Cydcoed programme limited monitoring to the requirements of the external funding body, WEFO. This monitoring established quantitative data on the physical outputs of Cydcoed:

- Hectares of woodland brought into sustainable management
- Hectares of new community woodland on non agricultural land
- Hectares of woodland benefiting from community participation
- Gross woodland and timber related jobs safeguarded

Data was collated from the individual project completion reports in order to provide quantitative information on these outputs and is presented in the relevant places in Section 2, *Thematic Research*.

Further indicators were developed as part of this research that allow for both quantitative and qualitative assessments of the outcomes of Cydcoed through a two stage process:

1. A thorough desk research exercise was undertaken to establish the types of indicators developed by other similar projects, programmes and organisations. Examples examined include the National Statistics *Social Capital Question Bank*, the New Economics Foundation *Prove and Improve* website (www.proveandimprove.org), the indicators of sustainable forestry developed by the Forestry Commission (<http://www.forestry.gov.uk/forestry/inf-d-4xhdbf>), those developed for FCW to measure the *Woodlands for Wales* strategy and the indicator suite developed by *A valuation of the economic and social contribution of forestry for people in Scotland* research project (Edwards *et al* 2008).
2. Having selected applicable indicators from the desk research the second stage of development was undertaken. This involved the refinement of the selected indicators by the Cydcoed Evaluation Steering Group, colleagues within Forest Research, Corporate Forestry Services (CFS) and FCW. This discussion and refinement stage of the process also established the ways in which each indicator would be measured. The processes for measurement are detailed in Stages 3 and 4 below.

The indicator suite developed for the Cydcoed evaluation is illustrated below in Table 3.

Table 3: Cydcoed indicator suite

Theme	Reference	Indicator
Health and Wellbeing	HWB1	Public involvement in physical activity in woodland
	HWB2	Public perception of health and wellbeing in relation to woodland
Social and human capital	SHC1	Public involvement in woodland decision making
	SHC2	Public involvement in woodland events and other community activities
	SHC3	Changes in community trust and wellbeing
Education and learning	EL1	Improved learning opportunities provided
	EL3	Benefits of participating in woodland learning activity
Recreation	RA1	The use of Cydcoed project woodlands for recreational purposes
	RA2	Improved recreational opportunities provided
Employment and local economy	ELE1	Use of woodland to create employment
	ELE2	Woods that provide long term economic benefits

Stage 3: A questionnaire survey to all projects, included at Appendix 4, provides a detailed breakdown of each project aimed at adding depth to the study detailed in Stage 1. This survey was developed and undertaken between March and the end of June 2007. Each community group involved in a project was given prior warning that the survey was to take place. After the closing date for the return of the completed surveys those that had not responded were contacted either by email or in person by the relevant Cydcoed Officer for their area and a new cut off date given for

completion. This approach was very successful in gaining more responses, but for those that did not respond again a further letter and survey form were sent out with a later closing date. This was the final opportunity for groups to respond. At each stage of contact, whether by letter, email or in person the opportunity was given for the survey to be completed over the telephone with the Forest Research project leader based in Nant yr Arian. Only one group took up this opportunity. The overall response rate for the survey is 77.3%. The breakdown is shown below in Table 4.

Table 4: number of responses to questionnaire survey

Cyddoed Region	Phase 1 responses		Phase II responses	
	No. of responses	Percentage of total projects	No. of responses	Percentage of total projects
North	5	46%	23	77%
West	9	70%	23	85%
South	4	45%	34	95%
South East	3	43%	25	83%
TOTAL	21	52.5%	105	85.3%
Overall response rate = 77.3%				

Stage 4: In order to add further depth and context to the overall study, our research allowed for a detailed examination of a representative twenty-four Cyddoed projects. The twenty-four projects chosen for this research were selected using the following criteria:

- ranking in the Welsh Index of Multiple Deprivation (2000) as given in the individual project application documentation;
- type of bidding group;
- grant size;
- main aims of project as detailed in application documentation;
- geographic spread across the Objective One region of Wales;
- type of land-owner;
- types of user groups involved in the woodland and
- whether a completed questionnaire was returned by the group to the initial postal survey detailed above.

The sample projects are detailed in Table 5, below.

Table 5: Projects chosen for in-depth qualitative research

Phase	Region	Project	WIMD rank	Grant Size	Bidding Group	Land owner	Stated aim
1	North	Dingle, The	73	£165,968.75	Cwmni Tref Llangefni	Local Authority	Access, interpretation, lake improvement
1	West	Woodhouse Wood	467	£130,166.75	Woodhouse Wood Community Co-op	Private	Creation of community business
1	South	Ynyscynon Nursery School	29	£12,000.00	Ynyscynon Grounds Development Group	Local Authority	nature area for early years
1	South East	Silent Valley Woodlands	104	£30,275.00	Gwent Wildlife Trust	Group	Woodland access and forest school
1	North	Fairy Glen	419	£90,583.12	Old Colwyn Environmental Federation	Local Authority	Access and ecological improvements
1	South East	Bargoed Woodland project	16	£289,906.00	Bargoed Town Council	Local Authority	Creation of a woodland park
2	South	Khartoum Tip	34	£100,000.00	Dulais Valley Partnership	Local Authority	Woodland planting, path creation
2	South East	Beaufort Hill	197	£105,000.00	Beaufort Hills Pond and Woodlands Preservation Society	Local Authority	Improved and new pedestrian access, information provision
2	West	Mynediad Agored	285	£49,830.00	Friends of Pen yr Allt	Private	Access track, footpath creation, sculpture, roundhouse construction
2	North	Pwllcrochan Woods	213	£40,300.00	Colwyn in Bloom Group	Local Authority	Footpath and access improvement, educational provision, planting
2	South	North Gower	616	£200,000.00	Llanrhidian Community Hall Trust	Wildlife trust; Church Trust; Swansea City Council	Woodland creation, recreation and management
2	South	Learning Woodland	22	£40,000.00	Rockwool Woodland for Learning Steering Group	Private	Creation of woodland learning centre
2	South	Cwmaman	61	£175,000.00	St Josephs Church in Wales	Local Authority	Woodland creation and recreation
2	South East	Blaen Bran	163	£99,720.00	Coed Gwaun y ffeiriad Community Trust	group	Woodland access, interpretation & management & woodland purchase

Phase	Region	Project	WIMD rank	Grant Size	Bidding Group	Land owner	Stated aim
2	South East	Coedwig Sibrwd	4	£14,200.00	Friends of Gurnos Nursery	Group	Woodland access and forest school
2	South East	Warrens' Way	120	£22,524.00	Nelson Community Council	Local Authority	Woodland creation and access
2	South East	Tredegar Woodland Management Project	43	£250,000.00	Tredegar Development Trust	Local Authority	Urban woodland management through training project - Sirhowy Hill and Cefn Golau
2	North	Cam Nesaf	18	£109,993.75	Residents Association	Local Authority	Woodland improvement
2	North	Coed Abermaw	79	£180,716.25	Barmouth environmental Conservation Group	Local Authority	Woodland Access and Management
2	North	Mount Wood Denbigh	221	£80,000.00	Denbigh Conservation Volunteers	Local Authority	Purchase of woodland, access improvements, management improvements
2	North	Glan Morfa, Rhyl	1	£254,500.26	March Community Association	Local Authority	Access, woodland creation, signage and public art
2	West	Seaside	4	£180,000.00	Seaside Community Association	Local Authority	Urban planting schemes in highly deprived wards
2	West	Coed Tyllwyd	629	£249,906.00	Nanteos Woodland Group	Forestry Commission	Local timber and marketing, silviculture, access, improved community links
2	West	Holyland Wood	146	£149,295.00	Pembroke 21 Community Association	Private	urban planting

Research with the 24 sample projects comprised a three phase approach to data collection:

1. Postal survey:

These provided both qualitative and quantitative information on the impact and sustainability of Cydcoed interventions. Postal survey questionnaires, included at Appendix 5, were designed and tailored to each of the 24 individual projects. Each identified local person was contacted by telephone and agreed to distribute the questionnaire to a range of people in their locality who had been involved in the project. Communications with some of the identified persons was difficult as in some cases projects had ended and key persons moved on to other tasks or outside of the area.

2. Focus groups:

In order to supplement the information from the questionnaire four projects were selected for in-depth examination using focus groups of local people involved in the implementation of projects. The groups were set up by making contact with local organisers. Groups met in the evenings and were preceded by a familiarisation visit to the woodland by the research team. Discussion groups were attended by at least two members of the research team to allow one facilitator to run the discussion and another to record information. The four projects selected were:

- Fairy Glen
- Cwmaman
- Pwllcrochan
- Holyland wood

3. Semi structured interviews:

Telephone interviews were conducted with a small number of leaders of youth groups and vulnerable groups that had been involved in some way with the woodland projects in the sample. The interview guide is included at Appendix 6. The aim of the interviews was to explore the form and level of involvement in the woodland project and the benefits accruing to the group. Several telephone interviews were also held with teachers involved in Cydcoed projects at school sites to explore similar project outcomes. The interview guide for teachers is included at Appendix 7.

Stage 5: In addition to the methods employed above, projects were also selected to become case studies for the evaluation. Ten projects were selected on the basis of:

- Geographic spread
- Amount of Cydcoed grant
- Project objectives
- Type of group involved
- Position in ranking in WIMD

The ten projects are:

- Min y Don
- Ynyscynon Tyfiant Woodland
- North Gower Woodlands
- Glyncorwg Ponds
- Blaen Bran Community Woodlands
- Cuckoo Woods
- Silent Valley

- Glan Morfa
- Beaufort Hill Community Woodland
- Longwood Community Woodland

The purpose of the case studies was to provide illustrative examples of the experiences of being involved in a Cydcoed project. They also present achievements that cut across many of the thematic benefits and provide learning outcomes for future programmes.

Research in the case studies took varying forms dependent upon the preference of the group. Methods included:

- semi structured discussions both on-site and off
- telephone discussions
- Conducted site visits
- Community group meetings
- Informal discussions with users of the woodland

Stage 6: In order to contextualise the results of our research presented in this report, relevant information and comparative data was obtained from existing sources. These included statistical data from the WAG research reports available online (<http://www.statswales.wales.gov.uk/index.htm> and <http://new.wales.gov.uk>), journal articles, reports, findings from similar projects and research undertaken by the Social and Economic Research (SERG) team within Forest Research. This has enabled us to provide a brief background to current thinking surrounding the social benefits of woodland, and highlights *why* programmes such as Cydcoed are important to communities and individuals. Much of this information is included in the literature review at Appendix 8.

Stage 7: The evaluation brief allowed for an economic analysis of the Cydcoed programme to value the social return on investment in relation to the programme objectives. The brief called for this to be based, where possible, on recognised previous studies on the social or 'unmarketed' benefits of forestry, for instance the work for FC on valuing recreation activities by Mike Christie *et al* (2006) and by Benson and Willis (1992). It became apparent that this type of economic analysis would be problematic owing to the lack of baseline data existing for Cydcoed project areas, and the lack of ongoing monitoring within individual projects. In order to overcome this, postal surveys were structured to allow respondents to express perceived changes in health and wellbeing, educational and learning opportunities and achievements, social capital and community cohesion levels. These changes were given a percentage measurement and ascribed 'benefit values' using widely recognised methods. Valuation methods are presented within each sub heading of benefits.

Overview of Benefit Estimation procedures

For purposes of benefits estimation a range of assumptions have been made regarding community size and levels of activity; details of assumptions are provided under each of the sub-headings of estimates. In the analysis benefit estimates are presented at two scales: community and programme:

- '*Community*' refers to the average benefits per community where a Cydcoed project has been implemented
- '*Programme*' refers to total benefits arising from the 163 projects implemented in the Cydcoed programme throughout the Objective One area of Wales.

Not all benefits can be scaled-up from community to programme and some benefits only exist in communities where a specific type of activity takes place (e.g. a sculpture park). In these cases the limited application of the benefit has been taken into account when aggregating measures across all projects.

Section 2: Thematic research

2.1 The Cydcoed programme: development, positioning, structures, skills partnerships and processes

This section of the evaluation is based on both desk research and semi structured interviews with employees of FCW. Interviews took place with ten key members of staff, including Cydcoed officers, over a period of five months in 2007. Additional information has been drawn from subsequent personal communication and from the current strategy review process within FCW. Quotes are attributed to either 'FCW officer' or 'Cydcoed Officer' for clarity. Likewise we either refer to FCW staff or Cydcoed staff throughout this report to make clear about which part of FCW we are referring. We acknowledge that Cydcoed Officers are officers of FCW.

Key findings

- Community empowerment has been an integral part of the ethos of Cydcoed but has been limited by the finite nature of the programme and its associated funding.
- The strength of allowing communities to identify a woodland project that they were interested in, then providing the finance to achieve their aims up front has meant that the programme has offered a very empowering experience for the groups, reflecting the diverse range of communities and needs across Wales.

Development

Cydcoed was conceived as a method by which FCW could deliver community development in woodlands at approximately the same time the Wales European Funding Office (WEFO) was compiling the priorities and measures for Objective One funding in Wales.

'We, that is the Forestry Commission, worked very hard to get included in the Objective One programme. In 1999 two of us ... worked more or less full time on it for six months, to develop an overall programme...I was very interested in the emerging social and community aspects of forestry...it seemed to me one of the most interesting things we could do' (FCW Officer)

FCW visualised Cydcoed as a mechanism by which communities could be drawn into interacting with woodlands both on and off the Assembly estate: a mechanism that was both innovative for FCW but fitted comfortably with FCW strategy.

'I think they [FCW] saw it a mechanism to really get communities interacting with woodlands...because it was very much about trying to get the communities to take, not ownership of the woodland, but ownership within themselves to build their own sort of capacity and to use a woodland area as part of that building...So in that sense, I mean it fitted well with what we were trying to do with the strategy ... it was not about ownership of woodlands, it was about using the woodlands to help communities to develop themselves and become more involved and understand better the woodland resource that was close to them' (FCW Officer)

Cydcoed was set up to provide 100% grants for community groups to plant new woods or improve woods nearby. Grant money could be used for activities such as improving the condition of woods; opening up woods with new paths, signs and benches; artwork in and about woods; buying land; tree planting; and developing forest facilities that provide local benefits such as forest schools, woodland based businesses, or recreation facilities. The underpinning ethos of the Cydcoed programme was to help create and / or maintain high capacity community groups able to influence decisions about their locality; woods that provide long-term local social, economic, and environmental benefits; and individuals able to play a positive role in their local community (Cydcoed EAGGF Application 2004)

Within FCW it is acknowledged that this type of programme, concentrating on community development, was a new departure for the Commission. Until Cydcoed was conceived, the primary way in which communities were involved in FCW managed woodland was through the forest design plan (FDP) process. This process involves community consultation exercises on the future design and management plans of particular sections of woodland on a five year rolling cycle. In areas where Cydcoed projects have not taken place, the FDP process remains to be the primary mechanism for involving people in woodland decision making mechanisms.

Internal positioning of Cydcoed

Key findings

- The setting up of Cydcoed as separate from FCW resulted in confusion, both within and outside the organisation. This was compounded by a lack of internal communication
- Cydcoed officers were not housed within FCW offices but were home based. This resulted in feelings of isolation and was felt to contribute towards tensions in relationships between Cydcoed and other FCW staff.

Internal positioning

At the outset of the programme, Cydcoed was delivered at 'arms length' from FCW under the auspices of Tircoed³. This was a deliberate decision to distance the programme from the rest of FCW. Comments from respondents included:

'We wanted to give Cydcoed quite a degree of independence and autonomy in its decision making. That was part of it and being at sort of arms length to the FC probably would make that easier. There was also, and I think there still is to a degree, sometimes you will find that communities have a lack of trust or suspicion about the Forestry Commission and if it was badged too strongly as a Forestry Commission project then it may have been more difficult to have gained the trust and working relationships required within those communities to make the individual projects successful. That was the main reason for it' (FCW Officer)

Although at the time the decision to place Cydcoed Phase 1 outside of FCW and within Tircoed was made for good reason, the decision has since proved controversial both with the Cydcoed team themselves and within the wider

³ Tir Coed was established in 1999 by an alliance of countryside organisations to promote the benefits of woodlands throughout Wales, the organisation has evolved in tune with the Welsh Assembly Government's priorities of Health, Social Inclusion and Education. In 2006, Tir Coed became a Charity (Charity number 1115229) (<http://www.tircoed.org.uk/index.html>)

organisation. Respondents indicate that it made no difference to the project groups themselves. Despite Cydcoed being brought back under FCW management in 2002 the controversies remained. From within the Cydcoed team, the majority felt that there was a lack of understanding about Cydcoed within the wider organisation of FCW. Comments received included:

'I feel we should be at the stage now that we are selling Cydcoed or the Cydcoed idea to the outside world and that we should have FC Wales behind us saying isn't this a wonderful project and haven't these guys, these people, worked really well. I think that at the moment we are still kind of trying to sell it to our parent organisation' (Cydcoed Officer)

'I'm pretty sure they don't understand why we do what we do. It isn't the case of what we do, I think they don't understand why we do it. I don't think that FC staff always see us as part of the organisation. I mean this came home basically when I was told about a person in FC [talking] in terms of internal posts says, oh, I didn't think you were an employee.' (Cydcoed officer)

Yet it is accepted that this lack of recognition is not wholly the fault of other FCW staff

'...the issue is resistance from the main body of the Forestry Commission and resistance due, in my opinion, to being excluded from social forestry if you like and I think my main criticism at Cydcoed is that it has excluded itself, it has set itself apart instead of being part of the main body of the Forestry Commission and that has been a very big mistake.' (Cydcoed Officer)

'It ended up that all of us who were on the project were from outside FC Wales and I think there was a certain amount of resentment that there were these new kids on the block and I think in practical terms we ended up picking up a lot of projects the Forestry Commission Wales were trying to work with but on limited budgets and resources and we suddenly came swanning in there, whacked a whole load of money to them and kind of took over some of the projects and FC Wales staff suddenly found themselves being dropped from things they'd been working on in the past.' (Cydcoed officer)

There certainly was a lack of understanding about where Cydcoed sat and what our own involvement was. If we were sitting round the table with a community group and Cydcoed, where did we sit. It made us a little bit more awkward, what is the Districts role here? (FCW Officer)

'...hindsight may suggest that was not the best way of delivering it. There are two sides to a coin. I think we could have done it better but in a way I do see there was an object in giving quite a lot of independence to Cydcoed as a project because it was so different. What we could have been much better at was still somehow keeping the... a link between Cydcoed and FC, not just at branding level for the longer term, but also in an interrelationship between staff of Cydcoed and FC' (FCW Officer)

These tensions were instrumental in shaping the ways in which Cydcoed functioned within its parent organisation. This was compounded by a lack of protocol and guidance for FCW staff – who in some instances had not understood that Cydcoed was an internal FCW programme. They found themselves suddenly having to negotiate with, and work with, community groups. In some cases this new way of working proved problematic and resulted in projects receiving different advice and being subjected to different working practices both within the same FCW Districts and between Districts.

For projects, particularly those on FCW land, dealing with various departments of FCW the situation was confusing. Lack of communication between Cydcoed and other departments (and *vice versa*) resulted in groups approaching FCW departments other than through their Cydcoed officer being passed from pillar to post. One project reports being told by staff in Wales Harvesting and Marketing (WHAM) that '*Cydcoed is not anything to do with FC, you need to talk to someone else*'.

Our research indicates that this lack of 'embeddedness' was problematic for both Cydcoed officers and for others within FCW. Cydcoed officers often felt marginalised and unimportant, whilst evidence suggests others within FCW felt almost resentful about the programme, as it controlled a large amount of money and was autonomous in its remit. Both Cydcoed and FCW officers recognise that had the programme, and its staff, been seen as integral to FCW – sitting in District offices, attending departmental meetings and so on, then much of this tension would not have accrued.

We discuss the staffing structures and skills in more depth below, whilst Figure 1 below illustrates the positioning of Cydcoed in relation to the rest of FCW, to projects and to other organisations:

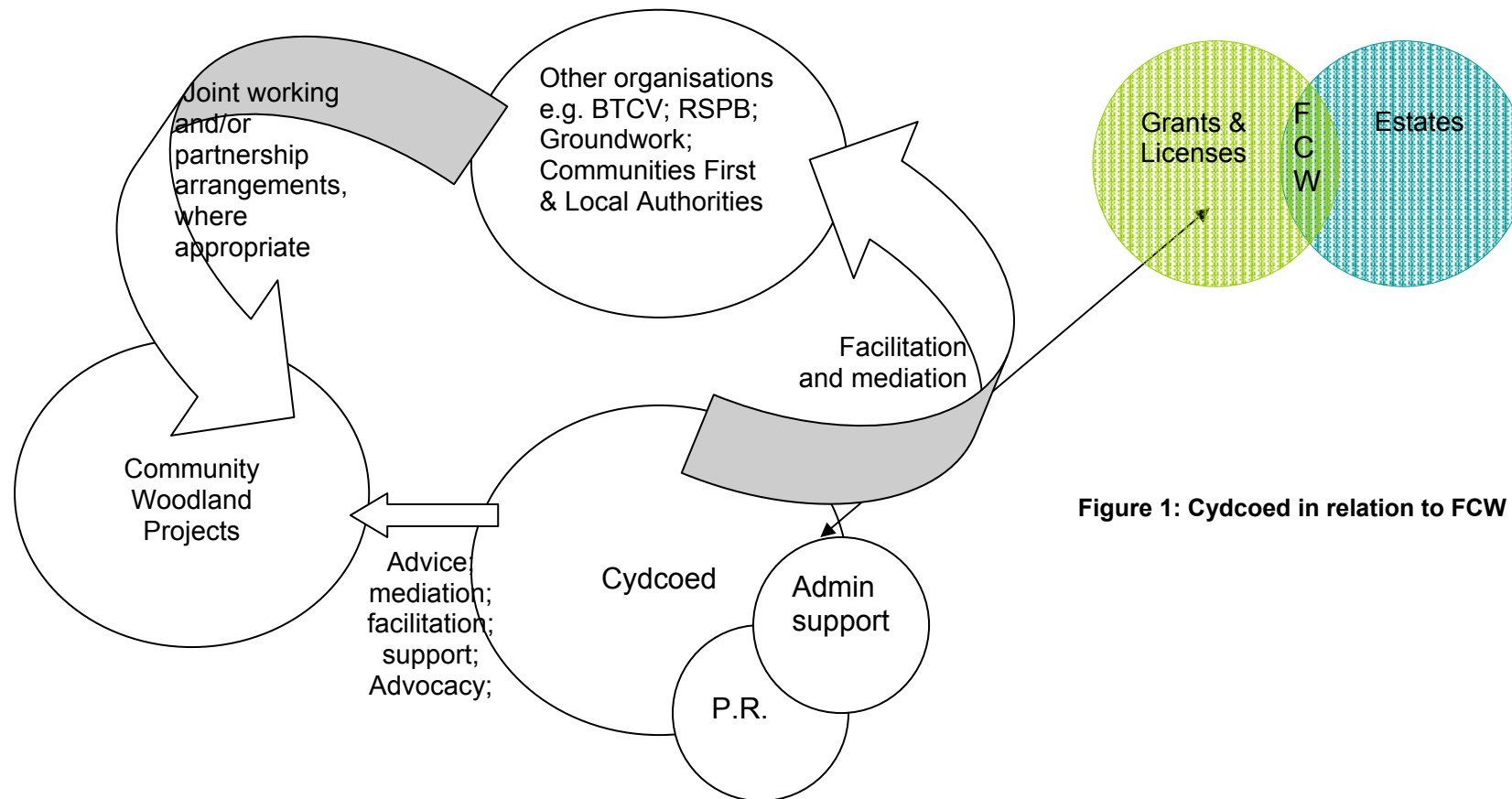


Figure 1: Cydcoed in relation to FCW and others

Cydcoed team structure

This section of research is drawn from both an analysis of Cydcoed programme documents, the survey of all projects and from discussions and semi-structured interviews with Cydcoed and other FCW staff.

Key findings

- A steering group would have been an asset to the programme. Anecdotal evidence suggests that occasionally Cydcoed officers were too involved with projects to be completely impartial in decision making.
- Whilst not being divisive to team dynamics, the lack of permanent posts for some members of staff left them feeling under valued.
- The number of projects managed by each officer was large and spread over a wide geographic area. This was because the programme allowed projects to come forward for funding at any given time. A more structured, phased approach to development and funding of projects could have lessened the pressure for officers.

Team structure

The programme was delivered by a FCW unit composed of 4.5 Project Officers, a Programme Manager and an Administrator. At the outset the management was undertaken by Tircoed staff with two full time permanent officers appointed to cover the area. Subsequently, a further two officers were appointed on a fixed term appointment. When Tircoed relinquished the management of Cydcoed, owing to issues outside the remit of this evaluation, a manager was appointed from within FCW. When one officer opted for part time working a further post was created. The situation was then that some team members were on permanent contracts whilst others were on fixed term appointments. Our research indicates that whilst this has not been problematic for the overall cohesiveness of the Cydcoed team, it has meant that the team members on FTA's have felt an element of insecurity and what one of them termed '*unworthiness*'. An independent PR and communications officer was appointed to work with Cydcoed from the beginning of the project.



The regional split was as follows: North, South, South East and West, with 1.5 officers covering the West of Wales and one in each of the other regions. Figure 2 shows the geographic spread of Cydcoed projects across Wales:

Figure 2: Geographic spread of Cydcoed projects

At the time of writing in September 2008, there has been considerable change within the team. Two officers have moved posts within FCW and one has taken a career break. Two part time consultants have been employed to cover the South and South East posts, whilst the West is now covered by one officer and the North remains unchanged. The Managers role is now covered by the officer who held the South East post.

Table 6 below illustrates the structures of Cydcoed, also drawing on elements of the internal processes of the programme, and makes recommendations for the position of future FCW programmes. Both existing structures and subsequent recommendations have been drawn from discussions and semi structured interviews with Cydcoed and other FCW staff. Where appropriate we have included issues that have arisen owing to discussions surrounding the future policy direction of community involvement in woodland in Wales.

Table 6: Cydcoed structures and future recommendation

Structural aspect	Cydcoed	Recommended future scenario	Benefits
Situation in relation to FCW	At arms length – semi autonomous	Embedded	Embedding projects and programmes within the parent organisation enhances the sense of belonging and loyalty developed by staff. It helps establish associations between the parent organisation and those with whom the project may be working. It aids communication and understanding.
Officer base	Home based	Within FCW and partner offices	Staff based within offices of the parent organisation are more likely to quickly develop networks and knowledge. Staff based alone can often feel isolated from the organisation and colleagues.
Organisational support	Dedicated administrator and media and communications consultant	Administrative and communication & media support	Effective project administration and communications and media support require specific skill sets and expertise. They are aspects of project work that are time consuming but essential to success. Support in these areas should be provided by the parent organisation.
Officer 'work load'	Approx 40 projects per officer 2001-2008	Average of 20 projects per officer – dependent on geographic spread and nature of projects	A reasonable number of projects or schemes to develop and maintain allows staff to give ample time and support to those projects that may need it. It also allows for the development of sustainable networks of communication and partnership with other organisations in the project area.
Employment status	2 x permanent full time; 2 x fixed term appointments	Whilst we recognise that it is not always possible to create permanent positions we would suggest that this be the preferred option	Linked to staff morale, sense of belonging and loyalty to the organisation. Also provides continuity of a single point of contact and ability to build up a strong network of relationships both internal and external to the parent organisation
Project management	Cydcoed manager plus officers	Steering group and project officers	It is always beneficial for projects to be overseen by a Steering Group with representation from other stakeholders. It allows for transparency and an assurance that projects will continue to meet aims and objectives

Cydcoed team skills

Key findings

- The presence of Cydcoed officers on a local geographic basis and their ability to act as facilitators and advisors has proved important to the community groups. Many cite this as one of the key success factors of the projects
- The diverse skills demanded by the officer posts were sometimes felt to be onerous. It is important that staff do not feel overloaded by tasks that could be carried out by others within the organisation.

Team skills

Respondents indicate that the staff skills required by Cydcoed officers were diverse and wide-ranging. Officers were expected to be flexible, adaptable and knowledgeable on a wide range of issues. Discussions indicate that in some instances this was felt to be onerous. Officers indicate that they did not, in all instances, feel confident in approaching FCW colleagues for guidance or advice. However, our research also indicates that this was very much dependent on the geographic location of the Cydcoed officer – in some Districts guidance and advice was available and FCW officers were felt to be approachable and helpful.

This lack of consistency across Districts in attitudes, not only to Cydcoed, but to community involvement in woodland in general, is something that is persistent throughout our discussions both with Cydcoed officers and with District and other FCW staff. It is beyond the remit of this evaluation to comment in detail on this but we would suggest that our research indicates that there is a lack of guidance and protocol that would enable officers to understand the remit of such programmes and projects, and to manage their relationships with them accordingly.

Semi structured discussions with Cydcoed officers and other officers of FCW have resulted in the tabulation (Table 7 below) of staff competencies that were recognised as being required by a Cydcoed Officer. Agreement was also reached as to the essential staff skills required for any future community based programme and recognition was given that Cydcoed officers had been expected to cover aspects of the programme that would have been best undertaken elsewhere within the organisation.

Table 7: Cydcoed staff skills and recommendations

Staff competencies required by Cydcoed Officers	Recommendation for future programmes
Basic silvicultural knowledge	We suggest staff should be able to liaise with experts within FCW for this knowledge
Community development experience	We consider this to be key to the success of future similar programmes
Project management	Staff should have project management skills but should also be able to seek expert advice from within FCW
Staff management	Dependent on team structure
Financial management	We suggest that financial management should be undertaken by FCW finance team
Business management: knowledge and expertise ranging from setting up properly constituted groups to ongoing management advice	We suggest that some knowledge is desirable for all staff but that either one member of project staff is particularly skilled in this aspect, or advice is sought from other FCW staff with this expertise.
Understanding of external funding	We consider that basic understanding is required, officers should be able to seek expert advice from other FCW staff
Manage legal agreements	We suggest that all legal protocols, agreements, leases etc be managed by FCW legal experts

Team player	We consider this to be essential both in terms of within the delivery team and the wider FCW context
Ability to work alone	We suggest that this is essential
Understand FCW procedures and protocol	We would consider this to be essential in order to integrate delivery fully with other FCW initiatives and departments
Ability to communicate effectively across private, public and voluntary sector	This has been a key part of the role of Cydcoed officers and we suggest it is key to the success of the programme
Administration skills	We suggest that the majority of project administration should not be undertaken by project staff, dedicated support should be provided
Media skills	We consider that project officers should not undertake web development /content provision or communication with the press. All communication of this type should be routed through FCW Communications team or dedicated support staff
Ability to be flexible and creative	The ability to be flexible and adjust to local situations has been key to the success of Cydcoed
Awareness of local and national politics and policies	We suggest that it is important that projects fit with both community aspirations and the local and national political agenda
Facilitation and mediation skills. Conflict resolution.	We would recognise that there will always be a degree of conflict when working with communities and/or other organisations. The ability to cope with and diffuse these situations is key
Plan and prioritise work	We consider this essential
Understanding diversity issues	We would suggest that this is essential

Programme flexibility has meant that there have been high demands on the project staff who, although they have obviously developed a repertoire of organisational forms and developmental tactics, have had to respond to a diverse set of needs. It is of considerable importance that we received no complaints about Cydcoed staff, or the projects themselves when they were perceived to be properly configured. This is a testament to the achievement of the project team, whose work was generally behind the scenes but valued and appreciated by the groups. In the strategic management of the programme the quality of these appointments would appear to have been central to its future success.

Cydcoed officers were employed for their knowledge and expertise in the field of community development and the deployment of this expertise has been crucial to the way in which the programme has worked, engaging with individuals and organisations at a local, regional and national level, and contributing towards partnership formation and integrated working practices.

Assessing the need for a Cydcoed project

Key findings

- In terms of community development the focus on trees and woodlands has been important as it has provided a focus on a project that is achievable, local and in many ways immediate. These quick gains for the community can be tailored to fit in with their other goals and existing successful institutions. If the purpose of the programme was to develop the conservation values or quality of woodland then it would need to be considerably more focussed but in turn would not foster the community development the more flexible approach engenders.

- The advantage of Cydcoed woodlands is their proximity to a local community of users, allowing people to access them through walking.
- Programme flexibility has meant that organised groups that do not have a deep root in the community have also been able to access the funding, so the community benefits have, to date, been limited in these cases.
- The funding regime required Cydcoed to adhere to projected quarterly spend targets. This resulted in a few cases of funding being given to groups that with hindsight were not ready to receive it and to projects that with hindsight should not have been funded without alteration.

Project assessment

Although aimed at the most deprived communities in Wales as ranked by the WIMD, during the latter stages of Phase 1 less emphasis was placed on this with more placed on the accessibility of woodland and the potential social outcomes of individual projects. It had been recognised that the use of the WIMD alone as a tool for judging deprivation overlooked those groups of deprived people residing within areas of relative wealth. Project applicants were asked to provide their average WIMD ranking. Although some officers indicate checks were made as to levels of deprivation of specific aspects relevant to the projects (e.g. educational or health deprivation), all acknowledge that most decisions were based on personal local knowledge of the area concerned, and in most cases an overall average ranking was considered.

This change of emphasis allowed for the development of projects where, for example, access to greenspace, or community cohesion may have been an important outcome of the project yet the community was not defined as deprived by its ranking in the WIMD. Despite this less rigid application of the criteria our analysis of project documentation shows the majority of projects remain within the top 40% of deprivation:

- 20 Phase 1 projects and 80 Phase II projects were within the most deprived 40% of wards: 50% and 65% respectively, of all projects.
- £2,185,686 (56%) was spent on projects in Phase 1 in the most deprived 40% of wards
- £8,338,252 (69%) was spent on projects in Phase II in the most deprived 40% of wards
- £347,840 (2.9%) was spent on 6 Phase II projects in the 20% most affluent wards in the Objective 1 area
- £421,180 ((10.5%) was spent on 5 Phase 1 projects in the 20% most affluent wards in the Objective 1 area.

Figures 3 and 4 below illustrate the projects ranked by the WIMD deciles.

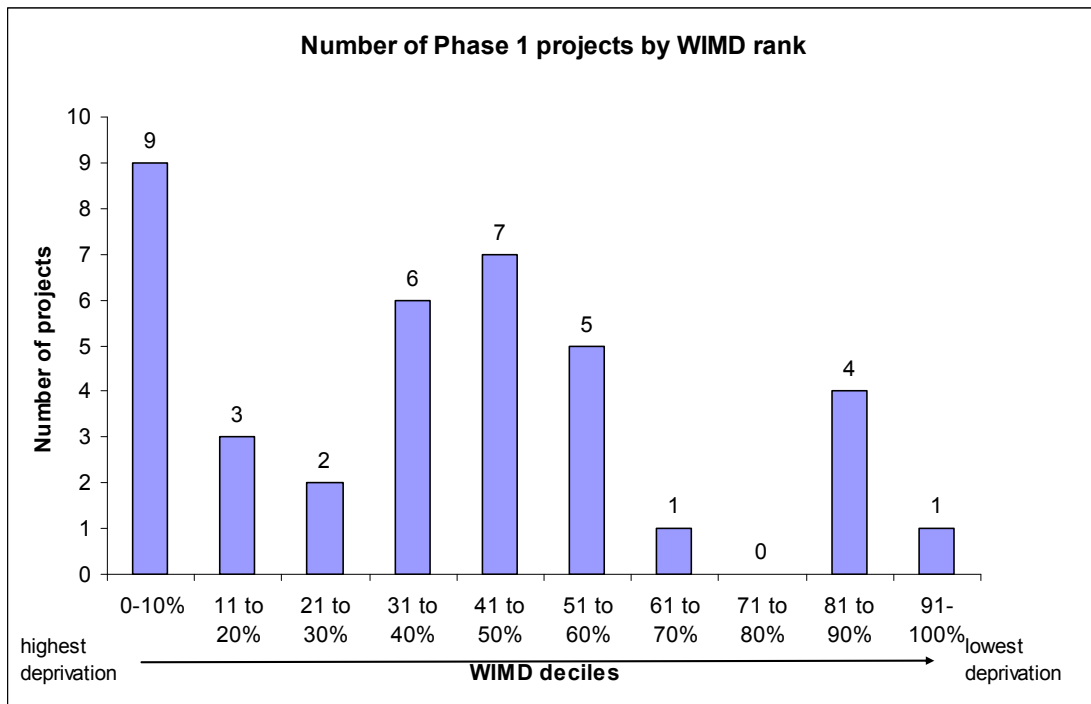


Figure 3: Phase 1 projects by WIMD ranking

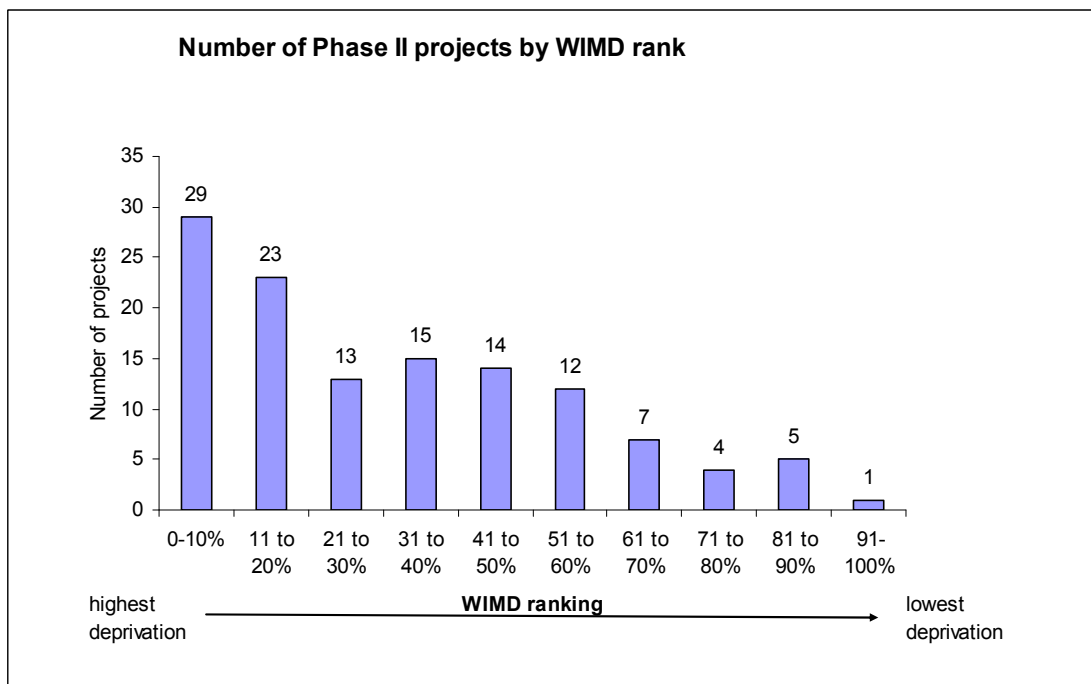


Figure 4: Phase II projects by WIMD ranking

GIS mapping illustrates the geographic location of projects in relation to the WIMD rankings. Note the increased levels of deprivation, and subsequent number of projects, in the South and South-East regions of Wales. Figures 5 to 12, below, illustrate this for both Phase I and Phase II:

Cydcoed processes

Key findings

- Although the aims for the projects have been important, in most cases the process has been at least as significant in building the confidence and capacity of the group managing the project.
- The great majority of projects thought it important that the grant was given directly to the groups to administer
- A quarter of projects thought the whole grant giving process could be made easier, or less stringent
- The external funding regime meant that Cydcoed had to balance an imperative to spend with the need to allow projects to develop and grow organically.

Processes

Cydcoed Officers worked with community groups to help them formulate their aspirations for local woodland. These were compiled in the form of a bid. The Officer decided which projects should be brought forward based on, in order of importance, progress against targets both regional and national; contribution to key impacts (woods that provide local benefits and powerful community groups); risk of failure; and other considerations such as public profile, national strategies, and local support (*Driver, D. 2006*). If approved the bid was used to construct an agreement between FCW and the group that described the project being funded and set out terms and conditions of contract. The group then delivered the project with support from the Cydcoed Officer. The group had to supply proof of eligible expenditure on activity as described in the bid. Grant was drawn down by a series of grant claims as the group made physical and financial progress through the project.

The application process for community groups was designed specifically so as not to be seen as overly bureaucratic, in particular for groups who may not have done anything similar in the past. Project officers were at liberty, within reason, to spend a considerable amount of time with groups in order that they were able to complete the application to the best of their ability. Perhaps because of the time spent with groups and the subsequent knowledge of projects and group aspirations acquired by Cydcoed Officers the majority of projects put forward for funding were successful. Some were asked to revise, explain or justify aspects of their application prior to confirmation of funding. It is recognised by some Cydcoed officers that this closeness to projects and groups at this stage of the bidding process resulted in a lack of impartiality in the assessment of projects that could have been overcome by use of an external panel or Steering Group.

The survey to all groups elicited the following responses concerning the Cydcoed processes in general:

- 97% of respondents thought it important or very important that grant monies were given directly to community groups to administer
- 97% of respondents thought it helpful or very helpful to have the support of a local project officer from Cydcoed
- 97% of respondents were satisfied or very satisfied with the quality of advice given by Cydcoed staff.
- 94% of respondents were satisfied or very satisfied with the Cydcoed grant process in its entirety.

The survey allowed space for additional comments concerning the overall processes of Cydcoed as a delivery mechanism. Comments received include:

'from our point of view the process is first class: a model for other schemes to adopt' (Penlleger woods)

'overall we have found the unique mixing of 100% funding and support worker fantastic, this has enabled us to push through obstacles both financial and organisational...' (Ffynone Woodland Environmental project)

Whilst the majority of projects gave positive feedback a significant minority highlighted perceived issues with the programme:

- 25% thought the grant process could be made easier
- 8% thought more help from Cydcoed officers was needed and
- 21% wanted less stringent guidelines to adhere to

Additional comments included:

'The quantity of paperwork to be completed prior to, during and following the grant is far too much: as a full time deputy head I found it very onerous...' (Coed Cadno)

'Although the grant was difficult to fill out, Bob [Cydcoed Officer North] was helpful and using his guidance I was able to cope' (Dinas Bran)

The relatively high percentage of groups indicating that the Cydcoed process needed to be 'easier' or 'less stringent' indicates that despite the help and advice offered by Cydcoed officers, community groups and individuals continue to find it hard to overcome what are seen to be bureaucratic obstacles. It is widely recognised that confidence building within groups is an integral element of the process of enhancing community cohesion and social capital. It is also widely recognised that these are not something that can be instantly created, but that take time – often years – to accumulate (Schuller, 2000; Skidmore et al, 2006 and Kitchen, 2004).

The dilemma for Cydcoed has been balancing the imperative to spend within a predetermined timescale against the need to allow groups to develop and learn at a pace pertinent to the individuals involved. Slee (2002) suggests that projects are more likely to succeed where empowerment of the target groups is a key component of the approach as this increases the self esteem of the group and the sustainability of the project: community empowerment has been an integral element of the ethos of Cydcoed but has been limited by both the finite nature of the programme and associated funding and by, in some cases, the ability of the Cydcoed officer to offer as much time and assistance as required – an ability limited by the number of projects overseen by each officer and the large scale geographic area in which each operated.

Managing risk

Key findings

- Despite some projects not having delivered fully in terms of outputs, it is difficult to judge failure in terms of the delivery of social benefit at this point in time. Community and social benefit takes a significant amount of time to accrue from the delivery of projects such as Cydcoed and it may be beneficial to undertake further evaluation work with these projects in the future.
- In order to demonstrate value for money there needs to be a robust monitoring and evaluation programme in place.

Managing risk

Potential projects went through a risk assessment process, designed within the Cydcoed team, prior to being approved. Any potential risks were flagged and had to be addressed by the bidding group before the project could be taken any further. Projects were monitored for risk throughout their funding cycle, and any that fell behind schedule, under or over spent or experienced any other problems were flagged as a potential risk on a sliding scale of severity. Steps were taken, usually through on site meetings with the group, advice and facilitation by the Officers, to ameliorate these risks before they could escalate.

Despite these fail safes it is currently acknowledged that several projects could have been more stringently managed both prior to granting funding and in managing processes and risk. Having said this, it is apparent that these projects, despite being troublesome in terms of outputs, have produced, or have the potential to produce, beneficial outcomes (e.g. providing accessible woodland for learning, employment and recreation).

This goes some way to highlight the difficulties inherent, particularly in programmes designed to deliver social benefit, in judging failure. Community and social benefit takes a significant amount of time to accrue from the delivery of projects such as Cydcoed and it may be beneficial to undertake further evaluation work with these projects in the future, in order to establish benefits delivered over a longer time period before regarding them as having failed to deliver.

The main risk for FCW with Cydcoed has been one inherent in any public sector scheme aiming to deliver social benefit with public money: that of not delivering value. Gathering baseline data and ongoing monitoring would have helped in assessing this. Whilst our research indicates that a minority within FCW are sceptical that Cydcoed has delivered value for money, many within the projects themselves are of a different opinion. The remit of Cydcoed was to create communities able to influence decisions about their locality and use woodlands to create long term social, economic and environmental benefits. Many projects have been able to use to the Cydcoed grant money as a lever to draw down further investment. Our survey asked groups to detail any further benefits of Cydcoed to the locality. Comments included:

Cydcoed woodland ownership has enabled the community to lever in £460K of further funding. Thus securing the sustainability of the MCA HQ & kick start 2 community enterprises. The project has also had an impact on the health & well being of a large proportion of members. It has also raised community awareness to the environment. Also opportunities for vocational training in various woodland related skills. (Mount Community Woodland)

The community has formed a "village partnership" i.e community & county borough councillors, local businesses, local groups & residents to access other grant monies for further community projects. Closer links have been forged with the county borough council as a direct result of this project. (Coed Gwernau)

Discussions with Cydcoed Officers and groups, whilst recognising the risks of providing 100% grant aid, indicate that this enabled groups to prove to other potential funding bodies that they could manage large sums of money. Moreover, groups suggest that it gave them belief in themselves, and indicated that someone else believed in them. Comments received through our survey included:

The concept of making funding directly available to community groups is excellent. It has the potential to empower & bypasses the inertia of official bodies (Coedlannau Dolgellau)

For FCW the ways in which these risks were managed involved the legal agreements between themselves and the community groups, namely the contract signed on approval of the grant. Whilst the clauses within this allowed for the claw-back of grant monies should projects be seen to be failing, our research with Cydcoed and FCW indicate that there is doubt about the legal strength of these contracts. Whilst it is beyond the remit of this evaluation to comment further on this, the strength and validity of legal contracts is an important issue that could be considered further by FCW in future programmes and projects.

Managing change

Key findings

- Several fundamental changes were made by the external funding body to the nature of the programme after it had begun. These proved problematic both for FCW and for community groups, yet that they could be absorbed by Cydcoed demonstrates the benefit of remaining dynamic and flexible at the local level.
- A change in the focus of the application process allowed groups to develop robust bids that incorporated detailed information on proposed social benefits. The wider implications of using trees and woodlands for community use were highlighted in this way, and helped groups to focus.

Managing change

During the latter stages of Phase 1, WEFO guidelines for Priority 5 Measure 3 changed resulting in Cydcoed processes having to change with them. Numbers of jobs created became a measurable output for Cydcoed Phase 1 and it was fortunate that Cydcoed managers had already asked groups to monitor the creation of jobs as a result of their projects. A detailed methodology, included at Appendix 2, was devised for groups to adhere to. Jobs safeguarded by projects in Phase 1 were also monitored using a methodology provided by Cydcoed managers. In negotiations with WEFO over the outputs of Phase II it was agreed that projects would not have to monitor jobs safeguarded as it was considered by Cydcoed managers to be problematic for them, despite Phase I projects having done so. Instead WEFO agreed that every £55,000 of grant spent would be equivalent to one FTE post safeguarded (email to Cydcoed manager dated March 2005).

With this in mind, Phase II projects were not asked to formally monitor the number of jobs safeguarded, although were asked to include a projected number in their

application. With a programme spend of just under £12 million in Phase II, the number of jobs safeguarded should equate to some 218 FTE posts.

During Phase 1 WEFO also changed the agreed definitions of 'non-agricultural land'. This impacted on agreed Cydcoed projects which had included in their bid the creation of new community woodlands on non agricultural land. Several projects now found that the proposed land no longer qualified as 'non agricultural' under the new definition. It was agreed by WEFO that the subsequent shortfall between targets and outputs of new community woodlands on non agricultural land, and the total hectares of such land in Phase 1, would be compensated for in Phase II. That is to say, the shortfall in output in Phase 1 would be added to the target for Phase II.

These have been, in effect, internal managerial issues that have required the programme to remain dynamic at the local delivery level. This dynamism should be considered one of the strengths of the programme.

Perhaps the main change in process, as far as community groups have been concerned, between Phase 1 and Phase II has been the amount of time allowed for community groups to develop their projects, in conjunction with the project officers, so ensuring a robustness that was sometimes lacking in Phase I. Following this, the application form itself expanded slightly to encompass a more detailed commentary on the social and environmental aims of the project and how these were to be achieved. Not only has this allowed groups time to formulate their ideas into a coherent package, it has also encouraged them to think about the wider implications of utilising woodland in and around communities. Beneficial outcomes for communities were highlighted by many groups responding to our postal survey. Comments included:

Attracting [additional] funding from 'lets walk Cymru'. Raising awareness in the community of environmental issues, woodland management & sculpture. Attracting volunteers from socially excluded groups. Improving the urban landscape. Establishing the foundation on which to expand upon. (Cwmaman Community woodland)

Experience in participation in decision making, valuable ecological resource for all ages, facilities such as sculpture trail, informational signage, sensory area, viewpoint + interpretation. Ongoing educational usage via part time warden. Sense of ownership of a neglected area. Recreation for young people who only have the streets to play in. 3000 trees in historically barren area. Increased wellbeing in having helped in enhancing local environment. (CWM community woodland)

Managing land ownership

Key findings

- Often Local Authority departments were slow to give written agreement for projects on their land resulting in delays. Groups cite a lack of understanding of how to work with community groups as chiefly to blame.
- The Management Agreements between project groups working on FCW land and FCW were often problematic. Groups cite a high turnover of FCW personnel at the local level coupled with a lack of understanding of the remit of Cydcoed as the main issue.

Land ownership

An integral element of the sustainability of Cydcoed projects has been the requirement for project groups to obtain a Management Agreement for the land upon which the project is taking place. The majority of projects have been undertaken on Local Authority owned land (81 projects) with 46 on either private land or land owned by the group and with 19 on FCW managed land. The aim of the agreement is to provide a 'fall back position' through which the continuation and maintenance of the physical aspects of the project are ensured should the community group involved cease to exist. Should this be the case it is the land owner's responsibility to ensure sustainability of the project.

For groups using Local Authority land the main problems have surrounded the time taken by the various LA departments involved to produce and sign the Agreements. This resulted in some projects not being able to proceed with physical works until the Agreements had been signed, whilst others having had verbal agreement proceeded with the works without Agreements in place: a high risk strategy for the group should the Agreement not materialise.

Although only 19 projects took place on FCW managed land, it is these Management Agreements that have been the most problematic for the Cydcoed groups – and in reality for FCW itself. The nature of current legislation in Wales does not permit FCW to allow others to manage timber on estate land. Therefore, any timber management undertaken by Cydcoed groups on FCW managed land has had to be negotiated through FCW and by carried out by FCW contractors (who can sub contract to local businesses if they wish). Groups affected have cited a lack of internal communication between FCW departments as particularly problematic, exacerbated by what was perceived to be a high turnover of FCW staff at the local level.

There are two different but related issues for community groups working on FCW managed land that are illustrated graphically by two particular projects: Golygfa Gwydir and Longwood. Discussions with both groups and with Cydcoed and other FCW staff have been used to collate the examples shown in Boxes 1 and 2 below:

Box 1: Golygfa Gwydir

The group themselves have no desire to control, lease or own the FCW managed land upon which their Cydcoed project is taking place. In order to remain sustainable and to broaden their activity, the group are currently applying for other funding in particular through the National Lottery and Environment Wales. However, these bodies, both public sector, have decreed that the FCW Management Agreement is not robust enough in legal terms in order to be acceptable to their more rigorous funding regimes. They, and other bodies, specify the need for an agreement spanning at least 15 years and giving the same levels of control as would a lease. Current FCW practice precludes granting Golygfa Gwydir a more robust agreement over a longer term, or a lease agreement, and there is currently a stalemate. Two factors are important in this case: other public sector bodies do not recognise FCW management agreements as robust or secure enough to make public investment viable and the inability of FCW to currently grant a more robust agreement or a lease of land to the group, thereby closing access to other public funding streams, will effectively negate the work of its own community development programme as the project will have to cease should no solution be found.

Box 2: Longwood Community woodland

From the inception of the project, the group – now a social enterprise - involved in Longwood have wanted to lease or own the FCW managed woodland. The difficulties they have had in developing working relationships with FCW have only strengthened their opinion that they are in a better position to deliver public benefits from this bit of woodland than are FCW themselves. Given their increasing involvement in delivering educational and recreational benefits, amongst others, this is probably the case. Without control of the woodland, the project group feel themselves unable to develop as they would wish and therefore unable to deliver to their full potential. The existing management agreement is seen as a constraint rather than allowing the project to become sustainable in the long term. In particular the issues around the sale of timber mean that only 50% rather than 100% of profit from the woodland is being reinvested in the community and in delivering social outcomes.⁴ However, in recent months the relationship between the group and FCW has improved considerably and it is hoped that all remaining issues will be resolved in the near future.

Our research indicates that the Management Agreements were considered to be a way for formalising the relationship between the community group and the land-owner, in effect the creation of a partnership arrangement. However, anecdotal evidence suggests that should a community group not be able to continue with a Cydcoed project, there would be limited capacity within FCW to enforce the conditions of the Management Agreement with the land-owner concerned. Whilst not within the remit of this evaluation to investigate this further, strong legal agreements are important in managing risk and agreements between parties and should be developed by legal experts.

Cydcoed and partnership working

Key findings

- Partnerships at all levels have proved key to the majority of groups where these have been negotiated and managed by the group. There have been issues concerning a perceived loss of control of the project where partner bodies have not delivered, or have assumed control.
- We can be confident that the projects are working with local people addressing a local question and with the benefits of that intervention being focussed on a local area. Most of the work done has been social: it has been about a local groups working together and with others to achieve their ends.
- The flexibility of the programme has at times resulted in tensions with other bodies, particularly local authorities. Where Cydcoed projects have been light on their feet, able to deliver quickly and close to communities other bodies with wider and more general commitments have appeared slow. This has led to tensions, but also a raising of expectations by those in the project groups, which in turn becomes a challenge for public bodies in Wales. Such tensions and conflicts are

⁴ The initial assessment undertaken by FCW to determine value and identify uneconomic blocks of woodland for thinning was undertaken at a district level and the grant award from Cydcoed was signed off on this basis by FCW. Utilising part of the grant money, as agreed in the bid, the group undertook an independent assessment of the woodland deemed uneconomic and this determined that the timber was in fact economically viable. The group made these results freely available and FCW took the decision that the works must be carried out by a FCW approved contractor, rather than a local contractor, and that any surplus received from sales of the timber must be split 50/50 with FCW.

an important part of a community being able to change its circumstances but it is not necessarily comfortable for those involved.

Cydcoed partnerships

It was not within the remit of Cydcoed to establish partnerships *per se*, but to facilitate the creation of partnership models of working between community groups and other organisations. Where there was a perceived need for mediation between groups and others, Cydcoed Officers could, and did, act as honest brokers.

In terms of partnership arrangements Cydcoed facilitated the development of partnership working between grant recipients in community groups and other organisations, whilst remaining outside the partnership arrangement itself. Given that the aim of Cydcoed was to facilitate community development through using trees and woodlands, then the fostering of partnerships between community groups and other organisations was one way in which social capital was enhanced. Many of the partnerships created have remained sustainable over time and some have led to greater community involvement in local governance issues. For example, the partnerships formed by the North Gower Community Woodlands project has directly led to community representation on the City and County of Swansea Rural Development Plan Management Board – a significant step in terms of participatory governance.

Some partnerships formed by Cydcoed groups were more problematic and led to tensions between groups and partner organisations. In the main these were a result of a sense of loss of control of the project where partner bodies had not delivered, or had assumed control. Some partners associated with Cydcoed projects, although used to engaging with communities, were unused to working alongside communities who not only had the remit, but the money to develop and carry out projects. This new relationship became problematic to negotiate. Where this became an issue anecdotal evidence from groups and Cydcoed officers indicates that it was Local Authorities that were the most problematic.

Figure 1, page 34, illustrates the relationship between Cydcoed, other organisations and project groups. Figure 13, below, illustrates the indirect development of partnerships, both informal and formal and both within and beyond communities. This demonstrates the building and enhancement of all types of Woolcock's (2001) social capital. Our research with project groups revealed the nature and complexity of the partnerships formed by individual projects on a local, regional and national level. It has been an important aspect of Cydcoed that project development and execution has worked in an integrated way with appropriate existing bodies and organisations. Project completion reports detail the scope of partnerships formed, but it remains difficult to assess from these the nature of those partnerships.

Research with Fairy Glen, in North Wales, indicates the network of relationships developed and maintained over the course of the project. There is every indication that these will remain sustainable in the long term. Taking the quantitative completion report evidence into account it would appear that Fairy Glen has an average number of partners involved in their Cydcoed project, and whilst it would be difficult to put an absolute figure on partnership numbers, envisioning the diagram below replicated for all 163 projects reveals the extent to which the Cydcoed project network could extend.

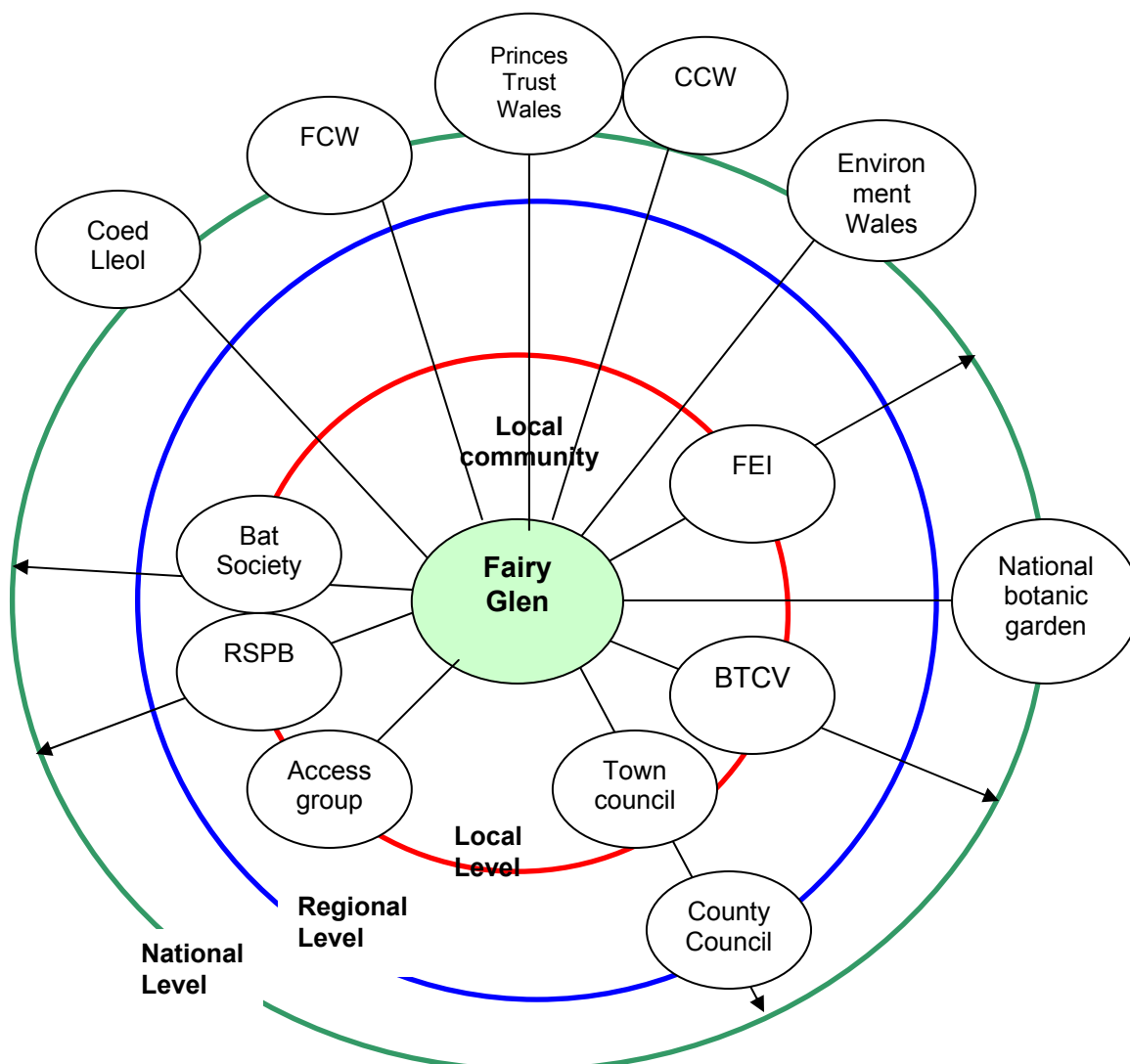


Figure 13: Cydcoed project partnership networks

Our research with groups, Cydcoed and other FCW staff, and informal discussions with other organisations, reveals that the role of Cydcoed was to act as a fulcrum on which the relationship of the groups with other organisations, other departments of FCW and other partners balanced. Whilst not being a partner in these relationships, Cydcoed acted as the negotiator, or honest broker, between them.

At any one time a project could be working with a large number of partners, including other FCW departments (most regularly the education team; WHAM or Local Area Managers –LAMs). These relationships are reported as often being difficult, yet our research shows that this was not always the case and respondents indicate that it was very much dependent on the geographic location of the project concerned. In effect, it was dependent on the locally based representative of partner organisations as to how relationships and working arrangements with projects were undertaken. It is beyond the remit of this evaluation to explore this in full but anecdotal evidence, at least from FCW staff, points to the lack of guidance and protocol available to officers resulting in Districts interpreting their responsibilities to Cydcoed in different ways. This was exacerbated by the perception reported by Cydcoed officers that their ability to influence decisions taken by other FCW staff in relation to Cydcoed projects or groups was limited. They felt they had neither the authority nor the remit to influence the parent organisation, either locally or at District level.

Again, it is not within the remit of this evaluation to investigate this fully, but we would suggest that negotiation of partnerships and working relationships between FCW and other organisations is not eased by the spatial set up of FCW. All public sector, and many other, organisations in Wales are set up to deliver on a spatial level either on a LA or regional basis. The regional level is based upon the four economic areas of Wales as defined in the Assembly's *People, Places, Futures: The Wales Spatial Plan* (2008 update). The Districts of FCW do not follow these regional or LA boundaries, therefore requiring the negotiation of delivery with a far wider range of bodies than would otherwise be the case.

Cydcoed Group Status

Key findings

- The application process gave groups the opportunity to formalise their status. The status of a group is often taken as marker of competence by potential funders and the wider community. Formalisation of this is an important step for community groups.
- Only a minority of groups opted to charge a fee for membership. In most cases this was nominal. However, where this was the case groups felt they had 'buy-in' from those members, engendering a feeling of ownership of the project.

Group status

The initial postal survey of Cydcoed groups shows that prior to gaining funding 16% of those applying were not constituted groups. Of those that changed their status subsequent to funding, 2 became social enterprises, 5 are now companies limited by guarantee, 3 now have charity status whilst the remainder describe themselves variously as 'shareholder group', 'volunteer group' or 'woodland group'. All are now properly constituted. Figure 14 below details the status of Cydcoed groups both prior and subsequent to funding. Note this graph is based on those groups that responded to the survey. The total number of groups differs owing to several responding as 'other'.

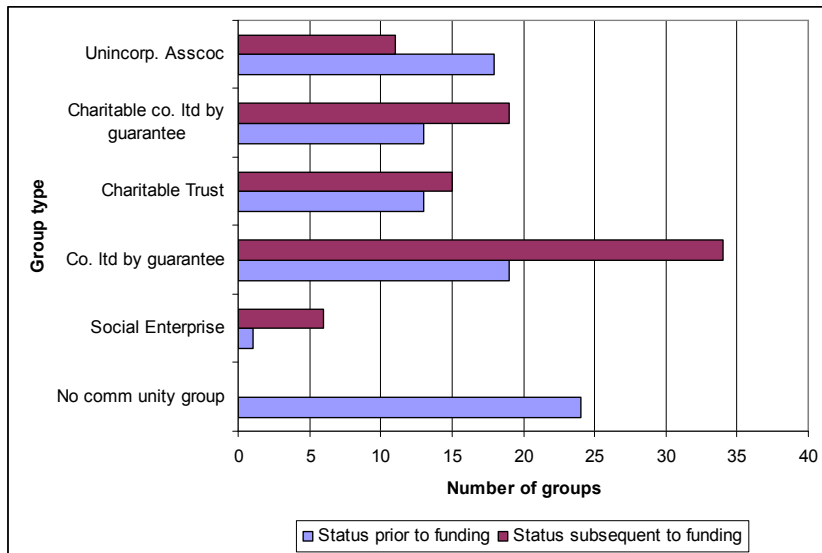


Figure 14: Cydcoed group status prior and subsequent to funding

The analysis of projects shows how differently groups identified themselves during the bidding process. Terms were chosen that described the main functions of the group rather than group status. The bidding process helped groups to understand their own legal status and obligations, and enabled groups to become formalised entities. This formalisation of status is important for those groups wanting to apply to other funding sources, for acceptance in the wider community or for partnership working, as the status of a constituted group and the responsibilities that entails is often seen as an indicator of competence. Group type as detailed in the project application forms are illustrated in Figure 15, below.

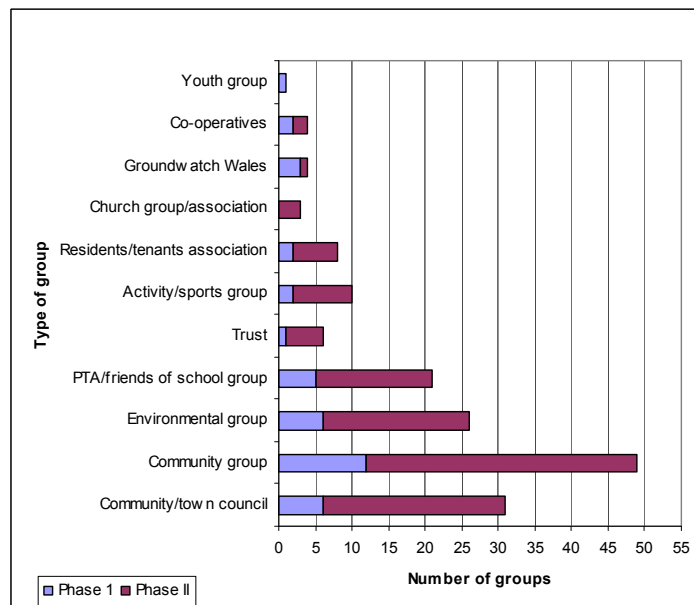


Figure 15: group type as per project bid document

Only a minority of groups opted to charge a fee for membership. In most cases this was nominal. However, where this was the case groups felt they had 'buy-in' from those members, engendering a feeling of ownership of the project. A membership fee also gives the group an income, however small that may be.

The research carried out for the case studies revealed interesting examples of how groups changed status over time and how this increased both individual and community capacity. Boxes 13 and 14 below are illustrative of this.

Box 13: Beaufort Hill

The Beaufort Hill project seems to have significantly increased community capacity. The group of people involved in implementing the project had not worked together before, but were brought together by the threat of pond draining. Some, from the houses backing onto the ponds and the proposed development area, had a personal interest as there was a fear that the land would be used for development. The capacity of this group was increased through training and advice. Initially, they had no experience of this sort of thing but obtained advice from a Coed Cymru officer and from the Cydcoed project officer, who came and explained the process of applying for a grant.

The group were encouraged to set up a not-for-profit company and training was provided for the directors. BTCV had also been helpful and had taken them to see other sites. The directors were originally meeting monthly but are now meeting quarterly. Members joined (for £1 joining fee) when it was publicised but most have not really been involved on a regular basis, although members can elect directors. There are plans to involve members and the community more. In particular, the group is planning a public meeting to see if people want to be involved in the running of the site. Community capacity is continuing to increase, with more people joining in with activities on the site, for example, collecting rubbish and reporting (and repairing) damage. Additionally, the group suggested the site tends to link the different communities around the site, as people meet when walking.

Box 14: Holyland Wood

At Holyland Wood the Community Interest Company (CIC) enables funds to be transferred to the company to act as an endowment for maintenance. There was a steering group with up to 12 people, including representatives of Cydcoed, the Environment Agency, 2 people from local environment groups, S&W Wales Naturalists Trust, a county councillor, town councillors, the local disability access group and the Civic Society. In addition the Chair of Trustees comes from the Civic Society. One of the most active members is an ornithologist who lived overlooking the pond. Cydcoed project officers attended the early steering meetings of the group and were "*enormously helpful and went out of their way to stimulate our inventiveness*". The CIC was formalised as a result of Cydcoed funding and members have been invited to sit on the County Development Board.

2.2 Measuring the impact of Cydcoed intervention

This section of the report focuses on presenting the data from the in depth survey with 24 Cydcoed projects coupled with relevant data from the survey to all groups and completion reports, in relation to the indicators discussed in Section 1. Where appropriate, quantitative results are illustrated with qualitative examples from our case study work: this helps to highlight the significance of outcomes at a local level.

We have provided a background to the current academic debate regarding each of the social outcomes in order to contextualise the significance of some of the benefits accrued to communities and individuals. This is included in Appendix 8.

The brief for this evaluation called for us to provide an economic value for the social outcomes of Cydcoed intervention, using non-market valuation approaches. These valuations have been calculated based on the data we have been able to gather. Whilst every attempt has been made to ensure accuracy, the lack of baseline data and ongoing monitoring has resulted in limited data being available. A critique of non-market valuation approaches is included at Appendix 9.

In order to illustrate the scale of Cydcoed at the Wales level, it is pertinent at this point to highlight that Cydcoed has become a programme that has funded 163 communities across the Objective 1 region of Wales. Eighteen percent of the population of the Objective 1 area live within the immediate neighbourhood, as defined by WAG, of a Cydcoed project – a total of 342, 830 people based on 2006 population figures (<http://www.statswales.wales.gov.uk/index.htm>).

Sample characteristics

Table 8 below summarises the response rates from the 24 projects in the sample survey. A total of 822 questionnaires were distributed amongst the 24 projects. Table 8 indicates that 43% of responses came from projects in the North of Wales, while only 9.8% came from projects in the western part of Wales. Four projects did not respond at all to the questionnaire. These were:

Woodhouse Wood, West Region
Coedwig Sibrwd, South East Region
Warren's Way, South East Region
Glan Morfa, North Region

A total of 153 responses to the questionnaire were received. Low and zero response rates can be attributed to a number of factors including:

- Where projects had ended it was difficult to identify and track persons with any involvement
- We were reliant on a third party (the locally identified contact) to distribute questionnaires and encourage submission
- In some cases we are aware that questionnaires were not distributed by the contact to whom they had been sent. No reasons were supplied for this.

Table 8: Questionnaire responses by region

Project Region		Frequency	Percent
	North	66	43.1
	West	15	9.8
	South	29	19.0
	South East	43	28.1
	Total	153	100.0

Analysis of the sample shows that the characteristics of respondents are as follows:

The sample is split almost 60/40 male/female and with a bias towards older age groups with over 50% of the sample aged over 55 years. The data are slightly different from the overall population for Wales which indicates a male/female split of 48.4/51.6 and 44% of the population aged over 45 yrs in 2001. The sample also has a much smaller proportion of young people (under 24 yrs) than in the general population. (<http://www.statswales.wales.gov.uk/index.htm>). This is emphasised in the employment breakdown as 40% of the sample are retired. Parent/carer, self-employed, unemployed and full time education all form low proportions of the sample. Household income is fairly evenly spread across the sample up to the £50,000/year level, indicating just over half of the sample (54%) are in households with annual incomes under £25,000 per year.

The majority of respondents (61%) have lived in their local area all their lives, while just under 10% have been there for less than 10 years. The local nature of the sample is reinforced by looking at how close family ties extend. Nearly one third (30%) of the sample have close family living in the same village or town and a further 28% have most of their close family living within 10 miles of their house. Around 16% of the sample have got the majority of their close family living more than 75 miles away or outside the UK. The data indicate the majority of the sample are local to the area with a smaller proportion of people coming from outside the immediate area to live. This data may have been skewed by the fact that there was a poor response rate from projects in the West, where evidence suggests the majority were run by and involved 'incomers' to the areas.

Just over 40% of the respondents are retired and only 35% working full or part-time. The level of retired persons is much higher than the general population in Wales (20.2%). Unemployment is much lower in the sample than the general population (0.7% compared to 5.5%). On the other hand household incomes for the sample appear to be significantly higher than the Welsh average. Nearly one third of the sample (30%) have household incomes below £15,000 per year while for the Welsh population the figure is 67% of households below £16,000/yr in 2004. The sample also indicates 25% of respondents with incomes greater than £36,000/yr compared to Welsh population statistics for 2006 of 8.2% households with incomes greater than £31,200 per year. (Wales statistics from <http://www.statswales.wales.gov.uk/index.htm>).

The sample data represent generally older people, more retired and better off financially than the general population for Wales. This may be partly due to the

location of projects and the persons with available time to get involved in running projects of this nature. Table 9, below, illustrates the characteristics of the sample:

Table 9: Sample project characteristics

Characteristic	Categories	Percentage (N=153)
Gender	Male	58.5
	Female	41.5
Age	<16 yrs	2.0
	19-24	2.7
	25-34	5.4
	35-44	18.9
	45-54	15.5
	55-64	27.7
	65-74	20.9
	>75	6.8
Employment status	Working full time	29.4
	Working part-time	10.5
	Parent or carer	4.2
	Retired	40.6
	Unemployed	0.7
	Self-employed	6.3
	Full time education	3.5
	Not working due to Disability/illness	4.2
	Other	0.7
Where do most of your close family live?	Same village/town	30.3
	2-10 miles	28.3
	11-25 miles	13.8
	26-75 miles	11.7
	>75 miles	13.1
	Outside UK	2.8
Length of time lived in the area	All my life	61.7
	11-20 yrs	28.4
	6-10 yrs	5.7
	3-5 yrs	2.8
	1-2 yrs	1.4
Household income	<£15,000	30.0
	£15-25,000	24.2
	£26-35,000	20.8
	£36-50,000	19.2
	£51-75,000	5.0
	>£75,000	0.8

2.3 Health and Well-being benefits

Key findings

- Just over one half of people involved in a Cydcoed project agreed or strongly agreed that taking part in the project had led them to take more regular exercise, and over 40 percent of people stated their physical health had improved since becoming involved
- One half of people involved indicated an improvement in their overall well being.
- Over 93% of respondents to our survey feel the woods to be an important part of creating a sense of well being through offering a relaxing and stress free area.
- All of the projects have provided considerable opportunity for people to take up informal recreation, something widely taken up by groups such as dog walkers.
- There is anecdotal evidence that a small number of people are now using the woodlands in a concerted manner to address their health problems.
- The attraction of Cydcoed woodlands, and the reason that they appear to increase physical exercise (both questionnaire and focus group data support this assertion – the questionnaire indicates an 82% increase in recreational activity among the survey sample) is the proximity to residential neighbourhoods (60% of the sample people walk to the woodland) and the free access (no expenditure required).
- The annual avoided expenditure for the NHS as a result of Cydcoed is estimated to potentially reach £815,000.

Background

The need for community involvement in developing opportunities for improving health and wellbeing is recognised by WAG in the *Designed for life, a world class health service for Wales* strategy where the need to ‘develop the role of local communities in creating and sustaining health’ (2005:4) is highlighted. The Cydcoed programme has enabled 163 communities across Wales to benefit from increased access to, and recreation in, green space through the creation or development of walking, cycling and mountain bike trails, woodland art and theatre, forest gardens and areas for relaxation. Whilst not every project stated ‘health benefits’ as an objective for gaining Cydcoed funding, the creation and development of access into woodland will have had an indirect health benefit for those individuals and communities that take advantage of it. With a population of 342 830 in the immediate neighbourhood wards of Cydcoed projects, the potential impact on health and wellbeing is considerable.

Figures 16 and 17 below illustrate the main themes of the Cydcoed projects as detailed in the project application documents:

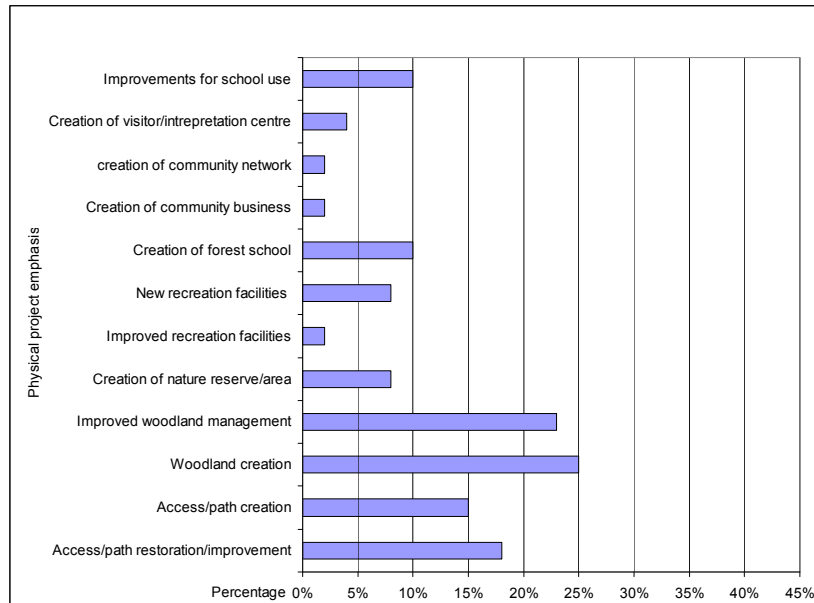


Figure 16: Phase 1 project themes

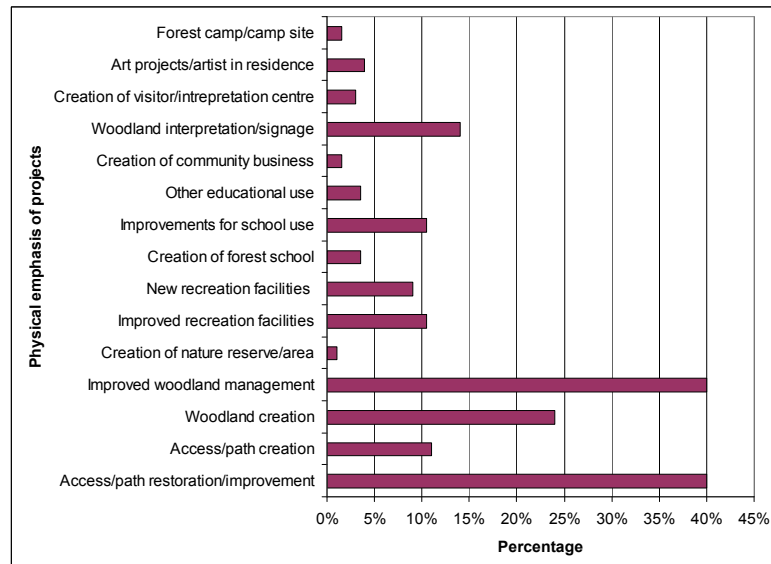


Figure 17; Phase II project theme

Whilst other ongoing studies such as *A valuation of the economic and social contribution of forestry for people in Scotland* (Edwards *et al* 2008) discuss the amenity values of forests and woodlands in Scotland, it is not within the remit of this evaluation to do so in relation to Cydcoed or to Wales. In terms of encouraging physical activity through improvement and creation of paths and tracks in woodland Cydcoed projects on average created 420metres of new footpath/track per project, and improved or restored an average of 200metres per project. Respondents indicated that these developments are considered beneficial for local communities, detailing accessibility, ‘more’ and ‘new’ walkers as particular outcomes. Our surveys allowed respondents to supply additional comments concerning the perceived social benefits of their project and comments received included:

New & improved pathways have encouraged more walkers to use (the) area. Prestatyn walking festivals have organised walks in woodland to encourage new walker/referrals. Disabled/wheelchair users now able to access woodland. (Prestatyn Woodlands)

The site was previously a non accessible failed woodland & a fly tipping area. It is now a play area for children, walking & cycling area for all. Not only is it a well used community asset, the project has created a special wildlife environment. We now have butterflies, insects, small birds on our doorstep. (Chester Avenue)

Children’s involvement in the natural environment is increasingly becoming strategically important, having both educational and health implications. The Assembly’s child poverty strategy *A fair future for our children* aims to *improve health and wellbeing and reduce inequality* (WAG,2005:3) for children across Wales. Research shows that over 12 900 primary school children and over 5 060 secondary school children have been involved with Cydcoed projects. The activities range from tree planting, forest school activities, forest gardens, art projects to owning and managing woodland within the school grounds. It is beyond the scope of this evaluation to gauge the levels of involvement of each school or child, or the levels of physical activity undertaken.

Utilising the classification of events developed for *A valuation for forestry for people in Scotland* (Edwards *et al* 2008) Cydcoed groups were asked to specify what type of organised events had been held in, or involving, the woodland and approximately how many people had attended. It is not possible to appraise whether the attendees were local to the area or not, although the likelihood is that the majority were local given the nature of events. Moreover, it has not been possible to ascertain the levels of involvement or physical activity of individuals at these events. Participation in events at Cydcoed project locations, aimed either specifically at improving health and wellbeing, or with a recreational/sports or cultural/arts theme involved a total of 8 131 people, presented in table 10 below.

Table 10: health and wellbeing events

Type of event	Number of events held	Number of people attending
Health and wellbeing (including social care) e.g. Active Woods, GP referral schemes, Walk your Way to Health Schemes	14	1 451
Recreation/Sport e.g. this could include organised walks or runs, motor sports, mountain bike or cycling events	24	1 070
Cultural/arts e.g. this could include art and sculpture, music events, poetry events or theatre	34	5 610

Indicator HWB1: Public involvement in physical activity in woodland

Our survey with the representative sample of Cydcoed projects aimed to ascertain changes in behaviour relating to woodlands and the impact of these changes on the health and wellbeing of individuals. Focus group discussions and semi structured interviews with groups captured information from both the members of the community groups involved and individuals who have used the woodland as a result of the Cydcoed project. These could include, for example, schools, WI groups, scouts, mental health groups, young offenders or faith groups. This adds depth and context to the quantitative measurement of benefits to health and wellbeing.

Respondents to the survey were asked about the amount of physical exercise they undertook, and its regularity. A high proportion of the sample (88%) indicated they undertook some form of exercise while 12% did no exercise. Of those undertaking

some form of exercise 30% stated they exercised 'on most days' and 28% stated they did so 'once or twice per week'. Thus, over half the sample indicated they engaged in some form of regular exercise while 17% only exercised once or twice per month, and 12% less than once per month.

Question 8 of our survey (included at Appendix 5) asked about the standard of physical activity respondents were taking part in. The results are displayed in Table 11 which illustrates that slightly over one third of those indicating they engaged in exercise do so at a 'brisk' or 'fairly brisk' level of activity: a level that is adequate to improve physical fitness, while just over a third (37%) exercise at an 'average' rate. The table also illustrates that a larger proportion of those exercising at the higher rates are in younger age groups. This is also illustrated in Figure 18, below.

Figure 18: engagement in physical activity by age

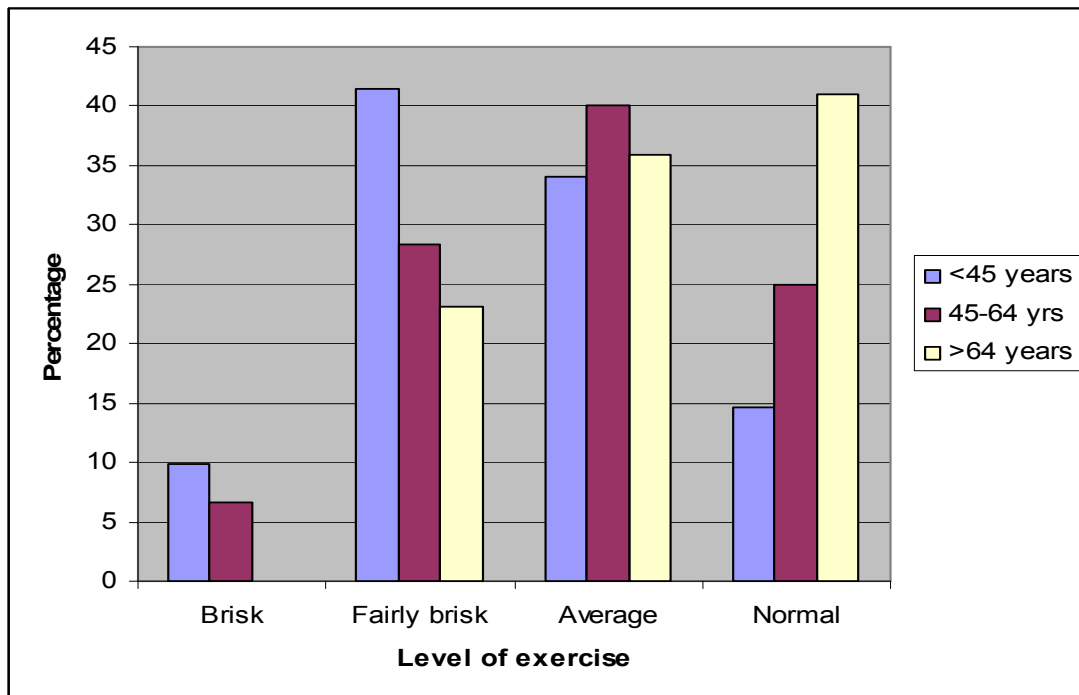


Table 11: Engagement in physical activity

Proportion of sample engaging in physical activity (%) (N=153)				
	Brisk	Fairly brisk	Average	Normal
<45 years	9.8	41.5	34.1	14.6
45-64 yrs	6.7	28.3	40.0	25.0
>64 years	0.0	23.1	35.9	41.0
Total	5.7	30.7	37.1	26.4

Question 12 (Parts A and B) examined effects of the project on physical health: table 12 below contains the results. These indicate little difference in personal opinions about physical health between males and females, around one third of the sample stated their physical health had improved since becoming involved with the project. The pattern is similar when the sample is broken down by age, although the younger age grouping (<45) indicates a slightly higher proportion of respondents suggesting a 'considerable improvement' in physical health.

Table 12: Self-reported impact of the project on physical health

Part A	My physical health has changed (% of respondents)			
	Got worse	Has not changed	Improved a little	Improved considerably
Male	1.2	57.3	32.9	8.5
Female	0.0	61.4	33.3	5.3
<45 yrs	0.0	53.7	34.1	12.2
45-64 yrs	0.0	61.0	35.6	3.4
>64yrs	2.6	59.0	30.8	7.7
Total (N=139)	0.7	53.8	33.8	7.2

Question 9(f) asked respondents to score the following statement on a 1-5 scale: "Taking part in the project has led me to take more regular exercise". Just over half of the sample agreed or strongly agreed with the statement (28.2% and 23.7% respectively), while only 11.5% disagreed. More detailed analysis of the sample suggests that a larger proportion of those in the 45-64 yrs age groups disagreed (19.4%) with the statement compared to the other two age groups (7.0% and 3.0%), suggesting that the 45-64 yrs age group benefits less from using the woodland for exercise. This is supported by the data in Question 12A indicating that the physical health of the 45-64 yrs age group had improved less than the other two groups.

In addition a larger proportion of the >64 yrs age group strongly supported the statement compared to the other two age groups; 43% of those in the >64 age group strongly agreed with the statement compared to only 11% of the 45-64 year age group, and 28% of the <45 yr age group, suggesting that older people in the sample are benefiting from more regular exercise. Analysis also reveals that males appear to benefit more than females from increased exercise. More than twice as many males indicated strong agreement with the statement compared to females (30.4% compared to 13.5%), while more females disagreed or strongly disagreed (15.4%) with the statement compared to males (9%).

Table 13, below illustrates the scored statement in relation to physical health:

Table 13: Scored statements related to physical health

Statement	Score (% of respondents, N=147)				
	Strongly disagree	Disagree	Neither agree not disagree	Agree	Strongly agree
Taking part in the project has led me to take more regular exercise	3.1	8.4	36.6	28.2	23.7

Indicator HWB2: public perception of health and wellbeing in relation to woodland

A larger proportion of the sample indicated improvements in overall wellbeing (described in the questionnaire as including 'stress levels and attitude to work and life in general'). Around one half indicated an improvement and the other half no change (see Table 14, below). Nearly one fifth (18.4%) of the sample indicated a 'considerable improvement' and nearly one third (32.6%) indicated a little improvement in overall wellbeing. The data indicate no significant differences based on gender but suggest that a larger proportion of the younger age group (<45 yrs) have benefited from a 'considerable improvement' in well-being compared to the other two age groups.

Table 14: Self-reported impact of the project on overall wellbeing

	My overall wellbeing has changed as a result of being involved in the project (% of respondents)			
	Got worse	Has not changed	Improved a little	Improved considerably
Male	0.0	51.2	30.5	18.3
Female	0.0	46.6	34.5	19.0
<45 yrs	0.0	35.7	35.7	28.6
45-64 yrs	0.0	53.3	33.3	13.3
>64yrs	0.0	56.4	28.2	15.4
Total (N=141)	0.0	48.9	32.6	18.4

A larger proportion of the sample indicated they found visiting the woodlands relaxing with over half the sample agreeing strongly with the statement (Table 15). In this case, a larger proportion of males indicated strong agreement compared to females (61.9% of males strongly agreed compared to 43.5% females), and slightly fewer respondents in the 45-64 age group indicated agreement compared to the other two age groups.

A similar pattern is found for the statement regarding whether respondents feel safe visiting the woodlands, the majority agreed with the statement with no statistical differences between age groups or gender.

Table 15: Scored statements related to health and wellbeing

Statement	Score (% of respondents, N=147)				
	Strongly disagree	Disagree	Neither agree not disagree	Agree	Strongly agree
I find visiting the woodlands relaxing, and a place that helps me to reduce stress and anxiety.	0.0	0.0	6.1	39.5	54.4
I feel safe visiting the woodlands	0.0	1.4	6.8	32.2	59.6

Overall the questionnaire data suggest that around 40 to 50% of respondents have benefited from improved physical health, albeit in a minor way, and a slightly higher proportion (perhaps 50-60%) have benefited from overall improvements in wellbeing.

A smaller proportion of the sample, concentrated in the <45 yrs age group appear to have benefited to a higher degree from improvements to physical health, while the mid-range age group (45-64 yrs) appears to have benefited least.

Examples from the case studies

Our case study work with Cydcoed groups helps to contextualise the ways in which health and wellbeing benefits are being accrued by group members and by the wider communities using the woodland. Groups and individuals expressed their understanding of the health benefits as mainly physical, owing to increased walking opportunities but also expressed the importance of the opportunities for social interaction that the project had brought to people.

Boxes 3 and 4 below present insights into two case study projects in relation to health and wellbeing benefits.

Box 3: Glan Morfa, Rhyl

Glan Morfa housing estate is situated in the most deprived ward in Wales. Prior to the commencement of the Cydcoed project there was little access to green space available. The creation of a network of accessible paths and the planting of literally hundreds of trees on an old landfill site has provided the residents of the estate with green space right on their doorsteps.

Members of the Cydcoed group have undertaken their 'Walk your Way to Health' leader qualifications and take groups out on a regular basis. The primary purpose of the walks is to deliver physical benefits, but the social aspects are also noted:

It gets people out, meeting each other, it's a good way to meet other people' (Cydcoed group member)

Whilst the new woodland site will take time to reach maturity, the availability of green space so close to the housing estate is seen as very positive.

It'll get people out more, walking or riding their bikes, it'll be nice out there' (Cydcoed Group member)

Box 4: North Gower Woodlands, Gower

Whilst managing 6 woodland sites through Cydcoed, this group have planted a new wood at Graig y Coed, next to the local rugby club and very close to a school. This site includes a 'fit trail' developed with the rugby players and school children in mind. It provides a training area, including pull up bars and hurdles as well as a path suitable for running.

Instead of running round a field over and over, they can come here and do something a bit different, in the woodland. It's too close to the road where they are (Cydcoed group member)

In an area of high deprivation where many youngsters cannot afford gym membership, its hoped the area will be used more informally as a place to exercise and socialise.

Health and well-being values

Health benefits are estimated using data from the questionnaire relating to exercise and improvements to physical health and well-being. Benefit estimates of improvements to health are difficult to measure and based on potential reductions in NHS treatments for a range of diseases resulting from inactivity. The analysis in this study is based on NHS avoided expenditure on healthcare for those suffering from heart failure, which has been identified as a major cause of morbidity and mortality in the UK (Lacy and Tabberer, 2005). The cost of healthcare for patients suffering from heart disease was estimated at around 2% of total NHS expenditure in 2000 and predicted to rise, while secondary heart failure and long-term nursing were estimated to cost an additional 2% of expenditure (Stewart. et al., 2002). Physical activity not only improves overall well-being but can reduce the risk of heart failure.

This analysis has developed two estimates for health benefits:

- i. A conservative estimate is based on health improvements for the limited population of community group and user group members directly involved with the Cydcoed projects. It assumes an average of 25 persons involved in each project (derived from responding projects to the scoping study survey), and as such might underestimate the health benefits derived by the larger population using the woodlands.
- ii. a higher estimate is produced through extrapolating survey data to the larger community. It assumes an average community population of 2,100 in the immediate vicinity of each woodland project, where the average is taken from the current data available for all project neighbourhoods (www.statswales.co.uk).

The estimated, programme-wide, benefits from improved health and well-being range from a low of £10 000 per year to a high of £815 000 per year. The low estimate is based solely on the small number of persons engaged directly in implementing Cydcoed projects, while the high estimate extrapolates benefits to the larger community surrounding each woodland.

Both estimates are conservative as they only account for benefits, in terms of NHS avoided expenditure, for the proportion of the population likely to suffer from heart failure. Benefits from avoidance of other illnesses are not considered, neither are attempts made to measure the benefits from reductions in premature deaths, nor the benefits to the individuals concerned from a better quality of life. No estimates are made from improvements in well-being (which includes mental well-being) despite the fact the questionnaire data suggest that a larger proportion of the sample reported improvements in overall well-being than reported improvements in physical health. Self-reporting by the survey sample data indicate an improvement in physical health for 41% of the sample and improvement in overall well-being for 51% of the sample. Table 16, below presents the potential health care costs avoided owing to the implementation of a Cydcoed project.

Health/exercise	Community scale (£ per year)	Programme scale (£ per year)
Healthcare costs avoided		
Low estimate	£64	£10,000
High estimate	£5,000	£815,000

Table 16: non market benefit estimates for health

Notes on method of calculating benefits

Low estimates of benefits are obtained using only the estimated 25 persons involved in user groups on which the survey data is based.

Survey data indicate 52% of the sample claim to take regular exercise, 41% of the sample have benefited from improved physical health, and 51% from improved wellbeing. The sample data is representative of woodland user groups and those involved in planning/implementing Cydcoed projects. To avoid double counting we assume 51% of persons from each project (12 persons) have benefited from improved physical health, and one third of these exercise at a sufficiently high level for the exercise to be effective (a total of 4 persons per community). Sample data indicate one third of the sample exercise at a 'brisk' or 'fairly brisk' rate (i.e. above average). This may or may not be sufficient to meet the Department of Health recommended levels of five times per week for a minimum of 30 minutes) but the assumption made here is that such exercise is sufficient to delay or avoid heart failure. A total of 652 individuals from across all projects, have improved physical health sufficient to lead to improvements.

The proportion of the UK population at risk from heart failure is 1.6% (Stewart, et al., 2002). If we assume that 1.6% of those with improved health are at risk of heart failure this indicates a total of 10 persons might avoid or delay heart failure across all 163 projects.

Total healthcare costs of heart failure are approximately £1,000 (Stewart et al., 2002) per person per year.

High estimates of health benefits are based on extrapolating survey data to the larger communities in which the Cydcoed projects are located. The analysis assumes an average 2,100 persons per community, of whom 1.6% are at risk of heart failure, which provides an estimate of 33 persons per community at risk. If we assume 50% benefit from exercise, and one third exercise at a rate sufficient to bring real improvements we obtain a figure of 5 persons per community who may avoid or delay heart failure through exercise and improved well-being. If this is aggregated across all projects a total of 815 persons might benefit.

The health estimates presented here are conservative estimates as they only take into account one form of illness resulting from inactivity. A wide range of other diseases related to inactivity (e.g. obesity, diabetes) are not taken into account. Neither are improvements in mental health and overall well-being taken into account, although survey data suggest a larger proportion of the population benefit from improved overall well-being. The calculations also do not take into account the age structure of the population which the survey data suggests may be older than the Welsh average (e.g. survey data indicates 70% of the sample is over 45 yrs of age, thus more prone to heart failure), or other population characteristics which suggest heart failure might be higher in some of the Cydcoed community areas due to higher than average levels of deprivation.

The calculations only reflect increased potential to obtain outdoor exercise in Cydcoed woodlands. No account is taken of existing levels of exercise that might be occurring in other locations by the population under consideration, thus the calculations here may overestimate benefits if (and there is no evidence for making a statement one way or the other) those now exercising in woodlands were exercising somewhere else beforehand. On the other hand, evidence from the survey indicates that in many communities there are few other opportunities for exercise available (e.g. pool, gym, other outdoor recreation area). The attraction of Cydcoed

woodlands, and the reason that they appear to increase physical exercise (both questionnaire and focus group data support this assertion – the questionnaire indicates an 82% increase in recreational activity among the survey sample) is the proximity to residential neighbourhoods (60% of the sample people walk to the woodland) and the free access (no expenditure required).

2.4 Social and human capital benefits

Key findings

- Almost half of households (44%) indicated the Cydcoed project had provided them with an opportunity to volunteer to help, suggesting that there is a latent desire among households to be involved in community activities
- In total Cydcoed project groups have 8,955 members who work with a further 6,494 people from other groups who are involved in some way with the Cydcoed project. In addition projects report that approximately 18,000 school children have been involved
- Just over half of the sample agreed that their level of trust in the community had increased as a result of taking part of the project
- Seventy nine percent of people questioned thought the project had helped develop stronger ties between people in the community
- Eighty five percent agreed or strongly agreed the quality of life for the community had improved as a result of Cydcoed
- Overall around three-quarters of respondents indicated an increase in the number of people they knew as a result of taking part in the project
- One third of respondents indicated the project had provided space for children to play, and just over one third claimed the project had stopped, or helped to reduce, anti-social behaviour in the woods
- A small proportion (11%) of households indicated the project had not had any effect, suggesting that 89% of the sample had been positively affected by the project in some way

Background

The WAG are keen for communities across Wales to participate in local governance and see this as a way in which community capacity can be built and maintained, and a way in which national policy can be seen to be delivering at the local level. Policies to promote local participation in governance are concerned specifically with linking social capital: by being involved in the governance of, in this case, local woodlands participants build relationships with public sector and other organisations which in their turn give access to external resources such as funding, in-kind support or political leverage. The *Woodlands for Wales* strategy consultation exercise found considerable support for wider community participation in the management of both private and public woods in Wales (FCW, 2000:49). Cydcoed, as a delivery mechanism within the strategy, was developed with community capacity building in mind. Semi structured interviews with FCW staff elicited comments such as:

From the outset it was not about the direct benefit back to forestry or the Forestry Commission...it was trying to achieve some wider related goals, Assembly goals on social community interaction development. That still remains within the project; I think that is one of its main strengths (FCW Officer)

In the long term I think probably the benefits would, the most important benefits would be in the, either in the creation or the building of that community group and its ability to do things (FCW Officer)

Whilst all Cydcoed projects involve the strengthening and building of social and human capital, it must be recognised that not only is social capital itself highly context dependent and therefore difficult to aggregate, but it is not something that can be instantly created. Schuller (2000: 4) argues that its accumulation (or erosion) is a process that requires several years *at the least* and should therefore help to insert a longer term perspective into policy making – acting as a counterweight to the tendency for quick fix solutions. However, a note of caution is raised by the Joseph Rowntree Foundation: whilst they rightly state that Governments commitment to community engagement is welcome, they clarify that it also places high expectations on often fragile groups and organisations (2007:11).

For the 163 Cydcoed projects these issues are particularly pertinent: whilst the Cydcoed programme began in 2001 only a quarter of the overall projects were Phase 1, the remaining three quarters commencing from 2004 onwards. This is a relatively short time span in terms of the development of social capital and it may well be that examination of these projects after a further five years has elapsed will reveal a different picture. Moreover, a relatively large percentage of groups were formed specifically for the project (15%) and 30% described themselves as an informal group (woodland group; volunteer group etc) prior to funding. Realistically, the accumulation of social capital will take longer in new or newly formalised groups and this evaluation may not be able to capture, at this juncture, the full long term benefits of intervention.

Whilst there are a number of methods for measuring social capital, given the nature of Cydcoed and the lack of baseline and ongoing monitoring information (detailed previously), the majority of these are beyond the scope of this evaluation. Our focus lies on the aspects of social and human capital relating to social trust, community participation and neighbourhood attitudes and norms.

The challenge involved in attempting to separate the particular effects being involved in a Cydcoed project may have in terms of social and human capital from other factors impacting upon individuals and communities is compounded by the lack of local baseline data. In an attempt to overcome this, respondents to our surveys were asked to comment on their perceptions of trust, community pride and neighbourhood norms both prior to and post being involved in a Cydcoed project. We have then drawn comparisons between participant responses and those given at a regional and national scale within the *Living in Wales* survey undertaken by the ONS in 2004 (the latest for which detailed information is available).

In total Cydcoed project groups have 8 955 members who work with a further 6 494 people from other groups who are involved in some way with the Cydcoed project – for example Groundwork; MIND; WI or Duke of Edinburgh awards. In addition projects report that approximately 18 000 school children have been involved. Phase I projects were asked to monitor the number of volunteers who were involved as part of the WEFO reporting mechanism, but this was not a requirement for Phase II. Cydcoed project management documentation defines volunteers as (Driver, D. 2005. Appendix 7, no page number):

- *Members of the bidding group, who met to develop and prepare the bid, to carry out community consultation, and to manage and supervise the project as it was being done.*
- *Members of the group and the wider community who actually carried out some of the work on the ground, either directly or whilst supervising other groups, (e.g. group members supervising scouts or youth groups who were planting trees, etc).*
- *Members of other groups who took part in the project itself, e.g. groups of scouts, youth groups etc.*
- *Volunteers working for contractors carrying out the work e.g. members of BTCV group*

The number of volunteers reported as participating across Cydcoed Phase I is 4 405. However, this figure cannot be verified and given the wide definitions above and the fact that the monitoring methodology for groups was not coherent (see below) leaves us unclear as to the potential for double counting and therefore to the robustness of the number reported.

*Volunteer input must be recorded properly. We can provide a form or **you can use your own method as long as your Project Officer is happy with it.*** (Driver, D. 2005 Appendix 7, no page number, our emphasis)

Indicator SHC1: Public involvement in woodland decision making

Survey work with all projects indicates the numbers of individuals involved, to a greater or lesser extent, in Cydcoed projects, illustrated in Table 17 below:

Number of Cydcoed group members	
Local people	7541
People from within the county	778
People from further afield	636
Total	8955

Table 17: Number of Cydcoed group members

Approximately 2.5% of the adult neighbourhood population of Cydcoed projects are involved in the community groups owning and/or managing woodlands as part of the programme. What is not clear is the nature of their involvement, as case study work indicates an average of 25 active members per project group. Across Wales in general 2% of adults (46 200: 2001 Census) are members of community groups that are involved in the conservation and/or management of woodlands (FCW 2005:57). In 2005, 4% of adults in Wales stated they had been consulted about woodland plans in their area and 19% said they would like to be involved in the future. Of the 4% consulted, 53% feel they would be able to influence decisions about creating, managing or using woodland in their area (*ibid*).

The *Valuation of Forestry for People Draft Interim Report* states that research carried out by CJC Consulting in Scotland shows the 57 community woodland groups listed on the Community Woodland Association (CWA) database are involved in the management of over 18 000 hectares of woodland (Edwards *et al* 2006:70). In Wales, an analysis of the Cydcoed project application documents shows that the 163 groups manage 9 232 hectares of woodland. Table 18 below presents the hectares under management in Phase 1 and II:

Hectares of woodland over which Cydcoed groups have management – Phase I	5173
Hectares of woodland over which Cydcoed groups have management – Phase II	4059

Table 18: Hectares under Cydcoed group management

Events held by Cydcoed projects were categorised according to the method developed for *A valuation of the economic and social contribution of forestry for people in Scotland* (Edwards *et al*, 2008). It is recognised that any event attended has the potential to impact upon both social and human capital, however two categories of event have particular emphasis on involvement in decision making and providing opportunities to create networks with other organisations. These are presented in Table 19, below and show a total of 13 988 people involved.

Type of event	Total number of events held	Total number of people attending
Woodland management	88	3 754
Forest planning	51	10 234

Table 19: Public involvement in decision making events

Indicator SHC2: Public involvement in events and other community activities

Our survey, included at Appendix 4, asked groups to indicate how many events had been organised as a result of Cydcoed funding and how many people had attended. Table 20, below illustrates the categorisation of events and total numbers attending. Cydcoed projects have held 293 events with 29 162 people attending:

Type of event	Number in total	Total number of people attending
Education and learning	82	7043
Health and well being	14	1451
Recreation / sport	24	1070
Culture / Arts	34	5610
Woodland management	88	3754
Forest planning	51	10 234

Table 20: Public involvement in Cydcoed events

In addition projects were asked to indicate how of their members were also involved in other local projects. Table 21 below illustrates the number of people actively involved in other local projects and initiatives:

Number of people from Cydcoed groups involved in other local projects	1443
---	------

Table 21: involvement in non-Cydcoed projects

Our survey to the 24 sample projects asked, to provide comparison with the *Living in Wales Survey 2004* (ONS 2005), about membership of local groups and national organisations. In addition it was asked whether involvement in the Cydcoed project had influenced this membership.

Table 22 indicates that small proportions of the sample are existing members of local or community groups, the most common being a local community group or environmental action group, which is likely to be the one associated with the woodland project in many cases. Relatively few respondents indicated they had been influenced to join any kind of group due to involvement with the Cydcoed project, but around one tenth of the sample indicated they had joined a local community or conservation group for this reason.

Table 23 illustrates that a smaller proportion of respondents indicated membership of national groups. The RSPB and the National Trust were most common. Those indicating 'other' were members of a wide range of groups from Amnesty International to the John Muir Trust, but the Woodland Trust and Wildlife Trusts were the ones most commonly cited. A smaller proportion of the sample indicated they had been persuaded to join a national group due to involvement with the woodland project.

In summary, the data suggest perhaps a half of households are involved in some form of local group, while a smaller proportion (perhaps 20 – 30%) are members of a national group. The woodland projects appear to have had more impact in getting people to join local groups (in particular local community and/or conservation groups) than national groups.

Type of group	Member (% of respondents; N=153)	Joined because of involvement with woodland project (%)
Tenants/residents association	15.0	3.3
Scouts, cadets, Guides, etc.	3.9	0.0
Parents/teachers association	5.9	0.7
Board of School Governors	14.4	0.0
Parish, Town, community, or county council	11.1	0.0
Neighbourhood council/forum	7.2	2.0
Church, chapel or other religious group	17.0	1.3
Neighbourhood or farm watch scheme	10.5	0.0
Other local or community group	22.9	8.5
Local conservation or environmental group	22.2	11.1
Choir or music group	5.2	0.0
Sports or athletics club	7.2	1.3
Other	5.9	0.0

Table 22: Membership of local groups

Type of group	Member (% of respondents; N=153)	Joined because of involvement with woodland project (%)
RSPB	19.0	3.3
RSPCA	3.9	0.0
National Trust	12.4	1.3
CPRE/CPRW	3.9	0.0
BTCV	2.6	1.3
Environmental campaign group (e.g. Greenpeace, FoE)	7.2	2.6
Other	11.1	0.7

Table 23: Membership of national groups

The *Living in Wales Survey 2004 (ibid)* asked respondents whether or not they were members of local or national organisations or groups. Forty one percent of all respondents were members of at least one organisation, with the most popular types being sports and religious groups. This is illustrated for comparison purposes in Table 24 below:

Organisation	Member of organisation (%age n=12,000))
Sports club	13.4
Religious group	11.2
Social/men's working club	6.5
Parents/schools association	3.9
Voluntary service group	3.3
Professional group	5.1
Arts group	3.3
Other community group	2.3
Residents group	2.4
Pensioners group	2.1
Women's Institute	2.0
Other group or organisation	5.8
Environmental group	1.6
Scouts organisation	1.0

Table 24: Involvement in groups / organisations: Living in Wales Survey 2004

Indicator SHC3: Changes in community trust and wellbeing

Several questions in the survey to the 24 sample projects addressed the social and community aspects of the woodland projects (Appendix 5). Table 25, below, illustrates responses to several statements in Question 9 of the survey designed to ascertain opinions about the effect of the project.

Just over half of the sample agreed that their level of trust in the community had increased as a result of taking part of the project, while less than 5% disagreed. The strongest level of agreement for the statement comes from the older respondents. A larger proportion of those in the >64 yrs age group (38.9%) strongly supported the

statement compared to 30% of those in the <45 age group and only 11.1% of those in the 45-64 yrs age group.

The pattern is similar for opinions about the second statement in the table (Being part of the project has taught me to work more effectively...). Nearly two-thirds of the sample agree or strongly agree with the statement, but a smaller proportion of the 45-64 age group agree compared to the other two age groups (49% compared to 83% for the >64 yr group and 71% for the <45 age group).

The pattern is similar for the next two statements in the table regarding stronger ties in the community, and quality of life, with a larger proportion of the older respondents indicating strong agreement than for the other two age groups.

Statement	Score (% of respondents) n=153				
	Strongly disagree	Disagree	Neither agree not disagree	Agree	Strongly agree
Taking part in the project has increased my level of trust in the community	1.5	2.3	42.7	29.0	24.4
Being part of the project has taught me to work more effectively with other people in my community	1.5	2.3	30.5	35.1	30.5
The project has helped develop stronger ties between people in the community	0.7	3.0	17.0	45.2	34.1
Our community's quality of life has improved	0.7	2.1	12.1	48.6	36.4
I am more confident in myself since being involved in the project	2.4	10.2	48.0	22.0	17.3
My overall quality of life has improved	1.5	4.6	33.1	41.5	19.2

Table 25: Scored statements regarding community and social capital

The final two statements in Table 25 are slightly different. The statement "I am more confident in myself..." indicates a higher proportion of the sample neither agreeing nor disagreeing (48%) while 12.6% disagree with the statement, and almost 40% either agree or strongly agree. Thus not everyone who engages with projects benefits in the same manner, although the evidence suggests that around 40% of the sample have benefited in some manner through increased self-confidence. An analysis of differences between the age groups suggests that the 45-64 yr age group are still the least supportive of the statement with just under 19% disagreeing and over half of this sub-group (54.7%) suggesting no change, and only 13% strongly agreeing (compared to 19% and 22% for the <45 group and >64 group respectively). There is virtually no difference in scoring based on gender.

On the final statement indicated in Table 25 results indicate just over 60% agree or strongly agree with the statement and only 6.1% disagree. In this case there is stronger support for the statement from males (67.5% agree or strongly agree) than from females (50% agree or strongly agree), and slightly less support from the 45-64 age group than from the other two groups.

Overall Table 25 suggests the majority of the sample agree with the statements. It also suggests that males respondents agree more strongly than females with the set of statements and that older respondents (>64 yrs) agree more strongly than the other two groups; while the 45-64 yr age group indicates the least support for the statements.

The *Living in Wales Survey 2004* (ONS 2005) asked respondents to what extent they agreed or disagreed with a selection of statements regarding their neighbourhood. There was no formal definition of neighbourhood so respondents could determine the area that most reflected what they felt, but the results provide an interesting comparison to those from individuals involved in Cydcoed projects. The *Living in Wales Survey* results are presented in Table 26 below:

Attitudes about neighbourhood (n = 12,000)	Strongly agree	Tend to agree	Neither agree nor disagree	Tend to disagree	Strongly disagree
I feel like I belong	42.6	35.2	12.2	6.9	3.1
Friendships I have here mean a lot to me	43.1	33.3	14.0	6.9	2.6
I can seek advice from someone	37.4	32.0	11.3	12.6	6.7
I can borrow and exchange favours with neighbours	22.3	25.4	12.9	21.0	18.3
I am willing to work with neighbours to improve neighbourhood	40.5	40.3	10.8	5.5	2.9
I think of myself as similar to others	35.2	38.1	12.3	8.8	5.6

Table 26: Neighbourhood trust and attitudes: Living in Wales Survey 2004

Question 23 in our survey instrument to sample projects asked respondents about the impact of the project on the number of people they knew in their community. The survey asked whether people knew more or fewer people as a result of the project. No-one stated that they knew fewer people after taking part in the project than before. Table 27, below shows that there were some slight differences based on gender with a larger proportion of males indicating they knew 'a lot more' people than females (33.6% compared to 20%), while slightly more females than males indicated they knew 'some more people' or 'about the same number' of people. Overall around three-quarters of respondents indicated an increase in the number of people they knew as a result of taking part in the project.

Gender and age groups	Number of people I know in the neighbourhood (% of respondents) n=153		
	About the same number of people	Some more people	A lot more people
Male	24.4	42.3	33.6
Female	32.7	47.3	20.0
<45 yrs	21.4	50.0	28.6
45-64 yrs	38.2	40.0	21.8
>64 yrs	19.4	44.4	36.1
Total	27.8	44.4	27.8

Table 27: Effect of the project on the number of people known

Table 27 also indicates some slight differences based on age grouping of the sample. The 45-64 yrs age group appears to have benefited least from this aspect of the projects with over one third (38.2%) indicating they know about the same number of people compared to around one fifth of each of the other two age groups.

Question 11 asked respondents to indicate how their households had been affected by community involvement in the woodland project. Table 28 indicates a very small proportion had benefited through provision of work. This does not take into account the number of FTE's created or safeguarded in the wider community as a result of the Cydcoed programme, but is a reflection of the paid employment opportunities created for group members. Also of note is the high proportion of respondents who indicated their employment status to be retired, hence we would not expect high levels of respondents indicating gaining full or part time employment. Much larger numbers (around half the sample) have benefited from provision of a place for recreation and a place for exercise. One third of respondents indicated the project had provided space for children to play, and just over one third claimed the project had stopped, or helped to reduce, anti-social behaviour in the woods. Almost half of households (44%) indicated the project had provided them with an opportunity to volunteer to help suggesting that there is a latent desire among households to be involved in community activities. A small proportion (11%) of households indicated the project had not had any effect, suggesting that 89% of the sample had been positively affected by the project in some way.

Affect on household	Proportion of sample (%) (N=153)
Provided full/part-time work	5.2
Provided seasonal work	2.0
Allowed me to volunteer to help	44.4
Provided a place for recreation	50.3
Provided space for children to play	33.3
Helped to stop or lessen anti-social behaviour in the woods	35.9
Provided a place for exercise	52.3
Provided a place where we can learn about nature	52.3
Other	3.9
Has not made any difference	11.1

Table 28: Affect of community involvement in the woodland project on households

Case study examples

Case study work with groups has revealed how the building of social capital within groups and communities is variable, dependent on the status of the group and length of time the project has been running. As stated previously, the enhancement of social capital takes time and it may prove that a re-examination of these projects in five years time reveals a very different picture. Boxes 5 and 6, below present two examples:

Box 5: Fairy Glen

At Fairy Glen it is difficult to assess whether the specific Cydcoed project has created extra community capacity, as the project is the end of a longer process in which other bodies such as the Prince's Trust has had a role. It certainly acts to maintain a group that already has a long track record, and has allowed them to think about more ambitious projects. So it is probably more of a matter of the project refining and extending a set of skills that the group already holds, than building new capacity from the ground. The group currently number around 20 people and it seems to have developed a very solid relationship with the local council, acting in concert with it to lever more funds into the area. The wider community is involved in generally passive support of the group, rather than being engaged directly in the actions of the group.

Box 6: Cwmaman

At Cwmaman the Cydcoed money was channelled through the church, as this was already a dynamic local organisation, but the bid itself was made by a partnership and it worked well. The focus of the woodland is not just planting in an area of very poor soils but also in creating a sculpture park. The community has come together on several occasions to make decisions such as choosing the sculptures. These were described as being good fun and good social events. Discussion group members noted they had met a lot of people (from all over the world), and that having the sculptors working in the village was good as it tended to bring people in and they talk about other things as well and meet each other. The idea of the sculptures was as a basis for regeneration, bringing together the arts and the environment. This has helped to keep people and money in the community, as well as improving the quality of life.

What is apparent from our research with Cydcoed groups is that, whilst it has proved problematic to ascertain the true depth and value of increased social and community capital, there is no doubt that projects have had significant influences on both individuals and their communities in terms of increased trust, networks and relationships.

Individuals and groups have learned about project management and applications for funding and some individuals from those groups are now cascading their knowledge through advisory work with other groups and communities. Cydcoed has increased the level of trust within communities and helped individuals to learn to work together thereby contributing towards increase community cohesion. Some projects have provided activities to help vulnerable groups reintegrate into society, and whilst these individuals have been hard to reach in terms of engaging with this research, the groups involved report considerable success in increasing self esteem through achievement and introducing them to a new social milieu.

It has not been possible within this evaluation to provide a mechanism for calculating the non market benefits of increases in social capital.

2.5 Education and learning benefits

Key findings

- Only a small proportion of people directly involved in the Cydcoed project groups indicate that their knowledge and/or skills have benefited directly or indirectly from their involvement. Note though that this does not include schools or schoolchildren who may have been active in the projects.
- Twenty nine percent of those involved have gained general work experience
- Primary schools were able to use the projects to meet some national curriculum requirements. However the national curriculum was also cited as a restricting influence on visits to the woodland.
- Secondary school involvement is generally restricted to those children exempted from the national curriculum using the woodland for key-skills work
- Teachers reported that when visiting the woodland the pupils were more visibly relaxed and became more confident, although there was uncertainty over whether this was then transferred to the schoolroom
- Projects were reported by schools as being responsive to the localised, often dynamic, needs of the school and generally involved them in the planning process
- Only a small increase in professional qualifications as a result of project involvement was reported.
- Unsurprisingly educational and learning benefits are more evident where funding has been granted directly to a school.
- Case study work shows that several projects have engaged in student placement schemes with local colleges and universities and one project has reported developing an accredited apprenticeship scheme as a direct result of Cydcoed
- The annual costs avoided to the education and learning sector as a result of Cydcoed are estimated to potentially reach £107 345

Background

The Welsh Assembly Government wants Wales to be a learning country, where high quality, lifelong learning liberates talent, extends opportunities, empowers communities and provides the better jobs and skills that people need to prosper (<http://new.wales.gov.uk/education>)

A survey carried out for the WAG in 2007 indicates that 18% of adults in Wales are currently learning, with 43% having participated in some learning activity during the last three years. However, the same survey also shows that adults in the highest socio-economic groups (AB) are more than twice as likely to be learning as those in the lowest groups (DE). In addition 50% of those in groups DE have not participated in learning since leaving full time education (WAG:2007:10). This is particularly significant for programmes such as Cydcoed, where over 55% of programme spend was in the 40% most deprived wards in Wales.

Table 29 below shows the main benefits of learning given by respondents to the WAG survey. (*ibid*:25):

Main changes or benefits as a result of learning	Percentage of respondents (N=1000)
I have developed myself as a person	30
I have met new people/made new friends	21
My self confidence has improved	20
I have got/expect to get a recognised qualification	19
I have got/expect to get a job	14

Table 29: Perceived benefits of learning. (Wales - moving towards a learning country, WAG, 2007)

The *Woodlands for Wales* strategy states that trees and woodlands can be utilised to support learning activities on a variety of levels, across a range of subjects and in both informal and formal ways. These range from an effective introduction to biology, geography, maths and economics through to art and leisure pursuits. Moreover, woodlands have the potential to be used in an integrated way as part of lifelong learning programmes. Many Cydcoed projects had formal learning and educational outcomes as an integral part of their remit, ranging from ‘improvements for school use’ to the development and maintenance of Forest Schools. The scoping study reveals the following information regarding the nature of education and learning outputs within projects, illustrated in Figure 19.

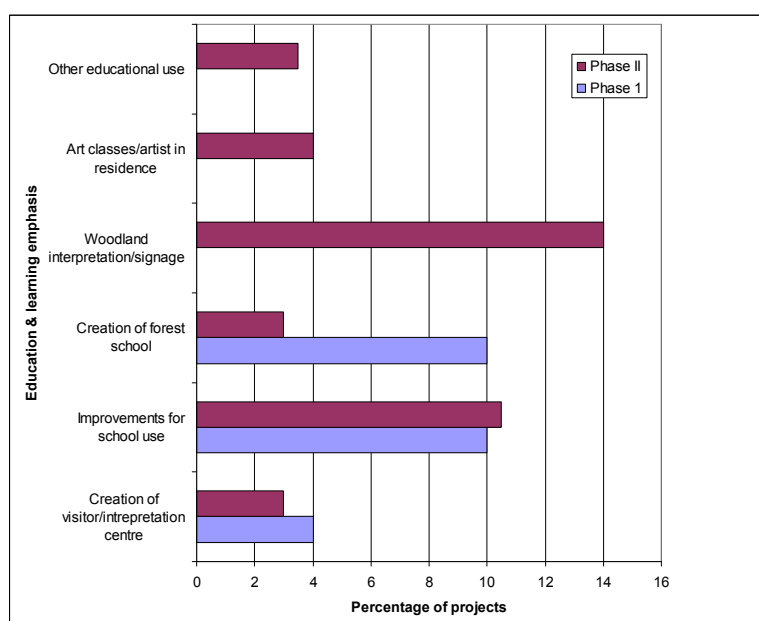


Figure 19: Cydcoed projects indicating education or learning outputs

Indicator EL1: improved education and learning opportunities provided

Cydcoed, whilst recognising and encouraging the use of the woodlands for education and learning purposes, also encouraged individuals involved in the community groups to attend other vocational or relevant courses that would enable them to undertake aspects of the project more confidently. In addition, the programme encouraged groups to help others within the community access vocational or other training and development courses through organising a range of learning events open to all. The survey of all projects shows the number and type of courses attended and number of people attending. These are illustrated in Tables 30 and 31, below.

Course type	Number of people attending ⁵
Forest School leader training	80
Conservation skills	1682
Machinery operating training	22
Forest School awareness	62
Construction	10
Environmental awareness	167
Walk leader	1
Volunteer management	15
Art and sculpture	405
School liaison	14
Management skills	129
Outdoor event leaders	7
Health and safety	29
Archaeology	22
School visit co-ordinator training	250
First aid	20
Orienteering training	20
Teacher training	45
BTCV	6
Climbing instructor	120
Total attending	3106

Table 30: Courses organised by Cydcoed groups

Course type	Number of people attending ⁶
First aid	36
Management skills	76
Forest school taster	6
Fundraising skills	1
Environmental awareness	74
Countryside skills/crafts	48
Forest school leader	25
Machinery operation training	31
Conferences	3
Health and safety	70
General	10
Orienteering	30
Art and sculpture	19
Environment Agency training day	1
Total attending	430

Table 31: Courses organised by others but attended by Cydcoed group members

The analysis of Cydcoed projects revealed the number producing publicly accessible information regarding the woodlands and these are shown in Table 32, below:

⁵ Note that the number of people attending is not necessarily equivalent to the number of individuals attending as people may have attended more than one course.

⁶ See footnote above

Type of information provision	Number of groups
CD Rom	8
Newspaper advertisements	24
Other – including maps; walking guide and newsletters	28
Website	31
Display board or information panel	43
Leaflet	59

Table 32: type of information provision

The omnibus survey carried out for *Valuation of forestry for people in Scotland* (Edwards *et al* 2006) shows that 49% of individuals had used the internet, leaflets of word of mouth to find out something about woodlands in the past 12 months. This helps to illustrate why the provision of information is so important in helping people to learn about woodland.

Our survey to projects required respondents to indicate the number and types of events held as a result of Cydcoed intervention. Using classifications developed within the *Valuation of forestry for people in Scotland (ibid)*, Cydcoed project events relating to education and learning are detailed below in Table 33.

Type of event	Number of events in total	Total number of people attending
Educational / learning (this could include wildlife walks, fungi forays, history walks, flora identification walks, forest schools, school visits)	82	7043

Table 33: educational events

Our survey also indicates the number of schools and associated pupils using Cydcoed project woodlands for education and learning purposes. Table 34, below, illustrates both the number and type of schools and the numbers of children involved.

Type of educational establishment	Number involved	Number of children
Primary School	175	12 912
Secondary School	52	5067

Table 34: education establishments

Indicator EL2: benefits of participating in a woodland learning activity

Further work was undertaken with the representative sample of Cydcoed projects in order to ascertain the benefits of education and learning relating to woodlands and the Cydcoed projects. This section of the evaluation attempts to capture information from both the members of the community groups involved and individuals who have used the woodland as a result of the Cydcoed project through use of a survey, included at Appendix 5.

The ways in which outdoor education and learning experiences can benefit the individual are numerous, ranging from increasing personal confidence to improved employment opportunities. Cydcoed projects have contributed in a variety of ways to maximising the use of woodlands for learning in both formal and informal settings. Respondents to the survey were asked to indicate their agreement with a set of statements concerning education and learning. These are presented in Table 35, below:

Statement	Score (% of respondents)				
	Strongly disagree	Disagree	Neither agree not disagree	Agree	Strongly agree
I find visiting the woodlands helps myself and others to learn about nature (N=147)	0.0	2.0	14.3	38.8	44.9
The project has given me a better understanding of our local environment. (N=133)	0.0	2.3	19.5	44.4	33.8
Woodlands are an important part of our community (N=146)	0.0	0.0	1.4	28.1	70.5

Table 35: learning benefits of woodlands

The same survey asked respondents to indicate the benefits of participation in Cydcoed to their skills and knowledge. Only a small proportion of respondents indicate their skills and/or knowledge have benefited directly or indirectly from involvement in a Cydcoed woodland project. Table 36 below compares the proportion of the sample that have benefited from the project in some educational manner (i.e. through attainment of formal qualifications or through general work experience), with those that have attained similar qualifications/experience irrespective of any involvement in a Cydcoed project.

It is interesting to note that in both cases a small proportion of the sample indicates an increase in formal qualifications. Not surprisingly, the group indicating attainment of qualifications irrespective of the woodland project, indicate a higher level of university and professional qualifications. In fact this group has higher scores in all categories except for 'general work experience'. Overall only a small proportion of the sample (less than 7% in any one category) indicate that involvement in a woodland project has influenced the attainment of formal qualifications of some kind, but over one quarter (28.7%) stated they had gained general work experience suggesting the woodland project have provided respondents with some practical experience.

	Skills/knowledge developed as direct or indirect result of project involvement	Skills/knowledge developed regardless of project involvement
	Proportion of Total sample (%)	Proportion of total sample (%)
Further education qualifications	4.7	6.0
University qualifications	4.0	7.3
Work related courses	6.7	8.7
Professional courses	4.0	5.3
General work experience	28.7	19.3

Table 36: Development of Skills and/or knowledge as a result of project involvement⁴

More detailed analysis of the data reveal that the majority of those attaining formal qualifications from some involvement in the project are from the <45 and >65 age groups. On the other hand, a larger proportion of those indicating they had gained general work experience come from the <45 yrs and 45-64 year age groups. The pattern is slightly different for those indicating attainment of qualifications irrespective of involvement in the woodland project as a large proportion tend to be from the younger age groups with much fewer from the over 65 year group. The numbers are small, however, and it is not possible to reliably measure any statistical differences between the age groups.

Case study examples

All projects involved schools to a greater or lesser degree. Education and learning benefits have been a large part of Cydcoed and of particular relevance to both FCW, with their dedicated education team, and to the WAG - in particular with reference to the Foundation Phase of education, introduced in 2008, for 3 to 7 year olds in Wales. The Foundation Phase focuses on outdoor learning.

Our research incorporated specific work with schools and school children because of this and the insights are presented below.

Semi structured interviews and focus groups revealed that many of the benefits of increased opportunities for education and learning are already recognised by the groups involved. Comments recorded during our research included:

[increased] access to and understanding of culture & heritage (Golygfa Gwydir)

There will be an open-air classroom. We will be looking to natural play area as a future input. (Aberkenfig)

Huge benefits to all children to become more aware of their environment, & environmental issues. 'Ownership' as they were involved in planning & the work involved. (Cwmlai woodland)

Cydcoed funding has provided further resources that has resulted in more opportunities for training & upskilling of people in RCT [Rhondda Cynon Taff] and Merthyr Tydfil areas. (Fedw Hir)

School visits and teacher interviews

Educational benefits have been ascertained through visiting a range of schools that indicated they had some involvement with a project, either through being a grant recipient, taking part in an activity or visiting woodland. A total of 18 schools were contacted and eight schools were visited by the research team where both pupils and staff engaged in discussion.

Teacher Interviews

For those schools not directly grant aided by Cydcoed, but who were users of Cydcoed woodland, there was some difficulty in making contact with teachers who had been involved with the projects. The main difficulty was change of personnel, where teachers and children that had been involved in the project often having moved on. There were also some problems identifying the projects, as the projects and the places were often known by different names. In all, eighteen schools were contacted, resulting in eight full telephone interviews (Table 37) and a number of other useful conversations with teachers and others who knew something about the projects but not enough to do the full interview.

Type of School	Number of Interviews
Secondary	3
Primary	3
Infant	1
Special	1

Table 37: breakdown of school visits

There was at least one school from each of the project regions, with two each from the north and west regions and three from the south. School involvement ranged from infants to older secondary school pupils, although the latter were usually groups who had been exempted from the national curriculum and put on special programmes. Special schools were involved as well as mainstream establishments. When a primary school or a special school was involved, the facility tended to be used by all or many of the classes. Secondary school involvement was usually restricted to one or two groups.

Activities

Schools were involved at a variety of stages within projects from design of artwork to use of the woodland after the project's conclusion. Activities included:

- Watching a sculptor
- Helping to design a gateway
- Clearing undergrowth
- Tree planting
- Putting up bird boxes
- Litter collection
- Teddy bears' picnic
- Mini-beast hunt
- Eco-club activities
- Construction
- Gardening
- Curriculum lessons and Forest School

Qualifications and the National Curriculum

School involvement appeared to fall into two groups. Primary schools were able to use the projects to meet some national curriculum requirements, for example, through studying habitats as part of the science curriculum. However, the national curriculum was also cited as a restricting influence on visits to the woodland. One infant school teacher expressed a hope and expectation that the new foundation phase of the national curriculum in Wales would make it easier to fit in outdoor work.

In the case of secondary schools, the pupils involved had usually been exempted from the national curriculum, and used the woodland for key-skills work. In one case a series of worksheets for use in the woodland, linking with the national curriculum in science, mathematics, art and geography, were produced as part of the project and made available on line (<http://www.pwllcrochanwoods.co.uk/>), whilst at another (Pembroke School) the key skills undertaken by pupils are now accredited by the Open College Network and have led to both the National Trust and Pembrokeshire Coast National Park Authority contracting with the school Community Interest Company (CiC) to carry out maintenance and clearance of footpaths and woodland on their land.

One primary school teacher also indicated that the wood had been used for drama and film activities, as well as science and that most of the classes in the school used it about once per year from everything from a walk to a science lesson. The woodland project in this example had resulted in major improvements to footpaths which actually made access easier and gave teachers more confidence in taking classes there. Another project recipient, Ynyscynon Early Years Centre, use their woodland as much as possible, linking its use to curriculum activities:

'whatever you can do inside, you can do outside' (Teacher, Ynyscynon)

Effect on Pupils

Respondents were asked to agree or disagree with a number of statements according to a five point attitude scale. Responses were generally positive. Children were found to enjoy visiting the woodland, with the possible exception of a group of secondary school pupils who carried out work such as building fences in cold winter weather. In general, teachers reported that when visiting woodlands the pupils were more visibly relaxed, learned about their local environment, learned to work together and became more confident. There was a difference of opinion as to whether behavioural improvements were transferred to the classroom with some teachers supporting the idea, and others not so sure. The benefits mentioned by teachers were development of language skills, creativity and physical development (all for infants); leisure and social skills (for special school pupils); fresh air and having to follow instructions and stick to rules (primary school pupils), looking after each other, gelling as a group and getting ideas for careers (even if only to rule out things they did not want to do) (secondary pupils). Health and safety issues were also mentioned.

Relationship with the Project

Evaluation of the woodland projects was also generally positive, with projects responding to the needs of schools and involving them in the planning process. One school had a problem with communication with the project but this appears to have been due to the illness of a project worker or volunteer who was due to visit and liaise with the school.

The Future

When asked what would encourage them to use the woods more often, teachers responses covered issues such as the national curriculum and staffing as well as issues more directly concerned with the woodland, such as the availability of toilet facilities. One teacher felt that more input and ideas from the project would help. Most teachers felt that the woodlands would remain a valuable educational resource for the future. Both Pembroke School and Ynyscynon Early Learning Centre cited the need to draw down additional funding in order to ensure the sustainability of the projects – both these projects have been very successful at so doing but are very aware of the time commitment needed to do this successfully. Schools also cited the importance of the involvement of both the parents and wider communities in the projects and stressed the importance of community engagement for the schools.

Pupil discussion groups

School involvement seemed to be either by Infant, Junior and Special Schools who had some flexibility in the curriculum, or specific groups of pupils in secondary schools who had been exempted from the national curriculum, usually because of behavioural problems. All the children who had taken part seemed to have gained from it, although the special school pupils did not remember much about their experiences. The ones to gain most may have been the secondary groups who were able to feel that they were making a genuine contribution to the project, whilst learning both hard skills and soft skills such as team work and improving their self-esteem.

Boxes 7 and 8, below, illustrate examples from our case study research of school use of woodlands for education and learning:

Box 7: Pwllcrochan

Primary School, Pwllcrochan Woods, Colwyn Bay

Around 30% of the class remembered going to the wood on a school project and around three-quarters remembered when their memories were jogged by the teacher. Some said they had been up to five times with the school. Pupils had clearly enjoyed the activities in the wood (liked 'finding insects', 'everything'). The bits they had not enjoyed were: 'getting stung by nettles', 'falling over'. When asked what they had learned they talked about insects, and the 'where's Thomas' exercise that the teacher had prepared to get them to visit different parts of the wood to look at specific items. Asked about use of the woods outside school around half the pupils indicated some form of use (walking the dog, going home from school in summer with Dad, walking to church through the wood, playing (e.g. hide and seek, building forts), with Cubs to learn names of tree, look at leaves and learn how to camouflage themselves. Pupils were asked how the woods could be improved and provided a number of ideas including: putting cameras in to catch people lighting fires, making a little park with swings, building shelters, providing more things to do like rope swings, a zip wire, building a hide for bird watching.

Box 8: Holyland Wood

Greenwood School (secondary) - Holyland Wood Project

Those involved in the discussion were from a behavioural unit within the main school, so on their own timetable and development path. The aim of the Unit is to keep young people in the school and boost their attainment. Those in the discussion group were all male.

The lads had been involved in working on the Cydcoed project. In between all the usual larking about and teenage banter (Dean got stuck etc.), it was obvious that the lads had enjoyed this and got a lot from it. In working on the project – which was hard physical work the lads had worked together as a team – a new departure for all of them and also worked really hard – again new. In fact they were told that they had constructed more pathway than any other group on the project and showed considerable pride in this. It was, as they described it, ‘men’s work’ and were obviously pleased to be trusted with machetes and other tools. They had a teacher and also a project worker who actually supervised them on a day to day basis. Their teacher reported that the project workers at the woods cursed and swore at the lads (and she pretended not to hear) and they loved it.

The actual work they had conducted was clearing undergrowth, making paths, planting ferns and seeds, but no tree planting. They also built and put up bird boxes. The lads had obviously enjoyed and benefited from this kind of work, it built their confidence, encouraged team work and pride, as well as engaging them, some of them now going onto post-16 education.

The difficulty for the school was access to these projects, they are not a directly funded Cydcoed group, but rather use Holyland Wood project, which is situated close to the school. They would like to use the woodland more regularly and are also investigating the use of other nearby Cydcoed project woodlands.

A number of educational benefits were uncovered in the research ranging across the educational spectrum from infant to secondary level and including special schools and excluded pupils. Large numbers of visits are being made to woodlands, particularly those sited close to school grounds, and used in a variety of ways from science to film and drama, and for teaching vocational skills to excluded pupils. All interviewees (and the pupils themselves) reported that children of all ages enjoyed the woodland activities.

Educational and learning values

It has only been possible within this evaluation to provide educational and learning values in relation to school use of woodland. Very little work has been carried out to determine mechanisms for valuing the benefits of woodland to education in the widest sense, and it has not been within the remit of this research to devise such a method.

A range of educational benefits is evident at all educational levels from primary to secondary, and including excluded pupils and special schools. Benefits range from being able to undertake work outside the classroom that can be integrated into the national curriculum at primary level, to developing teamwork, vocational skills and confidence in young teenagers at secondary level. An important advantage for many of the schools using the woods is the accessibility which allows teachers and pupils to walk to the woods and not engage in hiring transport for an outdoor field trip.

Very little work has been carried out in estimating the welfare benefits of outdoor education. No welfare estimates were found in the literature for the value of field trips which may have multiple benefits depending on the kind of activities undertaken (e.g. deepening understanding of subject material, physical health, bonding and socialising). Woodland educational visits may also have benefits for teachers in terms of making their teaching more enjoyable, easier, or more effective. Provision of outdoor facilities within walking distance may reduce the administrative burden of

running a field visit (e.g. hiring buses, logistics, disruption of other activities). It does not make sense to take monetary estimates developed for recreational or other activities and apply them in some contrived manner estimate the benefits of woodland education visits.

The approach used for this evaluation is based on an averting expenditure (or cost avoided) approach. Evidence suggests that although some of the Cydcoed projects have been carried out in existing woodlands, schools are making greater use of the woodland through new or improved access. In the absence of any other monetary estimates one option is to estimate the cost per pupil of a trip to a comparable site where the educational input must be paid to an external provider. For example, a day trip to a local field centre might cost £25 per pupil including transport, while a 4-day stay at an outdoor centre could be as much as £160 per pupil. Where trips involve bus transport pupils might easily be charged £5-10 each. Where access has been improved or provided to a local woodland within walking distance, use of that area represents a cost avoided compared to using a different area further away (no measure of administrative time savings by teachers/secretaries has been made). As most of the woodland visits are local and of short duration (e.g. 2-hours to half-a-day) a conservative estimate of value might be £5 per visit per pupil. Many primary schools engage in whole class activities in local Cydcoed project woods, and research has shown that improvements to access have certainly increased this level of activity. Secondary schools benefit from educational visits, vocational teaching (especially for excluded pupils) and a small number of special schools also use some of the woodlands.

Where schools utilise the project woodlands total annual benefits per community in terms of expenditure avoided are estimated to be £2165. Aggregating this figure across all projects with reported school use (based on a 77% response rate survey) provides a programme estimate of £107 345 expenditure avoided per year. This is illustrated in Table 38 below:

	Community scale (£ per year)	Programme scale (£ per year)
Primary	900	64 800
Secondary		
National curriculum	765	25 245
Vocational/other	500	16 500
Special		800
Total annual costs avoided	2165	107 345

Table 38: non market benefits of education and learning

Notes on calculation of benefits

Based on the initial scoping questionnaire to all Cydcoed groups, with a response rate of 77%, the following was reported:

- 72 projects reported involvement of primary schools with a total number of children attending of 12912 (an average of 180 primary pupils per project benefiting)
- 33 projects reported involvement of secondary schools with a total number of children attending of 5067 (an average 153 secondary pupils per project benefiting)

Primary education benefits

- Assume each pupil in a school visits a Cydcoed project woodland once per year. This may well be an underestimation.
- Assume £5 costs avoided per pupil from having to pay for transport.
- Assume 180 pupils per school. An average taken from numbers given by case study schools.
- Approximately 50% of woodland projects are used by primary schools
- The analysis does not include teacher time/effort saved through not having to organise more complex trips involving hiring of transport.
- Reduced environmental impacts of not hiring motorised transport are not included in the analysis.

Secondary education benefits

- National curriculum associated: assume 153 pupils per school per year benefit
- Excluded pupils: assume 10 per year per school (total of 33 schools) benefit through total of 10 days work in the woodland. Costs avoided are £50 per pupil.
- Approximately 20% woodland projects used by secondary schools

Special education benefits

- 5% woodlands used by special schools once per year (= 8 schools)
- Assume 20 pupils benefit per school per year
- Costs avoided are £5 per pupil for a total of £800

Benefits at University level are not included although there is evidence that at least one Cydcoed project has provided university student placements, and another has been used as a study site for environmental science students.

2.6 Recreational benefits

Key findings

- Recreation is identified as a prime benefit for many of the respondents in the survey sample with around three quarters identifying it as a benefit for their household and approximately half the sample indicating that their recreational use of the woodland had increased since the project
- Woodlands are receiving increased or new recreational use as a result of the projects. This is occurring even in areas where there are existing public forestry sites, but at a greater distance from where people live. The advantage of the Cydcoed woodland sites is their proximity to a local community of users, allowing people to access them through walking
- Nearly three quarters of respondents agreed that they would like to visit the woods more often
- The most popular activities in the woodlands are walking, watching wildlife or birds and just enjoyment of the countryside. Relatively small proportions of the sample engage in physical recreational activities such as cycling or jogging.
- An average of 420m of new footpath/track have been created per project and an average of 200m of existing footpath or track has been brought into use per project

- There were no perceived barriers, apart from a lack of time, to accessing the woodland
- Annual non-market benefits of recreational activity in Cydcoed woodlands is estimated to reach a potential £14 616 659

Background

This section analyses the data from a variety of sources, including project documentation, surveys and case studies. The majority of Cydcoed projects indicated in their bid documentation their intention to create or improve the recreational facilities in the woodlands. The scoping study indicates that 19 Phase I and 80 Phase II projects had new or improved facilities as an integral part of the application. Figure 20 below illustrates the type of facility provided:

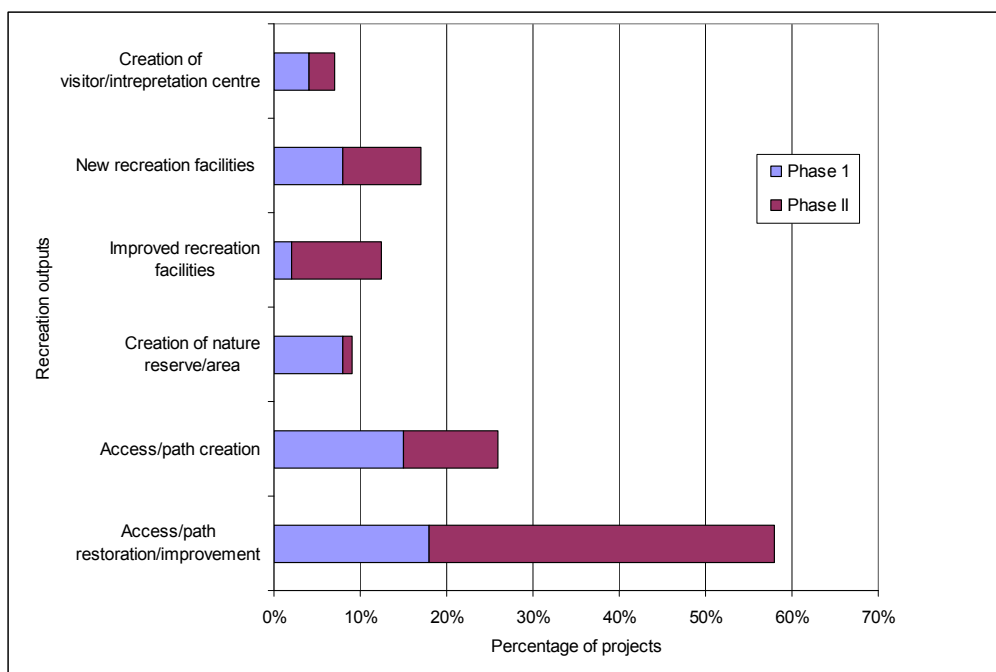


Figure 20: New or improved recreational facilities at Cydcoed projects

Indicator RA1: the use of Cydcoed project woodlands for recreational purposes

Using the classification developed for *A valuation for forestry for people in Scotland* (Edwards *et al*, 2008) the survey asked project groups to indicate the number of events held relating to a recreational theme. These are presented in Table 39 below:

Event type	Number held	Number of people attending
Recreation / sport (this could include organised walks or runs, motor sports, mountain bike or cycle events)	24	1070

Table 39: attendance at recreational events

Recent forest visitor surveys have been carried out across Forestry Commission sites in the UK. The most recent survey within Wales (Grant and Smilie, 2007)

supports earlier studies in terms of visitor profiles and characteristics of visits. In 2007, 79% of the survey respondents indicated that had visited woodland for recreation in the previous few years. Visitation was higher in summer months than in winter. The 2007 figures appear to show an increase in visitation rates compared to surveys in 2005 (69%) and 2003 (62%). Some geographical variability was noted with those in the Valleys and those living in deprived areas less likely to have visited forest or woodland. Demographically fewer older people (over 55 yrs) stated they had visited woodland (71%). The number of respondents visiting forest or woodland in the countryside has increased from 49% in 2003 to 65% in 2007, and those reporting visits to woodlands in and around towns has increased from 11% in 2003 to 19% in 2007.

It should be noted that a total of 25% of respondents to the above survey expressed no interest in visiting woodlands (a reduction from 31% reported in the 2003 survey and 36% in the 2005 survey). In the most deprived areas, 'personal mobility' was more significant as a reason for not visiting woodlands (45%), compared to least deprived areas (20%), suggesting that access to woodlands is more of an issue in deprived areas. A total of 70% of respondents stated they would like to have more woodland in their part of the country and 6% of the sample stated they had been involved in some way with tree planting or woodland voluntary work.

Our survey results from the 24 sample Cydcoed projects indicate an overall increase in recreational use of community woodlands as a result of being involved in a project. Unfortunately only two-thirds of the sample completed this question, suggesting perhaps that they do not use the woodland for recreational purposes.

Table 40 and Figure 21 (below) show that of those responding over half had 'considerably increased' their use of the woodland for recreation and a further 26.7% had increased their use 'a little'. The results also suggest that a larger proportion of those in the >64 year age group are making more use of the woodland for recreation than those in the other two age groups. Comparing any increase in use with no increase, however, suggests that it is the older two age groups (83.8% and 88.9%) that are benefiting more from increased use than the <45 year age group (75%) although the differences are not large.

Age group	Use of woodland for recreation (N=105)			
	Increased considerably (%)	Increased a little (%)	Use has not changed (%)	Declined
<45 years	46.9	28.1	25.0	
45 – 64 years	50.0	38.9	11.1	
>64 yrs	70.3	13.5	13.5	2.7
Total	56.2	26.7	16.2	1.0

Table 40: recreational use of woodland

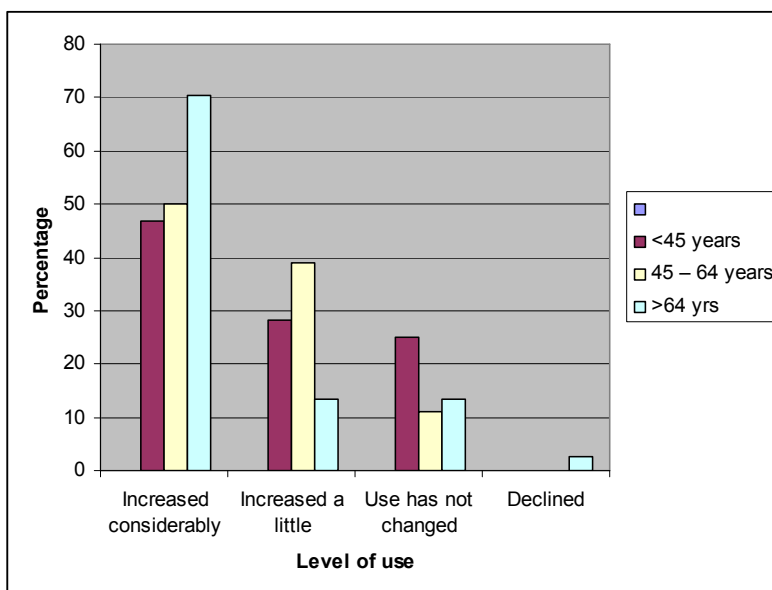


Figure 21: level of use of woodland (n=105)

The results reveal that nearly half (48.6%) of the sample live within ½ mile of the woodland, and a further 20% live within ½ mile to 1 mile of the woodland. Most people either walk or drive to their local woodland. The majority of the sample (60%) indicated that their normal mode of travel to the woodland is walking, while 33.8% use a car. Only 3.4% use public transport and 1.4% cycle to the woodland.

Table 41, below, indicates that the most popular activities in the woodlands are walking, watching wildlife or birds and just enjoyment of the countryside. Relatively small proportions of the sample engage in physical recreational activities such as cycling or jogging. This may be partly due to the nature of some of the sites in the sample, not all of which were conducive to such activities (e.g. lack of cycle paths, steep slope, uneven surfaces).

	Count	% of sample
Walking	130	84.9
Running/jogging	4	2.6
Working/volunteering	48	31.3
Cycling/mountain biking	12	7.8
Bird/wildlife watching	82	53.5
Picnics	27	17.6
Woodland events	51	33.3
Taking children to school	7	4.5
Enjoy the countryside	90	58.8
Gathering (fungi, berries etc)	12	7.8
other	10	6.5

Table 41: type of recreational use of the woodland

Indicator RA2: improved recreational facilities provided

Our survey of projects gave an indication of the amount of new and improved recreational facilities made available through Cydcoed projects. These are presented in Table 42, below:

Facility	Average improvement	Total improvement
Creation of new footpath or track	420m per project	68 460m
Improvement of existing footpath or track	200m per project	32 600m
Creation of new mountain bike or cycle track		30 047m
Improvement of existing mountain bike or cycle track		7812
Number of new access points	2 per project	326
Number of improved access points	2 per project	326

Table 42: recreational facilities provided

Question 9 of the survey to the 24 sample projects (Appendix 5) asked respondents to score the following statement on a 1-5 scale: *“I would like to visit the woods more often”*. Nearly three-quarters of the sample agreed or strongly agreed with the statement (32% and 41.8% respectively), while 25.5% disagreed.

The data from the sample suggests that around one quarter of respondents were not interested in using the woods for recreational purposes. This is similar to the estimated 25% of households in Wales not interested in woodland recreation found by Grant and Smilie (2007) in their report on forest recreation.

Question 10 explored barriers that prevented respondents from using the woodland. The vast majority of respondents did not identify any of the barriers listed as a problem affecting their use of the woodland (see Table 43). Nearly half the sample (42%) indicated there were no barriers, and 17.6% indicated that their lack of use was because they were too busy. The low numbers of people experiencing barriers to visiting the woodland relates to the fact that over 90% indicated they ‘felt safe’ visiting the woodlands and the fact that in general the questionnaire was received by individuals who were known users of the woodland and therefore care should be exercised when considering these figures.

Barriers	Proportion of sample affected (%) (N=153)
Blocked footpaths	1.3
Not safe	1.3
I do not find the countryside a welcoming place	0
Lack of disabled access	3.3
No one to go with	2.0
Problems gaining access to paths and bridleways	2.0
Not interested in visiting the countryside	0
Nowhere to park my car	3.3
Lack of public transport	2.0
I am too busy	17.6
I prefer to visit coastal areas	0.7
Lack of freedom to walk where I would like	1.3
Lack of waymarked paths	5.9
Fear of getting lost	1.3
Not enough routes suitable for cycling	7.8
Fear of accidentally trespassing on someone's land	0.7
Not enough routes suitable for horse riding	3.3
None	42.5
Other	6.5

Table 43: barriers to using the woodland

Both the survey and the discussion groups support the importance of the recreational values created through the woodland projects under the Cydcoed programme. Recreation is identified as a prime benefit for many of the respondents in the survey sample with around three quarters of the sample identifying recreation as a benefit for their household and approximately half the sample indicating that their recreational use of the woodland had increased since the project.

The survey to all projects elicited additional comments concerning the benefits of increased recreational opportunities provided by Cydcoed woodlands. Comments included:

An old landfill site has been made available to the public. This is an excellent introduction to the countryside for the adjoining council estate & a wonderful playground for children. The other site has created a wonderful access, through mature woodland to a beautiful panorama walk, avoiding a narrow busy lane. (Coed Abermaw)

Access to the woods has now been secured. Previous permissive paths have now been upgraded to rights of way). Woodland has been secured for wildlife and a heritage trail is proposed (Troserch)

Case Study examples

The discussion groups support the findings of the questionnaire suggesting that woodlands are receiving increased or new recreational use as a result of the projects. This is occurring even in areas where there are existing public forestry sites, but at a greater distance from where people live. The advantage of the Cydcoed woodland sites is their proximity to a local community of users, allowing people to access them through walking. Interviews with teachers and classroom discussions

with pupils suggest that the woods are being used by children outside of school activities. Boxes 9 and 10, below, present two examples of increased recreational provision illustrating the importance of such to the communities involved.

Box 9: Beaufort Hill

At Beaufort Hill the project was thought to have defined the land as a recreational resource, preventing planned development and reducing the chance of future development. The area was used for recreational purposes before the project but not as much as afterwards. In particular, the project provided both all year round access, whereas before it had been a seasonal resource accessible only in summer. Some of those present said they were walking across more often – some several times a day. It is now being used for walking dogs, walking for health, taking children out and as a shortcut. New paths provided disabled access including access for the children from the special school. It was thought that use of the site was increasing and it was expected to increase further.

Box 10: Fairy Glen

At Fairy Glen, the paths through the forest are major pedestrian routes through the village offering solid all weather paths for children, parents with push chairs, and the more able wheelchair user. Children use the stream and woods as informal play areas, with improvised slides and swings, which the team are relaxed about. As with most of these projects dog walkers are major beneficiaries. Conservation was becoming a more serious component of the project with FC tree officers, Coed Cymru and other conservationists visiting the woods. The sycamore has been cleared and natives planted in their stead, bird boxes have been put up and otter spraint spotted.

Recreational values

Appendix 9 identifies a large number of studies that have measured the welfare benefits stemming from recreational activities in woodlands and forests within the UK. The majority of these estimates are based on either contingent valuation (and variations on the approach such as contingent ranking) or travel cost methodologies. The majority of the studies focus on visitors to large forested areas/woodlands particularly where visitors have travelled some distance in order to visit a forested area for recreation. There is little empirical evidence of the welfare benefits arising from marginal improvements to small local woodlands used by local people. The options for determination of the recreational values of local woodland are thus limited. Some of the more recent studies (e.g. Christie 2006) estimate the local economic impact using economic multipliers, although this approach is not suitable in the present case due to the nature of both woodlands and their use by inhabitants living in the immediate area (i.e. the majority of users in the Cydcoed study are accessing the woodland on a regular basis but not spending any money to do so).

Our survey illustrates that the most popular uses of the woodlands are for walking and watching wildlife. Table 44 below illustrates the significance of walking as a recreational activity in the Cydcoed project woodlands, it dominates the estimated welfare measures, yet in some ways walking is the most difficult activity to value without empirical data on the benefits of local woods to users. The existing welfare measures found in the literature tend to be based on studies of sites where visitors have travelled to the site (usually by car) for some form of walking activity. The walking at the Cydcoed sites is carried out at a very local level (two thirds of the survey respondents live within one mile of the woodland) and 30% of the sample stated they walked in the woodland either daily or several times per week.

Using a benefit measure derived from a contingent valuation study runs the risk of overestimating the amount people would be prepared to pay for access to such woodland. In this study a level of £1 per visit has been used to capture the value of the woodland to those using it for walking (taken from the Willis, et al. 2003 travel cost study and adjusted for inflation). If approached, individuals may not offer to pay this amount but it may capture the 'value' people place on having access to a very local facility (especially if the next nearest open space involves travelling by car or public transport).

There are inherent difficulties in using travel cost figures to value welfare benefits of local woodlands. Reducing the benefits per visit derived from previous studies, to account for the fact that people are only walking a short distance to access the wood, runs the risk of devaluing the benefits local people place on the woodland (which might be high). On the other hand, using the values produced from studies of forest visitors threatens to over-estimate values provided by those who may have spent money driving for several hours to undertake a visit.

The major missing element in the data is information on the level of informal play that occurs in woodlands. Site visits, school visits, and focus group evidence all suggest that a high level of informal play occurs in woodland in the under 18 age group. The benefits of this play have been estimated using a measure of willingness to pay for new family play areas by visitors to forest sites. (Christie, et al. 2006). We are aware that the sites utilised by Christie in his 2006 study were high quality sites and there is a danger that transferring such measures might over-estimate the benefits for small community sites.

Table 44 below summarises the recreational benefits from Cydcoed projects at community and programme levels. Total amounts of recreational non-market benefits at the community scale have not been provided as actual benefits will depend on the recreational activities taking place in each woodland. For example, only a small number of woodlands have sculpture trails or cycling, while in the majority walking and informal play take place.

Activity	Community scale (£ per year)	Programme scale (£ per year)
Walking		
<i>High</i>	115 564	14 098 808
<i>Medium</i>	57 782	7 049 404
<i>Low</i>	1292	157 624
Cycling		
<i>High</i>	581	3 487
<i>Low</i>	290	1 743
Sculpture trails	334	2 687
Wildlife/bird watching	3 672	297 432
Informal play	2 645	214 245
Total annual benefits		
High		14 616 659
Medium		7 563 768
Low		673 731

Table 44: non market benefits of recreational activity

Calculation of benefits

Walking

- Calculations are based on 75% Cydcoed projects providing access for walking (N=122)
- It is assumed 25% of sample do not visit woodlands for recreation (based on Questionnaire data from this study)
- Based on the questionnaire carried out for this study 85% of recreational users of woodland projects are walkers with the following breakdown:
 - 30% walk several times per week
 - 28% walk weekly
 - 18% walk 1 or 2 times per month
 - 12% walk once per month
 - 12% do not use the woods for walking
- The average size of population in the neighbourhood of a Cydcoed woodland project is 2,100 persons (www.statswales.co.uk)
- Based on marginal benefits of £1.00 per person as the measure of marginal benefits of recreational activity per visit (Taken from Willis et al., 2003 and adjusted for inflation). This is the disaggregated measure derived by Willis et al. for local visits to forests (from less than 10 miles away) to reflect the short distance (under 1 mile) made by most visitors.
- The analysis assumes new access or improved access has taken place in all woodlands.

There are three estimates, low, medium and high. Benefits are calculated by multiplying the proportion of the population that use woods for walking by the annual benefits.

Example of calculation for Medium benefits estimate:

In an average community of 2,100 persons it is assumed only those living within half a mile of the wood use it for recreation (for simplicity and in the absence of other data this is assumed to be 50% of the population). This amounts to a potential population of 1,050 persons, of whom 25% do not use the wood to recreate. Of those that do

engage in recreational activities 85% undertake walking leaving a total of 699 persons who use the woods for walking. Benefits are then calculated as follows using data derived from the survey of user groups:

30% walk 4 times per week = £208 per person per year (699 x 0.3) = £43,617

28% walk once per week = £52/person/yr (699 x 0.28) = £10,140

18% walk twice per month = £24/person/yr (699 x 0.18) = £3,019

12% walk once per month = £12/person/yr (699 x 0.12) = £1,006

12% do not use this particular wood for walking = £0

- Low estimate based on the population of those directly involved in implementing Cydcoed projects (average 25 people per project)
- Medium estimate assumes that only households within 1/2 mile of the woodland use it for walking on a regular basis (e.g. daily or several times per week). For this purpose it has been assumed half of the mean neighbourhood population live within half a mile of a Cydcoed woodland project. This may overestimate the number of users as children are unlikely to use the wood for walking, but more likely to use it for informal play.
- High estimate – the total mean neighbourhood population (2,100) is taken into account. This may overestimate the number of users as children are unlikely to use the wood for walking, but more likely to use it for informal play.

Cycling

- Assume 6 Cydcoed projects having new or improved cycling access. Project evaluation reports a total of 37km of new or improved cycle track (based on a 77% survey response)
- 8% recreational users engage in cycling/mountain biking (based on questionnaire responses). It was therefore assumed that 8% of the population of the average neighbourhood would use the woodland for cycling. Using this as the high estimate of cycle use of woodlands, a low value was determined as 50% of this number.
- Estimated £3.46 per visitor per year for new cycling trails (value taken from the Christie et al., 2006 study).

Sculpture trails

- based on 5% of Cydcoed woods (N=8) having sculpture trails
- estimated £2.79 per visitor/yr for sculpture trails (Value taken from the Christie et al., 2006 study).
- Estimated average of 10 person visiting a sculpture trail for each of 12 weekends per year (average of 120 persons per trail). This estimate is similar to the number of persons (5,610) attending cultural/art events across all Cydcoed projects over the evaluation period (2001-2007) (Source: Cydcoed evaluation survey 2007).
- there is some evidence from the discussion groups that visitors from outside the area are visiting sculpture trails (e.g. Cwmaman). This estimate might therefore under-value benefits of sculpture trails in Cydcoed woods.

Wildlife/bird watching

- based on 50% Cydcoed woods (N=81) providing bird/wildlife watching opportunities
- 53% persons engage in bird/wildlife watching (equivalent to 1,113 persons per community)
- £3.30 per visitor/yr for a new wildlife centre (Values are taken from the Christie et al., 2006 study). This may overestimate the value of bird/wildlife

watching as new centres are not being constructed in Cydcoed woodlands. However, creation of new woodlands results in an additional local resource for bird/wildlife watching; new and improved access to existing woodland enables greater use to be made of areas in or close to residential neighbourhoods. In both cases access to this activity is made easier and may result in costs avoided through not having to travel to some more distant location.

Informal play

- based on 50% Cydcoed woods providing for informal play (N=81)
- survey data reveal 33% of households have dependent children amounting to 301 households per neighbourhood in which a Cydcoed project is located.
- Calculation assumes all households with dependent children derive some benefits from accessing the woods for informal play.
- £8.79 per household/yr for new family play areas. In this study the assumption is made that households benefit rather than individuals. (Values are taken from the Christie et al., 2006 study which derived a per visitor value for persons travelling to a forest site). This may overestimate the value of informal play but in some cases woodlands are providing a new and safe environment for informal play. In the absence of other data valuing local play areas the amount of under £10 per household per year for a local play area seems reasonable.

General Notes

- The study assumes a community of 2,100 people in the immediate vicinity of a Cydcoed woodland (with an average of 2.3 persons/household). This estimate is based on neighbourhood population figures for Wales. It may be an underestimate of populations that can access a Cydcoed woodland project as some woodlands are in more than one neighbourhood and can be accessed by a potentially larger population.
- Programme scale estimates are based on 163 Cydcoed projects across Wales
- Analysis assumes 75% of Cydcoed projects (N=122) provide new or improved access for some form of recreation.
- Questionnaire data indicate the following:
 - 25% of households are not interested in any form of woodland recreation
 - Two-thirds of users live within 1 mile of the woodland (60% of whom walk to the woodland and the rest use a car)
 - A range of recreational activities are undertaken (some users engage in multiple activities):

Some key assumptions have been made regarding the utilisation of data in this study:

- The sample of 20 projects on which the survey data are based are representative of the total population of Cydcoed projects.
- the sample data are representative of the population of users of the 163 Cydcoed projects across Wales
- the sample data are representative of the populations of the local areas around the Cydcoed woodlands
- the majority of visitors to Cydcoed woodlands live in the locality and do not spend money on a visit.

To a certain extent the benefits estimated here are a conservative estimate as not all the recreational activities that are taking place are represented. For example, 2.5% of the survey sample use the woodlands for running/jogging, and 8% engage in

gathering (e.g. mushrooms, berries), 17% visit for picnics, and 59.5% for 'quiet enjoyment'. Evidence from the survey to all Cydcoed projects indicates at least 24 organised recreation activities taking place in Cydcoed woodlands over the evaluation period. Benefits arising from organised events have not been included in this analysis.

Some persons are engaged in multiple activities and over the course of a year might visit a woodland for several different reasons; others only use the woodlands for one activity (e.g. walking the dog), but might do this on a regular, or even a daily basis.

2.7 Environmental benefits

Key findings

- Almost all people involved in Cydcoed projects believe that woodland is an important part of the community
- Over three quarters of those involved indicate that the project has given them a better understanding of the environment
- Environment improvements are very site specific and a complete assessment would require more definitive and site specific measures
- 80 projects created new community woodlands on non agricultural land – over approximately 205 hectares
- Over 340 new sustainable woodland management plans are in place, covering some 8915 hectares
- Annual environmental non-market benefits of Cydcoed are estimated to reach a potential £836 186 annually

Background

Whilst maintaining water, air and soil quality are of paramount importance to environmental sustainability, the visual quality and sustainability of the environment should not be underestimated. An assessment of the contribution of Cydcoed projects to maintaining and improving landscape quality are not an integral part of the evaluation brief – therefore no indicators were developed for this section. However, it is useful to present our research findings to highlight that Cydcoed projects, by enhancing woodland environments, have been contributing towards the FCW strategic objective of conserving and enhancing the landscapes of Wales. Our case study work did not focus on environmental benefits, for the reasons cited above, and therefore we do not present any insights from case studies in this section.

The Cydcoed programme has several quantifiable outputs relating to sustainable environmental improvements which contribute to the *Woodlands for Wales* strategic objective of creating and maintaining a diverse and healthy environment in Wales. In particular, Cydcoed projects demonstrate outputs contributing to two key objectives of the *Woodlands for Wales* strategy:

- to conserve and enhance the biodiversity of our woodlands and
- to conserve and enhance the landscapes of Wales

Research findings

The analysis of Cydcoed projects indicates that 17 Phase I projects and 63 Phase II projects created new community woodland on non agricultural land. As stated previously, in section 2.1, the numbers of new woodlands on non-agricultural land have been affected by the change in definition of 'non agricultural land' by WEFO. Hectares of woodland created are detailed below in Table 45:

	WEFO Target	Target compiled from bids	Output(hectares)
Phase 1	140	60.17	33.52
Phase II	222.5	170.3	170 (no completion report total available)

Table 45: hectares of woodland created on non agricultural land

In addition to the creation of new woodland, Cydcoed has encouraged communities to implement sustainable woodland management plans resulting in 73 such plans in Phase I and 268 in Phase II. The hectares of woodland brought into sustainable management as a result of Cydcoed intervention are detailed below in Table 46:

	WEFO Target	Target compiled from bids	Output
Phase 1	1640	5098.08	5011.38
Phase II	3168	3903	3903 (no completion report total available)

Table 46: hectares of woodland brought into sustainable management

Our survey to all projects demonstrates that there is evidence for environmental improvements owing to Cydcoed intervention in community woodlands. Comments from respondents included:

Better environment, attractive landscape/visual impact, regeneration of derelict land, use by locals & visitors (Garw Valley)

As a result of the project the site has been designated as a local nature reserve. It has won numerous awards including 'runner up' in the woods for Wales forestry commission competition. A new support group was set up Fairy Glen river-care group'. A management advisors group set up in conjunction with countryside services & countryside council for Wales. (Fairy Glen)

The environmental enhancement of a housing site, where there had previously been little or no planting. Bringing a large site of former colliery spoil & domestic landfill into environmental use. Provide a habitat for a wide range of flora & fauna. (Tredegar Community Woods)

Improved aesthetics for people entering & leaving Llangollen by car or canal boat. Improved woodland habitat. Improved bio-diversity. (Llangollen Town)

The survey to the 24 sample projects contained several statements regarding opinions about environmental benefits that respondents were asked to score on a 1 – 5 scale. Table 47 below summarises the results. These indicate that the majority of

respondents have benefited from the woodland project by learning more about their local environment. Results also indicate that the proportion of each age group that benefits is approximately similar. It is interesting to note that 98.6% of the sample agreed that 'woodlands are an important part of our community'.

Comparing the sample on the basis of gender, there are no statistically significant differences but a slightly larger proportion of males strongly agree with the statement on the important of woodlands to the community, compared to females.

Statement	Score (% of respondents)				
	Strongly disagree	Disagree	Neither agree not disagree	Agree	Strongly agree
I find visiting the woodlands helps myself and others to learn about nature (N=147)	0.0	2.0	14.3	38.8	44.9
The project has given me a better understanding of our local environment. (N=133)	0.0	2.3	19.5	44.4	33.8
Woodlands are an important part of our community (N=146)	0.0	0.0	1.4	28.1	70.5

Table 47: scored statements of environmental benefits

Environmental values

Environmental benefits are complex to measure as many are site specific. For example the environmental benefits of clearing a derelict colliery site and planting broadleaved trees are very different from stream management and improved woodland management that opens up the canopy. Such variability makes it exceedingly difficult to calculate average values at the community level or total values for the programme as a whole.

Table 48 below provides some indicative values for certain categories of improvement, where they occur. The table does not imply that every community benefits from each category of benefits, nor does it imply that each community would benefit to the same level, these figures are indicative only. Due to the variability in activities at the community level, average benefits per community cannot be calculated. At the programme scale the estimated benefits are based on the proportion of Cydcoed woodlands exhibit that particular category of benefit. In some cases woodlands will have multiple benefits based on activities funded.

	Community scale (£ per year)	Programme scale (£ per year)
Landscape	5 918	236 720
Carbon sequestration	na	na
Ecological improvements	12 234	599 466
Air quality improvements	na	na
Total annual benefits		836 186

Table 48: non market environmental benefits

Notes on method of calculation

Landscape

Based on the Willis et al., (2003) study, which identified a value for households on the edge of urban areas with woodland landscape views. Value = £269/household/year. This value is based on views of urban broadleaved trees in South-eastern England and the extent to which it can be transferred to Welsh communities is debatable. Focus group and interview data suggest that in some of the Cydcoed communities there are potentially significant improvements to landscape from planting and improvements to Cydcoed sites in close proximity to residential neighbourhoods. Without visiting each Cydcoed site and interviewing residents it is difficult to place a value on such improvements, which may also include increased property values from improvements to the local environment.

The approach taken here is to assume that where new planting has occurred in proximity to residential neighbourhoods there will be benefits both to landscape and property values in the immediate vicinity of the new woodland. A cautionary estimate of 2.5% of houses with improved landscape views is assumed, where new planting has occurred, based on visits to four Cydcoed sites in the sample survey. The estimated benefits are based on neighbourhood populations of 2,100 and average household of 2.3 persons (giving a total of 913 households). If 2.5% of households are assumed to benefit from improved landscape views this equates to 22 houses.

At the programme scale we assume 25% of projects improve the landscape (a total of 880 houses benefiting).

Carbon sequestration

A wide range of estimates exists for carbon sequestration. Many of the woodland areas in the Cydcoed programme already exist, and new planting amounts to very small areas. Carbon sequestration benefits are therefore likely to be low and have not been calculated here.

Ecological improvements

Improvements are very site specific, ranging from improved woodland management to restoration of derelict sites. Various estimates exist for improvements to biodiversity. Care must be taken to avoid double counting those benefiting from improved use values (e.g. bird/wildlife watching). A figure of £13.40 per household per year was developed as a measure of the non-use value of biodiversity in forests by Garrod and Willis (1997) (and adjusted here for inflation). This is a figure for biodiversity in all UK forests and changes brought about by small scale changes in Cydcoed woodlands are very marginal. At the local level, however, such

improvements are significant, and highly valued. The majority of residents may never visit other woodland areas but the improvements in local ecological value were commented on in focus groups where improvements had occurred.

Two alternatives are available: use the use value for ecological improvements estimated under the recreational benefits, or utilise the household non-use estimates of biodiversity value estimated by Garrod and Willis as a proxy for localised marginal ecological improvements.

At the community level, where ecological improvements have occurred, these are assumed to have value to local residents. In the absence of any other measure, the non-use value of £13.40 per household per year is utilised (assuming average of 913 households per project).

In the survey sample of projects an estimated 30% projects resulted in potentially improved biodiversity. Assuming this proportion is reflected throughout the entire population of projects then 49 woodland projects resulted in improvements in biodiversity.

This does not take into account value of woodlands in relation to their large landscape or regional scale ecological significance (for example, as wildlife corridors, or their role as elements in a network of wildlife sites).

Air quality improvements

Studies have shown that forested areas filter-out some pollutants, especially particulates. However, many of the woodlands existed prior to the Cydcoed projects and cannot be included as a benefit of the programme activities. Other projects, where new planting has taken place, will not be effective in improving air quality for some time, even then the effectiveness will vary depending on the size of the woodland, and its location in relation to residential housing. No estimate of benefits was made for air quality improvements.

2.8 Employment and local economy

Key findings

- One quarter of the survey respondents indicated benefits from general work experience
- One third of survey respondents indicated acquisition of skills that could be useful in future employment
- Younger age groups benefiting from work experience (males more than females)
- A small proportion of those households *directly* involved in a Cydcoed project benefited from full/part-time work
- There is increased potential for woodlands to bring people from outside into the community to visit
- Many projects have used the Cydcoed grant to generate additional funding from other sources.
- Over 40% of those involved directly in projects are retired, whilst 31% are working either full or part time.
- Direct benefits to individuals resulting from being able to access a training course, or from income received for working on a project (limited to Cydcoed group members only) are estimated to reach £2 879 400.

Background

The latest figures from the Office for National Statistics show that areas of Wales, in particular the South Wales Valleys, are lagging behind the rest of the UK and Wales in terms of economic activity. Seventy eight per cent of men and 68 per cent of women in Wales were economically active in 2001/02, that is, were either working or looking for work. Overall economic activity rates ranged from 80 per cent in Powys and Monmouthshire to 67 per cent in Neath Port Talbot and 65 per cent in Merthyr Tydfil. Merthyr Tydfil and Neath Port Talbot had some of the largest proportions of people not working due to long-term illness or disability. The unemployment rate in Wales was 6 per cent in 2001/02. Young adults aged 16 to 24 were more than twice as likely to be unemployed (14 per cent) than older adults. Within each age group unemployment rates for men and women were similar. Unemployment rates tended to be higher than average in south Wales, and were highest in Caerphilly and Blaenau Gwent (both 8 per cent). Rates were lowest in Conwy, Wrexham, and Powys (all below 4 per cent) (<http://www.statistics.gov.uk>)

The data for this section of the report has been gathered from several sources. Firstly, an analysis of project documentation indicates the grant allocation per county, shown below in Figure 22. Secondly, using statistics gathered from the census and www.statswales.wales.gov.uk we have illustrated the grant spend per head of population both at the neighbourhood (of a Cydcoed project) and county level. This is shown in Table 49, below.

Whilst it is beyond the scope of this evaluation to establish the percentage of the grant that remains in the local economy (i.e. spent on local goods and services), Figure 22 and Table 49 illustrate the potential economic gain for local livelihoods at the county and neighbourhood level.

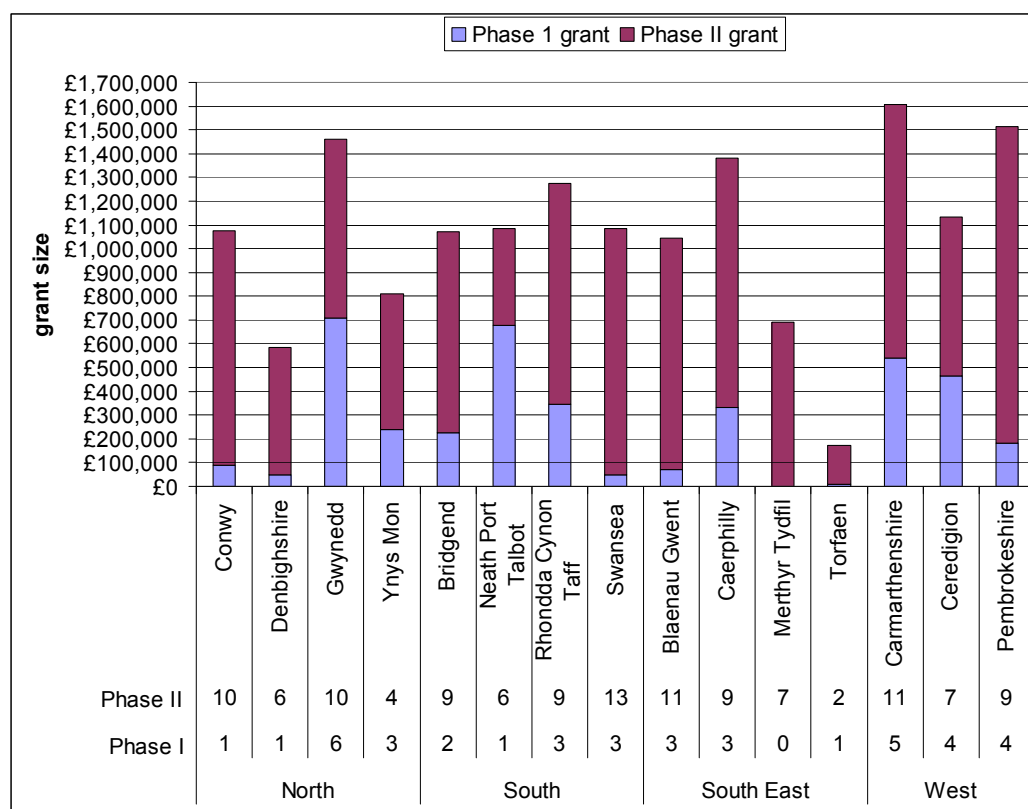


Figure 22: total grant spend per county

County	Number of projects	Total Spend (A)	Total Neighbourhood Population (B)	Spend per head (A/B)	County Population (C)	Spend per head in County (A/C)
Blaenau Gwent	3 Phase I	£70,656.00	7315	£9.65	70,064	£1.00
	11 Phase II	£974,087.00	27,687	£35.18		£13.90
	14	£1,044,743.00				£14.90
Bridgend	1 Phase I	£199,852.00	1696	£117.84	128,645	£1.55
	9 Phase II	£845,000.00	24,275	£34.81		£6.57
	10	£1,044,852.00				£8.12
Caerphilly	3 Phase I	£332,003.00	7149	£46.44	169,519	£1.95
	9 Phase II	£1,051,000.00	21,130	£49.74		£6.20
	12	£1,383,003.00				£8.15
Carmarthenshire	5 Phase I	£450,905.00	8001	£67.60	172,842	£3.13
	11 Phase II	£1,064,250.00	20,566	£51.75		£6.16
	16	£1,515,155.00				£9.29
Ceredigion	4 Phase I	£466,561.00	8941	£52.18	74,941	£6.23
	7 Phase II	£667,333.00	11,266	£59.23		£8.90
	11	£1,133,894.00				£15.13
Conwy	1 Phase I	£90,583.00	1646	£55.03	109,596	£0.83
	10 Phase II	£986,579.00	20,169	£48.92		£9.00
	11	£1,077,162.00				£9.83
Denbighshire	1 Phase I	£50,822.00	1497	£33.98	93,065	£0.54
	6 Phase II	£535,227.00	12,393	£43.19		£5.75
	7	£586,049.00				£6.29

Gwynedd	6 Phase I	£709,228.00	13,548	£52.35	116,843	£6.07
	10 Phase II	£751,045.00	18,499	£40.60		£6.43
	16	£1,460,273.00				£12.50
Merthyr Tydfil	7 Phase II	£692,404.00	23,912	£28.96	55,981	£12.37
	7	£692,404.00				£12.37
Neath Port Talbot	2 Phase I	£701,127.00	7040	£99.59	134,468	£5.21
	6 Phase II	£406,500.00	8448	£48.12		£3.02
	8	£1,107,627.00				£8.23
Pembrokeshire	4 Phase I	£181,431.00	7248	£25.03	114,131	£1.59
	9 Phase II	£1,330,637.00	15,149	£87.84		£11.66
	13	£1,512,068.00				£13.25
Rhondda Cynon Taff	3 Phase I	£347,263.00	4304	£80.68	231,946	£1.50
	9 Phase II	£926,700.00	15,796	£58.67		£4.00
	12	£1,273,963.00				£5.50
Swansea	3 Phase I	£49,892.00	5095	£9.79	223,301	£0.22
	13 Phase II	£1,035,217.00	41,229	£25.11		£4.64
	16	£1,085,109.00				£4.86
Torfaen	1 Phase I	£8,353.00	1475	£5.66	90,949	£0.09
	2 Phase II	£162,720.00	2829	£57.52		£1.79
	3	£171,073.00				£1.88
Ynys Môn	3 Phase I	£237,558.00	4713	£50.40	66,829	£3.55
	4 Phase II	£570,950.00	6920	£82.51		£8.54
	7	£808,508.00				£12.09

Table 49: Spend per head of population

Indicator ELE1: Use of woodland to create employment

Our survey to the 24 sample Cydcoed projects returned negligible data on the creation and safeguarding of jobs within the Cydcoed project groups. Only 5% of households benefited from full time work opportunities and 2% from part-time work. However, survey estimates only apply to those involved in implementing the projects and associated user groups rather than in the wider communities, where it is likely most associated employment will have taken place.

An analysis of the 163 project grant application and completion reports indicates that the benefit, in employment terms, is higher than indicated by our sample survey. The posts included in these reports were generally created in the local community, rather than the project group.

We have highlighted in Section 1, *Cydcoed Processes*, the changes in process introduced by WEFO concerning the measurement of both jobs created and safeguarded. The agreement with WEFO for extrapolating figures for the numbers of jobs safeguarded by Cydcoed intervention details that for every £55,000 of grant spend, 1 FTE post will have been safeguarded. On this assumption, the Cydcoed programme will have safeguarded over 290 posts within the Objective One area of Wales. This is illustrated in Table 51, below.

The data for jobs created has been collated from the application and completion reports for each project and is illustrated in Table 50, below. Note there is no WEFO target for Phase I projects as it was not a WEFO requirement at the time. Further, we have not been able to gather information on the nature of these posts or their sustainability over time.

	WEFO Target	Target compiled from bids	Output
Phase 1		13.5	25.56
Phase II	16	38	38 (no completion report total available)

Table 50: Jobs created

	Grant spent (£m)	Jobs safeguarded
Phase 1	£4million	73
Phase II	£12million	218

Table 51: Jobs safeguarded

Indicator ELE2: Woods that provide long term economic benefits

Data used to measure this indicator has been taken from an analysis of the application and completion reports for each project and the survey to the sample 24 projects.

Table 52, below, illustrates the number of timber and woodland businesses supported by Cydcoed projects. Whilst projects were asked to monitor the number of businesses supported, they were not required to comment on the amount of monetary support or time scale involved. This means we are unable to comment on the sustainability of business support, or on the economic value of that support.

	WEFO Target	Target compiled from bids	Output
Phase 1		2	6
Phase II	4	35	35 (no completion report total available)

Table 52: timber and woodland businesses supported

Responses to the survey of the sample 24 projects indicate that almost 29% of those involved in a Cydcoed project have gained work experience that has helped, or could help, them to gain employment. Given that over 40% of the sample indicated that they had retired from work, this can be considered a very positive outcome in terms of the longer term economic well being of individuals and communities. Table 53, below, presents responses to survey statements concerning the potential long term economic benefits of Cydcoed projects, whilst also presenting the current employment status of respondents.

statement	Percentage
Agreement that skills and knowledge have developed as a result of the project	35.2
General work experiences gained as a result of the project have helped, or could help, gain employment	28.7
Employment status	
Working full time	29.4
Working part-time	10.5
Parent or carer	4.2
Retired	40.6
Unemployed	0.7
Self-employed	6.3
Full time education	3.5
Not working due to Disability/illness	4.2
Other	0.7

Table 53: Public perceptions of economic benefits

Additional comments received from the survey illustrate that those involved are aware of the potential economic benefits of Cydcoed to the local economy. Comments included:

Economic benefits: Use of local contractors for work in woodlands. Use of local businesses for supplies of materials. Increased tourism activity. (North Gower)

Case Study examples

Case study research indicates that where employment is achieved there are ongoing concerns about the long term sustainability of jobs once funding has ceased. Some projects have proved adept at drawing down additional funding thereby ensuring that some jobs will be maintained. There is however concern raised over the grant dependency of employment created through programmes such as Cydcoed and therefore the sustainability of such jobs in the mid and long term.

Boxes 11 and 12 below illustrate both the economic benefits recognised by Cydcoed project groups and also some of the concerns raised about the sustainability of such interventions:

Box 11: Beaufort Hill

The Beaufort Hill focus group reported that the project was bringing in other grant money. For example, the Heads of the Valley Fund was supporting heritage preservation. They are also thinking of getting in touch with Environment Wales and registering for grant for a development plan but they are waiting for the council's plan. However, they were worried about money for maintenance. Local labour had been used. The 'team' (employed or contracted by the council) were 'local lads', two of whom came from unemployment, and will do extra bits over and above what is stipulated. Outside contractors wouldn't do this. Because they were local it became 'their' project and they were proud of it. Their skills grew during the project and six people gained competency skill certificates. There are also plans for developing the site as a tourist attraction. Tourists come to see the nearby Aneurin Bevan stones and they are thinking of a joint venture to produce a brochure.

Box 12: Cwmaman

At Cwmaman the discussion group were keen to make clear the huge improvements in appearance of the area through the project, not just the landscaping and tree planting but also the sculpture which were felt to be attractive. It was noted that people from outside the area were coming to look at them and this potentially will benefit the local economy, as well as events organised around the project which brought the community together.

Economy and livelihoods values

Relatively few jobs were created by the Cydcoed projects for members of user groups or those involved in planning and implementing projects (i.e. the survey sample). Expenditure of grant funding on contractors and materials will have supported some local jobs, as detailed in Tables 50 and 51, above. These have not been included in the estimations below owing to uncertainties over the sustainability of jobs reported (i.e. it is not known over what time period these posts existed).

Our sample survey indicates that 5% of households benefited from full time work opportunities and 2% from part-time work. These proportions are used to extrapolate the survey data to all 163 projects across Wales to derive estimates of jobs created. Survey estimates only apply to those involved in implementing the projects and associated user groups. We have assumed that jobs were only created for the duration of the Cydcoed project, although in some cases additional monies have been generated using the Cydcoed project as leverage, and through the grant bidding and management skills learned as part of the Cydcoed projects. Local employment and economic impacts are thus not an annualised benefit but only occur for a limited period (one year) while the Cydcoed project is ongoing. Some benefits, such as the acquisition of new skills and work experience, may benefit individuals in the long term, but these benefits have not been estimated.

The figures in table 54 below do not represent benefits to society from acquisition of skills, training, work or work experience, only the direct benefits to individuals resulting from being able to access a training course, or from income received for working on a project.

The survey data indicate that those involved in woodland projects acquired some skills and general work experience that would be useful in the work place. It is difficult to estimate the longer term value of such skills or experience but it does benefit the individuals that have acquired them. A conservative estimate of benefits is derived here using a proxy of what it would cost to pay someone to work for a five days at £5/hour.

No attempt has been made to measure the multiplier effects of spending on local communities. Data on expenditure of Cydcoed grant money was not examined, although evidence from the focus groups indicates that where possible it was spent on resources in the local community.

	Community scale (£)	Programme scale (£)
Acquisition of new skills		
<i>Low estimate</i>	1 000	163 000
<i>High estimate</i>	5 350	875 000
Work experience	1 400	228 200
Full-time work	10 400	1 695 200
Part-time work	1 000	81 000
Total benefits		
Low estimate	13 400	2 167 400
High estimate	18 150	2 879 400

Table 54: non market employment benefits

Notes on methods of benefits calculation

Estimates based on average 25 persons per project. The benefits presented here are for one year only (i.e. the duration of the project) and are not annual benefits.

New skills

Sample survey data indicated 17% strongly agreed they had learned new skills (4 persons per project). Previous survey data indicate that a total of 3,106 person had attended training courses organised by Cydcoed groups and a further 430 attended courses organised by some other body (this may not equate to separate individuals as some people may have taken more than one course). Courses ranged from conservation skills (1,682 persons) to health and safety (29), and from machine operator training to management skills. It is difficult to estimate benefits to individuals and to society at large of such improvements in skills. At the local community level training in management skills can have enormous indirect impacts if local persons use those skills to establish community groups and draw down funding from other sources.

In terms of value to individuals the costs of a training course funded by Cydcoed is a direct benefit. If we assume an estimated cost of paying each person £250 to attend a training course then the direct benefit to individuals is the number of person benefiting multiplied by the cost.

Two estimates can be derived: using actual number of persons taking a course recorded at project level, and estimated beneficiaries using sample data. If we assume 3,500 persons undertook courses, direct benefits are £875,000 over the 6

years of the programme. Using sample data of 4 persons per project learning new skills an estimated 652 persons benefited over the course of the programme (equivalent to £163,000).

Benefits to individuals, and to communities from improved training and skills over the long-term, cannot be accurately estimated in a monetary fashion. At the individual level training may assist a person in obtaining employment, and/or it may benefit a community through creation and/or improved management of community groups. Focus group evidence suggests that in some cases managerial skills developed through Cydcoed activities has resulted in individuals drawing down additional grant monies, and in providing advice and expertise to other communities

Work experience

Direct benefits to individuals relates to income received for work undertaken. An estimate based on the cost of paying someone to undertake a full week of work at £5/hour is utilised as a proxy of initial direct benefits to individuals.

Survey data estimates 28% of the sample benefited from work experience (equivalent to 7 persons per project).

What cannot be calculated are the additional benefits to individuals of work experience that may assist in obtaining further employment, in raising confidence levels, or in acquiring work related skills.

Full-time work

Measure is full time work for one year at £5/hour.

Survey data estimates 5% of the sample benefited (equivalent to one person per project) from full time employment. Direct benefits are thus the income from one year of full time employment. Indirect benefits (e.g. future employment based on experience and skills gained cannot be calculated).

Part-time work

Measure is 10 weeks work at £5/hour.

Survey data estimates 2% of the sample benefited (equivalent to 0.5 person per project) from part-time employment. Direct benefits to individuals are the income gained from employment. Indirect benefits (e.g. future employment) based on experience and skills gained cannot be calculated.

Volunteer work

The completion reports for Phase 1 projects indicated that 4405 volunteers were involved. Cydcoed supplied a definition of 'volunteer' to the groups, but this was very wide and there is a potential of double counting, there was also no coherent monitoring methodology and the number of hours associated with the volunteers is unknown. Volunteer work can provide benefits in the form of improved health (from physical activity), improved levels of confidence, improvements in well-being and sense of community, acquisition of knowledge and skills and experience of work that may assist in obtaining other employment. There are also risks of double counting benefits due to the lack of monitoring data. No attempt has been made here to calculate monetary benefits arising from taking part in voluntary work

Section 3: Discussion and recommendations

In the contact the research team had with those who have taken part in whatever way with a Cydcoed project the unanimous response was that they had valued and gained from their experience with the programme. We are aware of the limitations of the data we have been able to gather, in that it has been limited to a self-selected group who are probably those who have benefited most from the particular project they have been involved with. This, coupled with the lack of baseline or ongoing monitoring has placed limitations on what we have been able to offer in this evaluation. Yet with any ambitious project looking to engage and empower a diverse set of communities there will be some interventions that are more successful than others. In the successful projects the capacity of the community has been boosted, visible achievements secured and protected. Given that these projects have been focused on the areas of Wales that have to contend with some of the most severe structural problems makes the success of these interventions even more striking. Although the Cydcoed programme has not directly addressed these structural problems, it has improved the capacity of those communities participating in them to begin to play their part in tackling them.

Cydcoed and the strategic context in Wales

The Cydcoed programme has delivered against many objectives within the *Woodlands for Wales* strategy, yet a lack of integration and communication at the outset has resulted in difficulties for both the Cydcoed delivery team and for other FCW delivery staff. Whilst the majority within the managerial level of FCW believe that Cydcoed has succeeded in delivering its objectives and can recognise its contribution to the developing role of community forestry in Wales, other FCW staff, more generally at the delivery level, fail to recognise the potential of such a programme and remain unconvinced that community involvement in woodlands is a practical and useful way of delivering public benefit. From the evidence gathered during this research exercise it is apparent that this could have been overcome, at least in part, by a more inclusive structure for staff and a more rigorous process of awareness raising and integration.

We would argue that the contribution by Cydcoed to the WAG strategic agenda in Wales has been considerable. The WAG agenda revolves around the vision of a sustainable Wales where action for social, economic and environmental improvement work together to create positive change. Increased community empowerment, improved social cohesion and building social capital have been the key successes of the Cydcoed programme – 163 communities across the Objective One area of Wales have improved their potential to be able to work together to deliver benefits to their locality.

Welsh Assembly priority areas for regeneration in Wales are currently Communities First⁷ areas and the Heads of the Valleys region of South Wales. These areas are

⁷ 'Communities First' is a comprehensive approach to area-based regeneration which applies to many of Wales' most deprived communities. Launched on 31 March 2000, the principles behind the Communities First policy framework are: that a non-prescriptive, community-centred approach to community regeneration is needed, targeted at the most deprived communities in Wales; that regeneration and community renewal should meet the needs and priorities identified by those communities themselves in order for renewal to be sustainable;

recognised as the most deprived in Wales and as such receive considerable attention from the public sector. Since February 2008 the Heads of the Valleys area has become a spatial priority for delivering the WAG woodland policy. The WAG have called upon FCW to develop the concept for a 'Forest for the Valleys', as an integral part of the Heads of the Valleys Programme⁸.

Should FCW opt to take up the challenge issued by WAG then the projects delivered by the Cydcoed programme could act as a sound basis on which to progress. The Heads of the Valleys Programme (HoVP) has very similar aims and objectives as Cydcoed and recognises the role woodland can play in delivering these. Figures 23 and 24 below illustrate Cydcoed projects in relation to Communities First and the Heads of the Valleys areas.

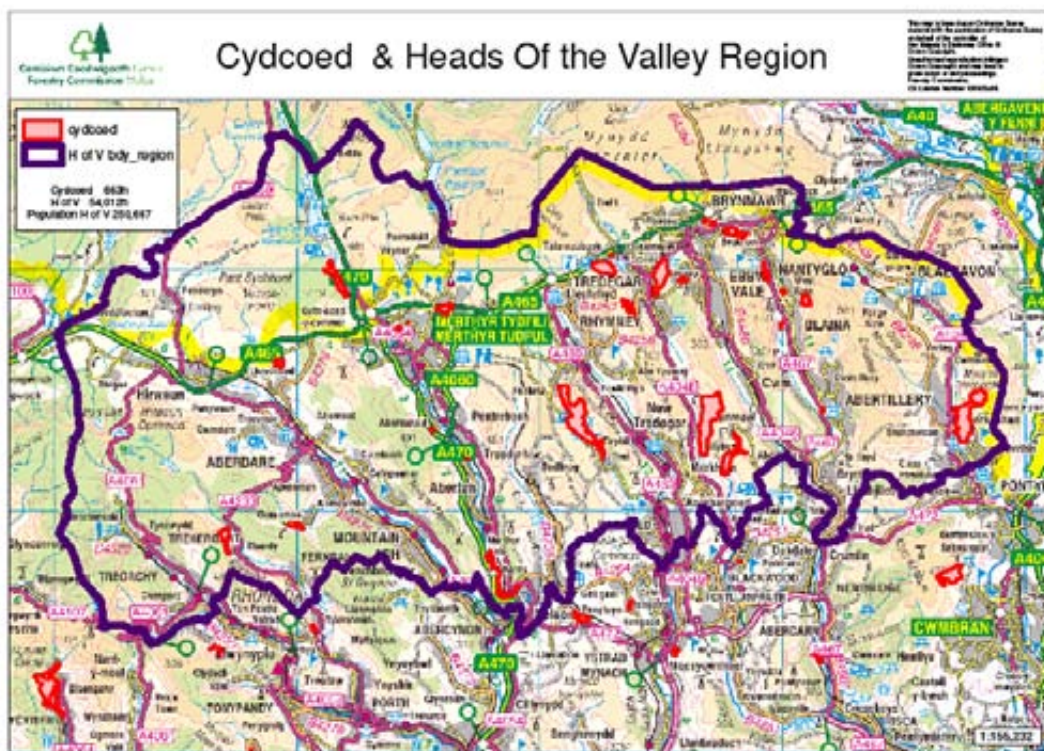


Figure 23: Cydcoed projects in Heads of the Valleys area

and that long-term commitment from the National Assembly, local authorities and other key agencies is required to promote real partnerships at local level

⁸ The Heads of the Valleys Programme is an Assembly-backed 15 year regeneration strategy developed in partnership with the five pertinent local authorities to tackle the root causes of economic inactivity in the area.



Figure 24: Cydcoed projects in Communities First area

In terms of contributing towards the WAG environmental agenda, Cydcoed has proved successful with over 9,000 hectares brought into sustainable management. Subsequent increases in biodiversity are supported by anecdotal evidence. More tangibly, several sites have been designated as local nature reserves as a result of Cydcoed environmental improvements. However, the question of the environmental benefits of Cydcoed intervention is of less significance overall than the social and local benefits, in part because of the very particular environmental questions that each of the projects has addressed. In some urban and brownfield sites, the tree planting and habitat improvement has been in conservation terms quite modest but for those working on the project the provision and amenity value has been significant.

Similarly, the economic development offered by the Cydcoed programme has been generally been low-key, with some exceptions, and not the central thrust of the majority of the projects. Although the programme had a considerable budget, to attempt to address long term, structural economic problems through it would be highly ambitious. The projects have provided some employment opportunities, work for contractors and some formal qualifications and although it has been important

that this be so – not the least to satisfy WEFO funding priorities – again these are of secondary importance to the social achievements of the programme.

It is these social achievements that have been the fundamental success of the programme. Longer term outcomes were expected to be:

1. High capacity community groups able to influence decisions about their locality;
2. Woods that provide long-term local social, economic, and environmental benefits and
3. Individuals able to play a positive role in their local community

Although at this stage, with many of the projects only just reaching physical completion, we consider it too soon to say whether *long term* economic, environmental or social outcomes will be achieved, our next section focuses on the community development aspects of the programme.

Cydcoed and community development

Whilst anecdotal evidence suggests that some within FCW were, and to some extent still are, unsure whether community development was a role that FCW should be carrying out we would point out that whilst there are many other organisations in Wales concerned with community development, there is not one other that specifically uses trees and woodlands as the way in which to engage, involve and empower people. It is this use of trees and woodlands as an integral part of the process that has made Cydcoed unique in its approach. Discussions with project groups highlight that this aspect was a valued one. Moreover, some projects suggested that the opportunity to come together as a group in order to enhance their local woods acted as a catalyst for action. They suggest that had the woodland been taken out of the equation they would not have been so keen to become involved in community action.

Community development is a complex and multi-faceted process that seeks to address a range of factors that prevent communities and individuals within communities from realising their full potential. Any one intervention is unlikely to be able to address all of the facets of community development simultaneously, with some aspects being more intractable than others. In our assessment the Cydcoed programme has been highly successful in addressing local people, in building social connectivity and focusing on environmental problems that are pertinent to the community groups who have become involved in the programme. The benefits have not been evenly spread but concentrated on those who have participated most in the particular projects with more diffuse benefits for those who are less central to the projects.

Although the aims of the projects have been important, in most cases the process has been at least as significant in building the confidence and capacity of the group managing the project. This is apparent in the evidence from the postal questionnaire to the 24 sample groups that although people feel confident about their group and its capacity, they are less confident about their own abilities. It is also evident in the willingness of many groups to confront bodies such as their local councils in order to achieve their goals. Conflict of this kind, if handled well by all parties, can actually contribute to the confidence and capacity of the group

Cydboed beneficiaries

In Figure 25, the four 'axes' of community development that the programme was addressing are plotted, with the circle of beneficiaries located within that framework. The local is significant, as most of the questionnaire respondents from the 24 sample groups identify themselves as living locally for most of their lives, with their familial and friendship networks in the locality. Therefore we can be confident that the projects are working with local people addressing a local question and with the benefits of that intervention being focused on that specific area. Secondly most of the 'work' done has been social; it has been about a local group working together and with other groups to achieve their ends

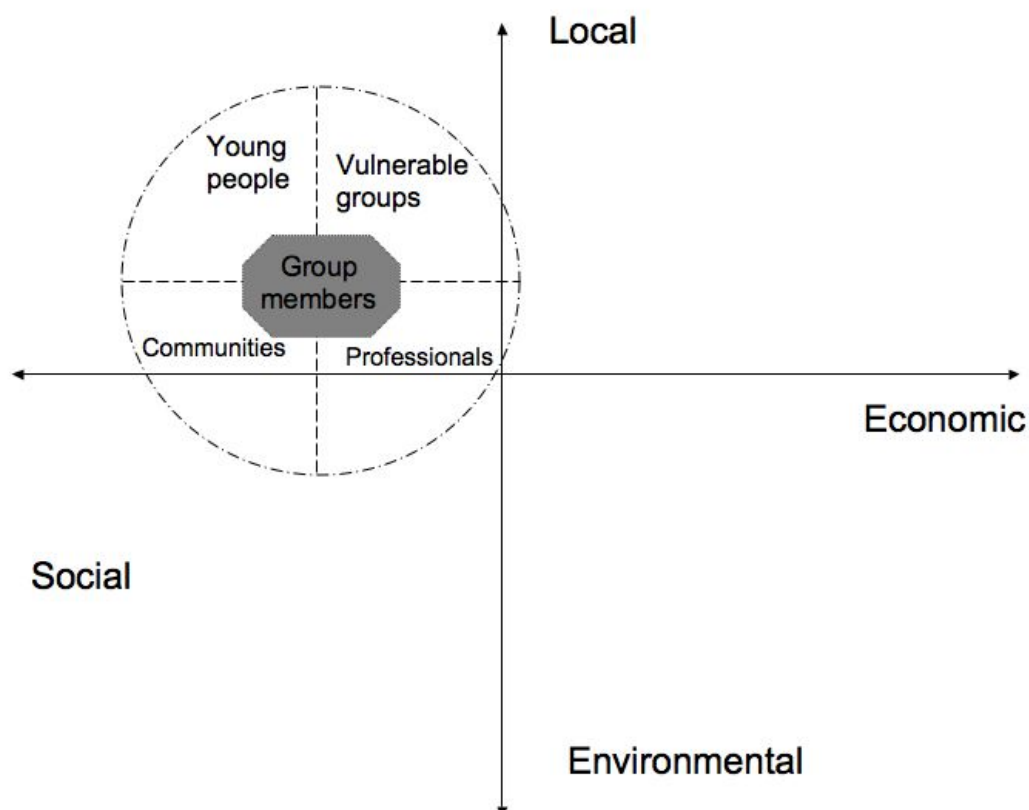


Figure 25: The circle of beneficiaries mapped against the axes of community development (CCRI 2008)

As the figure suggests, the main beneficiaries of the projects have been those most closely involved in the project – who have tended to be older local people, with formal qualifications and often a professional background. These, however, are only tendencies with the core group often having been quite socially mixed, with younger people and more recent residents providing the 'spark' to the project. Some members of these groups have received training in project management, and now feel confident in dealing with and negotiating with other government or voluntary bodies, comfortable with managing budgets and the 'community interest companies' (CiC). In several cases this has led them to cascade their expertise to other projects or to seed new initiatives in the locality.

It is this group that have developed generally into the high capacity groups that the programme aimed to develop. It is however important to note that even within the sub-set of groups chosen for this study, some groups were unable to distribute or reply to the questionnaires, suggesting that some groups have failed to develop

beyond executing the project. The reasons for these failures are as important as the successes investigated in this report and worthy of further consideration. Anecdotal evidence suggests that should key personnel from within a group become disassociated from that group then it is easy for the link to Cydcoed to be weakened or lost altogether, thereby making it difficult to regain access to and trust with the group.

The four groups in the outer circle of the beneficiaries have received more diffuse benefits, but in some cases significant ones. The young people in schools and youth groups have benefited from the opportunity to take part in improving their local environment and seeing the example of this being conducted by other, older people in their communities, but on occasion their participation has been tokenistic when undertaken for formal purposes such as a launch or press opportunity. However the main way that most children seem to have benefited is in the less formal or informal use of the projects for recreational or educational activities. For those young people in schools that have been directly involved in a Cydcoed project (that is the school has received funding directly from Cydcoed) the benefits have been more immediate. Often the school will use the woodland to deliver both extra-curricula and in-curricula activities, particularly in the case of primary schools. Case studies showed both teachers and children found the experience enjoyable and teachers noted the changes in the behaviour of the children. Comments received during this phase of the research included:

' we definitely see an improvement from when they first go out to 4 or 5 times later...they go from looking straight ahead to looking everywhere and exploring...the behaviour issues are less, they need to be out there' (Teacher, Ynyscynon)

The vulnerable groups have largely been the most separated from the others in the circle, apart from those in drug and alcohol recovery programmes who have been quietly integrated into projects. We have anecdotal evidence that such participation has been significant for individuals in the latter groups. Several groups have been targeted from the outset at benefiting vulnerable groups and have proved very successful at doing so. It has been problematic to gain access to these groups and in particular to the users of the projects – the vulnerable groups. Site visits have however indicated that these groups are benefiting from being involved in the projects through undertaking activities ranging from woodland gardening, creating walks and paths, shelter building to arts and crafts.

The communities around the project have been the beneficiaries generally in diffuse and indirect ways. Many have obviously valued the new or enhanced amenity offered by the projects, with pathways integrating small settlements in new ways, literally bringing people together. The degree of consultation has varied widely with some projects not seeking to engage outside of the core group leaving only passive participation for others and in others frequent attempts have been made to engage people more actively. All of the projects have improved the opportunity for informal recreation, with the most obvious users being those walking their dogs, but certainly new opportunities being available locally. Again the power of example is hard to quantify but that local people were making such a change was obvious in all of the projects visited.

The final group of beneficiaries and the most amorphous are the professionals, particularly those in local government, who have had to engage with the projects through their work. Some have obviously learnt to work in concert with the projects, using the opportunity to expand their portfolio of activities and engagement, others

have been more challenged by this new form of interaction. Yet if the communities that they are serving are to develop they will become more challenging. Engaging with active groups of citizens will be part of that process. In several instances this has also been a challenge to elected members who have not been used to dealing with community groups in this way.

In terms of community development the focus on woodland and forests has been important as it has provided a focus for a project that is achievable, local and in many ways immediate – stands of trees can be planted, non-natives removed, paths laid. These quick gains for the community can be tailored to fit with their other goals and existing successful institutions. If the purpose of the programme was to develop the conservation values or quality of woodland than it would need to be considerably more focussed but in turn would not foster the community development the more flexible approach engenders.

Future development

During the course of this evaluation it has become apparent that the political, and therefore strategic, landscape of Wales is changing. The WAG is keen to focus on spatially targeted programmes for regeneration, with particular emphasis on the urban centres of Wales. A recent conference hosted by the WCVA (Realising Rural Assets, 2008) drew attention to the potential for the transfer of public assets to the private and community sector which, if adopted, could have significant impacts for FCW managed land.

Debate remains within the public sector over whether it is the role of body such as FCW to deliver community development in Wales when there are many other organisations that do just that. We would highlight the fact that it has been the use of trees and woodlands as the vehicle through which to deliver that has been the key difference between Cydcoed and other community development bodies. It is the adaptability of this resource in providing a setting for delivering community aspirations that makes what FCW were able to offer unique.

Trees and woodland are able to deliver social, environmental and economic benefits as described in this report. The FCW managed estate and other woodland could be further developed, by involving communities, to meet multiple objectives across the WAG policy agenda. FCW are the Assembly Sponsored Body (ASB) for trees and woodland and as such are considered the experts on the use, development and benefits of such to the people of Wales. This is recognised by communities who reported during the course of our research that they valued what had been offered through Cydcoed and recognised that the use of trees and woodlands had acted as a catalyst for involvement and change.

We understand that the current *Woodlands for Wales* strategy is under review and that the Policy Unit within FCW is in the process of developing a new suite of policy and programme positions. This report will be timely inasmuch as it can highlight the benefits of a programme such as Cydcoed, but also allow lessons to be learnt from the process that could help to shape future intervention.

In developing future programmes and projects that use trees and woodlands to enable communities and individuals to become confident, prosperous places in which to live FCW should consider the following recommendations:

Recommendations

Institutional recommendations

1. The type of support offered by Cydcoed has been valued by communities and has contributed towards multiple WAG policy objectives. We suggest that any future intervention is delivered on a pan-Wales basis but with particular emphasis placed on highly deprived rural and urban areas.
2. Cydcoed experienced inconsistencies of approach and co-operation from within FCW. What was allowed operationally in one District was not in another, or what was agreed in one was frowned upon in another. This points towards inconsistencies either in centrally developed guidelines, or in the communication of such to staff. Therefore we suggest that FCW consider development of clear and consistent guidelines for all staff, coupled with an effective communication system. This could be accomplished within specific staff development and training days, or could be developed as an ongoing process of communication and guidance.
3. Whilst we recognise that a new suite of social policy and programmes are currently being developed by FCW, we would suggest that:
 - a. they are developed in a way that highlights the cross cutting benefits of peoples involvement in woodlands
 - b. on ratification by Management Board new policies, programmes and projects are effectively communicated to staff at all levels

The adoption of this approach would help to ease tensions experienced by Cydcoed whilst helping all staff understand the rationale behind programmes that encourage people to become involved in woodland.

4. We recognise that 100% grant funding is unusual and unlikely to be available in the future. We also recognise that external funding regimes place pressure on grant recipients to spend within a set timeframe. We suggest that FCW consider mainstreaming future interventions into the core-funding mechanism and consider the development of a sliding scale of intervention dependent upon the project and applicant type. This type of approach has worked successfully in other FCW projects such as Treeregeneration.
5. We have highlighted that Cydcoed was not set up to form partnerships between itself and other bodies, rather acting as a facilitator for partnerships between community groups and others. We consider this a key success of the programme, despite some tensions cited. We would suggest that FCW continue with this role where appropriate, both on and off the Assembly estate.
6. We would suggest that it would be beneficial for FCW to consider closer collaboration with other organisations in order to maximise the delivery of public benefit and value for money. This approach is particularly suited to spatially targeted delivery and would provide additional opportunity to demonstrate the adaptability of woodland in meeting multiple, cross cutting objectives.

7. We have highlighted the perceived weaknesses of the current Management Agreements. We suggest that all types of legal agreements are strengthened to provide a robust 'fall-back' position for FCW should any grant recipient fail to deliver.

Process and implementation recommendations

1. A key role for Cydcoed officers has been as intermediaries, able to act on behalf of community groups. In particular they have been seen as 'honest brokers' when dealing with public sector, and other, organisations. This is a role that has proved beneficial for groups – and the public sector - in forming partnerships and networks. Many of these partnerships have proved sustainable. We recommend that FCW continue, where appropriate, to act as intermediaries between relevant groups and other organisations and to become the first point of contact for advice on trees, woods and forest related issues.
2. Cydcoed officers have often worked in isolation from the rest of FCW. We suggest that all staff be 'embedded' within the relevant department and District of FCW. This will help to aid communication and understanding between staff engaged on different aspects of work.
3. The role of the Project Officers was cited as key to the success of the majority of projects. As demonstrated by Cydcoed, working with communities required a specific, and wide-ranging, skill set. Future work with communities, whether on or off the Assembly estate, may require considerable investment in developing staff skills.
4. The majority of projects agreed that the processes of obtaining a Cydcoed grant were not onerous. Many group members are volunteers with little time, and many admit they did not have the requisite skills in order to complete complicated applications. Whilst we recognise the need for a strong and robust application process, we recommend that any future grant aid for communities be kept as simple a process as possible.
5. All applications for grant aid were assessed by the Cydcoed team themselves. We would suggest that applications be assessed by a panel that includes both team members and individuals external to the delivery process. This will ensure the pertinence of applications and the impartiality of the assessment.
6. We would suggest that future projects and programmes be overseen by a steering group. This would allow for a clear and focussed approach and would ensure consistent alignment with both FCW and other policy and objectives.
7. Community development takes considerable time – grant aiding projects should not be considered a quick fix. We recommend FCW give projects and programmes adequate time to succeed and that staffing structures and resources recognise this.
8. This evaluation was asked to determine the social outcomes of the Cydcoed programme and this has been provided based on the data available. We recommend:

- a. Appropriate indicators be defined at the time of programme development
- b. Appropriate baseline data is collated either prior to or as projects commence
- c. A programme of ongoing monitoring is established and adhered to during the project/programme
- d. Consideration is given to continuing monitoring post project/programme in order to demonstrate long term effects of intervention

We recognise that these are not without cost, both in time and money. We also recognise that staff may require training and development in order to carry out effective indicator development and monitoring of such. However, we suggest that without these in place it will remain problematic to demonstrate the true value, in social, economic and environmental terms, of programmes such as Cydcoed to the people of Wales. It will also be problematic to demonstrate the contribution made by such programmes towards WAG policy and programme objectives.

Section 4: Case studies

This section of the report is drawn from research work undertaken with Cydcoed project groups. The processes for this were variable depending upon the preference of the group, but included semi structured interviews, focus groups, site visits and general group discussions. Background information for projects has been collated from the project documentation and from discussions with Cydcoed officers.

In all ten case studies are presented. Each project has delivered cross cutting benefits to the community and to individuals but we have concentrated on highlighting particular aspects in each study. We do not intend to imply that these were the only benefits delivered. In each case we have included a section on achievements and lessons learnt drawn from the groups themselves.

Case Study 1: Min y Don, Old Colwyn, North Wales

Who is involved?

Following on from a successful Cydcoed Phase I project in Fairy Glen, Old Colwyn, North Wales, the Old Colwyn Environmental Federation received a grant of £58,600 for a Phase II project in the Min y Don woodland area of the town. The Old Colwyn Environment Federation consists of voluntary community members, representatives of other groups and local businesses. A new group, the Friends of Tan y Coed, was formed at the outset of the Min y Don project and assistance was given by the Old Colwyn Residents Association. Other groups involved include scouts, cadets, the Youth Committee, the County Council, Coed Cymru and Forestry Commission Wales.

What is it about?

Physical works included planting native trees, woodland plants, bulbs and wildflower seeds, the provision of access points and footpaths and the installation of bird and bat boxes. A copse of native trees and plants have been planted and nurtured by the 3rd Old Colwyn Scout Troop, supported by the Forest Education Initiative. Interpretation and education are key elements of the project and new information leaflets and an interpretation panel are available.



The group have, as a firm objective, access for all people with an emphasis on people who are disadvantaged ensuring that where possible their needs and wishes are met. The main aim is to provide a pleasant and safe environment in which local residents and visitors can spend leisure time in woodland.



What has been achieved?

Two points were highlighted as key achievements by the project group:

- *That a person who was very strongly against our proposals when presented at a Public Consultation Meeting and maintained this stance through most of the project is now one of our strongest supporters and is participating by brushing the paths and similar tasks. She is elderly and partially infirm but will now supply tea and biscuits when we carry out maintenance work.*
- *The work carried out has naturally improved the general appearance of the site and as a result local householders have taken up the spirit and worked on their frontages. This includes a small block of six flats where residents now decorate their balconies to a high level with planters and hanging baskets. This type of 'social movement' has led to increased neighbourliness.*

Moreover, Min-Y-Don Woodland was part of the Old Colwyn group entry which won the Gold in the Snowdonia Wildlife Gardens Competition in 2005 and it has been included in both the Wales in Bloom and Britain in Bloom 2005 and 2006

competitions winning the Silver Award in 2005 in both and the Silver Award in Wales in Bloom 2006.

Other achievements cited by the group include:

- *Gaining help from the members of Colwyn Youth committee and also Red Watch of the Fire Service.*
- *The Colwyn Bay Lions , the Scouts and the Cadets have each chosen to take care of various woodland planting beds*
- *In addition to the bird and bat boxes installed volunteers, including youngsters, have made log piles, rock piles, insect nests and a small pond to provide wildlife habitats.*

What can we learn?

The group only experienced one problem: an error was made at the planning stage which resulted in a slight overspend. This highlights the need for good planning and budget management. The liaison and support from the Cydcoed team of FCW were cited as key elements of the success of the project.

Partnership working has been particularly successful for this project. There has been a high level of co-ordination with the councillors and officers of Conwy County Borough Council, with good advice from both the Biodiversity Officer, and Coed Cymru Officer. Footpath links have been made to the North Wales Coastal path encouraging more hikers to come to the town, and seating provided by the County Council encourages those less able to use the woodland for exercise and relaxation.

Case Study 2: Ynyscynon Tyfiant Woodland, Ynyscynon, South Wales

Who is involved?

The project is run by the Ynyscynon Sure Start Early Learning Centre, on Local Authority owned land adjacent to the school. A Phase 1 project with a grant of £12,000, the school co-ordinated a 'friends of Tyfiant woodland' community group in 2002 which remains a strong and positive organisation 6 years later. Local secondary schools have been involved in a project looking at the perceptions of the younger children of life and the environment.

What is it about?

The development of the woodland site as a resource for educational use has been at the heart of this project. The woodland is used at every opportunity for both formal



and informal education – leaves are gathered for measuring and sorting in Maths classes; wildlife is identified and studied; books are read; plays are enacted and quiet contemplation is encouraged in the 'quiet area'. By bringing the woodland into sustainable management the project has created an area rich in biodiversity and habitat as a resource for both the school and the local community.

What has been achieved?

An additional £33,000 grant aid has been received from a variety of organisations to add value to the Cydcoed project. A natural play area has been developed, some woodland community allotments where the children grow their own lunch have been developed and a series of woodland events and training sessions have taken place.



Teachers cite the cross generational links that have been established through involvement with the on-site nursery, the primary school, volunteers from the local secondary schools and the ongoing involvement of parents, grandparents and other community members as a great achievement. For the staff at the Early Learning Centre the woodland project and

the increased interaction with the environment for learning has *'made members of staff more confident, it gives them a freedom, it's a leap of faith for them, allowing them to do something different'* (Project co-ordinator). Networks have also



been forged through the schools involvement with other user groups of the woodland such as the Youth Offenders team, Ystrad Rhondda Special care Unit and adult learner classes. The staff of the Early Years Centre often work in a voluntary advisory capacity with other schools and organisations working to set up similar woodland or environmental resources. As a direct result of the Cydcoed project the Headteacher at Ynyscynon now provides training for other schools on outdoor education through the Education Support and Inspection Service

What can we learn?

Relatively small amounts of funding can act as a catalyst for groups. The confidence gained by successfully winning and managing a small grant, spurred this group on to gaining a further £33,000: *'Cydcoed money definitely acted as a catalyst'* (Teacher Ynyscynon).

Skills learnt by group members can be cascaded to other groups and organisations through networking and partnership approaches, thereby increasing social capital.

The group put the success of the project, and the strong community involvement, down to proper planning, taking on board the advice of others and doing it slowly – step by step

'everything we've done has made me have more faith in the community, for everything that's gone wrong, ten things have gone right...' (Teacher, Ynyscynon)

Case Study 3: North Gower Woodlands, Llanrhidian, South Wales

Who is involved?

An existing community group, the Llanrhidian Community Hall group, despite having run several community initiatives previously, acknowledged that they did not have the knowledge or experience to run and implement the £200,000 Cydcoed project without working in partnership with an organisation, in this case the landowner of the majority of the woodland sites: the South and West Wales Wildlife Trust. Links have been made with the police and the Local Authority. North Gower Woodlands Project is spread across 6 woodland sites, all chosen because of their proximity to communities, schools and existing walking or cycling paths.

What is it about?

'it's about empowering people, schools and children...' (NGWP member)



Providing opportunities for both formal and informal education is important to the ethos of the project, as is recreational provision. The group deliberately chose woodlands to include in the project that had existing, or the potential to create, links with other strategic footpaths and cycle-ways in the area. The Gower coastal footpath is linked to the majority of woods whilst the Sustrans North Gower Cycle route is also linked to many. The use of existing routes enables the woods to be accessed by a wider spectrum of users than could be possible by the creation of routes not linked to nationally recognised and marketed routes. The new planting at Graig y Coed woods, adjacent to the local playing fields and rugby club, will provide for a 'fit trail' where people can train in the woods rather than just running round a field. It aims to

provide a suitable path for running but also areas for other exercise such as 'pull up bars', hurdles and so on.

What has been achieved?

A Forest school has been established at one site, at which 50 schoolchildren have already attended. A website is currently under construction which will provide downloadable resource packs for schools and teachers whilst simultaneously providing the informal visitor with a source of information. SWWWT staff have committed to providing local teachers with training in environmental education as part of their commitment to the Cydcoed project. As a direct result of the Cydcoed project one student has completed a work placement as part of a Countryside Management degree course; one student from a nearby college is currently on day release working in the woodlands; two school children have carried out their work experience with the project and SWWWT have taken on one woodland supervisor and one apprentice.

'the whole apprenticeship thing was an experiment for us, it's brilliant, he's such an asset we'll definitely be carrying on expanding it' (SWWWT officer)

'I love it, I've done my chain saw qualification and now I'm learning tree surgery, that's what I want to do and they're training me in it' (Apprentice)

Volunteers are encouraged to work in the woodlands through the established volunteering programme run by SWWWT. In the community surrounding Graig y

Coed woods (Penclawdd) where a new woodland is being planted in an area known locally for its anti social behaviour SWWWT have been surprised by the interest: *'People were afraid to go there...now a lot of people around Graig have approached us to become volunteer wardens. We're going to create a 'friends of' group – another first for us'* (SWWWT officer)

Both the community group and the SWWWT now want to put in place a formalised placement scheme for both adults and children and will establish an ongoing apprenticeship scheme in partnership with local colleges.

What can we learn?

The group acknowledge that engagement with secondary schools and secondary school age children is an ongoing issue. One group member says he was told *'I don't do green'* and worries that *'we may have lost a generation'*. Engagement with this sector is seen as a key aspect for future work.

Whilst the building of any type of social capital takes time – often years – as a direct result of the networks and linkages between people and organisations developed by this partnership both a member of the community group and an officer of SWWWT have been co-opted by the City and County Council of Swansea to sit on the steering group of the Rural Development Forum for Swansea, giving them a powerful voice in local and regional governance that these individuals, communities and organisations were previously denied.

Partnerships have been vital to the success of this project. For the community group this partnership has been

'absolutely fundamental...this project could not have run without working in partnership' (NGWP member)

For the SWWWT the partnership has provided a new insight into community development and an opening for positively engaging and involving people in their work:

'...a learning curve for us, we need to engage with communities...we've built positive relations with people that we didn't have before...we know now how to work with communities' (SWWWT officer).

Case Study 4: Glyncorrwg Ponds, Afan Argoed, South Wales

Who is involved?

The Cydcoed project initiated by the Glyncorrwg Ponds Association has grown exponentially through partnership working. Neath Port Talbot County Council, VisitWales (then the Wales Tourist Board) and Forestry Commission Wales were all involved in key stages of the project. The Group of 15 volunteers managed a grant of over £676, 000.

What is it about?



The project constructed 3 world class mountain bike trails in FCW managed forest in the Upper Afan Valley and built a visitor centre for users of the forest at Glyncorrwg Ponds. The underlying aim of the group has been to create a sustainable economic and social environment for local communities by creating recreational facilities that meet local and activity orientated tourism needs.

What has been achieved?

The Afan Argoed Forest Park is now world renowned as a centre of excellence for mountain biking and as a success in attracting inward investment and partnership working.

'...without Cydcoed what Afan Forest Park has become would not have happened. I have no doubts about that whatsoever.' (FCW Officer August 2007)

'The Cydcoed project was the anchor. It was the thing, the catalyst if you like, it was the catalyst that enabled everything else to happen. Without that then, without the new Visitors Centre, without the mountain bike trails – particularly the trails- there is no way we would have got tourism growth area status. Therefore there is no way we would have then, with our partners, drawn in the significant funding, the millions which have been drawn into the valley through private, public and voluntary sector investments.' (FDM interview August 2007)

Anecdotal evidence shows a clear social and economic benefit from the project:

The communities themselves have benefited in the fact that they have seen a lot of their derelict and sub standard properties improved. All the derelict properties now in the whole Glyncorrwg or the Corrwg Valley have been sold, done up and basically the whole area now has an air of substantial improvements about it, whereas it had a real air of deprivation and neglect and dereliction really before. So from the community there is a sense of pride which has come back (Discussion forum).



Visitor research undertaken by VisitWales in the Afan Argoed Forest Park shows significant benefits for local tourism businesses. Whilst 66% of visitors to Glyncorrwg were on a day trip from home, 23% were on a short break of 3 nights or less

– the highest percentage in the Park area - , whilst 8% were staying 4 nights or more. Whilst figures are not available for the local expenditure of staying visitors to Glyncoed, other Visit Wales research shows that 25% of all holiday trips to the South West Wales region were short breaks of 3 nights or less and average spend in 2005 was £36 per night (<http://new.wales.gov.uk/topics/tourism/research1> accessed 04-02-08), indicating a significant input into the local economy from staying visitors in the area of the Cydcoed project.

What can we learn?

Despite its successes the Afan Argoed project has not been without its difficulties. For many of the public sector partners involved it was the first time they had had to include a community group as a primary partner in such a development and for some it proved problematic. Subsequently partner organisations have cited the work of the Cydcoed Officer involved as the key to stabilising the relationship and to enabling the project to succeed:

it was Steve's [Cydcoed officer South Wales] tenacity working tirelessly with that group and he really did sacrifice himself for that group and for the vision which he knew, as we did, was out there. It's because of that tenacity that that project got off the ground. (FDM Interview)

A key part of the success of the Afan Argoed mountain biking project has been its partnership between public, private and third sector bodies, enabling the draw down of millions of pounds of grant money into the local area. However, the relationship remains problematic and it is unclear at this stage whether the Glyncoed Ponds Association has been allowed to develop into a 'high capacity community group' as per Cydcoed objectives, or whether the concentrated involvement with public sector organisations resulted in a reaffirmation of state control rather than a shift towards local governance.

Case Study 5: Blaen Bran Community Woodland, Upper Cwmbran, South East Wales

Who is involved?

The Coed Gwaun-y-Ffeiriad Community Trust membership is drawn from individuals living close to the woodland and others with educational and historic interests. Members include local businessmen, local councillors, a forestry consultant, a Scouts District Commissioner, a local Baptist Chapel official and the deputy head of a local primary school. Other groups involved in the project have included the Scouts, Gwent Wildlife Trust, the Welsh Archery League and a local pony trekking centre.

What is it about?



The woodland lies on the edge of Upper Cwmbran and the local community has initiated this scheme with a view to increasing its value for recreation and education. Prior to the project commencing the site was prone to fires, vandalism and noisy motorbikes. Bracken was dominant over most of the site but there are areas of grassland, thickets, damp marsh areas with a varied habitat, e.g. butterflies, frogs. To achieve their aims, access paths have been improved and extended, and stiles and

way-markers installed. Access has been improved for vehicles conveying school parties and those with impaired mobility – a trail suitable for wheelchairs is being constructed. The focus of the project revolves around encouraging walkers, joggers, horse riders and cyclists to use the wood through the provision of way marked routes and social events to bring the community together. The group want the woodland to provide an easily accessible healthy environment to thousands of people within walking distance, helping to promote healthy living.

What has been achieved?

As a membership organisation the group are working towards becoming sustainable through their members – currently over £1000 is accrued annually which covers the costs of administration. Local people are now using the woodland for a range of walking activities. The group has run a range of walking activities including a Fungi Foray, wildflower walk and a 'woods in winter' walk. They run twice weekly work parties with regular attendance by 3-5 people, on occasion many more.

A series of themed trails has been created in the woods aimed at increasing understanding and knowledge. These focus on:

- A historical waymarked trail identifying bell pits, adits, mine slopes, an old mine airshaft and a coal seam
- A waymarked walk identifying tree types, leaf types and other flora.
- Numeracy trail (e.g. numbers of trees, estimates, approximation methods, area, methods of measuring heights, costings
- An environmental trail pointing out damage to the environment and methods to combat it
- A citizenship trail highlighting sustainable development, care for the environment and responsible social behaviour

The Environmental Group of people with learning difficulties from Torfaen CBC regularly come onto the site and undertake a range of tasks which the BBCW group pay for. BBCW Group would like to be able to enter a 2-year contract with the group to provide regular services in the wood, but this depends on future funding opportunities.

What can we learn?

The group are pleased the project has gone well, but admit that with hindsight they would have changed some of their priorities. Whilst these changes revolve around the physical works within the woodland, it does highlight the importance of forward planning. For groups such as this, with little or no experience of project management, adequate time for the planning process coupled with the availability of expert knowledge is vital for success.

Case Study 6: Cuckoo Woods, Pembroke Secondary School Pembroke, West Wales

Who is involved?

The Friends of Pembroke School Association successfully bid for £85,000 of Cydcoed grant aid. Since the inception of the project, in 2006, numbers of schoolchildren involved has risen from 24 to 150. The Association have worked in partnership with the LEA, the National Trust and Pembrokeshire Coast National Park. Two junior schools from the area are also involved with the woodland project, helping year six pupils with the transition to secondary school.

What is it about?

The heart of the project lies in the provision of key skills and extra curricular activity for children at risk of exclusion from school. The project has opened up access for the public and pupils to Cuckoo Woods by creating pathways, steps and bridges.



Work is ongoing to create a Community Woodland Information Centre incorporating workshops for rural crafts and basic carpentry and stone work. In all the project is about providing opportunities for young people to learn new skills, gain vocational qualifications, improve their self-esteem and to gain a sense of ownership of the project.

What has been achieved?

A new not for profit company has been formed, that employs 12 part time staff to work on the project and reinvests any surplus made (as the key skills education provided is classed as off site, the LEA pay for each pupil to attend) into the project and other community schemes.

The Open College have recently accredited the courses on offer at the Centre and now pupils are able to move from 'at risk' to having proper recognition for the skills they have learnt. The improved choice of vocational training now on offer leads pupils to emerge '*not feeling failures*' (Teacher, Pembroke School).



Regular attendance is far higher than would be the norm for these children, and 50% have expressed an interest in proceeding to the 6th form, whilst teachers note a definite decrease in confrontational behaviour from the pupils and noticeable improvements in their physical health.

Additional funding has been drawn down to encourage volunteering in the community;

Contracts have been won on behalf of the pupils to carry out work on paths and gardens under the care of the National Trust and Pembrokeshire Coast National Park.

A new skills centre is being developed that will offer a variety of courses, from woodland skills to beautician training (using appropriate plants from the new

woodland garden). The number of pupils opting to do the courses has risen from 24 in the first year to 150 in 2008. The Centre is now viewed by the pupils and staff as legitimate whereas in the beginning it was stigmatised by the other children, one teacher reporting being asked by a pupil *'is it for the thickies?'*. This attitude has now dissipated and there is a demand to attend from all.

The group cite their biggest achievement as *'the rapid escalation of what we can deliver, which is down to successfully recruiting really good staff'*

What can we learn?

The Association state that there have been no problems with the project, although they found the setting up of the company very time consuming and slightly overwhelming. There is a need for recognition that groups will find this process difficult, and potentially beyond their means. Some may need additional input from experts in this field.

The group found their partnership approach through the LEA particularly useful, but also recognise that because of existing contacts the process was far easier for them than it would have been for others. Whilst partnerships have proved important to most projects there is a need for the development, in both communities and public sector organisations, of skills for facilitation and negotiation.

Case Study 7: Silent Valley, Cwm, South East Wales

Who is involved?

Whilst the Gwent Wildlife Trust administer and manage the project, the Friends of Silent Valley Community Group lead on the development and priorities. With over 50 local members in the Friends Group, they also work in partnership with the Venture Scouts, Keep Wales Tidy, BTCV, The Princes Trust, The Forest Education Initiative, Blaenau Gwent County Borough Council, Young Rangers Group and Young Ramblers group.

What is it about?

Silent Valley beech woodlands have been managed as a Local Nature Reserve by Gwent Wildlife Trust since 1998. A grant of £30,325 has enabled the Trust to:

- expand its Community Education Project and begin to target groups and individuals from the community that as yet have been under-represented - especially young children up to the age of five and disaffected teenagers;
- promote existing trails as a resource for recreation and exercise;
- creation of new and improved access paths, alongside a new trail linking long distance rights of way onto common land;
- work with local community groups to plant a new woodland on the rough area surrounding the car park – though this was vandalised at an early stage and had to be replanted.
- establish a new 'Forest School' - working with disaffected teenagers and with 3 local Nursery and Early Years groups. Two Forest School areas have been established;
- promote appreciation of the woodland through the Arts, employing an Artist 'in residence' on the Reserve to work with local children. Most artworks were transient;
- erect seven interpretation panels at the new Reserve entry points and at other key points



What has been achieved?

The Trust are pleased that the Cydcoed project has enabled them to shift their focus within the Silent Valley reserve from running it *for* the local people to running it *with* the local people. Whilst the membership of the Friends group fluctuates, their remit has now expanded well beyond developing and managing the Reserve into other community schemes and initiatives at which they have achieved considerable success.

Involvement of the Young Rangers has proved really positive – they are now much less likely to damage the woodland (which had been the case previously). One young person has gone on to have a holiday job and then to pursue a career in environmental work as a direct result of his volunteering experience

The Forest School sessions have also been successful with 8 groups taking part Queen Street Nursery, Abertillery; Penycwm School, which supports children with special needs of all ages; schools from Blaina, Cwm, Garnlydan and Waunlwyd; Stepping Stones Nursery and the local community Youth Group. Forest School activities help to build confidence, language, motor skills, as well as encouraging young children to develop a healthy respect for themselves, each other and the environment



Additional funding was levered in to support specific pieces of work - £2,500 from Cywaith Cymru for the artists in residence video, and £200 from the Forest Education Initiative for the Forest School inset training day. The 'Friends' group raised money from Communities First for a Silent Valley Scenes Calendar and for the Firework display, and £400 from the Small Woods Association for the summer Woodland Festival

What can we learn?

Staff changes within the Gwent Wildlife Trust resulted in a temporary loss of momentum for the project. This took some time to rectify and caused some conflict between the Trust and the Friends of Silent Valley. Whilst staff changes are often inevitable, it is important that momentum within communities is not lost as a result as it is particularly difficult to rebuild trust and confidence. These issues could have been avoided by keeping the community group fully informed of the issues and by fully briefing the new staff member.

Initially the new woodland was severely damaged by vandalism and much replanting had to take place. Additionally one of the Forest School areas was fire damaged. Whilst the Gwent Wildlife Trust, being part of a national organisation, was able to absorb these costs this would not have been the same if the Friends Group had been the lead body. Most grant schemes do not allow for additional or revenue funding to rectify unforeseen or unavoidable situations yet this could result in the failure of a project.

Case Study 8: Glan Morfa, Rhyl, North Wales

Who is involved?

Glan Morfa, Rhyl is located on a former land-fill site adjacent to the town located about 5 minutes walk from a large housing estate and in a ward ranked, at the time, the most deprived in Wales. The Marsh Road Residents Association successfully bid for a Cydcoed grant of over £250,000 in 2005 to create a woodland area. Already over 1000 local people and 200 local school children have been involved in the project in various ways.

What is it about?

In the past used for dog-walking, motorcycling and fly tipping, this project will provide the whole community with access to a safe woodland environment. Over 2,500 new trees have been planted to create a community woodland and the implementation of the project has addressed the shortage of good quality, public, open space in this part of Rhyl. The Residents Association want to offer people the chance to take 'a breath of fresh air', exercise and to learn about their environment. Habitat management will improve the biodiversity of the area and interpretation projects will provide an excellent focus for community involvement especially via local schools.



What has been achieved?

Physical work on the paths is now complete and additional funding gained from Denbighshire County Council has allowed for signposting and the tarmacing of the paths, making them less attractive to illegal motorcycling activity.

Forest Education Initiative has held a number of events with over 200 children attending and Forest School training has been undertaken. Some of

the higher land in the south of the site has been designated a nature reserve supporting a large population of lapwings and skylarks.

Two and a half thousand trees have been planted, many by local community volunteers and 7,000 metres of new and improved footpaths and 5,000 meters of new and improved cycle track have been completed.

The Residents Association are proud of the fact that the project has created a focus for community action and cohesion through volunteering opportunities and are currently undergoing leader training for improving local health and well being through a 'walk your way to health' initiative.

What can we learn?

The Residents Association state that *'partnerships have been absolutely key to this project – we definitely would not have carried out the project without the partnership of the county council'*. Yet they were also keen to point out that the partnership has really been with one department within the council – Countryside Services – rather than the Council in its entirety, and felt that communication between departments often served to obfuscate issues rather than help.

Despite not being a new group, managing such a large sum of money was a concern to the group at the outset – they were worried they would fail. But in fact they agree that the skills and confidence they now have in themselves as a result of being trusted with such a sum will encourage them to apply for other grants and they are keen to take on other projects in the community.

The group find that, whilst they have a strong core membership, interest from the wider community fluctuates depending on what else is going on in Rhyl. They think this is because that as yet the trees planted are still 'whips' and the wildflower meadow is still newly seeded and therefore there is little to make an instant visual impact. With hindsight they feel that perhaps an area should have been made to look 'finished' with mature planting so that the community could visualise and take ownership of the concept for the site.

Case Study 9: Beaufort Hill Community Woodland, Beaufort, Ebbw Vale, South East Wales

Who is involved?

The Beaufort Hills Ponds and Woodland Preservation Society comprises about 20 local residents who are core members, with a fluctuating wider membership. They were awarded a Cydcoed grant of over £110, 000 in 2006. The project has formed close working links with three local schools – Beaufort Hill Primary, Garnlydan Primary and Pen y Cwm Special School and partnerships have been formed between the group and Blaenau Gwent County Borough Council, Coed Cymru and GAVO.

What is it about?

The site comprises of two man made ponds and several natural ‘scrapes’ with recently created (WGS funded) community woodland to the west and north-west. The project has created a new woodland area in order to link the to the existing native broadleaved woodland areas. A car parking area overlooking the ponds aims to encourage visitors from further afield and make it easier for people with disabilities to visit the woodland. Development of the site entrances aims to formalise access and encourage use of the site by the local community through an artist in residence scheme. The Group aim to promote, improve and environmentally enhance the area known as the Beaufort Ponds and woodlands on behalf of the surrounding communities. The main ethos of the group is to reduce feelings of social exclusion by providing opportunities for social and recreational activities and by fostering well being and social cohesion through community events and celebrations.

What has been achieved?

The project has greatly enhanced access to the area through a number of new access points and the development of existing ones. Local children have designed the new gateway artwork, and these have been so successful the themes are continued throughout the site. The informal path network has been upgraded to encourage access for all. Site interpretation concentrates on the flora, fauna and industrial heritage of the site. Further learning is encouraged through the project website. The group are particularly pleased with the level of community involvement and usage of the site and consider the amount of volunteer involvement as important both for the project and for the individuals involved. The skills gained by volunteers have been cited by the group as one of their main achievements. Blaenau Gwent CBC are taking steps to achieve local Nature Reserve status for the site as a result of the increased sustainable management aspects of the project.



What can we learn?

The involvement of local children in the design of the artwork throughout the site has encouraged them to take pride in their work and to take ‘ownership’ of the site. Their involvement in the early stages of planning and development has helped to lessen anti social behaviour on the site and has resulted in greatly increased use of the site by families. This highlights the importance of getting children involved in projects at

the early stages and encouraging them to stay involved through providing appropriate opportunities.

Case Study 10: Longwood Community Woodland, Lampeter, West Wales

Who is involved?

Coedwig Cymunedol Longwood Community Woodland Group was set up by a steering group established in 2002 from people who live in and around the woodland, and others who have an interest in the wood, together with a representative from each of the three community councils that cover the Longwood area. A Cydcoed grant of £195,000 was given to the group in 2004 for a project on Forestry Commission Wales managed woodland. Seven hundred local people attended a recently held open day and local community support is increasing as the project becomes better known and its successes are more visible.

What is it about?

The project encourages local people to take ownership of their woodland and helps local communities benefit socially and economically from their environment. Physical works include thinning out sections of woodland, developing a tree nursery, creating and maintaining paths and access points, providing parking and developing information and interpretation. The project has a strong educational slant and works with Forest School and local primary and secondary schools to encourage use of the woodland for formal and informal education activity.

What has been achieved?

The Longwood project has achieved many of its aims, but also experienced considerable setbacks. More people are using the woodland; anti social behaviour has decreased considerably; eleven schools are involved in Forest School activities; Young Carer groups use the woodland twice a month and tourism businesses in the area say the woodland is widely used by their visitors, and that they now use it in their marketing material as a place to visit.

The setbacks experienced by the project revolve around the relationship and agreements with FCW and have resulted in delays to the schedule and tensions between the group and FCW officers. The group are pleased to say that they have a very good relationship with the Local Area Manager, and with their Cydcoed officer, but that the lack of communication and understanding within other FCW departments about the project, its aims and responsibilities resulted in a loss of trust and an inability by the group to build an effective relationship with FCW in general.

Despite this tension, or perhaps because of it, the Community Woodland Group is very proactive, very cohesive and committed to the project and eventually hope to be able to lease or own the woodland outright. They would not at this stage however, take on another project that involved FCW.

What can we learn?

The group have found the time commitment needed onerous and with hindsight would have included funding for a project manager in their bid to Cydcoed. However, having to manage the grant themselves has resulted in members of the group attaining new skills and gaining confidence in themselves as individuals.

The lack of communication within FCW and the lack of commitment to Cydcoed from some departments caused severe issues for this group and for the project itself. This highlights the importance of integrated working practices for large organisations.

References

- Allin, P. (no date), Measuring Societal wellbeing, ONS
<http://www.statistics.gov.uk/cci/article.asp?id=1882> accessed July 2007
- Benson, J. F. & Willis, K. G. (1992) *Valuing Informal Recreation on the Forestry Commission Estate*. Wetherby: Forestry Commission
- Bergin, J and Price, C (1994) The travel cost method and landscape quality, *Landscape Research*, 19(1), 21-22
- Broadmeadow, M.S.J. and Freer-Smith, P.H. (1996) *Urban Woodlands and the Benefits for Local Air Quality*. Report for the Department of the Environment, prepared by the Environmental Research Branch of the Forestry Commission
- Christie, M *et al* (2006) *Valuing Forest Recreation Activity Final Phase 2 Report for the Forestry Commission*. Forestry Commission
- Cobbing, P and Slee, B (1994) The application of CM to a land use controversy in the Scottish Highlands, *Landscape Research*, 19(1), 14-16
- Coles, R.W. & Bussey, S.C. (2000) Urban Forest Landscapes in the UK – progressing the social agenda in *Landscape and Urban Planning* 52 pp181-8
- Community Development Cymru, (2006) *National Strategic Framework for Community Development in Wales*, CDC, Newtown
- Driver, D. (2005) *Did it deliver: an evaluation of the effectiveness of Cydcoed Phase I*. unpublished
- Driver, D. (2006) *How Cydcoed is managed review copy.doc 21-06-06* accessed August 2007
- Edwards, D, O'Brien, L *et al*, (2008) *A valuation of the economic and social contribution of forestry for people in Scotland*. Forest Research, Farnham
- Elands, B. and K. Wiersum (2001) forestry and rural development in Europe: an exploration of socio-political discourses. *Forest Policy and Economics*, vol.3, pp5-16
- English Nature (1995) *Accessible Natural Greenspace in Towns and Cities: a review of appropriate size and distance criteria. Guidance for the preparation of strategies for local sustainability*. A report by Harrison C, Burgess J, Millward A and Dawe G. English Nature, Peterborough
- Forestry Commission. (2005). *Public Opinion of Forestry (Wales)*. Forestry Commission, Edinburgh.
- Forestry Commission Wales (2005) *Woodlands for Wales Progress Report 2001-2005*. WAG, Cardiff
- Forestry Commission Wales (2001) Cydcoed EAGGF application. Unpublished
- Forestry Commission Wales (2004) Cydcoed EAGGF Application, unpublished

Forestry Commission Wales (2005) *Better Woodlands for a Better Wales, Corporate Plan 2005/6 – 2007/08*, Forestry Commission Wales, Aberystwyth

Freer-Smith, P.H., Holloway, S. and Goodman, A. (1997). The Uptake of Particulates by an Urban Woodland: Site Description and Particulate Composition. *Environmental Protection* 95, 27-35

Garrod, G.D. and K.G. Willis (1997). The non-use benefits of enhancing forest biodiversity: a contingent ranking study. *Ecological Economics* 21, 45-61

Gracia, L et al (no date) *The determinants of participation in Physical activity and its effects on the wider economy*.

<http://wales.gov.uk/about/aboutresearch/econoresearch/completed/?lang=en>

Grant, N. and A. Smilie. (2007) *Public Opinion of Forestry 2007: Wales*. Economics and Statistics, Forestry Commission, Edinburgh

Hislop, M., Edwards, D., Elliott, A., Martin, S., Morris, J., O'Brien, L., Serrand, M. and Valatin, G. (2006) *A Valuation of the economic and Social Contribution of Forestry for People in Scotland: An interim report*. Forest Research, Farnham.

Jones, A., Batemen, I., and J. Wright (2003) *Estimating arrival numbers and values for informal recreational uses of British woodlands*. Forestry Commission

Joseph Rowntree Foundation (nd) *Changing Neighbourhoods: the impact of 'light touch' support in 20 communities*

<http://www.jrf.org.uk/knowledge/findings/housing/2031.asp> accessed July 2007

Kaplan, R., and Kaplan, S. (1989) *The Experience of nature: a psychological perspective*. Cambridge University press, Cambridge

Keeble, D, Tyler, P, Brown, G and Lewis, J (1992) *Business Success in the Countryside: the performance of rural enterprise*. DoE, HMSO

Keyes (1998) Social wellbeing in *Social psychology quarterly* 61:2

Kitchen, L. (2004) *A review of social capital in the context of FC(Wales)* unpublished

Layard R (2005), *Happiness: lessons from a new science*. London Allen Lane, Penguin group

Macmillan, D. and I. Duff (1998) Estimating the non-market costs and benefits of native woodland restoration using the contingent valuation method. *Forestry*, vol. 71, no.3, pp.247-259.

Macnaghten P, Grove-White R, Weldon S and Waterton C (1998) *Woodland Sensibilities: recreational uses of woods and forests in contemporary Britain*. A report by the Centre for the Study of Environmental Change for the Forestry Commission. CSEC, Lancaster.

McAllister, F. (2005) *Wellbeing concepts and challenges: Discussion paper*. Sustainable development research network

www.sd-research.org.uk/publications.php accessed 24-07-07

Nabuurs, G.J., Garza-Caligaris, J.F., Kanninen, M., Karjalainen, T., Lapvetelainen, T., Liski, J., Maser, O., Mohren, G.M.J., Pussinenenn, A., SchelhaasM.J. (undated) CO2FIX V2.0: Manual of a model for quantifying carbon sequestration in forest ecosystems and wood products. ALTERRA, Wageningen, The Netherlands

National Statistics

http://www.statistics.gov.uk/about_ns/social_capital/downloads/Social_Capital_Question_Bank.pdf

New Economics Foundation www.proveandimprove.org

Nickson A and Cartwright S (2002) The Economic Benefits of Green Space. London Green Space Conference, 01/02/02 Proceedings, pp 47-51

O'Brien, L. (2004) *A Sort of Magical Place: people's experiences of woodlands in northwest and southeast England*. Forest Research, Farnham.

O'Brien, L (2005) *Trees and woodlands: Natures health service*. Forest research Farnham

Office of National Statistics (2005) *Living in Wales 2004*. National Assembly for Wales, Cardiff www.wales.gov.uk/statistics

Powell, J. (1993) *The Valuation of Upland Vegetation. Final Report on the Contingent Valuation Study of Upland Vegetation in the UK*. Conducted for Ecotec Research and Consulting Ltd, Birmingham

Owens, J. (no date) *A Review of the Social and Non market returns to education*. <http://wales.gov.uk/about/aboutresearch/social/?lang=en>

Powell, J. (2002) Using expectations of gain to bound the benefits from contaminated land remediation. *International Journal of Environment and Pollution*. Vol. 17, no 4, pp.337-355.

Powell, J., Aitchison, C. and M. Clark (2003) *Horse riding in Wales – exploring the opportunities. Final Report to the Countryside Council for Wales*

Pretty, J., Griffin, M., Peacock, J., Hine, R., Sellens, M, and South, N. (2005). *A countryside for health and wellbeing: the physical and mental health benefits of green exercise*. Countryside Recreation Network, Sheffield.

Putnam, R.D. (2000) *Bowling Alone: the collapse and revival of American community*. Simon and Schuster, New York.

Pyle, R. (2002) Eden in a vacant lot: special places, species and kids in the neighbourhood life. In *Children and Nature: Psychological, sociocultural and evolutionary investigations* (eds) Kahn, P. and Kellert, S. MIT Press, Cambridge , Mass.

Rowe N, Adams R and Beasley N (2004) *Driving up participation in sport: the social context, the trends, the prospects and the challenges*. Sport England, London

Ruston, D. and Akinrodye, L (Office of National Statistics) (2002) *Social Capital Question Bank Social Analysis and Reporting Division, ONS, London*

- Schuller, T (2000), *Thinking about Social Capital* www.open.ac.uk/lifelong-learning/papers/ accessed April 2007
- Selman, P. and J. Powell (2000) *Evaluation of the Capital Modernisation Fund*. Forestry Commission
- Selman, P. and J. Powell (2003) *Woodland wealth appraisal for the East of England*. Report to the Forestry Commission (East of England Conservancy) and East of England Development Agency
- Skidmore, P., Bound, K. & Lownsborough, H. (2006) *Community Participation: Who benefits?* Joseph Rowntree Foundation, York.
- Slee, B. (2002) Social Exclusion in the Countryside *in Countryside Recreation 10:1* pp2-7
- Slee, B. (2006) The socio-economic valuation of the impact of forestry on rural development: a regional level analysis. *Forest Policy and Economics* 8, pp542-554
- Sports Council Wales (2004) *Adults sports participation and club membership 2002/2003* <http://www.sports-council-wales.org.uk/researchandinformationservices/research/large-sample-surveys>
- Tabbush, P., Hislop, M., O'Brien, L., Martin, S., Morris, J., Edwards, D., and Thomson, M. (no date) *Forestry for people: A proposed evaluation for forestry commission Scotland*.
- The Woodland Trust, (2004) *Woodland Trust – Space for People, targeting action for woodland access*, www.woodland-trust.org.uk/publications accessed October 2007
- TNS (2005) *All forests visitor monitoring: survey of visitors to Welsh Assembly Government woodlands 2004*. Forestry Commission Wales.
- Ulrich, R.S. (1984) View through a window may influence recovery from surgery. *Science* 224, 420-421.
- Ulrich R.S., R.F. Simons, B.D. Losito, E. Fiorito, M.A. Miles and M. Zelson. (1991) Stress recovery during exposure to natural and urban environments. *Journal of Experimental Psychology* 11, 201-230.
- University of Newcastle and ERM (UNERM) (1996) *Valuing Biodiversity and Biodiversity Management Regimes in British Forests*. ERM & Centre for Research in Environmental Appraisal & Management, University of Newcastle Report to the Forestry Commission. FC, Edinburgh.
- Weldon, S., Bailey, C and O'Brien, L. (2007). *New Pathways for health and wellbeing in Scotland: research to understand and overcome barriers to accessing woodlands*. A report for Forestry Commission Scotland
- Van den Berg, T., Poe, G. and J. R. Powell. (2001) *Assessing the accuracy of Benefits Transfers: Evidence from a Multi-Site Contingent Valuation Study of Ground Water Quality*. Chapter 6 in: J. C. Bergstrom, K. Boyle and G. Poe (Eds), *The Economic Value of Water Quality*. New Horizons in Environmental Economics Series, General Editors Wallace E. Oates and Henk Folmer. Edward Elgar

Welsh Assembly Government, date unknown, *Creating Sustainable Places* (Welsh Development Agency) <http://new.wales.gov.uk/about/strategy/publications/?lang=en>

Welsh Assembly Government (2001) *Woodlands for Wales 2000 – 2050*. Forestry Commission Wales, Aberystwyth

Welsh Assembly Government, (2005) *A Fair Future for our Children*.
<http://new.wales.gov.uk/about/strategy/publications/?lang=en>

Welsh Assembly Government, (2005) *Climbing Higher: sport and active recreation*
<http://new.wales.gov.uk/about/strategy/publications/?lang=en>

Welsh Assembly Government, (2005) *Designed for Life, a world class health service for Wales* <http://new.wales.gov.uk/about/strategy/publications/?lang=en>

Welsh Assembly Government, (2006) *Starting to live differently: The sustainable development scheme of the National Assembly for Wales*' (updated 2006)
<http://new.wales.gov.uk/about/strategy/publications/?lang=en>

Welsh Assembly Government (2006) *Welsh health Survey 2005/2006*
<http://new.wales.gov.uk/about/strategy/publications/?lang=en>

Welsh Assembly Government, (2007) *One Wales*
<http://new.wales.gov.uk/about/strategy/publications/?lang=en>

Welsh Assembly Government (2007). *Wales: Moving Towards a Learning Country*.
<http://wales.gov.uk/about/aboutresearch/?lang=en>

Welsh Assembly Government (2008 update) *People, Places, Futures: The Spatial Plan* <http://new.wales.gov.uk/about/strategy/publications/?lang=en>

Willis, K (1994) Contingent valuation in a policy context (1994) Contingent valuation in a policy context, *Landscape Research*, 19(1), 17-20

Willis K, Garrod G, Scarpa R, Macmillan D and Bateman I (2000) *Non-market Benefits of Forestry. Phase 1 Report to the Forestry Commission*. Centre for Research in Environmental Appraisal and Management, University of Newcastle

Willis, K, Garrod, G., Scarpa, R, Powe, N., Lovett, A., Bateman, I., Hanley, N., and D. Macmillan (2003) *The social and environmental benefits of forests in Great Britain*. Forestry Commission

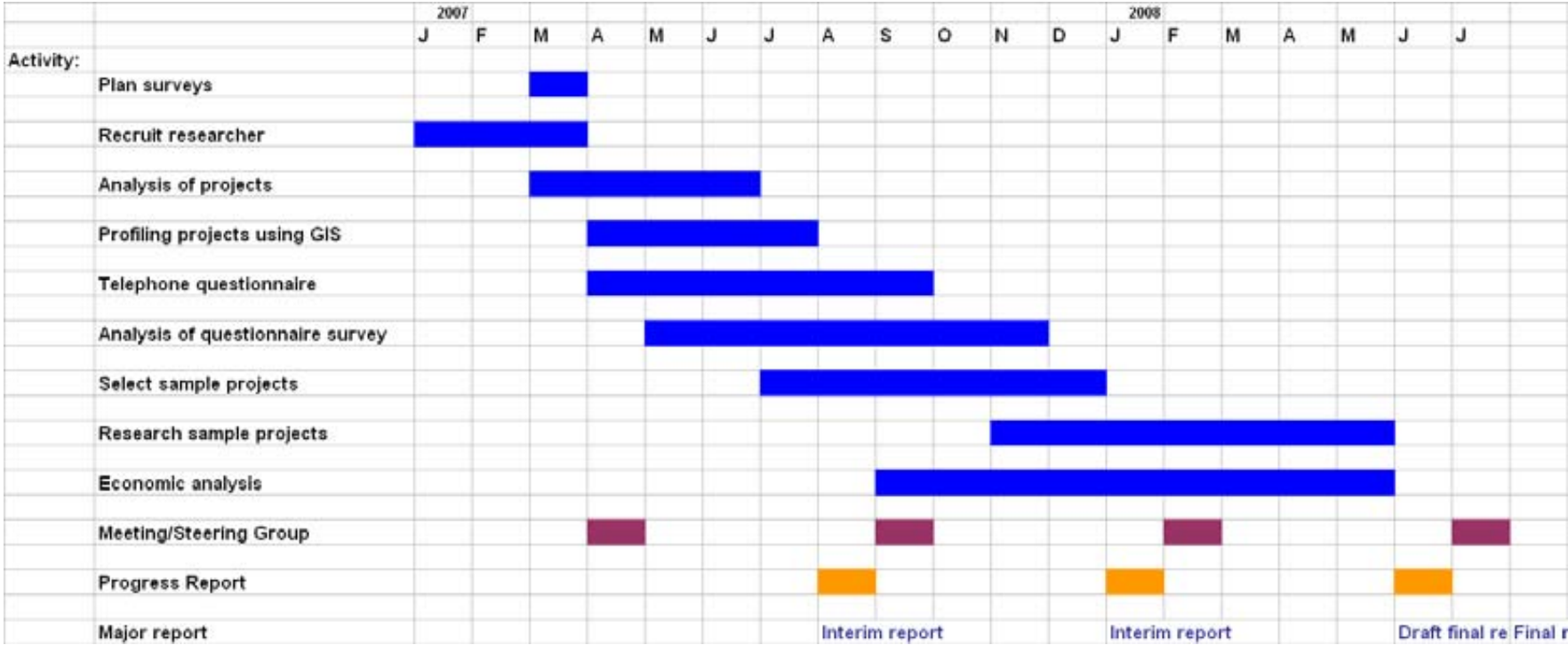
Woodlands for Life: Lifelong Learning (no date) www.woodlandforlife.net accessed March 2008.

Woolcock, M. (2001). *The Place of Social Capital in understanding social and economic outcomes*. Isuma: Canadian Journal of Policy Research 2:1 pp1-7

www.statswales.wales.gov.uk accessed February 2008

Appendices

Appendix 1: Cydcoed Project Phases



Appendix 2: Cydcoed Methodology for monitoring jobs created and or safeguarded

HOW TO MEASURE JOBS SAFEGUARDED BECAUSE OF CYDCOED

Objectives of this guidance.

Explain to groups involved in bids to Cydcoed how to measure the jobs their project will safeguard.

Background

One of Cydcoed's formal targets is to safeguard woodland and timber related jobs.

The creation of jobs is not one of our formal targets at the moment – but it may become part of our targets so we need to collect information on jobs created as well.

Not every project has to create or safeguard jobs but those that do are more valuable.

WHAT YOU HAVE TO DO BEFORE SUBMITTING YOUR BID

Work with your Cydcoed Project Officer to estimate how many jobs will be safeguarded as a result of your project and include this in your bid. If your project is approved, this will become a target in your contract with us.

You should also tell us if you expect your project to create any new jobs.

How to estimate the number of jobs safeguarded for your target.

There are three ways that jobs can be safeguarded through your project; you should look at all three when working out the number of jobs for your target:

A. Due to the paid work on the project:

1. Work out the number of years that your Cydcoed project will take. Multiply this by 1800⁹ to give the maximum number of working hours available during your project.
2. Estimate how many person hours of paid work the project will involve. Include all paid time spent on delivering the project – contractor time and your group's time.
3. Divide this by the figure from 1 above to give the number of jobs safeguarded in Full Time Equivalents.

B. By actual, specific known posts being safeguarded as a result of the project, e.g.: manager of the forest facility being built. For these, you must be able to name the post.

Work out the Full Time Equivalent of these posts = total number of hours worked per week divided by 40.

A and B together will provide direct jobs safeguarded. The posts can be either permanent or temporary.

NB: be careful not to double count jobs in both A and B.

C. The wider economic benefit of your project may also safeguard posts. These are known as indirect jobs. These will be posts in firms that have not worked directly on the

⁹ Average working year = 45 weeks at 40 hours a week = 1800hours.

project but have benefited from the project. They must be firms involved in forestry and woodland activities (but this has a wide definition under Cydcoed).

You must be able to define precisely the number of actual posts secured and make a clear link to jobs and increased economic turnover, e.g.: "Following the development of our forest facilities under Cydcoed a local firm will use those facilities to provide services to customers. The firm has told us that as a result of this business opportunity it will retain a permanent staff member that would otherwise have been laid off. Therefore, the project will safeguard one permanent indirect job."

Jobs created.

The only jobs relevant are known jobs created as a direct result of your project. You should tell us the names of the posts for the new jobs when you make your bid. These will not be part of your formal targets but may strengthen your bid.

WHAT YOU HAVE TO DO AFTER YOUR BID IS APPROVED.

Work with your Project Officer to collect the evidence of the person hours or the posts being safeguarded.

You will also need to tell us whether the people working on the project are male or female, whether they are local, and whether the known posts from B and C are permanent or temporary.

Examples of acceptable evidence for A, jobs due to paid work on the project:

Copies of invoices from contractors or consultants showing charge for labour broken down into hours working on the project;

Written statements from contractors or consultants confirming hours spent on the project; or

Project timesheets.

NB: you should ensure your contractors know what you need them to supply when you first contract them.

Example of acceptable evidence for B, known jobs:

Written record of posts from employers with confirmation of post name and hours per week worked.

Example of acceptable evidence for C, indirect jobs:

Evidence for indirect jobs might be hard to obtain. However, a written record from a firm that expects to increase its economic turnover as a result of the project should be sufficient. A brief description of how the turnover will be increased should be included.

There may be other forms of evidence for A, B, and C – discuss any ideas with your Project Officer.

Gender: Women are currently underrepresented in Welsh forestry. We are therefore looking at the gender of people working on Cydcoed projects. We just need to know number of males and number of females.

Local: We are working to help local people make better use of their local woods. We therefore need to know the number of jobs safeguarded that are held by local people. Local in this context depends on the geographical scope of the project – you will need to work with your project officer to devise a specific definition of local, e.g.: everyone living

in this valley, everyone living in the community council areas, everyone living on the estate.

Permanent/Temporary: Permanent posts are more economically valuable than temporary posts (but we are not knocking temporary jobs in general!). For the known posts safeguarded from B and C we need to know if they are permanent or temporary.

A permanent post has no fixed lifespan and is expected to last at least 10 years.

Jobs created.

You should confirm to us whether the new jobs you told us about in your bid have been created and any additional new jobs not originally anticipated. You should tell us if the post holders are male or female, local or non-local, and if the jobs are permanent or temporary.

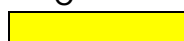
THIS TABLE SUMMARISES THE INFORMATION WE WILL NEED TO COLLECT FOR EACH PROJECT:

Table showing numbers of jobs in relevant categories for [Name of Project]:

	Jobs safeguarded	
	Permanent	Temporary
Direct*		
Indirect**		
TOTALS		
Male		
Female		
Local		
Non-local		

*A and B

** C

 Only these cells need filling in when bid is submitted

DEFINITIONS.

Jobs created: new jobs generated in businesses benefiting from the project.

Jobs safeguarded: jobs that would have been lost if the project had not gone ahead.

Permanent jobs: No fixed lifespan and expected to last at least ten years

Temporary jobs: An expected or known lifespan of less than ten years

Direct jobs: Jobs that are created or safeguarded in businesses that are receiving benefits directly from the project. Examples include jobs in forest facilities constructed by the project, jobs in firms working on delivery of the project.

Indirect jobs: Jobs that might be created at some stage as a result of the economic benefits of the project. Examples include jobs in forest facilities created by the project that will come on line following further non-Cydcoed development of the facility, jobs in firms using the forest facilities for their own business activities.

Woodland and timber related: The jobs must be woodland and timber related. If the job is directly connected to the Cydcoed project it is woodland and timber related (because Cydcoed is a forestry programme). For indirect jobs, if the firms are using the facilities created by Cydcoed then they must also be woodland and timber related. However, it is possible for Cydcoed to indirectly safeguard jobs that are not woodland and timber related. For example, a café serves refreshments to visitors including some new visitors using a nearby Cydcoed funded forest park, the increased turnover enables it to retain staff. However, these would not be woodland and timber related jobs so would not count for Cydcoed. If the café was in the forest park or intimately linked to it in other ways it would be different because it would be part of the visitor experience of the forest and so would be a woodland related business.

Appendix 3: Targets and Outputs by County

Phase 1 Cydcoed Projects

County		Additional sustainable woodland management schemes	New community woodland on non-agricultural land	Woodland and timber related businesses supported	Woodland schemes with community participation	Hectares of woodland brought into sustainable management	Hectares of new community woodland on non-agricultural land	Hectares of woodland benefiting from community participation	Gross timber and woodland related jobs safeguarded	Gross timber and woodland related jobs created	Number of projects	Cydcoed grant total
Blaenau Gwent	Target	3	1	4	0	77.4	0.35	77.4	0.5	0	3	70,656
	Output	3	0	4	0	77.4	0	77.4	1.6	0		
Bridgend	Target	7	0	7	0	844.6	0	844.6	0	0	2	224,847.59
	Output	7	0	7	0	844.6	0	844.6	7.8	0.9		
Caerphilly	Target	3	1	3	0	42.12	4.4	46.5	0	0	3	332,003
	Output	3	1	3	0	40.4	4.4	46.5	1.7	0		
Carmarthenshire	Target	9	0	9	2	182.09	0	209.77	1.5	0	5	540,905.64
	Output	6	0	8	2	138.59	0	209.77	6.4	4.6		
Ceredigion	Target	15	7	15	0	391	9.6	401.5	0	5.5	4	466,560.81
	Output	21	8	21	1	368.9	7.9	412.5	14.4	3.5		
Conwy	Target	1	0	1	0	3.6	0	3.6	0	0	1	90,583.12
	Output	1	0	1	0	3.6	0	3.6	1.2	0		
Denbighshire	Target	1	1	2	0	1.1	5	6	0	0	1	50,882.58
	Output	2	1	2	0	1.1	5	6	0.8	0		
Gwynedd	Target	15	9	12	0	60.9	25.3	63.7	0	0	6	709,228
	Output	12	4	12	0	44.2	3.5	63.7	11.2	8.3		
Neath Port Talbot	Target	1	0	1	0	2600	0	2600	0	8	1	676,131.51
	Output	3	0	3	1	2600	0	2600	0.6	0.1		
Pembrokeshire	Target	4	1	4	0	78.0	6	84.3	1.5	0	4	181,431.54
	Output	4	1	4	0	78.8	6	84.8	0.5	0.1		
Rhondda Cynon Taf	Target	5	1	5	0	789.5	2.9	789.5	1.5	00	3	347,262.89
	Output	4	0	4	0	789.5	0	789.5	0.5	1.8		
Swansea	Target	3	0	3	0	2.7	0.4	2.6	0	0	3	49,892.12
	Output	3	0	3	0	2.7	0.4	2.6	0.2	0		
Torfaen	Target	1	0	1	0	17	0	17	0	0	1	8,353.04
	Output	1	0	1	0	17	0	17	0	0		
Ynys Mon (Anglesey)	Target	4	2	4	0	8	6.3	14.3	0	0	3	237,557.75
	Output	4	2	4	0	14.5	6.3	16.3	3.4	0		

Target details taken from individual project application forms and outputs taken from individual project completion forms

Phase II Cydcoed Projects

County		Additional sustainable woodland management schemes	New community woodland on non-agricultural land	Woodland and timber related businesses supported	Woodland schemes with community participation	Hectares of woodland brought into sustainable management	Hectares of new community woodland on non-agricultural land	Hectares of woodland benefiting from community participation	Gross timber and woodland related jobs safeguarded	Gross timber and woodland related jobs created	Number of projects	Cydcoed grant total
Blaenau Gwent	Target	13	2	1	13	165	8	173	18	2	11	974,087.24
	Output											
Bridgend	Target	14	4	1	14	93	15	108	12	3	9	845,000
	Output											
Caerphilly	Target	15	2	0	15	820	7	827	20	0	9	1,051,000
	Output											
Carmarthenshire	Target	18	12	9	18	328	32	360	21	10	11	1,064,250.43
	Output											
Ceredigion	Target	11	0	4	11	242	0	243	6	6	7	667,333.54
	Output											
Conwy	Target	20	3	0	21	1225	5.3	1230.3	17	0	10	986,579.29
	Output											
Denbighshire	Target	6	1	4	6	15	41	56	8	0	6	535,227.81
	Output											
Gwynedd	Target	17	4	0	17	53	6	59	12	0	10	751,045
	Output											
Merthyr Tydfil	Target	10	4	0	10	67	5	72	7	0	7	692,404.29
	Output											
Neath Port Talbot	Target	10	4	0	10	28	5	33	7	0	6	406,500
	Output											
Pembrokeshire	Target	11	5	9	12	159	13	172	20	12	9	1,330,637.75
	Output											
Rhondda Cynon Taf	Target	20	9	1	20	41	14	55	11	1	9	926,700
	Output											
Swansea	Target	44	8	6	46	437	14	451	20	3	13	1,035,217
	Output											
Torfaen	Target	2	0	0	2	158	0	158	1	0	2	162,720
	Output											
Ynys Mon (Anglesey)	Target	57	5	0	50	72	5	62	10	1	4	570,950
	Output								3.4	0		

Target details taken from individual project application forms and outputs will be taken from individual project completion forms

Appendix 4: Cydcoed postal survey questionnaire

Cydcoed Evaluation Exercise

I am currently looking at Cydcoed projects across Wales on behalf of Forest Research, Cydcoed and Forestry Commission Wales. This is so we can understand in detail what the benefits are to communities across Wales of a grant scheme like Cydcoed. In order to do this effectively we need your help in gathering information. Please take the time to fill in this questionnaire – you will find that not every question is relevant to your project, but please ensure that you complete all those that are.

The information that you provide here will be invaluable to us in showing the benefits of the Cydcoed project and we very much appreciate your assistance.

NOTES

Contact details

Please give the address of the woodland site

1. Correspondence contact details

Contact name	
Name of group	
Number or name of building	
Street	
Address 2	
Post town	
County	
Postcode	
Email	
Group web site	

2. Project details

Project title	
Address 1	
Address 2	
Address 3	
Post town	
County	
Postcode / grid reference	
Project email	
Project web site	

Type of Group

3. Please tell us the status of your group (please tick one box in each column)

Before gaining Cydcoed funding		Since gaining Cydcoed funding
	There was no community group	
	Social enterprise	
	Company limited by guarantee	
	Charitable trust	
	Charitable company limited by guarantee	
	Unincorporated Association	
	Other (please specify)	

For all the following questions please tell us the situation as it currently is, please do not make predictions for the future. For example, if you have not yet worked with schools, or held an art event, please leave these blank EVEN IF YOU KNOW YOU WILL BE DOING THIS IN THE FUTURE

4. Are you a membership organisation?

yes (go to Q4a) no go to Q5

4a. Do you charge?

yes no

5. How many members do you have who live:

	Locally
	Within the County
	Further afield

People

By 'group' we mean all those people who participate in the project

Education and life-long learning

6. Approximately how many people from your group work on the Cydcoed project?

7. Approximately how many people from your group work on other projects with which your group may be involved?

Projects and Schemes

We'd like to know this information so that we know what kind of opportunities are available for people to get involved and how many people do so

8. Please provide details of the other projects below:

Name of project/scheme (or brief description)	Approximate number of people involved

Other groups

The number of people involved should reflect the number of people from the other group involved in the Cydcoed project

9. Please provide details below of other **groups** which have been involved in this Cydcoed project (e.g. Youth offender teams; mental health groups; youth workers; social care; Guides; Scouts; W.I.; Merched y Wawr etc – **do not include schools at this point**)

Name of group	Approximate number of people involved

Schools

Please include schools that have helped directly in the project or have used the woodland for education and learning

10. Please provide details below of the different **primary** schools involved in the Cydcoed project:

Name of school	Approximate number of children involved

11. Please provide details below of the different **secondary** schools involved in the Cydcoed project:

Name of school	Approximate number of children involved

Activities

If you have held an event that could belong to more than one category, please tick the MAIN category it fits, rather than ticking more than one box.

Don't include training events here – they are detailed overleaf

12. How many of the following have your group organised as part of your Cydcoed project?

For the 'type of event' please indicate which one of the following six categories best describes the main purpose of the event:

- 1. Educational / learning** (this could include wildlife walks, fungi forays, history walks, flora identification walks, forest schools, school visits)
- 2. Health and well being (including social care)** (e.g. Active Woods, GP referral schemes, Walk your Way to Health schemes)
- 3. Recreation / Sport** (this could include organised walks or runs, motor sports, mountain bike or cycle events)
- 4. Cultural / arts** (this could include art and sculpture, music events, poetry events etc)
- 5. Woodland management** (for example tree planting, creating access, clearing)
- 6. Public involvement in forest planning** (consultations, open days etc)

Type of event (choose a number from the above list)	Name of event or brief description	Approx number of people attending

Training

Training could include things like project management, accounting, conservation skills or more vocational things like gate making, dry stone walling etc

13. Since getting Cydcoed funding, how many courses have been **run by your group** aimed at helping people to learn new skills, or to develop existing skills?

Name of course, or brief description	Approximate number of people attending

14. Please provide details of any other training people may have taken as a result of the Cydcoed project:

Name of course, or brief description	Approximate number of people attending

Employment

By outside of the project we mean people who are not employed directly by the Cydcoed project

15. How many people has your Cydcoed project helped into paid employment out side of the project?

Access and information

Please fill in the boxes to reflect the current situation, not what it might be at the end of your project

By footpath or track being 'brought into use' we mean that it was not usable before

By new access point we mean a new entrance into the woodland

By improved access points we mean, for example, new or mended gateways or stiles.

By art/sculpture installation we mean permanent or semi permanent

16. How many metres of **new** footpath/track have been created as a result of Cydcoed funding?

metres

17. How many metres of **existing** footpath/track have been brought into use as a result of Cydcoed funding?

metres

18. How many metres of **new** mountain bike/cycle track been created as a result of Cydcoed funding?

metres

19. How many metres of **existing** mountain bike/cycle track have been brought into use as a result of Cydcoed funding?

metres

20. How many new access points (e.g. gateways) to the woodland been created as a result of Cydcoed funding?

new access points

21. How many existing access points have been improved as a result of Cydcoed funding?

existing access points improved

22. How many interpretation panels/boards have been sited at entrances to, or within, the woodlands as a result of your Cydcoed project?

interpretation panels/boards

23. How many art/sculpture installations have been made in the woodlands as a result of the Cydcoed project?

art/sculpture installations

Access and information (continued)

24. Have you produced any literature associated with the Cydcoed project (e.g. information leaflets; walks leaflets; events diary etc)?

no

paper

web

adverts

display boards

CD Rom

other

Less able people includes those with visual impairment, hearing impairment, mental or physical disability and also includes people with prams or others who may find it difficult to use woodland

25. As a result of the Cydcoed project has any provision been made for less able people?

yes, provision has been made for less able people

26. Is there public transport available to the woodland site?

no

yes

Travelling to the woodland

27. Is there a car park available at, or close to, the woodland site?

no

yes

28. How many new car parking spaces have been created as a result of Cydcoed funding?

new car parking spaces

**Benefits of
Cydcoed**

29. Please give details of any other benefits, not given above, for your community as a result of Cydcoed funding?

**Cydcoed grant
process**

30. How important is it that the grant monies were given directly to community groups rather than to third parties to administer? (please tick one box only)

Very important (1)	Important (2)	Neither important nor unimportant (3)	Fairly unimportant (4)	Not important at all (5)

31. Was it helpful to have the support of a local project officer from Cydcoed? (please tick one box)

Very helpful (1)	Helpful (2)	Neither helpful nor unhelpful (3)	Unhelpful (4)	Very unhelpful (5)

32. If you have ticked 'unhelpful' or 'very unhelpful' to Q31, please explain why below.

**Cydcoed grant
process continued**

33. How satisfied are you with the quality of advice given to you by Cydcoed staff?

Very satisfied (1)	Satisfied (2)	Neither satisfied nor dissatisfied (3)	Dissatisfied (4)	Very dissatisfied (5)

34. If you have ticked 'dissatisfied' or 'very dissatisfied' to Q33, please explain why below

35. How satisfied are you with the Cydcoed grant process in its entirety? (i.e. from drawing up a bid, to carrying out the works and follow up from officers)

Very satisfied (1)	Satisfied (2)	Neither satisfied nor dissatisfied (3)	Dissatisfied (4)	Very dissatisfied (5)

36. How could the process be improved? (please tick each box that is applicable)

Grant application made easier	
More help from officers	
Less help form officers	
Less stringent guidelines	
Other (please state)	

37. Please make any other comments you may have below:

Cyddcoed contacts

Thank you for your time in completing this questionnaire. Please return it in the stamped, addressed envelope provided as soon as possible.

Please post your completed form back to us by the 30th May 2007.

Forms should be returned to:

Roz Wornell
Forest Research
Nant yr Arian
Ponterwyd
Aberystwyth
Ceredigion
SY23 3AD

Please return this form in the envelope provided by the 30th May 2007

If you need any assistance with completing this form please contact your Cyddcoed Officer who will be glad to help.

Region	Contact	Telephone
North	Bob Griffiths	01678 540557
West	Ben Maxted	01970 881901
West	Mark Proctor	01646 685720
South West	Steve Crosby	01792 799176
South East	Barbara Anglezarke	01874 658654

Alternatively contact the Forest Research Officer, Roz Wornell, based at Nant yr Arian, Aberystwyth on 01970 881910.

Appendix 5: Questionnaire to sample projects



All of the information you provide in this survey will be treated in the strictest confidence and we are not collecting any information that will allow you to be identified. This questionnaire will be destroyed once your information has been recorded for use in the project.

Section A – About your local woodland and the xxx Project

1. In this questionnaire we are talking about xxx woodland, if you use another name for this woodland please write it in below.

.....

2. Have you taken part in the planning and development of the project? *(tick one box only)*

Yes No Don't Know

If 'Yes' answer the next question, if 'No' or 'Don't Know' then go to question 4.

3. Since becoming involved with the project would you say that your use of the woodland for recreation purposes (exclude visits to the woodland for other reasons) has: *(tick one box only)*

Increased considerably
 Increased a little
 Hasn't changed
 Declined

4. How far do you live from the woodland?

Less than ½ a mile
 ½ to 1 mile
 1 – 2 miles
 More than 2 miles

5. How would you normally travel to the woodlands? *(tick one box only)*

Walk Car
 Run/Jog Cycle
 Public Transport Other

6. Why do you visit the woodland? *(please tick all that apply for each combination)*

	On your own	With your dog	With family/friends	With a club/organised group
Walking				
Running/jogging				
Working/volunteering				
Cycling/mountain biking				
Bird / wildlife watching				
Picnics				
Woodland events				
Taking children to school				
To enjoy the countryside				
Gathering e.g. Mushrooms				
Other (specify).....				

7. If you undertake a physical activity such as walking, cycling or running in the woods how often and for how long do you do this? *(please tick all that apply for each combination)*

	Under 30 mins	30 mins – 1 hour	1 to 2 hours	More than 2 hours
On most days				
Once or twice a week				
Around five times a week				
Once or twice a month				
Less often than once a month				

8. How would you rate this level of activity? *(tick one box only)*

Brisk (work up a sweat, breathing hard, increased heart rate)
 Fairly brisk (increased heart rate, moderate breathing)
 Average (not out of breath, warmed up but not sweating)
 Normal (breathing normally, heart rate normal)

9 Please indicate which of the following statements are closest to your opinion, by entering a corresponding number:

1 = Strongly Disagree,
 2 = Disagree
 3 = Neither Agree or Disagree
 4 = Agree
 5 = Strongly Agree

Enter a number from 1 to 5

I feel safe visiting the woodlands	
I find visiting the woodlands relaxing, and a place that helps me to reduce stress and anxiety	
I find that visiting the woods helps myself and others to learn about nature	

I would like to visit the woods more often	
Woodlands are an important part of our community	
Taking part in the project has led me to take more regular exercise	
Taking part in the project has increased my level of trust in my community	
The project has given me a better understanding of our local environment	
Being part of the project has taught me to work more effectively with other people in my community	
The project has helped to develop stronger ties between people in our community	
Our community's quality of life has improved because of the project	
Through my involvement with the project I have learnt new skills that could help me in my employment, or could help me get a job	
I am more confident in myself since being involved in the project	
My overall quality of life has improved since becoming involved in the woodland	

10. Are there any barriers that prevent you from visiting the woodland as much as you would like? (tick all that apply)

- Blocked footpaths
- Not safe
- I do not find the countryside a welcoming place
- Lack of disabled access
- No one to go with
- Problems gaining access to paths and bridleways
- Not interested in visiting the countryside
- Nowhere to park my car
- Lack of public transport
- I am too busy
- I prefer to visit coastal areas
- Lack of freedom to walk where I would like
- Lack of waymarked paths
- Fear of getting lost
- Not enough routes suitable for cycling
- Fear of accidentally trespassing on someone's land
- Not enough routes suitable for horse riding
- None
- Other (please specify)

11. Please indicate the ways in which your community's involvement in project has affected your household (tick all that apply)

- Provided full/part time work
- Provided seasonal work
- Allowed me to volunteer to help
- Provided a place for recreation
- Provided space for children to play
- Helped to stop or lessen anti-social behaviour in the woods
- Provided a place for exercise
- Provided a place where we can learn about nature
- Other (specify.....)
- Hasn't made any difference

12. Since becoming involved with the project would you say that: (tick one box only)

your *physical health* has:

- Improved considerably
- Improved a little
- Hasn't changed
- Got worse

your *overall wellbeing* (i.e. stress levels, attitude to work and life in general) has:

- Improved considerably
- Improved a little
- Hasn't changed
- Got worse

Section B: About You (we would really like this information so we can compare different groups that use the woodland)

13. Sex

- Male
- Female

14. Age

- Under 16
- 16 - 18
- 18 - 24
- 25 - 34
- 35 - 44
- 45 - 54
- 55 - 64
- 65 - 75
- 75+

15. How many dependent children do you have in your household ?

16. Which of the following applies to you?

a) My skills and/or knowledge have been developed to the following levels **as a direct or indirect result** of my involvement with the woodland project:

- Further education qualifications
- University qualifications
- Work related courses
- Professional courses
- General work experience

b) My skills and/or knowledge have been developed to the following levels **regardless of** my involvement in the project:

- Further education qualifications
- University qualifications
- Work related courses
- Professional courses
- General work experience

17. What is your employment status? (tick one box only)

- Working full time (30+hours per week)
- Working part time (less than 30 hours per week)
- Parent or carer (no paid employment outside home)
- Retired
- Unemployed
- Self employed

- In full time education
- Not working due to illness/disability
- Other (specify.....)

18. How would you best describe where most of your close family live ? (tick one box only)

- Same village or town
- Between 2 - 10 miles
- Between 11 – 25 miles
- Between 26 – 75 miles
- More than 75 miles
- Outside of the UK

19. How long have you lived in the local area? (tick one box only)

- all your life
- 11-20 years
- 6-10 years
- 3-5 years
- 1-2 years
- less than 12 months

20. If not, all your life, where did you move from?

Elsewhere in County (Specify.....)
 Outside Wales (Specify.....)

21. Are you a member of any of the following local groups and if so, which memberships do you feel are a direct result of being involved with the project (tick first box for membership and second if due to involvement with project:

	Member?	Because of involvement with the project?
Tenants/residents association		
Scouts, Cadets, Guides etc		
Parents/teachers association		
Board of school governors		
Parish, town, community or county council		
Neighbourhood council/forum		
Church, Chapel or other religious group		
Neighbourhood or Farm watch scheme		
Other local community or voluntary group		
Local Conservation or environmental group		
Choir or music group		
Sports or athletics club		
Other (specify).....		

22. Are you a member of any of the following national groups and if so, which memberships do you feel are a direct result of being involved with the project (tick first box for membership and second if due to involvement with project:

	Member?	Because of involvement with the project?
RSPB		
RSPCA		

National Trust		
CPRE/CPRW		
BTCV		
Environmental Campaign group (e.g. Greenpeace, FoE etc.)		
Other (specify).....		

23. Since taking part in the project, do you feel you know: (tick one box only)

- A lot more of the people in the neighbourhood
- Some more people in your neighbourhood
- About the same number of people in the neighbourhood
- Less people in the neighbourhood

24. Please indicate which of the following statements are closest to your opinion:

- 1 = Strongly Disagree,
- 2 = Disagree
- 3 = Neither Agree or Disagree
- 4 = Agree
- 5 = Strongly Agree

Enter a number from 1 to 5

If I was alone and needed help, I could rely on one of my friends/relatives in the neighbourhood to help me	
If my home was empty, I could count on one of my friends/relatives to keep an eye on my home	
I feel I could turn to friends/relatives in this neighbourhood for advice and support	
By working together, people in my neighbourhood can influence decisions that affect us	
I feel I can influence decisions that affect your neighbourhood	

25. Could you please state your ethnicity (e.g. British, Irish, Asian)

.....

26. What is the total income of your household ? (tick one box only)

- Less than £15,000
- £15 - 25,000
- £25 - 35,000
- £35 - 50,000
- £50 - 75,000
- Over £75,000

27. What is your

postcode?.....

28. Any other comments you would like to make?

.....

Thank you for completing the questionnaire

Appendix 6: Survey instruments for vulnerable groups and schools

Vulnerable Groups Interview Schedule

As these questions have to cover a wide range of groups, adopt a semi-structured approach adapting the questions as the interview progresses. As the diversity of groups is wide - probation to mental health groups and people with various disabilities - be sensitive to the context, some questions may not be appropriate.

1. Information about the group, it's aims, and make-up

Can you describe to me the nature of your group?

- *Aims of the group*
- *Local or national*
- *Local membership*
- *Types of activity*

How would someone become involved with your group?

- *Membership, referred or self-referring*
- *Voluntary or directed*
- *Open ended or fixed period of involvement*
- *How much time per week*

What sort of particular needs would someone taking part in your group have?

- *Physical access problems*
- *Exercise*
- *Supervision/care needs*
- *Behavioural needs*
- *Court order/Legal agreement*

2. Taking part in the project

What were the reasons for taking part in the woodland project?

- *When*
- *Who contacted who (names if possible)*
- *Funding, new network or existing*
- *Institutional drivers – policies etc.*
- *Group manager/leaders aims*
- *At what level was the decision made*
- *Local/national, top down or bottom-up*
- *What was the initial response of the group when the decision was made/announced?*

What did your group do?

- *Types of activity*
- *Over what period of time did it occur*
- *Numbers involved (everyone or just a few)*
- *Did you work with any other groups or individuals during the project*

3. Perceptions of impact on group and on individuals

Was the woodland project adapted to the needs of your group/project?

(leads from previous question looking to dynamics within the project)

- *Were you the only group*
- *Were other groups more central*
- *Was collaboration with other groups easy*
- *How did you overcome problems if any*

In your opinion, have individual group members changed in any way as a result of taking part in the woodland project?

(need to establish that this was because of the woodland project and not some other factor)

- *Personal practical skills – any certificates/related employment*
- *Personal social skills – including confidence, team working*
- *Awareness of woodland and environment*
- *Other related to specific needs*

In your opinion - how was the group affected by its involvement?

(need to establish that this was because of the woodland project and not some other factor)

- *Improved group/team spirit or co-operation*
- *Different/new types of activity than previously*
- *More confident about being involved in other projects*
- *Have the activities of your group altered since taking part*
- *Have the aims/objectives of your group altered since taking part*

4. Overall views of participation

Did taking part in the woodland project achieve all that you had hoped for your group?

- *What aspects were particularly useful or good from your point of view*
- *What aspects were not helpful from you point of view*
- *How did you gauge success/failure*
- *Did you have to record/report this*
- *In your opinion what could be improved,*
- *What were the limitations of the project from your point of view*
- *Are there other potential benefits that could be achieved if things were done differently*

How would you describe the project you were involved with overall?

- *Would you describe it as a success*
- *Was it a success for all of those who took part (why)*
- *What role did the project officer play*
- *Were there benefits for the wider community (is so what)*
- *Was it a good use of public money*

Thank participants, and provide information that will enable them to contact us in the future, or if they have any questions.

Appendix 7: Teacher telephone interview schedule

Name:

School:

Age-group:

Project:

You should also receive a personal questionnaire. This interview is about your experience of working with children and the project.

We are particularly interested in any changes that you have seen in the children's behaviour and attitudes as a result of taking part in the project.

We are very interested in the children's perception of the project and would be interested in your views on the best way to consult the children.. I will return to this point at the end of the interview..

1. How has your school been involved in the project?
2. How do you utilise the wood in teaching and other school activities?
3. Does access to the wood help you to meet national curriculum requirements?
4. Does it help you as a teacher in other ways?
5. Do other classes in the school also visit the woods?
6. Do you think the children use the wood outside school hours?

If yes, do you know how they use it?

7 How far is your school from the woodland?

On the same site Less than ½ a mile

1-2 miles More than 2 miles

8. How would you normally travel to the wood?

Walk Cycle Mini-bus Bus other

9. How often does your class visit the wood?

Most days Once or twice a week

Once a fortnight Once or twice a month

Less than once a month Once a year

10. For how long has your class been visiting the woods?

11. Do your visits predate the project?

12. Have your visits become less or more frequent?
less frequent please answer question a

more frequent please answer question b

13. a) If you take your class to the woods less frequently, why is this?

The weather

The project was at an interesting stage

More support at the project

It fitted more closely to your teaching plans

You felt the children enjoyed more

It was easier to gain physical access

Other

b. If you take your class to the woods more frequently, why is this?

The project is at a more interesting stage

More support at the project

It now fits more closely with your teaching plans

It is easier to gain physical access

The children want to go

Other

Your perception of the effects of taking part in the woodland project or visiting the woodland on the children.

Please score to what degree you agree with these statements

1 – agree strongly 2 – agree 3 – neither agree nor disagree

4 – disagree 5 – strongly disagree

14. The children enjoy visiting the woodland

1 2 3 4 5

15. The children are visibly relaxed by visiting the woodland

1 2 3 4 5

16. The children have learnt a lot about their local environment by visiting the woods

1 2 3 4 5

17. Through going to the woodland the children have learnt to work together

1 2 3 4 5

18. Through going to the woodland the children have become more confident

1 2 3 4 5

19. Are there any other benefits e.g. better behaviour?

Benefit:

1 2 3 4 5

YOUR EVALUATION OF THE WOODLAND PROJECT IN RELATION TO YOUR SCHOOL OR CLASS

20. The project has responded well to the needs of the School

1 2 3 4 5

21. We have felt involved in the planning process

1 2 3 4 5

22. The project has communicated well with the School

1 2 3 4 5

23. The Cydcoed project officer was helpful and positive

1 2 3 4 5

24. I expect the woodland to remain a valuable resource into the future

1 2 3 4 5

25. The money could have been used in other and more effective ways to teach children about the environment

1 2 3 4 5

26. Being involved with the project was worthwhile

1 2 3 4 5

27. What would encourage you to use the woods more often?

28. Is there anything else you would like to add?—

29. I'm hoping to visit some of the schools and talk to the children about the project and their use of the woods? If I wanted to come to your school, do you think this would be possible?

Appendix 8: Literature review

Health and Well-being

The impacts of participation in physical activity are widely recognised as beneficial to health, in particular having positive influences on stroke, some types of cancer, cardiovascular disease and musculo-skeletal diseases. Where physical activity occurs in natural, or greenspace, settings health benefits may also include improved psychological health. Moreover, in addition to benefits for diseases such as depression, there are potentially more intangible benefits for general mental wellbeing. Kaplan and Kaplan (1989) theorise that the psychological benefit derived from greenspace may in some way explain the preference many people express for access to nature.

Evidence for health benefits derived from woodland has been provided by Ulrich in a series of related studies. One study found that American and European adult groups displayed a strong tendency to prefer views of nature, relative to most urban scenes lacking natural elements, and that these had positive influences on emotional and physiological states (Ulrich, 1984). Ulrich *et al* (1991) also found, from heart, pulse and other measures, that recovery from stress and anxiety was faster and more complete when subjects were exposed to natural rather than urban environments. In a carefully controlled experiment, post-operative patients were found to recuperate more rapidly and spend about a day less in hospital, when assigned rooms with a view of a small stand of deciduous trees (Ulrich, 1984).

Care has to be used when interpreting these conclusions as little allowance is made for the value of trees relative to other forms of vegetation, the size of woodland necessary to produce the effect (which is very unlikely to show a simple linear relationship), and the quality of planting (for example, it has been suggested that monotonous conifer plantations could be depressing).

There is recognition that woodland recreation also provides health benefits, principally in relation to the 2-3% of the National Health Service costs that derive from physical inactivity (Harrison, 2002). This is increasingly important in the light of new views regarding exercise which emphasise the fact that fitness cannot be 'stored' and thus must be maintained by taking by regular weekly activity. It has been estimated that increasing the numbers who are moderately active by 5% and reducing the numbers who are sedentary by 10% could reduce numbers of deaths in the UK from heart disease alone by over 500 per year. There is also a consensus of opinion using available evidence that low-moderate intensity physical activity may reduce the risk of cardio-vascular disease (CVD), which can result in considerable cost benefits to health services.

Nickson and Cartwright (2002) refer to a 'post-fascination' process whereby workers who take lunchtime breaks in open space return in a more productive state, and this can be linked to 'health improvement'. Other evidence indicates even wider benefits of greenspace – including demonstrable benefits of driving to and from work through aesthetically pleasing corridors, and the effect of looking at vegetated environments - in lowering blood pressure and reducing stress.

Whilst the links between physical activity and improved physical health are tangible and widely recognised in government strategy, wellbeing remains a contested concept enjoying a wide variety of definitions. McAllister (2005: 6) lists the drivers of wellbeing as physical health; income and wealth; relationships; meaningful work and leisure; personal stability and lack of depression, whilst DEFRA and the devolved governments in Scotland and Wales have developed a common understanding of wellbeing:

“wellbeing is a positive physical, social and mental state; it is not just the absence of pain, discomfort and incapacity, it requires that basic needs are met, that individuals have a sense of purpose, that they feel able to achieve important personal goals and participate in society” (in Allin, P no date:46)

UK Governments have recently been redefining this notion of wellbeing as an overriding strategic objective. In Wales this has led to the development of an integrated strategy for sport and physical activity (*Climbing Higher* 2005) that embraces the health, economic, social, environmental and cultural dimensions of increasing participation in physical activity. *Climbing Higher* seeks to

increase overall adult physical activity in Wales to 30 minutes of moderate activity 5 times per week – the accepted minimum level set by the WHO – and states the share of adults undertaking this level of activity should increase by 1% per year. According to the Welsh Health Survey 2005/2006 (WAG), 31% of adults across Wales achieved that standard, a rise from 2002/2003 of 3% (Sports Council Wales 2004). Despite this rise in line with the WAG agenda, 33% of adults aged 16+ in Wales did not participate in any physical activity in the week prior to being questioned (Welsh Health Survey 2005/2006). Gracia *et al* (no date:3), in research undertaken for the National Assembly, note that the economic cost to the national health service of this inactivity could be in excess of £500 million per annum in Wales.

The economic inactivity rate for the Objective One area of Wales, as at end of March 2007, stands at 23.2%, with the rest of Wales recorded at 18.6%. Particularly high rates were recorded in the south Wales valleys with Neath Port Talbot at 27.9%, Merthyr Tydfil at 28% and Blaenau Gwent at 25.6%. This is in comparison with a UK wide rate of 18.4% (all data from www.statswales.wales.gov.uk and related to people of working age not in full time education). These high levels of economic inactivity in Wales are likely to impact upon the levels of participation in sport and active recreation since Rowe, Adams and Beasley (2004:6) find that for Great Britain as a whole unskilled workers and the economically inactive were less likely to participate in physical activity (excluding walking) than professionals. Unemployment is also found to be a detrimental contributor to personal wellbeing (*Ibid*). However, Layard (2005:14) proposes that if a person resides in an area of already high unemployment, such as the south Wales valleys area, then the wellbeing of that person will be less affected by an unemployment event than had they been residing in an area of high employment. Layard argues that therefore community status has a role to play in individual wellbeing.

Following Layard, it is no surprise that a model for measuring social wellbeing, devised by Keyes (1998:14) found that individuals involved in their community in the last 12 months reported higher scores on key dimensions of social wellbeing than either non-participants or those who had not participated over the last 12 months but had previously done so. This linkage of wellbeing to social and community relationships – or social capital – helps to illustrate the complexity of measuring wellbeing as a ‘stand alone’ element of individual or community as it is inextricably linked to a wealth of interrelated elements of personal and community life.

Weldon *et al* (2007) state that outdoor physical activity is seen as a crucial in addressing the UK Government targets for better health, and O’Brien (2005) shows that regular engagement with trees and woodlands has positive benefits for health and wellbeing. With the World Health Organisation estimating that depression and depression related illness will become the greatest source of ill health by 2020 (Pretty *et al* 2005:1) then the existing evidence that nature can make a positive contribution to health, help recovery from pre-existing stresses or problems, have an immunising effect by protecting us from future stresses and help us concentrate and think more clearly is particularly pertinent (*ibid*: 2). Research undertaken by Pretty *et al* for the Countryside Recreation Network in 2005 (p2) defines three discernable levels of interaction with the countryside:

- 1 Viewing nature, through a window, in a painting or in a photo
- 2 Being in the presence of nearby nature – which may be incidental to some other activity such as walking or cycling to work, reading on a garden seat or talking to friends in a park
- 3 Active participation and involvement with nature – such as gardening, farming, trekking, camping, cross country running or horse riding

Importantly, Pretty *et al* (*ibid*) found that there is little or no correlation between rises in self esteem experienced after being in a green environment and the intensity of activity undertaken within that environment, although the longer the duration of the visit the greater the rise in self esteem. This is encouraging as it follows that all intensities and durations of activities in the natural environment generate benefits for personal wellbeing.

Social and Human Capital

The discourse of social capital has become particularly pertinent in recent years with a growing body of evidence that has been emerging since the early 1990's. Research for the Joseph Rowntree Foundation (Skidmore, P et al 2006: pviii) indicates that certain types of social networks allow individuals and communities to gain access to resources that enable them to tackle problems for themselves. These resources are particularly valuable for disadvantaged communities who do not possess more formal mechanisms for buying their way out of problems in the way that better off communities can do – moving house, purchasing additional services etc (*ibid*). Therefore, social capital is interesting to policy makers inasmuch as it offers the potential to address social justice issues through means that are more legitimate and more cost effective for the public purse than the more traditional model of public service delivery alone.

Schuller (2000: 2) defines social capital as '*...the networks, norms and trusts and the way these allow individuals, networks and institutions to be more effective in achieving common objectives*'. In general then, social capital is concerned with relationships between individuals and communities. Woolcock (2001: 13), in his work with the World Bank, distinguishes between three types of social capital:

1. Bonding social capital: denoting ties between people in similar situations, such as immediate family, close friends and neighbours
2. Bridging social capital: encompassing more distant ties of like persons, such as loose friendships, or work colleagues
3. Linking social capital: encompassing links between people in dissimilar situations, such as to those outside of the community, to those in positions of influence or power, thus enabling members to leverage a far wider range of resources than are available solely within the community

These three types of social capital do not operate exclusively; rather they can both exist interdependently and independently. Putnam (2000) suggests that bonding social capital may be more inward looking and may act to reinforce homogenous groups within communities, acting often as a barrier to participation to those outside those groups, whereas bridging social capital is more outward facing, encompassing different people across social divides. He describes it thus:

bonding social capital constitutes a kind of sociological superglue, whereas bridging social capital provides a sociological WD-40' (ibid pp22-23).

Human capital is more often than not regarded as a sub set of social capital, inasmuch as it refers to individuals and their relationships with themselves. That is to say, human capital refers to individual knowledge and skills and the ways in which these are used to create change for the individual. Human capital is often associated with both formal and informal education and learning and the acquisition of new skills that benefit the individual. Subsequently these newly acquired skills can be used to benefit the community and contribute towards the accumulation of social capital in its wider sense.

Putnam's research (2000), although based in America, demonstrated that in high social capital areas public spaces are cleaner, people are friendlier and streets are safer. He links flourishing social networks and trust to the economic prosperity of individuals, firms and neighbourhoods and examines the link between social capital and better health (pp307-333). This linkage between social capital and health is also examined by Weldon *et al* (2007:6) who assert that

access to and engagement with greenspace and woodlands can have an important role in building new connections within communities and enhancing the health of the community.

A stakeholder analysis undertaken for the *Valuation of Forestry for People in Scotland* (Edwards *et al* 2008) identified a range of benefits pertaining to social and human capital and categorised them in the following way:

Social capital:

- Social cohesion
- Community pride
- Community engagement
- Community empowerment
- Community stability

Human capital

- Sense of belonging
- Sense of ownership
- Self-confidence
- Self-esteem
- Skills and training

This categorisation is particularly useful in separating the inter-related threads of social and human capital. It clarifies that social capital is concerned with benefits accruing to communities and groups of people, whilst human capital is concerned with benefits accruing to individuals or self.

Education and Learning

Trees, forests and woodlands can provide a tremendous resource for education and learning for all ages and levels. Using woodlands for education promotes an understanding of both woodlands and the countryside as a living, working environment, and can provide learning arenas for biological, environmental and historical studies alongside key subjects such as maths and English.

Learning and education has a particularly wide focus and includes learning about society, nature, about oneself and others, learning new skills or volunteering. The benefits of both formal and informal learning opportunities provided by woodland are therefore multifunctional: gaining knowledge and understanding leading to academic benefits; affirmation of cultural values; improved interpersonal skills such as communication and trust leading to the accumulation of social capital; physical benefits including increased fitness and motor skills and health and wellbeing benefits in improved mental and psychological wellbeing.

Research for the WAG (Owens, J. nd) discusses the potential non-market benefits of education and highlights the current difficulties in ascribing economic values to them. However, the research usefully separates the private and community non-market effects of education into the following benefits:

Private non-market effects:

- Positive impact on personal health
- Increased capacity to enjoy leisure
- Increased efficiency in making personal choices
- Increased propensity to proceed up the education ladder

Community non-market effects

- Improved social equity
- Strengthened cohesiveness
- Reduced environmental stress (lowered crime rates; reduced population growth)
- Positive contribution to community wealth

There has been recent concern that modern society and in particular children, is losing contact with nature and the natural environment owing to a variety of factors including the rise in sedentary play such as computer games and the fall in the time allocated in the curriculum to school trips and outdoor activity. These behavioural changes are compounded by the rise in recent years of adult concerns regarding the safety of outdoor play and exploration for children. Research in Scotland shows that children who do not come into contact with woodland at an early age are less likely to visit woodlands when adult (Ward Thompson et al 2005, in Tabbush P et al, no date: 32). This research identifies a potential cyclical decline in woodland visits that could, following Owens, above, be detrimental to personal and community development.

The Cydcoed programme has been about improving the woodland environment in or near communities. Evidence suggests that improving the quality of the space within which learning takes place will bring about changes in behaviour including reducing accidents, bullying and easing tensions (*Woodland for Life: no date, no page, accessed March 2008*). Further, research undertaken by O'Brien (2004:46) indicates widespread acknowledgment of the role of environmental education in limiting anti-social behaviour, even in areas where there were no particular local problems. Pyle (2002:32) goes further and suggests that where contact with nature is lacking, the negative impacts effect both the social and cultural aspects of an individual potentially resulting in emotional damage, lack of environmental awareness, lessening of moral and ethical dimensions of human and nature interactions and physical damage through a lack of outdoor exercise.

The *Public Opinion of Forestry (Wales)* Survey in 2005 asked respondents whether they or a member of their family had attended a woodland learning activity. Asked to indicate from a given list, 10% of responding households had been on a school trip to woodlands; 7% on a guided walk in woodlands and 4% on 'another learning activity'. In total 15% of households in Wales had attended some kind of woodland learning event. The *Valuation of Forestry for People* research in Scotland (2006) attempts to quantify the informal learning opportunities regarding woodland for the population of Scotland through means such as the internet, newspapers word of mouth. O'Brien's research in northwest and southeast England (2004:45) highlights the importance of providing information in, and about woodlands be it on notice-boards, in person or in leaflets. *Woodland for Life: lifelong learning* (no date) states that there is a widespread desire amongst woodland users for information and knowledge: through well designed information provision it is possible to increase public awareness of the environment, heritage and history within woodlands. Further, informal information provision can change people's relationships to, and with, nature and increase their awareness of global environmental issues (*ibid*).

Recreation

The study on 'Woodland Wealth' in the East of England Region (Selman and Powell, 2003) suggested that two types of woodland will make strategic contributions to recreation in the future. First, large woodlands within a day's round trip by car will help to satisfy rising demand for sophisticated forms of leisure activity, and these are also likely to attract visitors who stay overnight. Second, and particularly relevant to Cydcoed, smaller but highly accessible woodlands, which generally supply only low-key facilities will meet the needs of more localised recreation demand. These woodlands need to be within walking distance of centres of population, they should include paths that are conducive to walkers with impaired mobility, and make efforts to cater for non-traditional users. The study concluded by suggesting that latent demand for both types of woodland is unsatisfied and appears to be increasing.

Macnaghten et al (1998) noted that, for most people, the experience of trees & woods has intimate personal significance associated with contact with nature and tranquillity. This tends to be associated with informal woods rather than commercial plantations. Thus publicly accessible woodlands, both urban and rural, are key places where people feel they can 'get away from it all'. People differ in their appreciation and use of woods according to both their socio-economic group and geographical location; ethnic minorities, in particular, feel disconnected and even deterred from using informal rural recreation sites.

The importance of accessible open spaces – of a naturalistic kind, rather than just formal play areas – to residential areas has long been established. It is clear that this is desirable not only from the viewpoint of environmental enhancement, industrial attraction and property values, but also for reasons of social inclusion, energy/pollution reduction and exercise. English Nature (1995), for example, recommended that people living in towns and cities should have an accessible natural greenspace less than 300m (in a straight line) from home, at least one accessible 20ha site within 2 kilometres of home, one accessible 100ha site within 5km of home, and one accessible 500ha site within 10km of home.

However, Harrison (2002) has noted that not all greenspace enhances quality of life, and may have negative associations. It is important, in her view, to aim for spaces which are accessible, of good

quality, and have an air of 'safety' about them. Demand for access to woodland on foot only exists very close to a woodland – probably within less than a kilometre. Beyond that distance most residents interested in woodland recreation will use a car or public transport. This was supported by evidence from an evaluation of community forests established through the Capital Modernisation Fund Project (Selman and Powell, 2000) which found a steep decline in expressed willingness to utilise new community forests (Red Rose, Merseyside and Thames Chase) over short distances from access points.

In the UK, national data indicates that most woodland recreation is a frequent but short-duration activity undertaken close to home in a woodland often perceived to be owned by a local authority (although this may not be the case). Much of this form of recreation is low-key in nature (e.g. walking, jogging), benefiting from the presence of formal or informal general access or rights-of-way. This is significant with regard to concerns about economic impacts, physical exercise, social inclusion and reductions in car use. In many cases, very little expenditure is involved by users, and any economic values can only be imputed indirectly. A significant minority of activity, such as mountain biking or nature observation, is more formal, generally involving expenditure in travelling to site with specialist facilities, and may involve purchasing or hiring equipment to pursue particular leisure activities. Here, there are more significant economic benefits, often to a local area.

Environmental benefits

One of the most pervasive but least understood public benefits of woodland is that of landscape, which is widely assumed to influence inward investment into an area, and to underpin a significant part of the tourism industry. Researchers have claimed that attractive landscapes make a general contribution to quality of life and economic vibrancy and studies have found that tree cover is one of the most ubiquitous factors influencing scenic beauty. Whilst there are some places whose attractiveness depends on lack of tree cover, landscape evaluation methods generally allocate very high scores to deciduous and mixed woodland categories.

The public benefits of landscape have never been satisfactorily estimated though there are some pointers as to how this might be done. There are undoubtedly some 'privatised' landscape benefits which get incorporated into house prices. These are comparatively small compared to public landscape benefits, yet quantification of these wider benefits suffers from the 'free rider' problem, that is, they are available to anyone in the vicinity. A further problem is that urban landscape quality and rural landscape quality produce somewhat different benefits – such as house values and industrial location, relative to tourism and spiritual refreshment – and the economic literature appears to make no distinction. As with other non-market valuations, different studies report in different units, such as value per visit, per household, per year, per hectare, etc., and it is difficult to reconcile these.

Cobbing and Slee (1994) attempted to value the public benefits of the 29,380ha Mar Lodge Estate in the Scottish Highlands using contingent valuation methods, using both 'willingness to pay' and 'willingness to accept' questions. Two results were obtained – one for passive use and one for active use (with access). But there are difficulties, as the study mixes scenic, conservation and heritage qualities, and the value of £15.14 per person (based on the population of Scotland over 16) appears to be a one-off payment, and would need conversion in order to yield an annual equivalent. Also in Scotland, Macmillan and Duff (1998) estimated a value of between £432/ha and £765/ha for restored native pinewoods in two separate areas.

Willis (1994) undertook a contingent valuation study of alternative landscape scenarios in the Yorkshire Dales National Park and found that willingness to pay for the three most clearly wooded landscape options (conserved, sporting and wild) was around £34 per household per visit. Benson (1994), assessing forest landscapes by a travel cost method, set a landscape value of around £10.6 million for the Forestry Commission estate (800,000 ha with tree cover), resulting in £13.25/ha for the whole population of the UK at 1988 prices. Bergin and Price (1994) using a travel cost method found a consumers' surplus (excluding accommodation costs) per visitor to 'fine landscapes' of around £27/visit to the best landscapes and around £18 for 'attractive mixed landscapes'.

Willis *et al.* (2000) have noted that well designed and nationally important woodlands may attract significant willingness to pay. They report that Hanley and Craig (1991) found the general public were willing to pay £300/ha to prevent commercial afforestation of the Flow Country in northern Scotland. On the other hand, Macmillan and Duff (1998) found a willingness to accept compensation of £24/household/year to re-forest a heathland with native woodland. Interestingly, various researchers find that willingness to pay is relatively insensitive to woodland type.

The Woodland Wealth study (Selman and Powell 2003) used a measure for a 'wooded valued landscape' of £35/household/year. In contrast the South-West England study took a value from Bergin and Price (1994), of £1.10 surplus per visit to small woodlands designed for good landscape impact, and grossed this up by the number of visitor days to the region per year divided by the hectareage of woodland to give a value of £208 per hectare per year. But this figure has a number of problems, such as only referring to visitors and not residents, and making no allowance for the differing landscape quality of individual woodlands.

It is widely assumed that wooded landscapes tend to contribute to economic buoyancy. Attractive scenery is considered to be conducive to inward business investment and its multiplier effect, retention of population and associated consumer expenditure, and enhanced tourism/recreation revenues. The literature says little about the effects of landscape on business investment. Keeble *et al.* (1992) claimed a positive relationship between landscape quality and attraction of investment. Nickson and Cartwright (2002) noted that a quality environment is important to business retention, and that Corporate CEOs state quality of life for employees as the third most important factor in locating a business, behind access to domestic markets and availability of skilled labour. Other research tends to confirm that, in scenic rural areas, investors typically place environmental quality among the top three factors influencing location.

The recent study by Willis *et al.* on social and environmental benefits (2003) provided value estimates for a number of forest related aspects. Biodiversity values were measured through household surveys and relate only to part of the forested area of the UK. Estimates are for 'non-use' values (i.e. existence, bequest and option values), and not for use values which include nature watching (these are considered part of recreational value). The figures obtained are:

- £0.35 per household per year for enhanced biodiversity in each 12,000 ha of commercial sitka spruce forest
- £0.84 per household per year for a 12,000 ha increase in new native broadleaved forest
- £1.13 per household per year for an increase of 12,000 ha ancient semi-natural woodland.
- The total annual value of biodiversity (2002 prices) is estimated at £386 million.

The same study also put a value on carbon sequestration of £6.67 per tonne of carbon sequestered. The figure is based on previous studies of the reduction in damage costs from global warming.

Willis *et al.* (2000) reported the best estimate for carbon sequestration values at £55 per tonne of Carbon sequestered. They did note the wide variation in estimates of the value of carbon sequestration. One problem lies in the huge range of damage estimates derived for global warming. As damage costs change, so will the value of sequestered carbon.

The Woodland Wealth study (Selman and Powell 2003) estimated the total carbon content of woodland in the region using the CO2Fix Model developed at Wageningen in the Netherlands (Nabuurs *et al.*, undated). Using simplified data on tree stocks and assumptions about management practices, the total carbon was estimated for both conifers and broadleaved species in the region. The estimate was derived from assessing the annual increments and losses of carbon to the forest and wood processing industry over a 125 year period and deriving average annual estimates of the total stocks of carbon. Based on an assumption of 139,112 ha of forest the mean annual carbon stock was estimated at 3mt/C for conifers and just over 13.2mt/C for broadleaves. The mean annual increment provided by the model was just over 200,000t/C/yr for tree biomass. If this estimate is multiplied by the £6.67 figure for sequestered carbon indicated above a total value for the region can be obtained.

Selman and Powell (2003) also tried to place an economic value of the biodiversity of the woodlands in the East of England region. This was methodologically difficult as methods for determining the proportion of the value of woodland that is specifically attributable to biodiversity is complex. The study used a value of £25 per household per year as a measure of people's valuation of the biodiversity of the Region's woodlands (2002 prices). This was felt to be a conservative estimate and it was noted that BAP-related woodlands and well designed new woodlands ought to be valued more highly. It was also noted that the intrinsic (life-support) biodiversity value of woodlands is greater than the perceived willingness-to-pay indicated through household surveys, but there is no reliable way of reflecting this value.

Difficulties also arise as much previous work has been applied to habitats which are perceived by respondents to be under some sort of threat, or measure additional environmental attributes alongside biodiversity values. Other studies on biodiversity values reveal the following:

- willingness to pay per household has ranged between £35-53 (the higher figure subsequently needing deflation to reflect the loss of moorland habitat) for particular native reforestation schemes (Macmillan and Duff, 1998);
- a University of Newcastle and ERM (UNERM, 1996) study, making various assumptions about location and composition of remote woodlands, arrived at a sample mean WTP for forest biodiversity of somewhere between £19 and £29 per household.
- Garrod and Willis (1997) estimated the mean WTP of the public for the non-use biodiversity value of remote coniferous forests in Britain under different management scenarios, in relation to the consequences of increasing areas by specified amounts. A generalized figure from this approach was £10-£11 per household per year.

Broadmeadow and Freer-Smith (1996) have shown how trees facilitate the uptake, assimilation and decomposition of pollutants such as ozone, sulphur dioxide and nitrogen oxides and can thus reduce the concentrations of these gases in the atmosphere. A simple model of pollution uptake was derived by the authors and tested in Greenwood Community Forest, with the conclusion that the existing 20% woodland cover should reduce these pollutants by 4-5%, with a similar additional uptake if the area of forest were to be doubled. The filtering of particulate air pollution appears to be particularly important in urban areas, where woodland could act as air filters between population centres and busy arterial roads (Freer-Smith *et al.*, 1997). Goodman (1996, reported in Willis *et al.*, 2000) estimated that over a typical growing season, urban broadleaf woodland could capture up to 50kg of particulates in the upper and lower canopies. However, whilst these estimates of the scale of filtering are informative, they do not reveal the net impact of woodland on reducing particulate matter compared with other land uses, or on the optimal planting for air filtration, though particular benefits are seen to lie with using certain conifers, and planting linear woodland features in areas of pollution (e.g. along roads or adjacent to industrial areas).

Economy and livelihoods

The Welsh Forestry Multiplier study (Forestry Commission Report, 1999) identified a total of 3,930 full time equivalent (FTE) jobs in the Welsh forest industry although Forestry Statistics for 1998/99 indicate a total of 4,099 FTEs in the Welsh forest industry (www.forestry.gov.uk/website/forstats2007). Around one quarter of these were employed in panel board and paper manufacture and 18% worked on private estates. Local impacts of the forest industry were found to vary considerably across Wales. The gross output was estimated at £403.5 million per annum, but more than 70% of that was accounted for by the panel board and paper sector (and the majority from just two sites). Output multipliers developed in the study varied between sectors of the forest industry, the lowest (1.25) being panel board and paper (due to high non-wage expenditure outside Wales), and the highest being saw-mills (1.94). The study also noted the variability in employment resulting from increased investment in sectors of the forest industry. On private estates a £1 million increase in demand would support 60 FTEs but in the panel board and paper sector the same change in demand would only provide 7 jobs.

A more recent approach taken by Slee (2006) has been the application of a sustainable Rural Livelihoods (SRL) framework based on qualitative measures of five types of capital asset: social, environmental, human, physical, and financial and applied at the regional level. In a project to

explore the role of forestry in rural development four main types of impacts from forestry were identified:

- Impact of forest activity on employment and income
- Indirect effects of forestry (also called the 'shadow' effect) on associated economic activity (e.g. increased turnover of recreational businesses in the area)
- Non-market values of woodland (limited to recreation values and carbon sink benefits – and estimated using benefit transfer functions based on CVM and other values derived from elsewhere)
- Social values attributed to forests and woodlands

The results from two case study areas in England are illustrated below. The study found that most respondents had a positive view of forests, seeing them as contributing to the quality of life and economic health of the area.

	Mid-Bedfordshire	Breckland
	<i>(Figures refer to £million)</i>	
Total income effect from forestry	0.636	3.315
Total income effect from forest dependent tourism	3.043	20.45
Total income effect from residential shadow	8.33-24.99	6.1-18.3
Non-market values		
- Informal recreation	1.4-2.6	1.04-1.87
- Carbon sink	0.035-0.114	0.537-1.608

Figure 26: Figures indicating economic health of communities - England case studies

The results indicate the significance of the shadow effects (i.e. the indirect multiplier effects) of forestry in each area, although in Breckland the key aspect was tourism related income effects, and in Bedfordshire it was the residential multiplier effects (i.e. the attractions of living in a forested area). In both cases these greatly outweighed non-market values and direct income from forest operations. Although both areas were in a densely populated part of England the study suggests the importance of 'shadow' effects when measuring the benefits of forests and woodlands.

Appendix 9: A critique of non-market valuation approaches

A lot of the work in estimating the non-market values for environmental goods and services has become an increasingly important topic for economists in recent years. The problem, of placing a monetary value on assets for which there is no reliable market mechanism, cannot be fully solved, and all the available methods have been subject to criticism. Over the years numerous refinements have been made to the various techniques and decision-makers are placing increasing confidence in the results of non-market pricing techniques. Broadly speaking, there are four main ways of estimating non-market values of environmental assets:

- travel-cost or revealed preference methods, which estimate people's expenditure on their use of a resource (e.g. expenses incurred in reaching a destination) as a proxy for its perceived worth;
- hedonic pricing methods, which use statistical data to determine the amount people appear to be willing to pay for their 'enjoyment' of a resource (e.g. the associations between house prices and local amenities);
- simulation of imaginary (contingent) markets, by asking respondents to a questionnaire how much they would be willing to pay for the creation/ maintenance of an environmental asset (or how much compensation they would be willing to accept before agreeing to its loss); more recent refinements include contingent ranking and 'market stall' approaches; and
- benefit transfer methods, which take valuations made for one area, and transfer these assumptions to another area, making specific allowances for variations in demographic composition and environmental characteristics.

Travel cost approaches are useful when exploring the values of those visiting from outside a local area – and are particularly useful for examining benefits from investment in specialist facilities. But they base estimates of value on the distance and time take to travel to a particular location. The further the distance travelled, the higher the cost, and thus higher apparent value of a site to the individual. As a measure of value this suggests that local places which cost little to get to have much lower values. Community woodlands, especially those established in deprived areas and developed for local use, are not amenable to valuation via a travel cost approach.

Hedonic techniques are difficult to utilise requiring significant variability in the characteristic of interest to enable statistical techniques to identify the imputed change in value. Hedonic techniques have been used to value changes in air quality and negative values associated with living near toxic waste sites using house prices. (Powell, 2002) But, they require large data sets and an ability to separate out the effect of one specific characteristic on house prices from all the other factors that might influence price. It would be extremely difficult to value woodland using a hedonic approach based on house prices.

Contingent valuation approaches are the most widely used technique for measuring non-market benefits due to their flexibility. Several problems exist using the approach. A major difficulty with the approach, despite all the recent refinements, is the relationship of payment to income levels. Valuation is closely linked to income as survey respondents are normally asked to consider how they will make a proposed hypothetical payment based on their current household income. Low income groups, and in particular those on fixed incomes may not feel able to make even a hypothetical payment, even though they may place a high value on the good (this applies in particular to those on fixed pensions). A large proportion of non-payments tend to come from those on fixed incomes.

Another problem is the lack of time a respondent is given to think about the value of an environmental good or service. Some more recent developments have tried to deal with this through focus group work and more careful consideration of a limited range of scenarios from which to choose. This does result in more considered choices but limits any one particular study to a limited range of choices which are offered to respondents. A related issue is the actual description of the good or service to be valued and the information provided. It is accepted that the way in which a scenario is presented and the amount and type of information given will influence

respondents bids. Care must also be taken over measuring use and non-use values. Non-use values (e.g. existence and bequest values) may often outweigh use values (e.g. recreation) but are harder to identify and explore across a population of interest. Sole reliance on use values of a woodland or forest may significantly underestimate total value.

While contingent approaches remain the most useful means of pricing environmental goods and services, the final mean values derived from a survey must be treated with caution as they usually hide wide discrepancies in willingness, and ability, to pay. One result is often a set of stated values that vary little between different characteristics of the same good, or between different environmental goods. The exercise becomes more one of measuring the size of the household 'charity' or good cause budget, than getting a specific value for a unique public good. Transfer functions can be extremely useful if the good being valued is consistent in character across geographic space. (Van den Berg, Poe and Powell, 2001) If the characteristics vary locally, or there are place-based values (as with local woodlands), then transfer functions are not accurate. Transfer functions suffer from all the issues indicated above as they tend to be based on a limited number of contingent value surveys.

Aggregating non-market benefit estimates is complex, requiring detailed knowledge of demographic structure of populations of interest. Some values, such as carbon sequestration, can be aggregated across the country, others such as property values, biodiversity quality, or climatic effects, are more dependent on local factors. Distance decay relationships are also significant for recreational and non-use values. Powell (1993) found significant distance decay functions for those recreating in upland moorland areas of Britain and Willis *et al.* (2000) note that distance decay functions exist for recreation, landscape and biodiversity functions of forests, suggesting that simple aggregation across large populations will result in errors in estimating total value, as will interactions or substitution between different forested sites.

Valuing forest recreation – a review of methods

There is a large literature on valuation of recreational activities in forests. A study of household residents by Crabtree *et al* (2001) in the Central Belt of Scotland, NE and NW England and the Midlands revealed strong public support for more woodland, with nearly 40% of respondents to their survey stating that they would prefer more accessible woodlands in their locality. When aggregated, the public benefit varied from £25 to over £32,000 per hectare per year depending on the woodland and the size and characteristics of the local population. It appeared that only a small part of the public benefit derived from physical access to the woodland, and most residents were more interested in trees in their locality for other reasons than access (though the study speculated that this might reflect the poor design of some community woodlands).

Willis *et al* (2000) reported willingness-to-pay recreational values of £0.60 - £1.74 in Northern Ireland forests. Willingness-to-pay (WTP) varied with location, socio-economic characteristics of visitors and forest attributes suggesting that application of an average WTP figure was not advisable.

A study on social and environmental benefits of forestry (Willis *et al.*, 2003) identifies recreation as the most significant contributor to the value of forests in the UK. Marginal benefits of recreational activity were estimated at £1.66 for each recreational visit based on a 2002 survey of seven forests in England and Wales using contingent valuation methods). The estimate was further disaggregated to £0.90 per visit for local visits (i.e. less than 10 miles distance travelled) and £1.80 for visits from further away. The data are based on sampling carried out in forests to ask for willingness to pay for access to woodlands for recreational purposes. The values were derived using a benefit transfer function based on the EU CAMAR data set. The data consist of a 1992 survey consisting of 15,000 observations of visitors to 42 forest sites in Scotland, Northern Ireland and Eire. The 1992 valuation data were collected through contingent valuation techniques and verified by the 2002 survey of 7 forest sites in England and Wales mentioned above. The benefit transfer function produced mean willingness to pay values based on a range of forest attributes (e.g. size, percent coverage of broadleaves, presence of nature reserves, car parks) and thus potentially allows the recreational value for any forest to be estimated based on its attributes.

Another study, conducted during the same period, on recreational use of British woodlands (Jones, Batemen and Wright, 2003) utilised complex modelling techniques integrating GIS to explore a range of forest recreation values from previous work. The study found no significant variation between values obtained by different authors, or between different sites, and could not provide any explanation for differences in recreational values obtained by different researchers. An appendix contains data on forest recreational values (measured as per person per visit) for 77 studies ranging from 1976 to 1992. Based on 1990 values the estimates obtained ranged from a low of £0.07/person/visit to a high of £3.91/person/visit.

Christie *et al.* (2006) in a thorough study of recreational values estimated local economic impacts of forest-based recreation, changes in user welfare from investment in recreational facilities, and the variability of recreational values across different types of forest user. Values for four types of recreational activity: cycling, horse riding, nature watching and 'general visits' (which includes walking and all other recreational activities undertaken in forests). Data were collected using three methods: travel cost estimates along with contingent behaviour and choice experiments. A multiplier was used to estimate local economic impacts. This was based on measures of average spending per person in the 'local' vicinity of a forest and then aggregated up based on total number of visits. Income and employment multipliers (LM3 method utilised) were then applied to the aggregated total spend figure.

Mean local spend on forest recreation was estimated at £26.22 per person/trip although this masks considerable variability between user type and forest area. The report also notes horse riders tend to spend the most locally (86% of trip expenditure), and cyclists spend the least locally (57% expenditure). The difference in expenditure between specialists and non-specialists can be seen by comparing mean expenditure by cyclists in Dyfnant and Cwm Carn forest areas. Cwm Carn is a technical centre for cycling while those cycling at Dyfnant tend to be less specialised.

Activity	Mean spend Total sample	Mean spend Dyfnant	Mean spend Cwm Carn
Horse riding	£118.02	£16.44	-
Cycling	£13.43	£5.83	£19.53
Nature watching	£20.18	£13.54	-
General visits	£32.05	£27.65	-

Local economic impacts also varied between forests. The two tables below illustrate the economic impacts from the Welsh forests included in the study. The variation between activities and visitor type can clearly be seen in the second table. Although the figures are based on a small sample it is indicative of the contribution of forest recreation from different activities to the local economy. Of potential significance for the Cyd Coed evaluation are the estimates of marginal income generated from day visitors from different activities. These figures represent total income (direct, indirect and induced), that result from visitors engaging in the different activities. These estimates could potentially be used to measure recreational activity that takes place in woodlands created by the project. Care must be taken in utilising these figures however as they are based on visitor expenditure rather than expenditure by local residents and average distances travelled by all visitors are considerable.

Forest	Local expenditure per annum (£m.)	Local income per annum (£m.)	No. jobs created (FTE) per annum
Dyfnant	£0.18	£0.30	5.3
Cwm Carn	£0.98	£1.62	29

Forest /activity	Ave. distance travelled (miles)	Marginal income generated in local economy (£/visitor/day)		
		All visitors	Day visitors	holiday visitors
Dyfnant				
Cycling	78	9.62	8.25	12.38
Horseriding	21	21.05	19.59	44.55

Nature watching	31	19.97	4.82	23.81
General visitors	31	42.11	10.59	57.77
All visitors	30	29.77	15.54	45.34
Cwm Carn				
Cycling	76	17.31	12.01	45.05
Horseriding	-	-	-	-
Nature watching	40	-	-	-
General visitors	60	-	-	-
All visitors	75	17.00	11.78	45.05

The figures for Welsh forests given in the study appear low compared to income and jobs generated in Scotland and England. In Thetford Forest, for example, over £17 million and 305 jobs are generated annually, while in the New Forest and estimated £100 million and 1,802 jobs are generated. The high figure in the New Forest is based on much higher visitor numbers but the report also warns that the estimates of per trip value tend to be higher than other recent studies. The reasons given are increased travel costs and methodological differences.

Changes in visitor welfare were measured through two approaches: a contingent behaviour model, and choice experiment models. The results illustrated below from the contingent behaviour model suggest that more specialist recreational users (such as mountain bikers and nature watchers) gain more from improvements in recreational facilities than from support facilities (such as showers) within forests. It is also interesting to note that places for families to play are valued much more highly than a new sculpture trail.

Improvements in facilities	Estimated benefits of improvement Per visitor per year
Cyclists – new trails	£3.46
Cyclists – new showers and changing facilities	£0.66
Nature watchers – new hides	£7.89
Nature watchers – new wildlife centre	£3.30
General visitors – new art/sculpture trails	£2.79
General visitors – new family play areas	£8.79

The choice experiment results revealed a similar picture in that specialist recreational facilities were valued more highly than more general facilities. It is perhaps not surprising that specialist users are willing to pay more for specialist facilities given their level of commitment to an activity and investment in equipment. Paying for improved facilities may well offset higher costs of travelling further distances to take part in a recreational activity. Horse riders are identified in the report as not placing values on horse specific facilities or trails. This could be due to limited potential use if the trails do not link up with other local bridleway networks, or there are no stables nearby (horse riders are unlikely to transport a horse to a forest for recreational riding). It could also be partially due to the choice of Dyfnant forest as a study site as this is already well equipped with a wide range of facilities for horse riders. It is also interesting to note the low estimated value for sculpture trails. General visitors appear to want little in order to enjoy the forest, other than a place to park, and places to let children play in safety.

Willingness to pay (£ per person)	
Cyclists	
downhill courses	9.74
technical trails	8.40
cross country trails	5.81
bike wash facilities	4.27
Horse riders	
Nature watchers	
Wildlife hides	6.83
Viewing centres	5.56
Nature trails	6.48

General visitors	
Technical mountain bike trails	4.59
Wildlife hides	1.56
Sculpture trails	2.70

The significance of this recent report (Christie, et al., 2006) is that it demonstrates the variability in forest recreation values, and potential local economic impacts of forest areas. Local economic impacts are dependent not just on number of visitors but also on the type of visitor attracted to a forest area, and the level of facilities provided within the forest. Local economic impacts depend not only on distance travelled and the willingness of recreational users to purchase items locally, but also on the availability of the desired items in communities local to the forest. Expenditure patterns are not always straightforward as indicated for the limited amount of information on horse riding. Previous work (Powell, Aitchison and Clark, 2003) has shown that a large proportion of horse riding in Wales is carried out by residents living in the local area. The study identified around 0.34 million 'riding occasions' undertaken by visitors to Wales compared to 2.8 million 'riding occasions' undertaken by local riders. Horses tend to be stabled locally and the majority of expenditure is in the local area (vets and blacksmiths tend to be the exception). Visitors from outside the area tend to utilise horses stabled locally rather than transport their own. There is also a need to link forest trails to local horse riding networks and this might account for the lack of interest in increased horse riding facilities in forests.

The Christie *et al.* study indicates that welfare benefits appear to increase significantly for specialist users if there is investment in more specialist facilities, while benefits to general users are not clearly identified. There appears to be some small benefit associated with sculpture trails but the study does not appear to have explored benefits accruing to local users who may only utilise a nearby woodland or forest for walking, or taking the children to play.

The focus of the report is on welfare changes where improvements in recreational facilities could be made. As a result most attention has been on changes that would require significant investments in facilities provisions or improvement (e.g. new trails, provision of changing rooms, and nature centres). Small changes that might increase user benefits such as improvements to existing walking paths, provision of information, or for other informal recreation, have not been explored. Data were only collected during summer months at a limited number of forests with the full range of recreational activities (i.e. cycling, walking, horse riding, nature watching). These tend to be significant destinations for large numbers of visitors from outside the local area (for example, at Cwm Carn forest in Wales, 98% of the respondents in the survey had travelled to the forest for cycling with an average trip distance of 76 miles). While useful to indicate the potential impacts of forest recreation on a local economy they do not provide insight to the smaller scale welfare improvements felt by local residents of smaller forests or woodlands where specialist facilities are not available.

Recent work in Scotland and Wales supports the estimates indicated above. TNS (2006) carried out surveys of visitors to Forestry Commission sites in Scotland and Wales during the period 2004-05. Both surveys suggest that the forest was a major reason for undertaking the visit (one third of Scottish respondents and 26% Welsh respondents stated it was their only reason for visiting the area). The survey found that 44% of all visitors (includes day and overnight visitors) spent nothing, and 31% spent less than £20 on their visit. The average spend per visitor across all types was £18 per person. However, the total average spend per person revealed wide variation from £4 in Galloway to £30 in Lochaber. Expenditure related to overnight accommodation, food and drink, fuel and (non-routine) shopping.

TNS carried out a similar study to explore the visitor profiles in four forest districts in Wales in 2004. It was estimated that 4.1 million visits were made to Welsh Assembly Government (WAG) woodlands in 2004 and an additional 0.2 million visited as spectators of sporting activities. Slightly over half visitors were male (56%), and the profile was evenly split between those from England (46%) and Wales (45%). Only one fifth of visitors surveyed were on an overnight trip, the rest (81%) were on a day trip from home. Over 80% had used a car to get to the forest and 12% had

walked and average length of visit was 1 1/2 hours. Walking, dog, walking and cycling were the most company reported activities taking place.

In Wales 43% survey respondents reported spending nothing on their visit and 39% spent less than £20. Average per person spend across all visitors was £13/visit. The study estimates an annual spend of £30 million by visitors who were in some way influenced to take their trip due to the forest and/or its facilities.

The Woodland Wealth study (Selman and Powell, 2003) used a more conservative estimate to obtain plausible estimates of woodland-related recreation expenditure in the East of England. Account was taken of the high proportion of woodland trips that were local and short duration, involving little expenditure. An estimate of £1.50 per trip was used as a measure of the intrinsic value of a woodland trip to the individual (based on work by Willis et al.). Using estimates of the number of trips to the region's woodland, the annual recreational benefits for the region were estimated at £82.5m. Actual expenditure by visitors was estimated at a mean of £5/day to reflect the preponderance of day trip visitors, but this was only applied to visitors who undertook a visit of 3 hours or more (27% of total visitors). The final estimate of visitor expenditure was estimated at £59 million/annum, or £421/ha woodland/year. There was recognition that specialist or more active users such as mountain bikers might spend more per visit, but no data were available in the region to support this.