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A study of the potential and feasibility of an ecotherapy project in Ceredigion

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(updated)



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Executive summary

Ecotherapy offers a range of approaches to supporting people and promoting well-being and this study explores the potential for an ecotherapy project in Ceredigion. The research undertaken as part of the study has included:

- Interviews with a range of stakeholders;
- Engagement with local providers of associated services, both current and potential;
- Engagement with potential users of ecotherapy services in Ceredigion; and
- A review of potential models for projects and activities in Ceredigion.

There are various examples in practice that draw on Wales' landscapes, as well as a range of gardening and horticultural projects. Therefore, ecotherapy is not a new, untested concept. Furthermore, research has been undertaken to assess the impact of ecotherapy services. Whilst the range of approaches and outcomes that have been assessed by such research can make it difficult to make general statements on the effectiveness of ecotherapy in practice, the growing body of evidence is positive.

Ceredigion is clearly well served in respect of the attributes needed in order to provide a wide range of ecotherapy services, with the county including coastline, beaches, rivers and mountain ranges. Moreover, there is infrastructure in place (although its weaknesses are recognised) to allow locals and visitors to enjoy those attributes, meaning that the capacity to access ecotherapy services already exists. The availability of walking routes, cycling trails and animal-watching areas also makes Ceredigion an ideal candidate to host those particular forms of therapy services. The potential is therefore clear. It is, however, important to acknowledge that implementing any kind of service in Ceredigion would require a reliance on the county's transport network, which can prove to be challenging, especially without any access to personal/private transport. This potential reliance on public transport will therefore be a key issue to consider when developing any ecotherapy service in the county. Our view is, however, that this is not an insurmountable constraint.

Ecotherapy services clearly fit with the ambitions set out in several policies in Ceredigion — as well as for Wales as a whole — designed to achieve health and well-being outcomes. Statistics for Ceredigion suggest that the county's population are generally healthier than those in many other parts of Wales in terms of both mental and physical health. We would, however, argue that those statistics do not negate the need or justification for developing ecotherapy services in the area. Indeed, such services could provide an avenue for building and sustaining those positive statistics. What is more, the stakeholders interviewed for this study support the need for ecotherapy services in Ceredigion, emphasising the potential to utilise the opportunities provided by the area's landscape.

Our conclusion is, therefore, that the question should perhaps be why you would not seek to develop the provision of ecotherapy services in Ceredigion; it seems to be an obvious thing to do.

There is, however, a problem in that the potential sources of funding or income for delivering ecotherapy services are currently unclear. Nevertheless, and almost inevitably, the potential for funding of ecotherapy services via avenues such as social prescribing will increase over the coming years. Although not explored in any detail in this report, the potential for developing tourism and recreational activities based on ecotherapy could also emerge in the coming years, building on the 'tourism offer' of the county. Supporting the development of ecotherapy services at this stage is, nevertheless, a risk when considering that future income streams are unclear. That risk should, however, be considered in the context of the potential in Ceredigion to deliver ecotherapy service, which is, as noted previously, substantial. The focus should be upon working to develop a sector in Ceredigion which is ready to 'hit the ground running' when markets/income streams (along with the potential 'ecotherapy tourism' market) start to emerge more fully.

The study has also found that managing and delivering an ecotherapy project or service can be challenging and is unlikely, at least in the short term, to be a commercially viable venture. Therefore, an ecotherapy project is not feasible as a means of generating a surplus that could fund a small charity such as Mind Aberystwyth, which this study was hoping to identify. Cross-subsidisation is, however, a common model within the social enterprise sector and there is the potential to use such an approach to fund ecotherapy services in Ceredigion, should an appropriate income-generating model be developed. One such model (a soft-play facility in Aberystwyth) has been explored for this report. Such models should not be discounted, although the focus of this study has been upon the development of projects that deliver ecotherapy activities directly.

Proposed projects

Two project ideas have emerged during the course of this study, one seeking to develop the sector as a whole in Ceredigion and one to realise a specific opportunity that has been identified in Aberystwyth.

The 'hub-and-spoke' project would seek to support the development of an emerging ecotherapy sector in Ceredigion by:

- a) Developing a network of existing and potential ecotherapy providers in Ceredigion (of which there are many) by holding networking events, training sessions, etc.;
- b) Working with those providers on a one-to-one basis or in smaller groups to develop their 'ecotherapy offer' and, thereby, that in Ceredigion as a whole (building their capacity to deliver services, supporting the design of services, etc.);
- c) Coordinating the provision of ecotherapy services in the county by providing a single point of contact for information on the sector in Ceredigion, etc.;
- d) As part of the above, promoting the existence and utilisation of the 'ecotherapy sector' in Ceredigion to potential commissioners and users (potentially including the tourism sector as well as health-related users); and
- e) In the longer term, potentially centralising key management aspects of the delivery of ecotherapy services (e.g. the procurement of services and supplies on behalf of a group of 'member' businesses).

In the short term it is envisaged that this project would be hosted by an organisation, with Mind Aberystwyth being an obvious candidate (albeit probably not the only option). In the longer term, however, there is the potential to set up a standalone company to deliver the service, with the businesses that are part of the group being members and shareholders in that company.

The second project would involve the development of a **horticultural enterprise** producing produce for sale locally whilst providing therapeutic activities to service users. The proposed enterprise would utilise disused glasshouses on an Aberystwyth University farm on the outskirts of the town.

The potential to set up the enterprise on a commercial basis has been explored by the study. Whilst some income could be generated, our conclusion is that it is very unlikely to be profitable or become self-sustaining, at least in the short term. Some public funding will therefore be necessary in order to realise the project. However, sourcing that funding is not out of the question, with the project potentially creating valuable opportunities for Mind Aberystwyth (and other) service users in the area.

In summary, the project/venture will require:

- 1 full-time grower (employed)
- 1 marketing and administration specialist (employed)
- Volunteers/participants/service users responsible for the glasshouse and outdoor growing production — 7 FTEs is the estimated number required during the growing season, with fewer being required during the winter and early spring
- 1 volunteer supervisor (responsible for identifying tasks, managing volunteer commitments, delegating, and instructing volunteers to carry out tasks)
- 1 volunteer driver (responsible for delivering goods to pop-up events, the Mind Aberystwyth cafe, and farmers' markets)
- 3 volunteers/participants/service users per sales event (can include the driver)
- 1 volunteer/staff member at Mind Aberystwyth (or any other host organisation) to manage sales

It is important to note that we recognise that the demand amongst potential users of a glasshouse-based therapy service in particular has not been established at this stage (the detailed concept had not been developed when the consultation with potential users of an ecotherapy service was undertaken). The view of Mind Aberystwyth staff has, however, been that the demand is likely to be strong, although further research with which to confirm this would be required should the project progress to a more detailed developmental stage.

These are two very different projects that will develop the provision of ecotherapy in Ceredigion if implemented. Both are, in our view, feasible as standalone projects or could potentially also be combined with the resources that would be created by the hub-and-spoke project being utilised to implement and then deliver the glasshouse project.

Recommendations

- a) The steering group set up for this study should consider its findings and decide whether it is appropriate to further develop the project ideas that have been proposed.
- b) If the project ideas do progress to the next stage, the steering group should be developed into a group which guides further development of the project ideas into applications for support.

1 Introduction

Ecotherapy improves mental and physical well-being by supporting people in being active outdoors, undertaking gardening, food growing or environmental conservation work and other activities in nature. This study explores the potential for an ecotherapy project in Ceredigion. It was commissioned by Ceredigion County Council in their capacity as the administrative body for the Cynnal y Cardi Local Action Group, which are responsible for delivery of the European-funded LEADER programme within the county.¹

The study was undertaken by the social and economic research company Wavehill in partnership with the charity Mind Aberystwyth, which instigated the study. A secondary objective of the study was to explore the potential to develop an ecotherapy project/service in Ceredigion which would generate a surplus which could be used as a funding stream for Mind Aberystwyth, thereby improving the financial sustainability of the organisation.

A wide range of research has been undertaken as part of the study, including:

- Interviews with a range of stakeholders;
- Engagement with local providers of associated services, both current and potential;
- Engagement with potential users of ecotherapy services in Ceredigion; and
- A review of potential models for projects and activities in Ceredigion.

A steering group was set up with which the study team consulted on an ad hoc basis over the course of the research. Members of the group included a range of local stakeholders from the area (including Mind Aberystwyth), Ceredigion County Council, representatives of the health sector in the area, and local practitioners.

This final report for the study is structured as follows:

- Chapter 2 introduces ecotherapy as a concept and reviews the evidence of its effectiveness;
- Chapter 3 considers the potential to deliver ecotherapy in Ceredigion;
- Chapter 4 progresses the discussion by assessing the demand for ecotherapy within the county;
- Chapter 5 considers the potential to fund ecotherapy projects in Ceredigion (including social prescribing);
- Chapter 6 presents the ideas for ecotherapy projects in Ceredigion, developed as part of the study;
- Chapter 7 briefly reviews the potential to fund those concepts; and
- Chapter 8 closes the report by drawing together its conclusions and making recommendations for the potential next steps.

¹ LEADER is a community-led local development scheme which is part of the Rural Development Programme for Wales, funded by the Welsh Government and the European Commission.

To keep the main report as brief and clear as possible, a substantial amount of information is included as appendices to the report, which is referred to within the main report as appropriate. This includes a number of case studies for projects and ventures that have been reviewed over the course of this study.

2 What is ecotherapy and how effective is it?

Ecotherapy offers a range of approaches to supporting people and promoting well-being. This chapter first explores the ideas behind ecotherapy, before highlighting examples of ecotherapy in practice, both in Wales and more broadly. The chapter concludes by highlighting evidence that supports our understanding of the effectiveness of various approaches to ecotherapy.

Key points

- Whilst there is considerable diversity in terms of the delivery of ‘ecotherapy’, all of it is united by the concept that exposure to nature and natural environments will improve well-being.
- Whilst many approaches have very specific objectives, such as occupational therapy, there are examples in practice that have a more general focus with respect to promoting well-being throughout the community.
- In Wales, there are a broad range of examples in practice that draw on the country’s landscapes, as well as a range of gardening and horticultural projects, amongst others.
- An emerging body of research has explored the role and potential of ecotherapy in promoting well-being — both for the mind and for the body.
- The considerable diversity in the focus of services under investigation, the research designs used to explore impact, and the outcomes of interest can make it difficult to make global statements on the effectiveness of ecotherapy in general. For specific services, however, it is possible to meaningfully explore trends across studies investigating the effectiveness of such an approach.

2.1 Promoting well-being through ecotherapy

‘Ecotherapy’ is an umbrella term used to describe a range of services and support that harness the natural environment in order to improve people’s well-being. Ecotherapy encompasses a broad range of activities that give people opportunities to engage with and immerse themselves in green spaces such as parks, gardens, farms or woodland areas. They can be structured around a range of activities, including gardening, taking care of animals, or simply walking in a park.

There is also considerable diversity in the language used to describe approaches to ecotherapy. ‘Green care’, ‘green exercise’, ‘green therapy’, ‘horticulture therapy’ and ‘nature-based interventions’, for example, have all been used to describe similar approaches and services (please refer to the shaded box below). Moreover, ‘ecotherapy’ itself can mean different things to different people.

Beyond the more generalised umbrella term used to describe a category of services and support, it has been used to describe a very specific approach, one that emphasises the notion of mutual healing and growth between people and the environment.² For the purposes of this study, we adopt the more expansive definition of ecotherapy as a category of services and support.

In practice, there is also considerable diversity in the focus and objectives of support, and in the people with whom ecotherapy services work. There are approaches that seek to support young people in care, for example, through to older adults who require palliative care. Moreover, there are examples of approaches that support people with specific needs, such as those experiencing dementia or social isolation, and services with broader public health objectives that simply wish to improve well-being amongst those living in the community.

Main approaches to ecotherapy

- **Gardening and Horticultural Therapy:** includes spending time in gardens or allotments and engaging in gardening activities. Horticultural therapy has been used as a discreet, formal therapy or as an add-on to other types of therapy.
- **Care Farming:** the therapeutic use of agricultural landscapes and farming practices. On care farms, components of either the whole or part of the farm are used to provide health, social or educational care through a supervised, structured programme of farming-related activities.
- **Environmental Conservation:** facilitated environmental conservation work, specifically designed for the conservation and management of natural spaces, and for the health and well-being of participants.
- **Animal-Assisted Interventions:** encompass a wide variety of approaches that utilise animals in the rehabilitation or social care of people. These include activities in which animals are present and considered to have a therapeutic effect, and approaches in which animals are an integral part of the treatment process.
- **Green Exercise:** engaging in physical activities whilst simultaneously being exposed to nature.
- **Wilderness Therapy:** a category of approaches that provide personal development and well-being opportunities within rural wilderness settings. Programmes are usually supervised by trained staff and can deliver therapeutic activities that draw on the natural environment.

Whilst there is considerable diversity throughout ecotherapy, all of it is united by the concept that exposure to nature and natural environments will improve well-being. The role and potential of nature in affecting positive change in people's well-being have long been understood. Some of the ideas behind ecotherapy, for example, can be traced back to traditions such as Buddhism and Romanticism.³ These tend to place importance upon the restorative potential of relationships between people and their environment, encouraging people to focus on the beauty that surrounds them.

² See, for example, Chalquist (2009) A look at the ecotherapy research evidence. *Ecopsychology*, 1, 64–74.

³ See Jordan and Hines (2016) *Ecotherapy: Theory, Research and Practice*, Palgrave London.

Approaches to ecotherapy have sought to draw on the therapeutic potential of natural environments in order to promote well-being. There is a growing body of research which suggests, for example, that even subtle interactions with nature provide a range of cognitive and physiological benefits, including elevated mood, enhanced memory, and decreased heart rate and stress. Looking out of a window towards pretty scenery can lower a person's heart rate significantly, for example, and some studies even indicate that hospital windows with views of green spaces can facilitate and accelerate healing.⁴ What is more, research suggests that walking through a park restores concentration and can improve performance on memory tests.⁵

There is considerable debate surrounding the reasons as to why natural environments offer therapeutic potential. One hypothesis suggests that there are two main pathways that the natural environment contributes to well-being: directly through the restorative effect of immersion in nature, and indirectly through the opportunities for social contact and physical activity that can take place.⁶ Meanwhile, other theories have understood the emotional, cognitive, aesthetic and spiritual potential of nature as an evolutionary process that has enabled us to operate and thrive in those environments. From this perspective, people have an inherent, even genetic predisposition towards seeking contact with nature.⁷

Precisely how and why nature can have a restorative effect on people remains open for debate. Acknowledging the promise shown in many findings, some researchers remain cautious about not overextending the results of ecotherapy research. Suggestions, for example, that urban environments, distance from nature, and living with technology are detrimental to well-being are not supported by current research.⁸ From this perspective, well-being is shaped by a diverse range of factors, and whilst being important, the environment alone cannot explain variation in well-being amongst different people. This suggests that interaction with green spaces may affect people differently, and that not everyone may experience positive, restorative effects that address any well-being issues that they may face.

⁴ e.g. Kahn et al. (2008) A plasma display window?—The shifting baseline problem in a technologically mediated natural world. *Journal of Environmental Psychology* 28 (2008) 192–199.

⁵ e.g. Berman et al. (2008) The cognitive benefits of interacting with nature. *Psychological Science*, 19: 12.

⁶ Thompson et al. (2012) Does participating in physical activity in outdoor natural environments have a greater effect on physical and mental wellbeing than physical activity indoors? A systematic review. *Environmental Science and Technology*, 45, 1761–1772.

⁷ White and Heerwagen (1998) Nature and Mental Health: Biophilia and Biophobia. In Lundberg, A. (Ed.) *The Environment and Mental Health: A Guide for Clinicians*. Mahwah, New Jersey: Lawrence Erlbaum Associates.

⁸ Bensley, D. A., & Lilienfeld, S. O. (2017). Psychological misconceptions: Recent scientific advances and unresolved issues. *Current Directions in Psychological Science*, 26, 377–382.

2.2 Ecotherapy in practice

Over recent decades, a broad range of ecotherapy projects, programmes and services have been introduced, both in Wales and internationally. Mental health charity Mind, for example, has been a strong advocate of ecotherapy, supporting the development of projects and programmes, as well as encouraging other organisations, including local commissioners, in adopting ecotherapy as part of an overall well-being strategy. It has introduced a broad range of services and support, including funding local projects. Between 2009 and 2013, for example, Mind funded 130 local ecotherapy projects across England with £7.5m in support from the National Lottery.

Even more relevant, Mind Aberystwyth has been offering an ecotherapy service in the area for a considerable number of years through projects such as Coed Lleol's Actif Woods.⁹ There is therefore considerable and relevant expertise and knowledge in respect of both activities and participants that can be built upon.

In Wales, there are a broad range of examples in practice that draw on the dramatic landscapes afforded by areas such as Snowdonia. People with complex mental health challenges, for example, are being taken to the foothills of Snowdonia National Park for specialist therapy sessions. Organised by the Betsi Cadwaladr health board, the project combines art therapy and ecotherapy by providing nature as the inspiration.

There are a diverse range of other approaches across Wales. **Gardening** has been applied in a variety of settings and contexts in supporting well-being, in rehabilitation, and in working with vulnerable and disadvantaged people. Gardening and horticultural therapy projects have been used as therapy itself or as an add-on to therapy for many years.¹⁰ In addition, there is a rise in the popularity of community food-growing projects in health and well-being promotion.

Owing to the diversity of activities associated with gardening and the settings in which it can be carried out, horticulture has been adapted in order to suit a wide range of people. Examples have been designed to achieve a range of physical, social and psychological benefits for people with mental health problems, learning difficulties or physical disabilities, survivors of stroke, and those with drug and alcohol problems. Furthermore, gardening has become increasingly popular within a broader suit of social prescriptions, wherein primary care providers signpost people to local community initiatives.¹¹ Whilst many approaches have very specific objectives, such as occupational therapy, there are examples in practice that have a more general focus with respect to promoting well-being throughout the community, such as community gardens.

⁹ <https://www.coedlleol.org.uk/>

¹⁰ Thrive (2015) Impact Report 2014/15. Reading: Thrive.

¹¹ King's Fund (2017) *Gardens and Health: Implications for Policy and Practice*, King's Fund.

Mini Case Study: Torth y Tir

A community benefit society based in Caerfachell, Torth y Tir is a community-run bakery. They involve the community in growing heritage wheat, processing, milling, and baking wood-fired sourdough bread. Moreover, they are developing a mobile bakery to sell bread and teach bread-making skills through ‘field to loaf’ workshops. They also sell organic sourdough pizza at local events.

For more information: <https://torthytir.co.uk>

Another approach to ecotherapy in practice is that of **conservation** projects that seek to offer people opportunities to carry out environmental tasks, including land clearing, coppicing, and restoring habitats. The objective is to preserve, manage and protect natural places, whilst also engaging people in outdoor activities and promoting well-being. Over the last 10 years, environmental conservation interventions have increasingly been used as a means of delivering various health, well-being and social benefits for a variety of groups, including young people with disabilities.¹²

Mini Case Study: Tir Coed / LEAF Project

Tir Coed is a charity that seeks to engage people with woodlands through volunteering, training and bespoke activities that increase well-being, develop skills and improve woodlands. From 2017–2019, the charity supported the delivery of the LEAF project, spanning Mid and West Wales. The project sought to create opportunities for people to access a range of activities and programmes, including bespoke well-being woodland activities. The LEAF project was designed to enable deep-rooted change in people’s life, offering bespoke progression that worked with the skills and aspirations of the individual.

The LEAF project was developed over the past three years in consultation with 130 referral organisations, more than 1,000 beneficiaries, and 50 freelance tutors. Furthermore, this project drew on the expertise of 16 key partnership organisations across environmental, cultural and therapeutic sectors.

For more information: <http://tircoed.org.uk/tir-coed-projects>

In the UK, therapeutic applications of environmental conservation activities are typically organised in partnership with environmental organisations and health or social care providers. Land-based organisations such as the Forestry Commission, The Wildlife Trusts, the RSPB and the National Trust often work with health or social care providers from the NHS, local mental health teams or local authorities. Alongside gardening, conservation and green gyms have become part of broader community networks that link with primary care settings such as GPs through social prescribing.

¹² Bragg et al. (2013) Grow2Grow: Wellbeing evaluation. Colchester: University of Essex.

Mini Case Study: Branching Out

Developed in partnership between Forestry Commission Scotland and the NHS, Branching Out supports adults who access mental health services. The project supports a range of tailored activities adapted in order to suit the client group, generally including physical activity, conservation, bushcraft, and environmental art. Sessions are held in woodland areas and facilitated by trained staff.

Impact: The model was found to lead to self-reported improvements in confidence and self-esteem, as well as small but significant improvements to overall well-being. It led to increases in physical activity, and knowledge and skills gains such as practical and social networking. The study found that the programme was the most effective for people with more severe mental health problems. The evaluation was limited in a number of ways, including the absence of a control group, suggesting that we should be cautious in interpreting the potential impact of the model.

For more information: <https://scotland.forestry.gov.uk/supporting/strategy-policy-guidance/health-strategy/branching-out>

There are also a number of **care farms** in Wales. On care farms, components of either the whole or part of the farm are used to provide health, social or educational care through a supervised, structured programme of farming-related activities.¹³ Many care farms offer therapeutic contact with farm livestock, some provide specific animal-assisted therapies, and others also offer social therapeutic horticulture and environmental conservation activities. Care farms can support a diverse range of people, including those with defined medical or social needs, such as psychiatric patients, those suffering from mild to moderate depression, people with learning disabilities, those with a drug history, as well as disaffected young people.

Mini Case Study: Coleg Plas Dwbl

Set in 100 acres of biodynamic farmland at the foot of the Preseli Mountains, Coleg Plas Dwbl offers young people a Practical Skills Therapeutic Education. Young people engage in and learn about craft and land-based skills that contribute to and supplement the workings of the historic farm. Delivering within day and residential settings, the college works with people who have complex behavioural and learning difficulties and disabilities, including autistic spectrum conditions. Furthermore, the farm offered work experience in the locality and with Pembrokeshire Coast National Park.

¹³ Care Farming UK (2019) website.

2.3 The impact of ecotherapy

An emerging body of research has explored the role and potential of ecotherapy in promoting well-being — both for the mind and for the body. There is considerable diversity in the focus of services under investigation, the research designs used to explore impact, and the outcomes of interest. This can make it difficult to make global statements on the effectiveness of ecotherapy in general. For specific services, however, it is possible to meaningfully explore trends across studies investigating the effectiveness of such an approach.

There are individual studies, for example, that have sought to measure the impact of **gardening and horticultural therapy** upon people's well-being. A 12-week programme aimed at people with clinical depression found reductions in self-reported depression severity and increases in activity and social cohesion.¹⁴ Meanwhile, there are studies that have explored more reliable measures of well-being, including cortisol-level analysis. Hawkins et al. (2011), for example, found that gardening reduced physiological stress, although participants in the study did not have compromised well-being.¹⁵

Gardening has also been widely applied in supporting people affected by specific issues such as Alzheimer's and dementia. A study of more than 2,000 older people living in France found a relationship between regular participation in gardening and a reduced prevalence of dementia.¹⁶ Later studies have shown that the exercise provided by gardening activities is beneficial and may also be significant in delaying the onset of dementia and Alzheimer's.¹⁷ Moreover, gardening-based activities are considered to be viable in dementia care because they successfully engage groups of participants who often find it difficult to engage in activities that elicit high levels of adaptive behaviour.¹⁸ In a study assessing the impact of therapeutic gardening for people with early-onset dementia, Hewitt et al. (2013) found that a 12-month programme had a positive impact on the well-being, cognition and mood of participants.¹⁹

Whilst there are individual findings that suggest promise, across studies there appears to be limited robust evidence with which to suggest that horticultural therapy and gardening are effective in all cases. There are significant gaps in the evidence base, and the relative quality of much of the evidence is low. Many draw on small samples, include subjective measures of well-being and have short follow-up periods.

¹⁴ Gonzalez et al. (2011) A prospective study of group cohesiveness in therapeutic horticulture for clinical depression. *International Journal of Mental Health Nursing*, 20:2 119–129.

¹⁵ Hawkins et al. (2011) Allotment gardening and other leisure activities for stress reduction and healthy aging. *HortTechnology*, 21(5) 557–585.

¹⁶ Fabrigoule et al. (1995) Social and leisure activities and risk of dementia: a prospective longitudinal study. *Journal of American Geriatrics Society*, 43, 485–490.

¹⁷ e.g. Somerfield et al. (2010) Growing Minds: Evaluating the Effect of Gardening on Quality of Life and Physical Activity Level of Older Adults. *HortTechnology* 20:4 705–710.

¹⁸ Jarrett and Ggliotti (2010) Comparing responses to horticultural-based and traditional activities in dementia care programmes. *American Journal of Alzheimer's Disease and Other Dementias*. 25 (8) 657–665.

¹⁹ Hewitt et al. (2013) Does a structured gardening programme improve wellbeing in young-onset dementia? A preliminary study. *British Journal of Occupational Therapy* 76(8), 355–361.

There is also limited experimental and quasi-experimental research that would give reliable indications of the impact of such approaches.²⁰ One systematic review of school-based gardening projects, for example, found qualitative improvements to well-being, albeit mixed quantitative impacts, and could not give broader conclusions with any confidence.²¹ Overall, it could be reasonably stated that gardening and horticultural therapy show promise in supporting people's well-being, including in the treatment of depression and Alzheimer's. There remain, however, significant gaps in our understanding.

There is a diverse range of research exploring the health and well-being benefits of engaging in **conservation activities**. As with gardening, systematic reviews of the evidence have found individual studies that show promise. Participation in conservation activities has been associated with positive mental health and well-being, increased quality of life, and positive social functioning.²² Overall, however, the evidence was inconclusive due to a paucity of rigorous research, especially for support aimed at people experiencing health and well-being problems. The vast majority of apparent research focuses on projects aimed at the general community.

Research exploring the impact of **care farming** appears to be less prevalent than that exploring other eco-therapeutic approaches. This may be due to the apparent diversity in the design, delivery and focus of approaches to care farming. Qualitative data suggests that the informal, non-care context offered by care farms can be valuable in creating positive therapeutic relationships between staff and the people receiving support.²³ Generalised findings also suggest that many participants benefit from being part of a social community and engaging in meaningful activities and work opportunities.²⁴ There is rigorous experimental evidence that has suggested that engaging in activities on farms can have a positive impact on well-being, although such studies are isolated. A recent systematic review exploring the impact of care farming upon traumatic grief, for example, found that whilst the approach shows promise, there are significant gaps in our understanding.²⁵ Furthermore, a systematic review of care-farming interventions aimed at young people in social care found no rigorous evidence with which to support the approach.²⁶

²⁰ Wiseman and Sadlo (2015) Gardening: An occupation for recovery and wellness. In: *International Handbook of Occupational Therapy Interventions*. Ed. by I. Soderback. Springer Dordrecht, Heidelberg Part 4, 431–444.

²¹ Ohly et al. (2016) A systematic review of the health and well-being impacts of school gardening: synthesis of quantitative and qualitative evidence, in *BMJ*.

²² Husk et al. (2013) Participation in environmental enhancement and conservation activities for health and well-being in adults. *Cochrane Database of Systematic Reviews*.

²³ Bragg et al. (2013) *Growing Well: Wellbeing evaluation*. Colchester: University of Essex.

²⁴ Elings (2012) *Effects of Care Farms: Scientific research on the benefits of care farms to clients*, Task Force Multifunctional Agriculture, Plant Research International.

²⁵ Gorman et al. (2017) Cultivating our humanity: A systematic review of care farming & traumatic grief. *Health and Place* 47 12–24.

²⁶ Martin et al. (2016) Evidence for using farm care practices to improve attachment outcomes in foster children: a systematic review. *British Journal of Social Work*, 46(5), 2016, pp.1241–1248.

Overall, there is emerging research which suggests that certain eco-therapeutic approaches show promise and could be valuable in promoting well-being — both for the mind and for the body. What is more, the benefits of immersion in nature have aesthetic, rejuvenating qualities that may be difficult to articulate or quantify. There is, however, limited rigorous research that undermines our ability to accurately isolate the causal relationships between eco-therapeutic activities and outcomes. Whilst an absence of evidence does not suggest that eco-therapeutic approaches are not effective in practice, it does suggest that we must be reflexive with regard to the support that we offer people, particularly those in the community who are especially vulnerable. Intuition is, after all, not always a good guide to effective practice.

2.4 Conclusion

This chapter has introduced the concept of ecotherapy and the broad range of ways in which it is delivered. In Wales, as seen in this chapter as well as in others in this report, there are a broad range of examples in practice that draw on the country's landscapes, as well as a range of gardening and horticultural projects. This shows that this is not a new, untested concept. Moreover, research has been undertaken to assess the impact of ecotherapy services. Whilst the range of approaches and outcomes that have been assessed by such research can make it difficult to make general statements on the effectiveness of ecotherapy in practice, the growing body of evidence is positive. On this basis, there is a clear rationale for exploring the further development of ecotherapy services in Ceredigion.

3 What is the potential to deliver ecotherapy in Ceredigion?

This chapter explores the potential for the provision of ecotherapy services in Ceredigion as well as the extent to which relevant services are already being delivered within the county.

Key Points

- The rural and coastal nature of Ceredigion provides an extensive opportunity to deliver ecotherapy services.
- A range of relevant (and potentially relevant) services are already being delivered in Ceredigion.

3.1 About Ceredigion

This section provides a brief introduction to the area being considered in this study, i.e. Ceredigion, as shown in the map below.

Figure 3.1: A map of Ceredigion

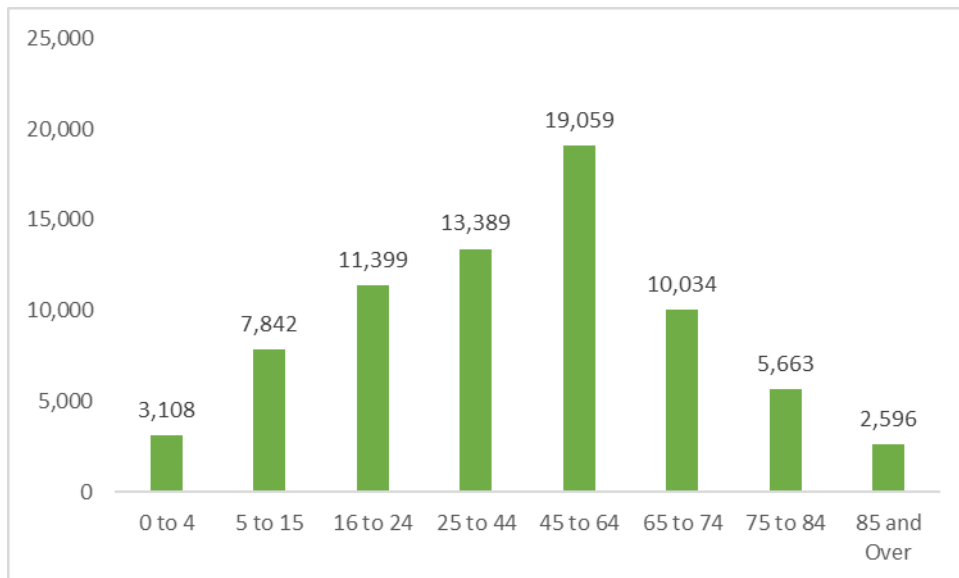


Source: Google Maps

3.1.1 Demographics

Ceredigion is one of Wales’ smallest counties, with a population of just under seventy-three thousand (72,992), according to the 2018 mid-year population estimates.²⁷ Despite this, Ceredigion is home to two universities, in Aberystwyth and Lampeter, therefore harbouring a large student population. This can be seen in the age breakdown of Ceredigion’s population, wherein 9% are aged 18 to 21, which constitutes the highest proportion for that age band amongst all local authorities in Wales.

Figure 3.2: Ceredigion population estimates (2018)



Source: stats.wales.gov.wales²⁸

²⁷ Mid-year population estimates, Office for National Statistics (ONS).

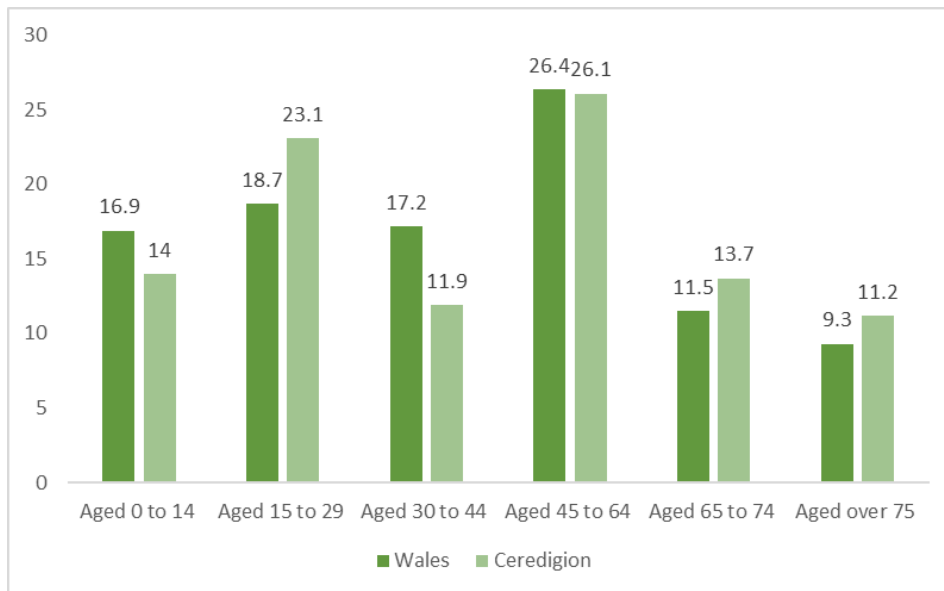
²⁸ <https://stats.wales.gov.wales/Catalogue/Population-and-Migration/Population/Estimates/Local-Authority/populationestimates-by-localauthority-age>

Figure 3.3: Wales and Ceredigion population demographic comparisons



Source: Office for National Statistics²⁹

Figure 3.4: Population age percentage comparison between Wales and Ceredigion



Source: StatsWales³⁰

²⁹

<https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/bulletins/annualmidyearpopulationestimates/mid2018>

³⁰ <https://statswales.gov.wales/Catalogue/Population-and-Migration/Population/Distributions/agedistributionofpopulation-by-gender-localauthority>

To put it in context, only 5% of the population nationally and throughout the UK fall into that age group. Paradoxically, Ceredigion also has a more acute ageing population challenge than that nationally, with 22% aged above 65. This is the sixth-highest amongst Wales' 22 local authorities and is significantly higher than the average for Wales (19%) and across the UK (17%).

3.1.2 Landscape

Ceredigion encompasses 8% of the Welsh landmass with 1,619 square kilometres, and is the fifth-largest county by size in Wales. It is a rural, sparsely populated area with only 77 people per sq. km (as of 2016), making it the fifth most sparsely populated county in Wales. Wales has almost twice as many people per sq. km (150), and the UK more than three times as many (271).

The county possesses 50 miles of coastline, which features some of the cleanest beaches in the UK, with several winning the Blue Flag and Green Coast Awards,³¹ examples of which are Borth, Llangrannog and New Quay.³² The bay itself is a Special Area of Conservation (SAC), with its 1,000km² inhabited by various protected species such as grey seals, river lampreys and bottlenose dolphins. The 60-mile Ceredigion Coast Path forms part of the Wales Coast Path and provides a way for walkers to explore the county's coastline without having to rely on public transport.

The east of the county is dominated by the Cambrian Mountains, covering a 1,210km² area.³³ There is currently a campaign to get the area recognised as an Area of Outstanding Natural Beauty (AONB). The range is home to various walking and mountain-biking routes,³⁴ an example of which is the Bwlch Nant yr Arian Visitors Centre, which has 7.7km of walking routes and over 65km of biking routes. Moreover, the centre is home to one of the county's most popular the red kite feeding centre for Wales' national bird of prey.³⁵ It is also worth noting that the potential to establish the Cambrian Mountains as a 'Parc Naturel' has been explored. This is a model of area management and development utilised in France which focuses on protecting the scenery and heritage, as well as stimulating sustainable economic development.

There are four major rivers that exist in the county: the River Teifi is 117km in length, flows in the south and composes part of the county's border; the Rivers Ystwyth (33km) and Rheidol (31km) flow across the middle of the county and reach the sea in the Aberystwyth area; to the north of the county is the Dyfi Estuary, which surrounds the mouth of the River Dyfi (48km).

³¹ <https://www.ceredigion.gov.uk/resident/travel-roads-parking/coast-harbours/>

³² <https://www.walesonline.co.uk/whats-on/travel/wales-blue-flag-beaches-2019-16271891>

³³ <https://web.archive.org/web/20120401011128/http://www.cambrian-mountains.co.uk/np-story.php#>

³⁴ <https://www.ceredigion.gov.uk/resident/coast-countryside/exploring-ceredigion/walks-and-rides/>

³⁵ <https://naturalresources.wales/days-out/places-to-visit/mid-wales/bwlch-nant-yr-arian-forest-visitor-centre/?lang=en>

3.1.3 Prosperity and deprivation

Data from the Welsh Index of Multiple Deprivation (WIMD)³⁶ suggests that Ceredigion has few communities of high relative deprivation.³⁷ The most recent WIMD data reveals that only one of Ceredigion's 46 small areas (2%) falls within the top quintile of deprived areas in Wales. It has the second-fewest areas, by proportion, in the top quintile out of all local authorities in Wales.

However, Ceredigion does score highly on two specific measures of deprivation:

- 61% of the county's small areas fall within the top WIMD quintile in terms of **access to services**, the second-highest amongst all Welsh local authorities; and
- 41% fall within the top WIMD quintile for **housing deprivation**, the third-highest in Wales.

Another issue present in the county is that of its transport links. The local authority recognise that getting around the county can be difficult if you do not own a car or are unable to drive, especially if you are based in or need to access a rural community.³⁸ For those without access to private transport, 32 public bus services operate in the area; however, these are the only feasible method for getting around the county due to a lack of rail infrastructure, with the county's only train stations being located in the north of the county in Aberystwyth and Borth.

This is not to say that car travel is straightforward either. The county has two major roads: the A487 (which runs from Machynlleth to Fishguard) and A44 (which goes from Aberystwyth to the West Midlands). However, the majority of the Ceredigion road network is composed of minor roads connecting smaller settlements; these roads are often in poor condition and offer limited chances of overtaking slow-moving traffic due to the fact that many of them are winding with blind corners.³⁹

3.2 Existing and potential provision in Ceredigion

The study has found that a range of organisations are already providing, or have the potential to provide, a wide range of ecotherapy services across Ceredigion. A list of providers and basic information on the services that they provide can be found in Appendix 2, including:

³⁶ The WIMD is the official measure of relative deprivation for small areas in Wales, and ranks small areas against various types of deprivation (including income and employment, health, education, access to services, community safety, physical environment, and housing deprivation). An overall rank is then calculated from these eight types of deprivation.

³⁷ Welsh Index of Multiple Deprivation 2014 by rank and lower super output area, revised 12 August 2015.

³⁸ <https://www.ceredigion.gov.uk/resident/social-care-wellbeing/getting-out-and-about/transport/>

³⁹ <https://www.ceredigion.gov.uk/media/3190/ceredigion-assessment-of-local-well-being.pdf>

- Allotment sites in and around Aberystwyth which could be used for ecotherapy services,⁴⁰ and the Penglais Community Garden⁴¹
- Outdoor pursuit companies such as AberAdventures⁴² and Adventure Beyond⁴³
- Borth Zoo⁴⁴ and Fantasy Farm Park,⁴⁵ which could potentially be utilised to provide animal-assisted therapy
- Bwlch Nant yr Arian, which provides walking trails and a visitor centre⁴⁶
- Cardigan Bay Marine Wildlife Centre⁴⁷
- The Urdd's Llangrannog Centre, which offers a wide range of outdoor pursuit activities⁴⁸
- Dyfi National Nature Reserve and Ynyslas Visitor Centre, near Aberystwyth⁴⁹

Mind Aberystwyth, working with partners, offer a number of ecotherapy services. For example, they have run an ecotherapy service that takes place in a local woodland and can accommodate around 12 participants per session. It incorporates a variety of activities such as woodland management, bushcraft, walking, nature identification, and craftwork. The aim of the service is to improve people's mental and social well-being through outdoor activities in nature.

The following short case studies are further examples of relevant activities that exist in Ceredigion.

⁴⁰ <https://www.aberystwyth.gov.uk/en/environment/breathe-aberystwyth/allotments>

⁴¹ <https://www.facebook.com/tyfuaber/>

⁴² <https://www.aberadventures.com/home/home-page.html>

⁴³ <https://adventurebeyond.co.uk/>

⁴⁴ <https://www.borthzoo.co.uk/>

⁴⁵ <https://fantasyfarmpark.co.uk/>

⁴⁶ <https://naturalresources.wales/days-out/places-to-visit/mid-wales/bwlch-nant-yr-arian-forest-visitor-centre/?lang=en>

⁴⁷ <https://www.welshwildlife.org/visitor-centres/cardigan-bay-marine-wildlife-centre/>

⁴⁸ <https://www.urdd.cymru/en/residential-centres/llangrannog/>

⁴⁹ <https://naturalresources.wales/days-out/places-to-visit/mid-wales/dyfi-ynyslas-national-nature-reserve-and-visitor-centre-near-aberystwyth/?lang=en>

Mini Case Study: Coed Lleol

Managed from their head office in Machynlleth, north of Aberystwyth and just outside of Ceredigion, Coed Lleol (Small Woods Wales) describe themselves as seeking to connect people and nature in 'the woodland way'. They help individuals and woodlands in Wales to flourish and grow through woodland activities, events and training in their local areas.

Support is provided to woodland health and well-being activity groups in Ceredigion as part of their Actif Woods Wales programme. Activities include:

- Fortnightly 'led' walks and fortnightly 'friendship' walks, which take place in various woodlands within the Aberystwyth area. They are open to all who experience a chronic health condition; and
- Woodland activities with Mind Aberystwyth (including craft, conservation, art and walks).

Coed Lleol have been active for a considerable number of years, having been established in 2002. Moreover, they have established a support network for community woodland groups which now runs independently as Llais Y Goedwig.

<https://www.coedlleol.org.uk/>

<https://www.facebook.com/ActifWoodsWalesAberystwyth/>

Mini Case Study: TONIC Surf Therapy

The name 'TONIC' comes from 'ton', which is the Welsh word for 'wave' and encapsulates the idea that the sea and seashore can play an important role in improving health and well-being. The TONIC project is a pilot programme (based on evidence of the effectiveness of surf/ocean therapy programmes in the USA and the UK) aiming to measure the effectiveness of using this approach with adults experiencing mental health problems in West Wales.

The pilot programme is delivered by a partnership between Gofal, Walkin On Water Surf School, and Surfable, and is supported by West Wales Action for Mental Health (WWAMH). Gofal will be responsible for managing and risk-assessing referrals to the programme. The programme is supported by Natural Resources Wales.

TONIC is open to four potential groups of participants:

- Adults with mental health problems;
- Adults with mental health problems who also have substance/alcohol issues;
- Ex-service personnel (veterans) experiencing emotional or mental health problems;
- Carers experiencing emotional or mental health problems.

<http://www.wwamh.org.uk/wwamh-projects/tonic>

Mini Case Study: Clynfyw Care Farm

Clynfyw Care Farm is a Community Interest Company (CIC) which supports disabled and vulnerable people, using numerous meaningful projects as tools for learning, engagement, contribution and fun through its farm-based Day Service, as well as supporting people living in the Clynfyw Farm Cottages. Furthermore, it manages the Kinora mental health recovery centre in Cardigan. Clynfyw Farm is a 300-acre organic farm and woodland in North Pembrokeshire that has been farmed by the Lewis-Bowen family since the 1750s.

Activities undertaken on the farm include small-scale horticulture, pottery, charcoal making, pork and poultry production, floristry, life skills, computer literacy, arts and crafts, and other low-impact activities which help excluded people to form a better understanding of farms and the rural environment. It offers accredited training through ASDAN, which helps when trying to obtain funding because this is the same level of training offered in colleges. What is more, Clynfyw offers schools and individuals a chance to 'get to know' farm animals and understand agriculture and food provenance in a supported manner.

<https://www.clynfyw.co.uk/>

Mini Case Study: Denmark Farm

Denmark Farm is a conservation centre based in Ceredigion that offers eco-friendly holidays, camping, nature trails, and courses. It has a parent charity, the Shared Earth Trust, which was established in 1987 in response to the national decline in wildlife habitats and biodiversity on farmland. Denmark Farm offers membership subscriptions ranging from £3 to £1,000, entitling members to discounts on courses, events, and holiday accommodation. Some of the courses that the centre runs include felting, weaving and growing workshops.

<https://www.denmarkfarm.org.uk/>

A brief questionnaire was distributed to actual and potential providers of ecotherapy services in Ceredigion, with 20 responses being received. Of those, six stated that they would be interested in providing ecotherapy services (via a hub-and-spoke model, as discussed later in this report), with 11 stating that it was something in which they were potentially interested. Importantly, only three stated that it was not something in which they would be interested. This supports the conclusion that the provision of a wide range of ecotherapy services is potentially viable in Ceredigion but that further discussion and support are also required.

A wide range of services were provided by respondents, but those most frequently identified were (perhaps unexpectedly) walking (11 providers) and woodland activities (nine providers). Meanwhile, other activities identified included opportunities to grow vegetables or plants, craft making, access to observing or interacting with animals, and archaeology, reflecting the broad range of potential in Ceredigion.

Seventeen respondents answered when asked whether they charged for the services that they provided or with which they facilitated, with the majority (13/17) stating that they did charge in some way. Seven noted that this was in the form of a request for a donation. This suggests that, in the main, these services are being provided, at least partially, on a commercial/income-generating basis.

Only three stated that they currently offered any kind of price reduction to those suffering from mental health issues, although a further eight stated that it was something that they would be happy to consider. Twelve respondents stated that they would accept paid referrals from GPs, health boards, and so on.

Comments made in order to explain the response to this question included:

“We are open to any possibilities to help people to get assistance quickly where there may be waiting lists through conventional therapy routes. Being someone who has suffered with mental health issues, I realise that time is of the essence — you need someone quickly when you have mental health problems or breakdowns.”

“The problem of offering professional ecotherapy services to individuals/groups is always the cost. Who pays? People recovering from MH problems generally are unable to afford the cost of such a service. Therefore, this is problematic. Will the NHS, GPs, health board pay for the provision? Highly unlikely. Therefore, it comes down to the individual organisation to apply for funding to enable the individuals to be able to access the service for free. All professional services have a cost which needs to be financed.”

“We would love to work with the NHS on this, and use adventure therapy and outdoor education to support and as a way to help people off of antidepressants, etc. I believe, through what we have done in the past, this can be a far better way to help people than just offering drugs as the solution.”

A survey of potential users, as discussed later in this report, identifies the importance of access to any ecotherapy services. Furthermore, public transport is a key challenge within Ceredigion, as discussed elsewhere in this report. However, only three respondents reported that their site was not accessible via public transport, although only eight answered that it was accessible. In the other instances, access was mixed, whereby suggesting that access could be an issue:

“We aim to be close to village facilities. For respite or more urgent needs we would hope to be able to collect people from public transport.”

“We have various sites — some more easily accessed than others.”

“We use a number of different woodlands and always try to work in woodlands close to the main population areas.”

“Some are on Bwca bus routes, some on main routes, some not on bus routes.”

3.3 Conclusion

The principal conclusion that we can draw from the review in this chapter is that there is substantial potential for the delivery of an ecotherapy service in Ceredigion. The landscape of the county itself, including its coastline, beaches, rivers and mountain ranges, as well as the current infrastructure that is in place to allow locals and visitors to enjoy them (despite its weaknesses), means that the capacity to install such a service already exists. The availability of walking routes, cycling trails and animal-watching areas that the area possesses makes it an ideal candidate to host this particular form of therapy service, as it also possesses the capacity to host a range of different forms of the service. It should, however, be acknowledged that implementing any kind of service in Ceredigion would require a reliance on the county’s transport network, which, as discussed in this chapter, can prove to be challenging without access to private transport. This potential reliance on public transport infrastructure will be a key issue to consider when developing any ecotherapy service in the county.

4 What is the demand for ecotherapy in Ceredigion?

The provision of a service requires both supply *and* demand and this chapter explores the likely demand for such a service in Ceredigion. To begin with, we consider the policy context in Ceredigion and the potential role of ecotherapy in its delivery, before moving on to consider what the available statistics for the area can tell us about the potential demand for ecotherapy services. Thereafter, the findings of interviews with key stakeholders are considered before a review of the findings of a small survey of Mind Aberystwyth service users is set out.

Key Points

- Ecotherapy services fit with the ambitions set out in several policies (for both Ceredigion and Wales as a whole) designed to achieve health and well-being outcomes.
- Statistics for Ceredigion suggest that the county's population are generally healthier than those in many other parts of Wales.
- The one lifestyle area in which Ceredigion is, however, notably healthier than the rest of the health board is that of daily alcohol consumption.
- Life satisfaction figures for Ceredigion are higher than the average for Wales, which research suggests could be linked to the rurality of the area.
- The different population profile in the county (largely due to the high student population) is likely to have some influence on the statistics for the county.
- Stakeholders highlighted the need for ecotherapy services in Ceredigion, emphasising the need to utilise the opportunities provided by the area's landscape.
- Stakeholders were, however, less clear when it came to identifying how ecotherapy services could potentially be paid for.

4.1 Policy review

The provision of ecotherapy in Ceredigion has the potential to contribute to several of the policies that have been presented to the area, as well as helping to contribute to policy that affects Wales as a whole. For example, on a Wales-wide scale it links tightly to the goals of the 'Well-being of Future Generations (Wales) Act 2015',⁵⁰ more specifically the goal of creating 'a healthier Wales'. This goal, as well as the others set out in the act, is the duty of the Ceredigion Public Service Board to achieve, the members of which are composed of senior representatives from organisations including: Ceredigion County Council, Public Health Wales, and the Hywel Dda University Health Board.

⁵⁰ <https://futuregenerations.wales/about-us/future-generations-act/>

The act also places a duty upon community and town councils to ensure that the objectives of the Ceredigion Local Well-being Plan⁵¹ are met. The plan has been developed in order to improve community resilience and individual resilience. Community resilience refers to addressing issues that affect specific places on a small scale, whereas individual resilience refers to resolving issues linked to individuals or households within communities (rather than a specific village or town). The plan sets out six well-being aims: three for communities and three for individuals:

Community resilience:

- Enable communities to become prosperous, sustainable and connected by supporting the transformation of economic prospects
- Create conditions for communities to support individuals from all backgrounds to live fulfilling, independent lives
- Create environmentally responsible and safe communities that can adapt and respond to the effects of climate change

Individual resilience:

- Enable every child to have the best start in life
- Enable people to create and grasp opportunities and meet challenges throughout their lives
- Enable people to live active, happy and healthy lives

By achieving these goals, as well as the smaller short-, medium- and longer-term tasks that, once completed, will lead to meeting the goals, the plan hopes to increase the well-being of individuals living in Ceredigion as well as the communities in which they are located.

The Ceredigion Assessment of Local Well-being⁵² is another paper that is important to acknowledge whilst considering implementing ecotherapy in Ceredigion. The aim of the assessment is to assess the well-being of Ceredigion and its people whilst also addressing how local well-being aligns with the national goals. The assessment is conducted through the use of a survey in which the questions are based on the Office for National Statistics' standard survey for exploring well-being. Its assessment of well-being focuses on not only what issues or problems the public may experience but also the ways in which they may be able to prevent them. The paper examines various issues that play a role in the population's well-being, including the healthy development of children, the community participation of adults, and housing amongst the older population. The findings of this assessment are utilised in the implementation of the Ceredigion Well-being Plan, whilst also providing information that they believe could be of use in developing a greater understanding of the factors that influence well-being throughout the county.

⁵¹ <https://www.ceredigion.gov.uk/media/3956/local-well-being-plan-2018-2023.pdf>

⁵² <https://www.ceredigion.gov.uk/media/3190/ceredigion-assessment-of-local-well-being.pdf>

Well-being also plays a key part in Ceredigion's Corporate Strategy 2017-2022,⁵³ more specifically in: Corporate Priority 2: Investing in People's Future, and Corporate Priority 3: Enabling Individual and Family Resilience. An objective of Priority 2 is that of 'working in partnership to promote and foster healthy and active lifestyles'. The strategy states that it believes that by achieving this objective, it will lead to greater physical and mental health benefits for Ceredigion residents. An objective of Priority 3, on the other hand is to 'protect the most vulnerable by promoting early intervention and prevention', which it hopes will lead to improved quality of life amongst the population. Thus, it is clear that by implementing the capacity for ecotherapy within Ceredigion, Mind Aberystwyth has the potential to contribute to both of these strategy objectives.

4.2 Health and well-being statistics for Ceredigion

According to the West Wales Care Partnership, as of 2017, 24% of individuals in Ceredigion claim to have a health issue that has affected their well-being; in the 75–84 age group, however, this figure rises to 47%. When compared to the other counties that compose the remainder of the Hywel Dda Health Board, these percentages of the total population are lower than in both Carmarthenshire (32%) and Pembrokeshire (32%).⁵⁴

In terms of health-related lifestyle issues, Ceredigion is generally healthier than the Hywel Dda University Health Board area as a whole, with higher levels of fruit and vegetable consumption, lower levels of obesity, a lower number of smokers and a more active population (Table 4.1). However, the one lifestyle area in which Ceredigion is notably unhealthier than the remainder of the health board is that of daily alcohol consumption, with 42% of adults reporting alcohol consumption above the guidelines and 26% claiming that they are consuming alcohol to the point at which it could be considered binge drinking. This could possibly be attributed, however, to Ceredigion's large student population, with 8,186 people studying at Ceredigion's largest university in Aberystwyth during the 2018/2019 academic year.⁵⁵ As binge drinking has often been linked to university students,⁵⁶ especially undergraduates, it is likely that this has influenced these statistics. It is worth noting, however, that research conducted in 2019 has sought to dismiss assumptions that students' binge-drinking habits may have a direct correlation with psychological stress and mental health problems; therefore, it would be unwise to assume that such drinking practices amongst Ceredigion's student population may be a result of any issues with regard to their welfare.⁵⁷

⁵³ <https://www.ceredigion.gov.uk/your-council/strategies-plans-policies/strategies/>

⁵⁴ <https://www.wwcp.org.uk/wp-content/uploads/2017/03/West-Wales-Population-Assessment-March-2017.pdf>

⁵⁵ <https://university.which.co.uk/aberystwyth-university-a40>

⁵⁶ Jennison KM. The Short-Term Effects and Unintended Long-Term Consequences of Binge Drinking in College: A 10-Year Follow-Up Study. *Am J Drug Alcohol Abuse*. 2004;30(3):659–684. doi:10.1081/ADA-200032331

⁵⁷ www.sciencedirect.com/science/article/abs/pii/S0306460319303132

Table 4.1: Ceredigion, Wales and Hywel Dda health-related lifestyle comparison

		Wales	Hywel Dda UHB	Ceredigion
	Smoker	21	19	18
Daily alcohol consumption	Above guidelines	41	39	42
	Binge drinking	25	22	26
Consumption of fruit and vegetables	Meets guidelines	32	37	39
Exercise or physical activity	Active on 5 or more days per week	30	33	35
	0 active days	34	31	27
Body mass index	Overweight or obese	58	58	52
	Obese	22	22	17

Source: Observed percentages of adults who reported key health-related lifestyles, by LA, health board and Wales, 2013/14⁵⁸

In terms of mental health, 21% of people in Ceredigion are said to have been affected by some form of mental illness, which is smaller than the average for Wales as a whole, i.e. 26%.³⁸ It is predicted that by 2030 the percentage of people aged 16+ who have a common mental health disorder will rise by 3% within the county.³⁸ In 2016, Ceredigion experienced 1,130 referrals to Primary Mental Health Support Services (individual or group interventions for individuals experiencing mild to moderate mental health problems), which contributed to the total of 4,679 referrals to the Hywel Dda Health Board that year.

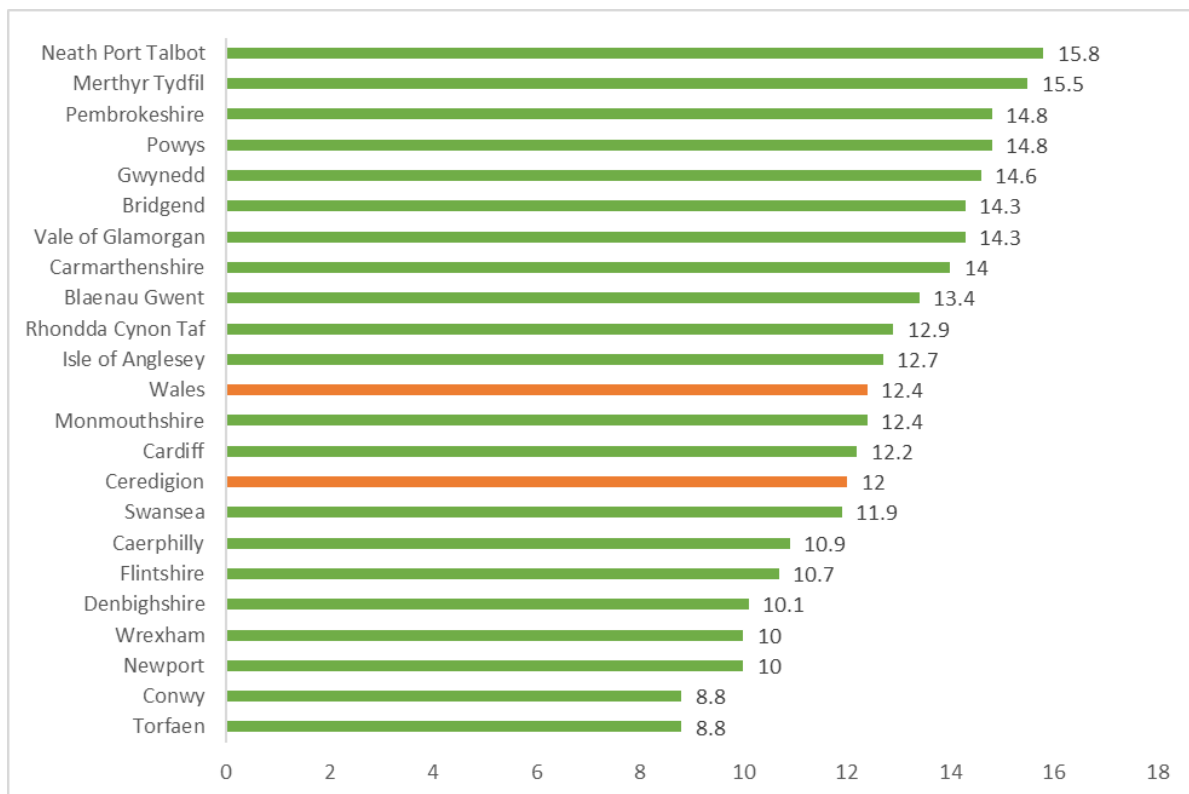
Between 2015 and 2017, Ceredigion experienced 21 suicides, equating to a rate of 10.4 deaths per 100,000 people. This figure is below the average for Wales as a whole, which constitutes 12.7 deaths per 100,000 people.⁵⁹

⁵⁸ Welsh Health Survey, 2014.

⁵⁹ <http://www.cambrian-news.co.uk/article.cfm?id=123954&headline=Drop%20in%20suicide%20rate%20in%20Ceredigion%2C%20slight%20rise%20in%20Powys§ionIs=news&searchyear=2018>

In terms of how this figure compares to those in other local authorities in Wales, Ceredigion ranks 15th out of the 22 local authorities in Wales in terms of the suicide rate, with Neath Port Talbot having the highest rate of 15.8 deaths per 100,000 people and Conwy having the lowest rate of 8.8 deaths per 100,000 people.⁶⁰ Despite the fact that these levels are below the Welsh average and Ceredigion ranks in the lower half of all Welsh local authorities, some AMs have previously described Wales' suicide rates, especially amongst men, as being a "national emergency".⁶¹ Therefore, regardless of how well Ceredigion may rank in comparison to other local authorities, this remains an issue that needs to be addressed, and one that ecotherapy could help contribute to solving.

Figure 4.1: Welsh local authority suicides per 100,000 people



Source: NHS Wales: Public Health Observatory

Turning our attention to life satisfaction, when measured between 2016 and 2018, it was stated that in Ceredigion, 82.1% of working-age adults and 84.8% of older people (65+) were satisfied with their lives. Both figures are above the average for Wales, which are 81.3% for working-age adults and 84.1% for older people. This could potentially be linked to the fact that the Ceredigion area is very rural. Previous studies have determined that there are, in fact, statistically significant differences between urban and rural dwellers, with those living in rural areas being shown to have higher life satisfaction.⁶²

⁶⁰ <https://public.tableau.com/views/PHOF2017LAHB-Charts/UHB-LAChart-Table?:embed=y&:showVizHome=no>

⁶¹ <https://www.bbc.co.uk/news/uk-wales-46442049>

⁶² <https://www.tandfonline.com/doi/abs/10.1080/00343404.2012.753142>

Meanwhile, other sources suggest that life satisfaction is largely due to the individual's satisfaction with the area in which they are currently living.⁶³ The criteria that are used by Statistics for Wales in order to determine the population's satisfaction with their local area include: whether there is a sense of community, how safe they feel after dark, their views on local authority services, and their views on local councillors. Out of all of Wales' local authorities, Ceredigion ranks the highest in terms of satisfaction with the local area as a place in which to live, with 95% of the population claiming to be satisfied.⁶⁴

In terms of community cohesion, Ceredigion ranked the highest out of all local authorities in Wales, with one of the key factors being the idea that 'people treat each other with respect and consideration'.⁵⁰

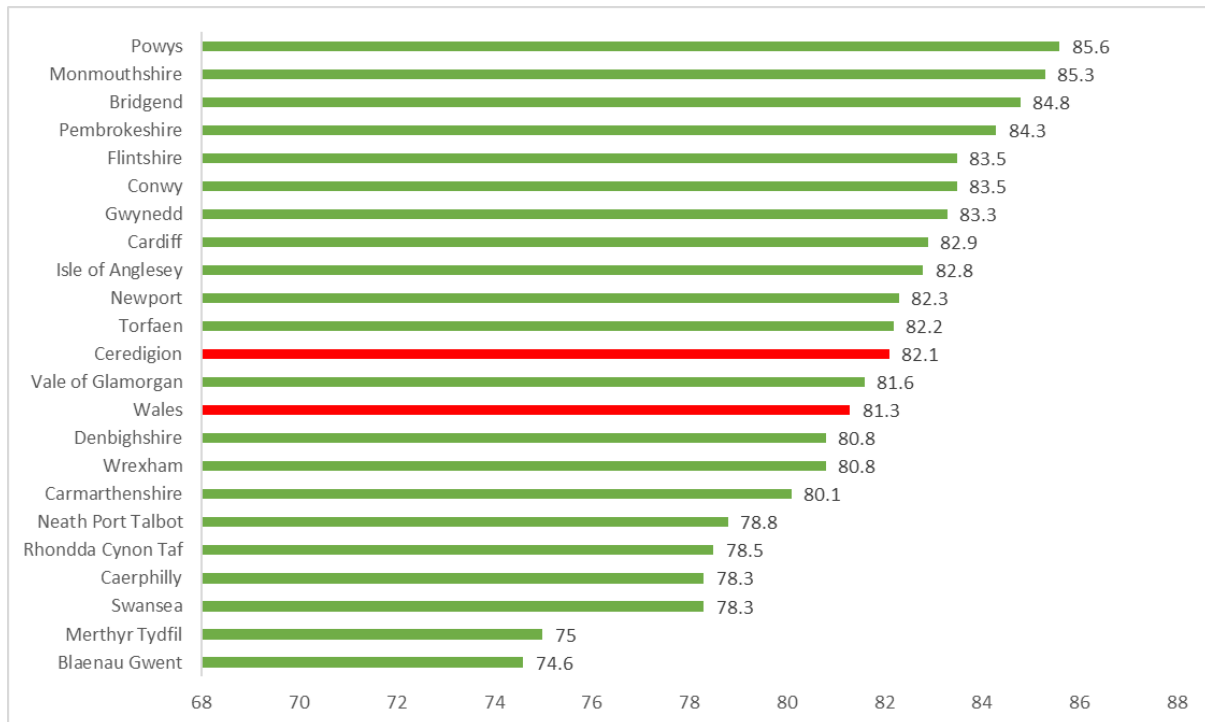
Ceredigion also ranked the highest in terms of community safety, with 91% claiming that they felt safe, and second in terms of agreeing that the council provides high-quality services, with 58%.⁵⁰ What this data also suggests is that Ceredigion can provide an attractive base for those who may be coming to the area specifically to engage in ecotherapy, which could lead to a rise in ecotherapy tourism bringing business to the tourism industry in various parts of the county.

In terms of working-age adults, the area with the highest overall satisfaction was Powys (with 85.6%) and the lowest ranking was Blaenau Gwent (with 64.6%). Ceredigion ranked 12th out of the 22 local authorities in Wales. For overall life satisfaction amongst older people, Ceredigion ranked slightly better at 11th, with Denbighshire being the highest (89.4%) and Caerphilly experiencing the lowest satisfaction levels (79.2%).⁵⁰

⁶³ Lenzi, C., & Perucca, G. (2018). Are urbanized areas source of life satisfaction? Evidence from EU regions. *Papers in Regional Science*, 97(S1), S105–S122. doi:10.1111/pirs.12232

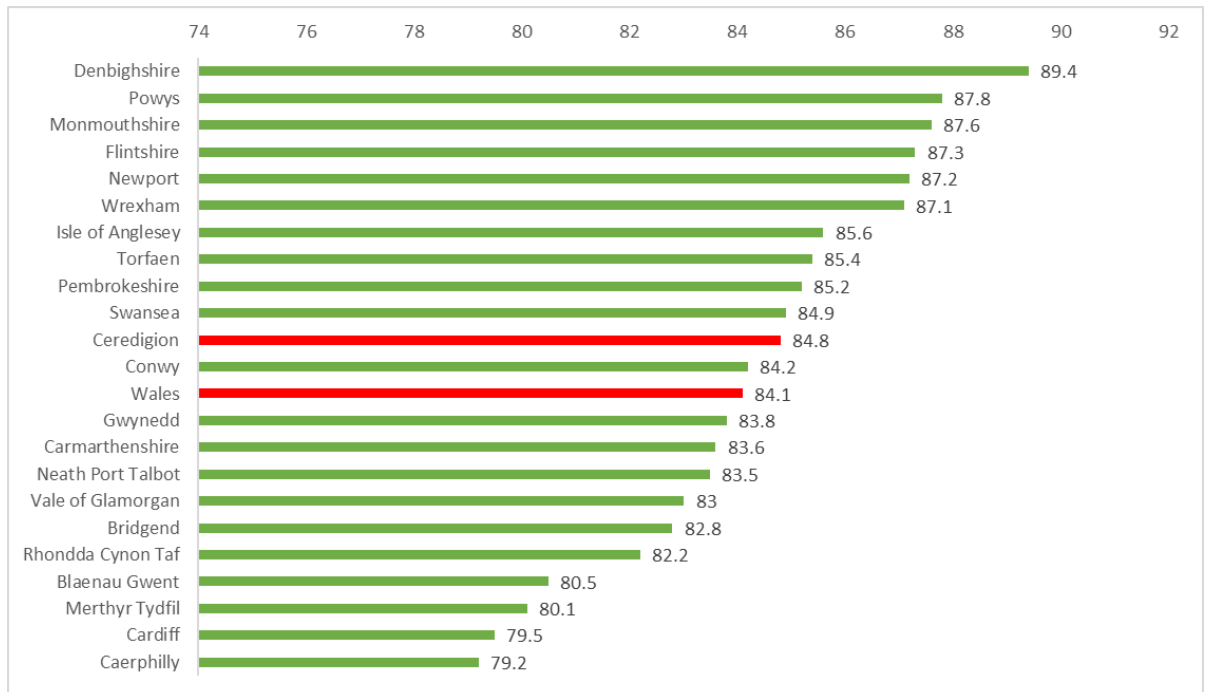
⁶⁴ <https://gweddiill.gov.wales/docs/statistics/2017/171130-national-survey-2016-17-local-area-community-en.pdf>

Figure 4.2: Percentage of working-age population satisfied with their lives



Source: NHS Wales: Public Health Observatory

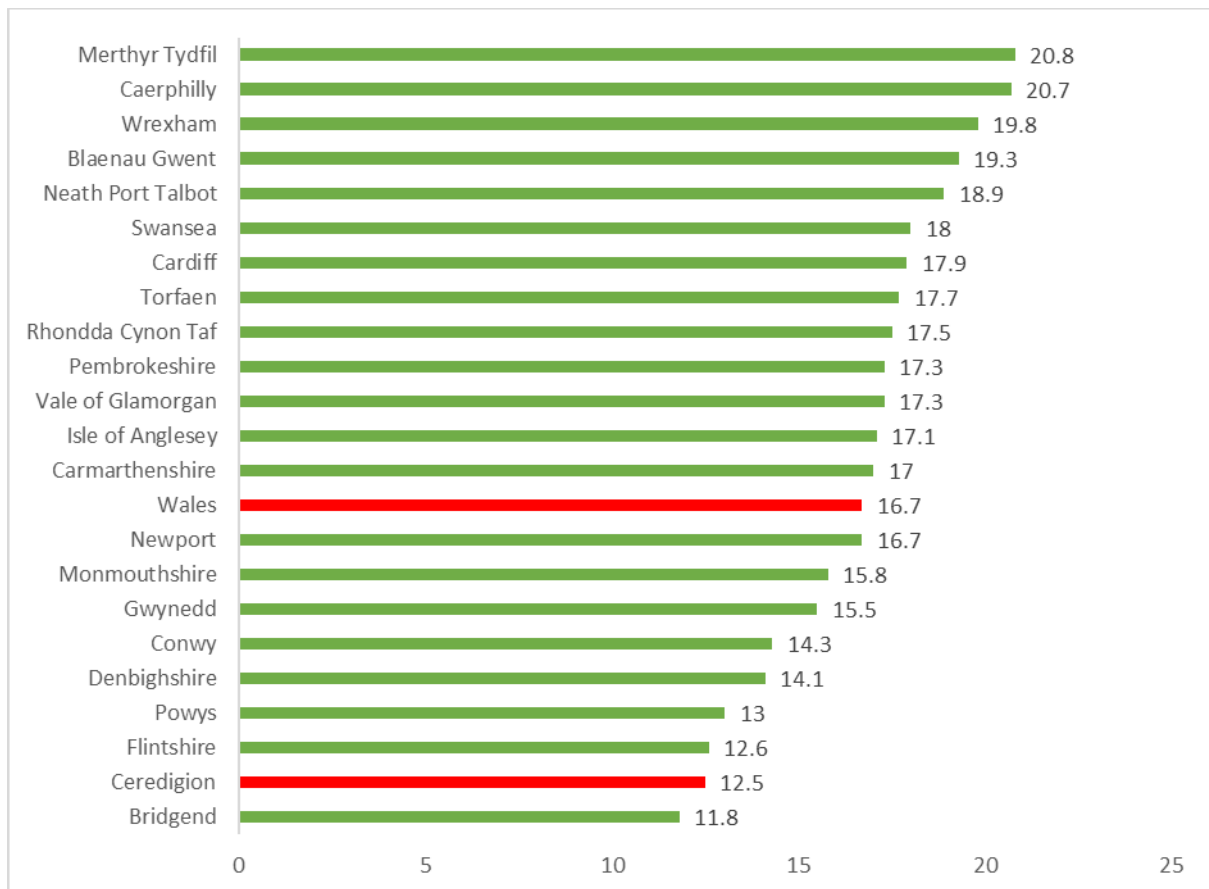
Figure 4.3: Percentage of older people (65+) satisfied with their lives



Source: NHS Wales: Public Health Observatory

Loneliness is one condition that is often attributed to a poor quality of life; therefore, it is important to consider this when debating the relevancy of ecotherapy in Ceredigion. Loneliness has been repeatedly proven to influence individuals’ mental health, and has proven links to increased risks of depression, anxiety, and suicidal ideation.⁶⁵ According to a survey conducted in 2018, 12.5% of people aged 16+ in Ceredigion feel lonely, which is lower than the Welsh average of 16.7% and suggests that Ceredigion is the second-least-lonely local authority in Wales, with the lowest being Bridgend (with 11.8%) and the highest rate of loneliness being in Merthyr Tydfil (which has a loneliness percentage of 20.8%).⁵⁰

Figure 4.4: Percentage of population reporting loneliness



Source: NHS Wales: Public Health Observatory

⁶⁵ Beutel, M.E., Klein, E.M., Brähler, E., Reiner, I., Jünger, C., Michal, M., Wiltink, J., Wild, P.S., Münzel, T., Lackner, K.J. and Tibubos, A.N., 2017. Loneliness in the general population: prevalence, determinants and relations to mental health. *BMC Psychiatry*, 17(1), p.97.

4.3 Physical activity statistics

When considering implementing ecotherapy services in Ceredigion it may also be useful to consider the amount of adults in the area who are meeting physical activity guidelines, as not only is this stated to help combat mental health conditions,⁶⁶ some form of physical activity would also be involved in the ecotherapy itself.

Research conducted in 2018 suggests that 60.6% of adults in the area are meeting physical activity guidelines (150 minutes or more of physical activity per week), which ranks them third in Wales in terms of local authorities and above the national average of 53.2%. Powys ranked the highest in terms of physical activity (with 65.9% of adults meeting the guidelines), whilst Merthyr Tydfil was the lowest (with only 38.5% of adults meeting the guidelines).

One possible explanation for these high levels of physical activity in the county could be its age demographic. As was stated previously, Ceredigion has the highest percentage of 18–21-year-olds composing its population out of all of Wales' 22 local authorities. It is widely recognised that this is the age at which individuals are the most physically active and then these activity levels decrease as they become older.⁶⁷ Another possible explanation could be Ceredigion's local industries, more specifically its agricultural industry (which is quite prominent), which require more physical exertion than do other industries that are centred on office-based work.⁶⁸ Furthermore, it is important to recognise the potential impact that the physical activity infrastructure in place in the area may be having. There has been academic work conducted that has linked the existence of facilities such as walking trails with increased physical exertion in rural areas. With walking and cycling trails existing all over the county, it is likely that these could also be a factor in the physical activity levels in Ceredigion.⁶⁹

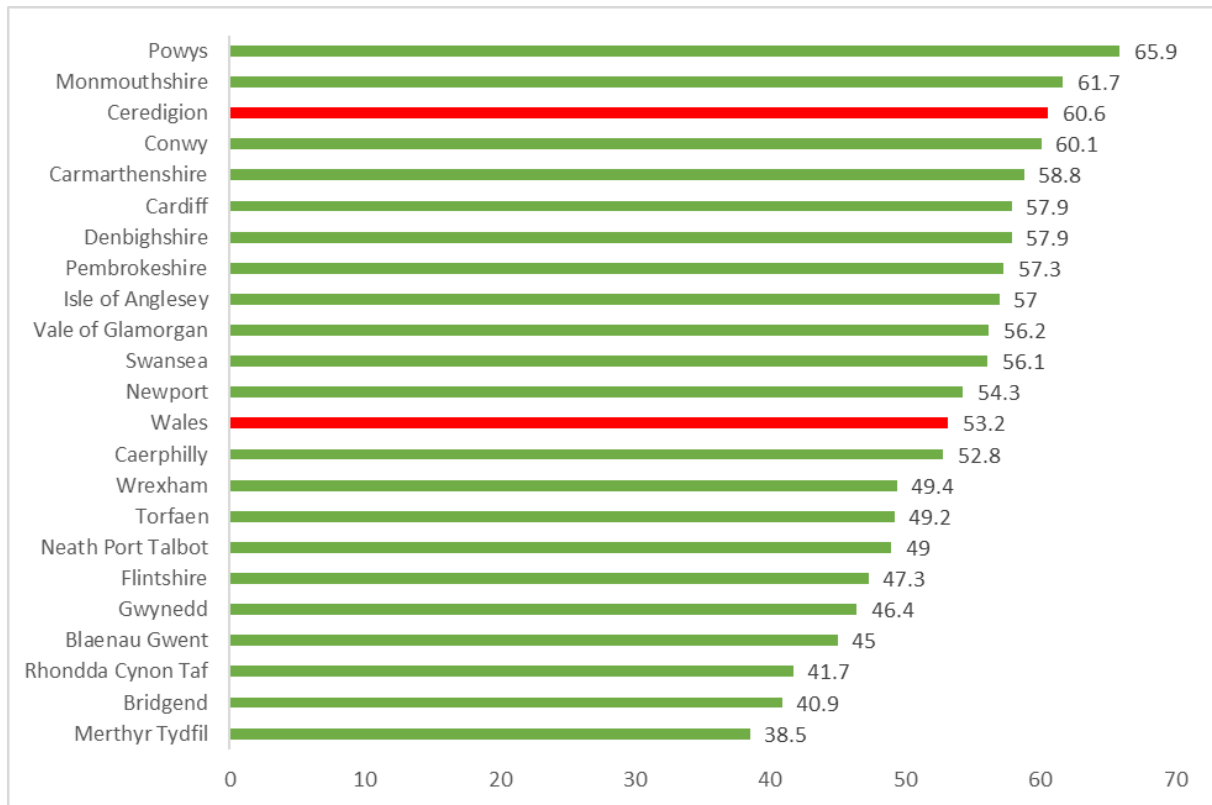
⁶⁶ Penedo, F.J. and Dahn, J.R., 2005. Exercise and well-being: a review of mental and physical health benefits associated with physical activity. *Current Opinion in Psychiatry*, 18(2), pp.189–193.

⁶⁷ <https://bmcpublikehealth.biomedcentral.com/articles/10.1186/s12889-018-5608-1>

⁶⁸ Ding, D., Sallis, J.F., Hovell, M.F., Du, J., Zheng, M., He, H. and Owen, N., 2011. Physical activity and sedentary behaviours among rural adults in Suixi, China: a cross-sectional study. *International Journal of Behavioral Nutrition and Physical Activity*, 8(1), p.37.

⁶⁹ Brownson, R.C., Housemann, R.A., Brown, D.R., Jackson-Thompson, J., King, A.C., Malone, B.R. and Sallis, J.F., 2000. Promoting physical activity in rural communities: walking trail access, use, and effects. *American Journal of Preventive Medicine*, 18(3), pp.235–241.

Figure 4.5: Percentage of adults meeting physical activity guidelines



Source: NHS Wales: Public Health Observatory

4.4 Stakeholders' perception of demand in Ceredigion

Interviews were undertaken with a range of stakeholders for this study, which explored their perceptions of the need and demand for ecotherapy services within the county. The views expressed were universally positive, with an emphasis on utilising the opportunities presented by the rural and coastal nature of Ceredigion, as illustrated by the quotes below:

“I think it is important for people with mental health to engage with nature and be outdoors in a safe environment. There is lots of evidence to show that physical activity and being with nature is beneficial, particularly for people who suffer from mild to moderate depression.”

[Is there a demand for ecotherapy?] *“I don’t know, but we need to create demand and make people aware of the benefits. We need to engage with communities and patients and promote the benefits.”*

“I think there is a great need for ecotherapy services in Ceredigion for people who suffer from mental health, but there is a shortage of money and, so, not a lot is being done. I think the ideal project would be horticulture, get some land from the council and create an allotment, produce food, and then Mind Aberystwyth can use the food in their kitchen.”

Stakeholders were also very positive in respect of the potential to develop an ecotherapy project in Ceredigion:

“I think there is ample green space around Aberystwyth that could be utilised for ecotherapy. I like the care farm model, as it can be used for multiple options such as crisis accommodation and having therapists on the farm. I think Mind Aberystwyth should test things out on land available through NRW, etc., and then if they prove successful, they could look at purchasing land or a small farm in a few years — they need to start small and simple.”

“The idea of having multiple satellite sites across Ceredigion is brilliant. The only issue to consider is transport, as hardly any of our service users have transport. There is a definite need for this type of service, although I think it is not needed for a specific cohort. It should be accessed by the whole community. We know there is particular benefit to mental health sufferers, but should target physical well-being as well as mental health.”

Stakeholders were, however, less clear when discussing how ecotherapy services could potentially be paid for. Whilst the concept or potential of commissioning or prescribing ecotherapy activities was widely recognised (and supported), there was no certainty that such an activity would develop in the future.

4.5 A survey of Mind Aberystwyth users

Several attempts were made to collect data from potential users of ecotherapy services in Ceredigion as part of the study, including a survey distributed via Mind Aberystwyth to their service users. Unfortunately, only 11 responses to that survey were received, making it difficult to draw any clear conclusions based on that data. It does, however, provide some insight into the views of potential service users in Ceredigion, as discussed below.

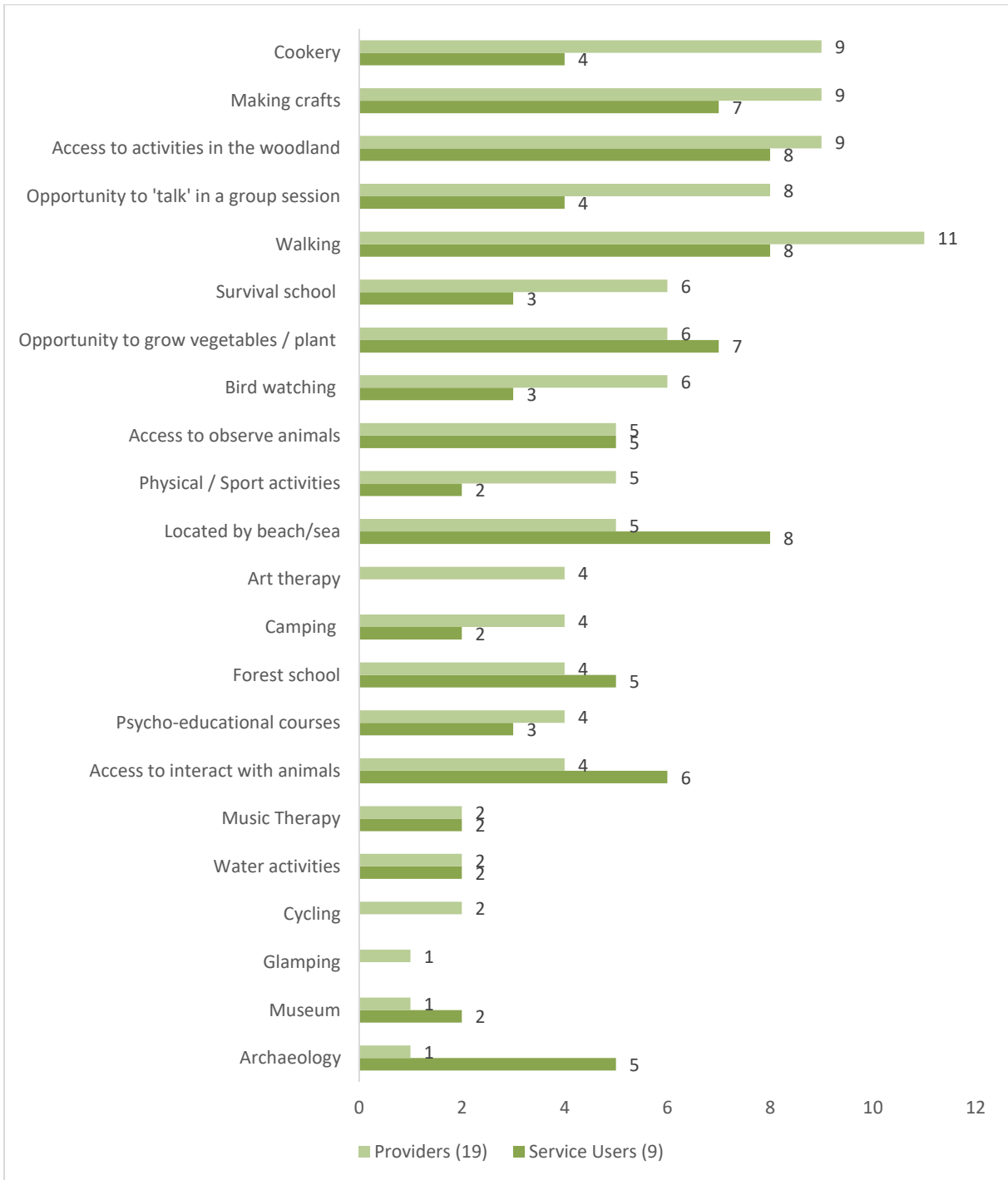
Mind Aberystwyth service users were asked to rate how important being outdoors was to them, with 10 of the 11 describing it as being important to them, and eight noting that it was very important to them. When asked about what kinds of things they would like to do, given the opportunity to do more things outdoors, the responses were:

- Nature walks, mindfulness, land art
- Running as a group, sea swimming, surfing, paddleboarding
- Making garden furniture, landscape projects
- Exploring the rivers
- Hill walking, coastal walking or simply just sitting outside and enjoying being away from built-up areas
- Gardening, woodland management, conservation
- Beach cleaning, conservation, fruit growing
- Keep fit outside, guided walks in the community, foraging, natural plant dyeing
- Walking and doing activities in the woodland and hills
- Bushcraft, den building, tree swing, cooking
- Walking, working, camping, meditating, working with animals

When service users were then asked to choose whether they would be interested in any of a series of potential outdoor activities, there was potential interest in a very wide range of activities. There was the most interest, however, in walking, being by the sea, access to activities in woodland (all of which were identified by eight of the 11 respondents), opportunities to grow vegetables/plants, and making crafts (identified by seven of the 11 respondents). These are clearly activities that can be provided in Ceredigion.

Whilst the extremely small size of the sample needs to be considered, it is interesting to compare the range of services in which users were interested with those which the survey of potential providers previously discussed found were available or could be provided. The comparison finds that there is at least one provider for every activity identified by service users, and in a number of instances there were several.

Figure 4.6: Comparison of the activities users stated they would like to have available and those which providers stated they could provide



Source: Wavehill survey

Service users were also asked to rate the importance to them of a series of facilities when accessing nature-based activities. As shown in the table below, parking and arranged transport to the site were the factors identified as being of most importance.

Table 4.2: How important are the following facilities to you when accessing nature-based activities?

Facility	Very important	Important	Neither	Not very important	Not important at all
Parking	1	5	2	2	1
Arranged transport to the location	2	5	2	2	0
Onsite cafe/restaurant	1	2	4	3	1
Changing facilities for adults	0	0	4	4	3
Changing facilities for babies/young children	0	0	3	3	5
Access to onsite therapist	0	1	3	4	3

Source: Wavehill survey

4.6 Conclusion

We have found that ecotherapy services fit with the ambitions set out in several policies (for both Ceredigion and Wales as a whole) designed to achieve health and well-being outcomes. At a policy level, there is therefore a strong argument in favour of developing the provision of ecotherapy services in Ceredigion. Statistics for Ceredigion, however, suggest that the county's population are generally healthier than those in many other parts of Wales in terms of both mental and physical health. This could, at least in part, be explained by the different age profile within the county's population as a result of the higher-than-average student population.

The rural and coastal nature of the area is, however, also likely to contribute. Those statistics do not, however, negate the justification for developing ecotherapy services in the area, which could provide an avenue for building and sustaining those positive statistics. The stakeholders interviewed for this study also highlighted the need for ecotherapy services in Ceredigion, emphasising the potential (and opportunity) to utilise the opportunities provided by the area's landscape. The conclusion is, therefore, that the question should perhaps be why you would not seek to develop the provision of ecotherapy services in Ceredigion; it seems to be a very obvious thing to do. An obvious problem is, however, that the potential sources of funding for ecotherapy services are unclear, which is a clear obstacle for the development of the services.

5 What is the potential for funding the ecotherapy services in Ceredigion?

Projects obviously need to be funded/have an income, generated either commercially or, where that is not possible, from another source such as fundraising or some kind of public funding. This chapter briefly reviews how a project in Ceredigion could be funded. Moreover, there is a brief review of the potential benefits of networking or cooperation.

Key Points

- The projects reviewed as part of this study demonstrate the challenges of operating an ecotherapy-related project successfully, and suggest that it will be challenging to break even (at least in the first instance), let alone generate a surplus.
- Whilst the concept of social prescribing is gaining momentum, its potential as a funding stream for an ecotherapy service or project in Ceredigion is unclear at the current time.
- Cross-subsidisation (operating a commercial venture in order to fund an ecotherapy service) is potentially a viable option.
- Networking, clustering or cooperation amongst ecotherapy providers in Ceredigion could generate a range of benefits.

5.1 Setting up a commercial (surplus-generating) venture

One of the questions considered by this study was concerned with the potential to set up an ecotherapy-related operation in Ceredigion which operates on a commercial (i.e. surplus-generating) basis.

Two main sources of 'commercial' income potentially exist for an ecotherapy service:

Payments to deliver or access a service:

- a) As a therapeutic activity (paid for by the health/social services sector); and/or
- b) As a recreational activity (undertaken by local residents and/or tourists).

The combination of these two income streams is perhaps the most likely. However, collecting figures that allow an assessment of the scale of either of these potential income streams is very difficult. Whilst stakeholders in the health and social services sector interviewed for this study were positive towards the potential to use ecotherapy providers in the future, they were unable to give any indication of the scale at which they would be able to commission/fund such a service (there is a further discussion on social prescribing below). What is more, the income that can be generated from the recreational/tourism sector is difficult to establish with any certainty.

Interviews with those currently working in the sector can, however, provide some indication. A key finding of the various interviews that have been undertaken for this study is that the financial sustainability of ecotherapy projects can be challenging, with projects being unlikely to produce surpluses (i.e. profit) in the short or medium term, if ever. It is clearly important to take this into account when considering the potential for a project in Ceredigion.

5.2 Social prescribing

Social prescribing, which is sometimes known as community referral, is a term used to describe the process through which GPs, nurses and primary care professionals may refer individuals to local non-clinical services. The aim of this form of treatment is to provide a more holistic approach to health care, which aims to allow individuals to take greater control of their own health, rather than feeling as though they are part of a traditional top-down model of care. Social-prescribing schemes range from gardening⁷⁰ to cookery⁷¹ and art.⁷² These services are often provided by independent and third-sector organisations and employ both professionals and volunteers. Since its emergence in the 1990s, social prescribing has been used to support people with a wide range of emotional, social or practical needs, with a focus on improving the mental health and physical well-being of these people. Social prescribing is stated to be of great benefit to groups such as: individuals with mild or long-term mental health problems, vulnerable groups, those who are socially isolated, and individuals who frequently attend either primary or secondary health care.

In Wales, the Welsh Government has signalled support for social prescribing through legislation and policy statements. The Social Services and Well-being (Wales) Act 2014, the Well-being of Future Generations (Wales) Act 2015, the Programme for Government: Taking Wales Forward, and Prosperity for All, all recognise the impacts that social determinants have upon health and well-being, and acknowledge the influence of social prescription upon these issues. On a wider scale, the Parliamentary Review of Health and Social Care in Wales (January 2018) also supports this approach, as in its recommendations it calls for a seamless cross-sectoral approach with strengthened individual and community involvement, placing the individual at the centre, which is exactly what social prescription hopes to achieve.

⁷⁰ <https://www.nesta.org.uk/feature/innovate-save-case-studies/grow-well-community-gardening-social-prescribing-tool/>

⁷¹ <https://www.walthamforestccg.nhs.uk/news-items/social-prescribing-in-waltham-forest-is-just-what-the-doctor-ordered/80464>

⁷² <https://www.england.nhs.uk/personalisedcare/evidence-and-case-studies/social-prescribing-linked-me-to-art-which-saved-my-life/>

Turning our attention to the feasibility of funding ecotherapy via social prescribing, firstly, it is important to consider the challenges that are involved in operating a social prescription project. Primary Care One Wales⁷³ have previously analysed the effectiveness of pre-existing social-prescribing projects and have put forth challenges that need to be addressed when implementing a social prescription service, including:

- The time required in order to set up social-prescribing schemes is often underestimated
- Primary care staff need to understand the services and interventions that are available and what they can offer
- Patients need to understand why they are being referred and what benefits are anticipated
- Social prescription needs to fit with existing referral processes and be simple to use
- A substantial proportion of those referred do not take up or engage with the intervention

Therefore, if this route were to be used to fund ecotherapy services in Ceredigion, attention must be paid not only to the economic feasibility of this approach but also to how the approach is implemented. It must involve the clear dissemination of what support is available as well as the benefits of the support to both primary care professionals and the public, as well as the establishment of meaningful connections with referral processes so that individuals can get into ecotherapy in a straightforward manner that will not cause any extra stress and will also help to ensure that individuals are more likely to engage with and complete the intervention.

Social prescription services receive funding from a variety of sources. Valleys Steps,⁷⁴ for example, are a programme that seek to help people to manage and reduce their stress and anxiety levels in the Rhondda Cynon Taff and Merthyr Tydfil area, receiving their funding from avenues (such as public donations) which they advertise on their website, as well as through forming partnerships with private-sector organisations including: Pen Y Cymoedd, Women's Aid, and EGH Judo. Moreover, they receive funding from public sources such as the Welsh Wellbeing Fund, National Lottery, and the Cwm Taf University Health Board. Health boards in particular are a key source of funding for social-prescribing programmes. The Hywel Dda University Health Board currently support eight different schemes including COPD+, Community Connectors, and the Extra Project, all of which are based in Pembrokeshire.

Another option for funding ecotherapy as a social prescription project would be to engage with the pre-existing Social Prescribing Network,⁷⁵ which consists of organisations from England, Scotland and Ireland that have come together to shape future research into social prescription as well as link organisations offering social prescription services, create links between organisations and health professionals and connect service providers to potential funders.

⁷³

[http://www2.nphs.wales.nhs.uk:8080/PubHObservatoryProjDocs.nsf/0/d8aba77d02cf471c80258148002ad093/\\$FILE/Social%20prescribing%20summary%20report%20v1%20GROUPWARE.pdf](http://www2.nphs.wales.nhs.uk:8080/PubHObservatoryProjDocs.nsf/0/d8aba77d02cf471c80258148002ad093/$FILE/Social%20prescribing%20summary%20report%20v1%20GROUPWARE.pdf)

⁷⁴ <http://www.valleyssteps.org/>

⁷⁵ <https://www.socialprescribingnetwork.com/>

Advertising ecotherapy as a form of social prescription could improve uptake, because due to being a signposted service, referrals would increase people's exposure to the service. However, funding for this form of project is varied; it would therefore be down to the discretion of Mind Aberystwyth to choose which funding pots to pursue. However, it should be noted that the Hywel Dda UHB have expressed an interest previously in engaging with social-prescribing projects in Pembrokeshire, which would suggest that they would also be interested in supporting one in Ceredigion.

5.3 Cross-subsidisation models

Cross-subsidisation involves using the profit from one activity to fund another which is operating with minimal income or at a loss. In light of the limited potential for an ecotherapy service to generate a surplus, we considered the potential to establish a project (or venture) which (whilst it may not be anything to do with ecotherapy) would generate an income for Mind Aberystwyth (or any other organisation), which could be utilised to deliver or manage the provision of ecotherapy services.

There are a range of examples of such an approach. Many social enterprises, for example, run a cafe, the income from which is used to fund the implementation of their social activities. Xcel Bowl in Carmarthen is a relatively local example of an enterprise operating on a commercial basis in order to subsidise other activities being delivered by the organisation.

Mini Case Study: Xcel Bowl

Xcel Bowl in Carmarthen is an example of a commercial activity being used to subsidise other activities being delivered by a social organisation.

Towy Community Church (TCC) is a social enterprise set up as a company limited by guarantee and as a charity. It delivers a range of activities through the Xcel Project, which includes a 10-pin bowling alley (Xcel Bowl) and a cafe (Xcel Café) as the main commercial activities targeting a mainstream market and several activities meeting specific community needs. These include a furniture reuse retail operation (Xcel Furniture), a charity shop (Xcel Community Shop) and a Carmarthen food bank, and a partnership with the Trussell Trust. In addition, TCC offers a number of rooms for hire and operates a children's play area. TCC employs a total of 45 staff, with ca. 30 FTEs, and is anticipating that 14 new jobs will be created over the next two years. What is more, 125 volunteers regularly contribute to TCC's activities.

An asset transfer of a redundant factory with a warehouse from the local authority to the social enterprise was the starting point for the enterprise activities that are now being delivered; it provided the opportunity to join up the aspiration of the church to extend services into furniture recycling and other areas whilst using the revenue generated from the bowling alley to subsidise these services. A substantial amount of financial support has also been sourced (in the form of grants and loans), with the cost of setting up the venture amounting to around £2.5 million; this is an indication of the level of investment required in order to set up a venture of this nature. However, trading with the general public is now the main source of income.

<https://www.xcelprojectcymru.co.uk/>

<https://www.xcelbowl.co.uk/>

Consideration of the cross-subsidisation model for this study led to an exploration of the potential for a 'soft-play centre' (run by or for Mind Aberystwyth) in or around Aberystwyth (as the largest town in Ceredigion and the base of Mind Aberystwyth). This potential venture was identified as being the option for review in consultation with stakeholders and steering group members who perceived it to be a gap in the current 'offer' in the area, where such a service was not available (other than on a very small scale in the local leisure centre).

A business plan outline for the venture, based on a similar venture which operates successfully and profitably in North Wales, can be found in Appendix 5. Whilst there are major obstacles to the development of such a venture, not least the need to identify a suitable location for the centre, the analysis finds that such a venture could be profitable in the Aberystwyth area and generate a surplus which could be utilised by Mind Aberystwyth or another organisation to deliver ecotherapy (or any other) services. However, this concept was not explored any further as part of this study, following a discussion within the project steering group which decided that it would rather focus on other ideas, as set out later in this section.

5.4 Cooperation and clustering

There are potentially a range of benefits when enterprises (or any organisations) work together, the most prominent of which are probably:

- The sharing of knowledge, skills and experience;
- Increased buying power / sharing of costs where the same suppliers or services are required; and
- Joint ventures / working together to deliver a service or product which the businesses/enterprises involved could not deliver in isolation.

However, cooperation does not have to be formal, with business networks and clusters being common across the world. Networks take a range of forms but have a common feature of bringing businesses/organisations together to meet, discuss issues and form relationships. Clusters are more formal and can be broadly defined as a network of connected businesses/organisations in a specific sector that are located in the same geographical area, although the terms 'networks' and 'clusters' are used very broadly.

Given the range of potential suppliers of ecotherapy services in Ceredigion, the potential to create a network, cluster or cooperative of providers is clear, as are the potential benefits of doing so. All three of the aforementioned potential benefits apply. Moreover, there is the added benefit of generating the critical mass that may be required in order to develop the 'ecotherapy sector' in Ceredigion in a way in which it can bring about a tangible benefit to the area.

Mini Case Study: Cwmni Bro Ffestiniog

Twelve social enterprises in the Ffestiniog area in Gwynedd, North Wales have come together to form a network under the banner of a community company called Cwmni Bro Ffestiniog. The diverse activities of these ventures include running two hotels, shops, restaurants, cafes, a tourist information centre, a leisure centre, an arts and crafts workshop, a mountain-biking centre, retail, horticulture, energy-saving projects, developing allotments, educational and cultural activities, opera, environmental projects, energy-saving promotion, reducing food waste, recycling, river cleaning, working with adults with supplementary needs, youth work (including with regard to homelessness), and teaching environmental and media skills. Between them, those ventures employ 150 local people.

A key aim of the umbrella company is to enable cooperation between the constituent social enterprises, but it is also seeking to nurture new enterprises and work with small businesses in the community. Cwmni Bro aims to ensure more cooperation between the different enterprises, using staff and volunteers as links and honest brokers between the ventures. This includes:

- Sharing information and good practice.
- Sharing connections which might benefit others, such as suppliers offering good terms.
- Sharing resources amongst different community ventures, e.g. financial services, human resources, administration, and so on.
- Information sharing regarding business opportunities and projects which they could jointly tackle by forming partnerships or consortia.
- Cooperating to obtain and share information on sources of finance, grants, loans, and so on.
- There are collective advantages to be gained from economies of scale and the avoidance of costly duplication. One example is that of community enterprises coming together to market the area for tourism purposes, rather than each venture undertaking marketing separately.
- It is foreseen that increasing cooperation between the community enterprises will reveal further advantages of shared efforts and joint working.

Given sufficient finance, Cwmni Bro intends to employ two full-time workers to help carry out its aims and plans. One worker will concentrate on developmental work with the existing and emerging enterprises and projects, while the other will focus on communication and facilitating the widest participation of the community.

<http://cwmnibro.cymru/#en>

5.5 Conclusion

This study has found that managing and delivering an ecotherapy service can be challenging and is certainly unlikely at the current time to be a commercial venture which is capable of generating a surplus that could fund a small charity such as Mind Aberystwyth. There is not a clear and obvious (or substantial) income stream for ecotherapy providers, either as providers of a therapy service or as recreational activity providers. In the longer term, the concept of social prescribing is likely to gain momentum and grow as a potential income stream; it is, however, unclear at the current time. The focus, therefore, is probably upon working to develop a sector in Ceredigion which is ready to 'hit the ground running' when those markets (along with the potential 'ecotherapy tourism' market) start to emerge more fully.

Cross-subsidisation is a common model within the social enterprise sector and there is the potential to use such a model to fund ecotherapy services in Ceredigion, should an appropriate income-generating model be identified and developed. One such model (a soft-play facility in Aberystwyth) has been identified and briefly explored for this report. Such models should not be discounted, although the focus of this study has been upon the development of ecotherapy projects.

A common issue in rural areas is that enterprises are small and lack capacity and we would suggest that this is true of the (potential) ecotherapy sector in Ceredigion. One option in such a situation is to bring together the enterprises/organisations in question in order to create the capacity (or critical mass) that they do not possess in isolation. There are examples of such ventures in Wales which could be used as a model for beginning the development of the ecotherapy sector in Ceredigion.

6 Projects proposed for development in Ceredigion

This chapter draws on the findings discussed in previous chapters in order to set out ideas for two very different potential ecotherapy projects in Ceredigion. The first has a focus on developing the ecotherapy sector as a whole in Ceredigion by drawing it together, whilst the second seeks to utilise a specific opportunity identified in Aberystwyth during the course of the study.

Key Points

- Project 1 proposes the setting-up of a ‘hub-and-spoke’ service which draws together existing and potentially new providers of ecotherapy services in Ceredigion. Its objective would be to build capacity within the sector as a whole within the county.
- Project 2 proposes developing a project which utilises large, currently disused glasshouses on a farm on the outskirts of Aberystwyth, owned by Aberystwyth University, to deliver therapy via horticultural services.

6.1 Project 1: A hub-and-spoke service

6.1.1 Background

The basis for the ‘hub-and-spoke’ project is that a wide range of actual and potential ecotherapy services already exist in and around Ceredigion. Rather than competing with and/or potentially displacing those services with the introduction of a new project or service, this project would seek to add value to them.

6.1.2 The basic idea

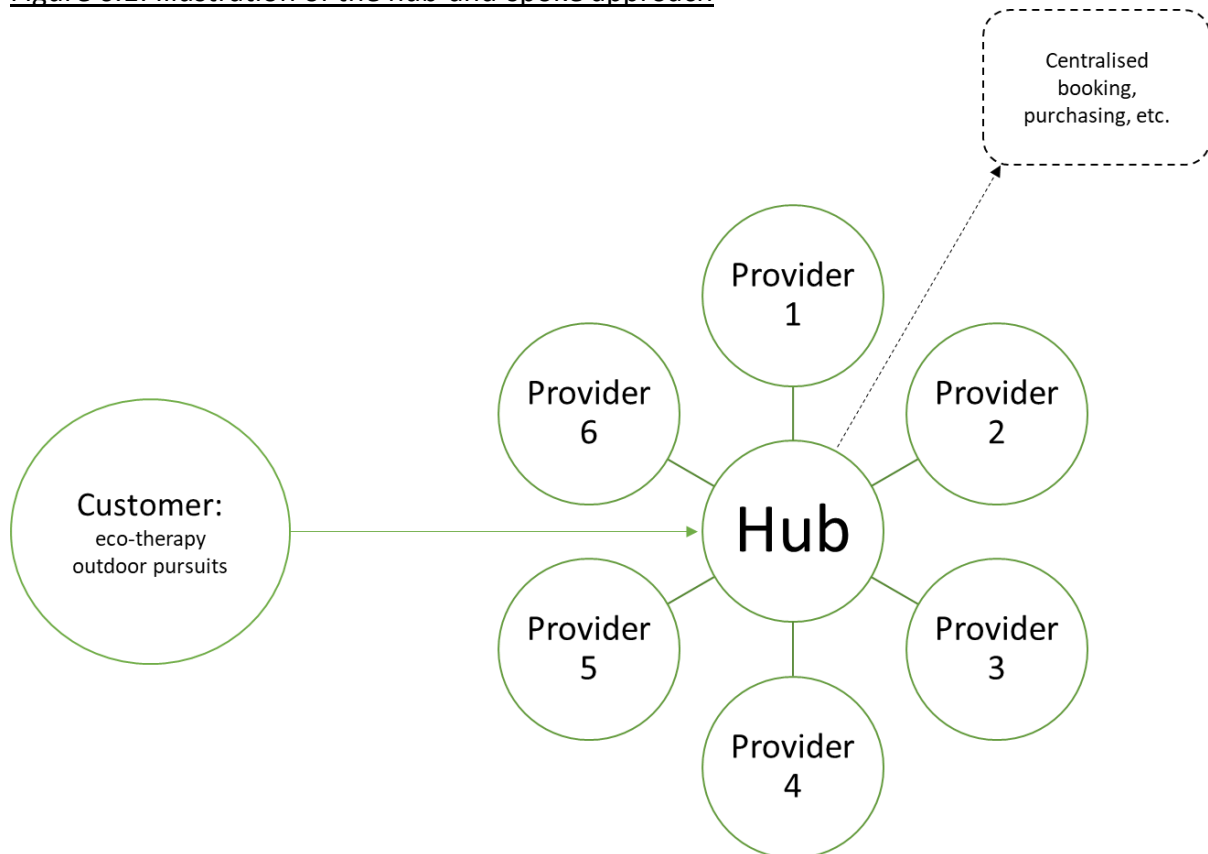
The core of this project would be a service which benefits and helps to grow an emerging ‘ecotherapy sector’ in Ceredigion by:

- a) Developing a network (potentially developing later on into a cluster or cooperative) of existing and potential ecotherapy providers in Ceredigion (by holding networking events, training sessions, etc.);
- b) Working with those providers on a one-to-one basis or in smaller groups to develop their ‘ecotherapy offer’ and that in Ceredigion as a whole (building their capacity to deliver services, supporting the design of services, etc.);
- c) Coordinating the provision of ecotherapy services in the county by providing a single point of contact for information on the sector in Ceredigion, etc.;
- d) As part of the above, promoting the existence and utilisation of the ‘ecotherapy sector’ in Ceredigion to potential commissioners and users (potentially including the tourism sector as well as health-related users); and

- e) In the longer term, potentially centralising key management aspects of the delivery of ecotherapy services (e.g. the procurement of services and supplies on behalf of a group of 'member' businesses).

A 'project officer' would be key to the delivery of this project, driving each of the aforementioned tasks. Ideally, the individual would have some experience of managing and/or delivering an ecotherapy project.

Figure 6.1: Illustration of the hub-and-spoke approach



6.1.3 Management and delivery

In the short term it is envisaged that this project would be hosted by an organisation, with Mind Aberystwyth being an obvious candidate (albeit probably not the only option). In the longer term, however, there is the potential to set up a standalone company for delivering the service, with the businesses that are part of the group being members and shareholders in that company.

It is not envisaged that this project would require a substantial amount of resources in order to be operational. The key aspects/resources within the project would be:

- A senior manager who oversees the project (already employed by the host organisation);
- A project officer who delivers the project;
- A budget for a project website providing information on ecotherapy in general as well as the provision in Ceredigion; and
- A project for networking and training activities.

6.1.4 Cost and income

Table 6.1: Outline of project costs per annum

Budget line	£ (per annum)
Senior management (1 day per week)	6,500
Project officer (FT) (including employment costs)	20,000
Office costs and overheads	10,000
Website hosting ⁷⁶	250
Consultancy (e.g. website development and design, specialist support for members) ⁷⁷	10,000
Networking and training costs ⁷⁸	12,000
TOTAL	58,750

In the longer term, the project could generate income by taking a commission from each of the member businesses/organisations for business generated on their behalf. Furthermore, a membership fee could be charged once the service is fully functioning and has demonstrated its value to potential members as an income stream.

6.1.5 Potential indicators of success

- a) Number of 'members'
- b) Numbers attending training/networking sessions
- c) Number of enquiries relating to ecotherapy in Ceredigion
- d) Number of referrals to member organisations/businesses
- e) Number of sessions delivered by members
- f) Number of participants in those sessions
- g) Benefits identified by participants in the sessions
- h) Income generated by referrals to member organisations/businesses

6.2 Project 2: Aberystwyth University glasshouses

6.2.1 Background

This concept involves the establishment of a horticultural-production enterprise (or ecotherapy provision centre) in a semi-disused nursery housed on an Aberystwyth University farm on the outskirts of the town. The idea emerged from general discussions on this study with representatives of the university (as a key stakeholder in the town and county), and then evolved over a series of meetings and site visits with university staff as well as meetings with the study steering group.

⁷⁶ Based on the cost of a monthly subscription to a service such as www.wix.com.

⁷⁷ 40 days at an average of £250 per day.

⁷⁸ 12 events at an average budget of £1,000 per event.

Aberystwyth University has several farms, one of which — Frongoch Farm — includes several disused glasshouses (as well as other buildings), which were used previously to conduct grass-related experiments. The concept of utilising these empty glasshouses for commercial purposes has been explored previously by the university, with the idea of growing and supplying vegetables for the many university-catering establishments literally a few miles down the road (thus reducing expenditure on fresh vegetables). Those ideas have, however, never come to fruition for a variety of reasons. Furthermore, an attempt was made, albeit unsuccessfully, in the past to set up a purely commercial enterprise (outside of the university) utilising the glasshouses.

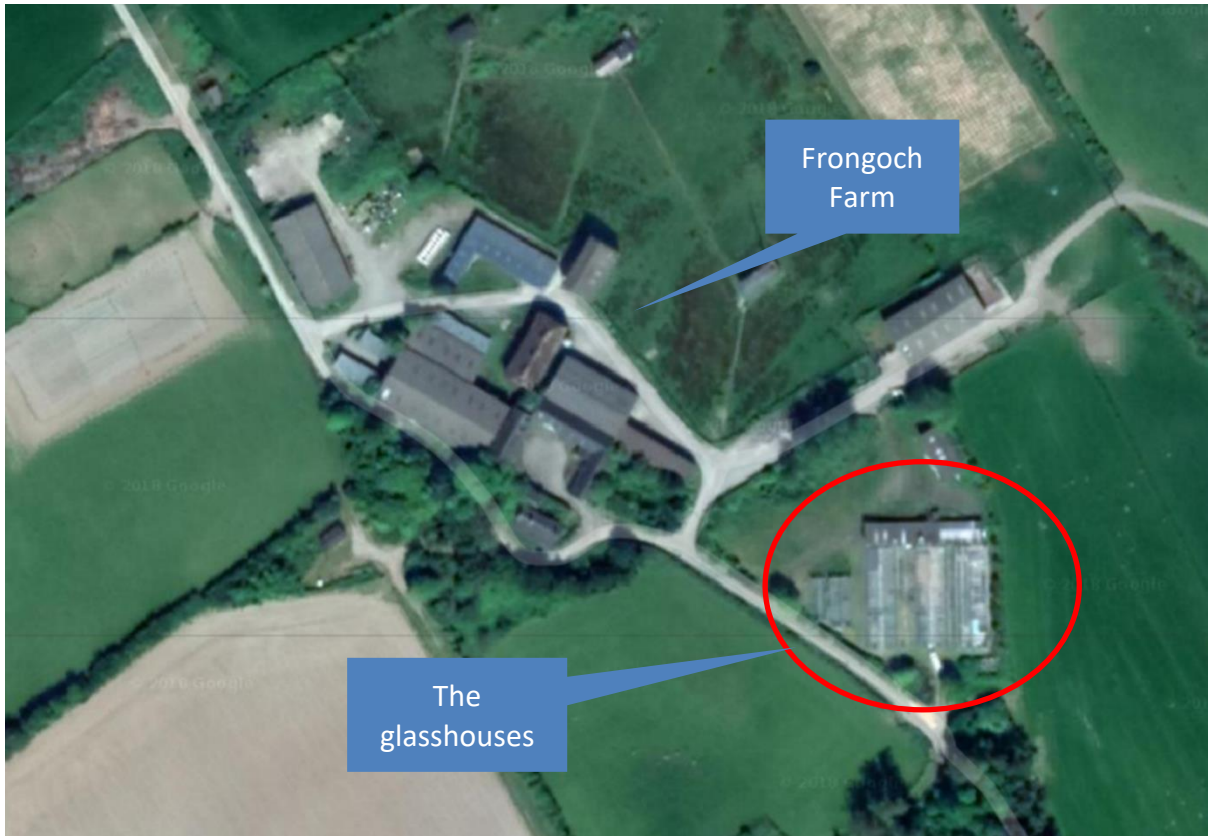
The concept/project proposed here differs from those previous ideas in that the focus is not exclusively upon growing produce to be supplied to the university or the commercial market. It is important to note that the option has been explored as part of this study, but was discounted due to the volume and nature of the supply that the university kitchens and other local commercial outlets would require. Rather, the focus here would be upon utilising the glasshouses as a venue for providing therapeutic services with/during horticultural activities, with the produce being distributed in a range of different ways, as discussed below.

It is important to note that whilst it is anticipated that distribution of the produce would generate some income, it is never likely to generate a substantial surplus, if any. The core of the project would therefore lie in providing a therapeutic service. In the longer term, however, several other potential uses of the site could be explored as the project evolves, including the provision of a training facility for the horticultural sector. These may provide some income options but have not been included within the proposed project outlined here.

The site is owned by Aberystwyth University and would involve leasing the buildings to the organisation operating the project (e.g. Mind Aberystwyth).

Figure 6.3: Satellite images showing the location of Frongoch Farm and photographs of the glasshouses







6.2.2 The basic idea

The basic premise of this project is that Mind Aberystwyth (or any other appropriate organisations) service users could undertake horticultural activities in the nursery as a therapeutic activity. As discussed in some detail in the sections that follow, the produce produced as part of the activities would be disposed of on a commercial basis, whereby generating (at least a small) income for the project.

6.2.3 The site and necessary improvements

The proposed site for the project has been identified in conjunction with the Estates Team at Aberystwyth University. Currently, the site consists of:

- Three large industrial growing houses, measuring approximately 30m x 10m (300m² each)
- Two smaller greenhouses, measuring approximately 10m x 3m (60m²) each
- A storage/potting shed connected to one of the greenhouses via rear egress
- A small, irregular plot of land behind the smaller greenhouses, measuring approximately 50m x 20m (1,000m²)

The site is, however, currently in poor condition, with the site visit record (see Appendix 5) describing it as follows:

The site and associated buildings were generally in poor state of repair, with access limited due to overgrown vegetation. The potting building would appear to have not been occupied for some considerable time. There are three greenhouse areas with only one of these currently in use. The other two were considered not safe to enter due to the large amounts of broken glass in the roof area.

The outdoor area will also require some work in order to enable use to be made of it. There is access to water and electricity, although work will be required prior to any activities on the site (see Appendix 4).

The larger glasshouses have an outmoded heating system based on large-diameter metal pipes that would have been supplied with warm water by a central boiler. This heating system is not viable; therefore, it is likely that the crops will have to be grown cold, that is, without heat.

Due to the above, considerable investment (just below £44,000 in year 1) will therefore be needed at the beginning of any project in order to make the site usable (see Appendix 4).

6.2.4 Proposed enterprise

The business plan is based on the utilisation of:

- 360m² glass for protected cropping (i.e. for one of the large glasshouses plus one of the smaller ones); and
- A 1,000m² outdoor plot.

As it stands, the plan does not utilise one of the disused glasshouses, which could, obviously, be added to the enterprise at a later time based on demand, resources, and so on.

Further details on the proposed enterprise (including what it could potentially produce) can be found in Appendix 5, with key points noted below.

Summary of labour requirements

In summary, the nursery operation will require:

- 1 full-time grower (employed)
- 1 marketing and administration specialist (employed)
- Volunteers/participants/service users responsible for the glasshouse and outdoor growing production — 7 FTEs is the estimated number required during the growing season; fewer will be required during the winter and early spring
- 1 volunteer supervisor (responsible for identifying tasks, managing volunteer commitments, delegating, and instructing volunteers to carry out tasks)

- 1 volunteer driver (responsible for delivering goods to pop-up events, local cafes, and farmers' markets)
- 3 volunteers/participants/service users per sales event (can include the driver)
- 1 volunteer/staff member at Mind Aberystwyth to manage sales

Summary of cost and income

A detailed cost and income analysis can be found in Appendix 5. However, in summary, the analysis suggests that the enterprise is unlikely to be able to break even until year 3 of its operation, with a forecasted balance in year 3 of between a -£4,500 loss and a £3,750 profit. It is important to note that these figures are based on a revenue-maximising model, which may not be possible in circumstances in which the enterprise is being run for therapeutic purposes. An annual loss is therefore more likely, probably of between -£5,000 and -£10,000 per annum.

6.2.5 Potential indicators of success

- a) Number of users of the facility
- b) Number of sessions at the facility
- c) Benefits to users of the facility
- d) Levels of production
- e) Sales figures

It is important to note that we recognise that the demand amongst potential users of a glasshouse-based therapy service in particular has not been established at this stage (the detailed concept had not been developed when the consultation with potential users of an ecotherapy service was undertaken). The view of Mind Aberystwyth staff has, however, been that the demand is likely to be strong, although further research with which to confirm this would be required should the project progress to a more detailed developmental stage.

6.3 Conclusion

This chapter has set out two project ideas that have emerged during the course of this study. Both are, in our view, feasible as standalone projects or could potentially also be combined with the resources that would be created by the hub-and-spoke project being utilised in order to implement and then deliver the university glasshouse project.

7 Conclusion and recommendations

This report begins by introducing the concept of ecotherapy and the broad range of ways in which it is delivered. We have found that there are various examples in practice that draw on Wales' landscapes, as well as a range of gardening and horticultural projects. Therefore, ecotherapy is not a new, untested concept. Furthermore, research has been undertaken in order to assess the impact of ecotherapy services. Whilst the range of approaches and outcomes that have been assessed by such research can make it difficult to make general statements on the effectiveness of ecotherapy in practice, the growing body of evidence is positive.

Ceredigion is clearly well served in respect of the attributes needed so as to provide a wide range of ecotherapy services, with the county including coastline, beaches, rivers and mountain ranges. Moreover, there is infrastructure in place that allows locals and visitors to enjoy those attributes (despite its weaknesses), meaning that the capacity to access ecotherapy services already exists. The availability of walking routes, cycling trails and animal-watching areas also makes Ceredigion an ideal candidate for hosting those particular forms of therapeutic services. The potential is therefore clear. It is, however, important to acknowledge that implementing any kind of service in Ceredigion would require a reliance on the county's transport network, which can prove to be challenging, especially without any access to personal/private transport. This potential reliance on public transport will therefore be a key issue to consider when developing any ecotherapy service in the county. Our view is, however, that this is not an insurmountable constraint. The potential to supply ecotherapy services in Ceredigion is therefore clear, but is there a demand for the services within the county?

Ecotherapy services clearly fit with the ambitions set out in several policies — both in Ceredigion and in Wales as a whole — designed to achieve health and well-being outcomes. At a policy level, there is therefore a strong argument in favour of developing the provision of ecotherapy services in Ceredigion. Statistics for Ceredigion, however, suggest that the county's population are generally healthier than those in many other parts of Wales in terms of both mental and physical health. This could, at least in part, be explained by the different age profile within the county's population as a result of the higher-than-average student population. We would, however, argue that those statistics do not negate the need or justification for developing ecotherapy services in the area, which could provide an avenue for building and sustaining such positive statistics. Moreover, the stakeholders interviewed for this study support the need for ecotherapy services in Ceredigion, emphasising the potential to utilise the opportunities provided by the area's landscape.

Our conclusion is, therefore, that the question should perhaps be why you would not seek to develop the provision of ecotherapy services in Ceredigion; it seems to be an obvious thing to do. Indeed, it can potentially be used as a service which could develop into a feature which differentiates Ceredigion from other parts of Wales and contributes to its attractiveness as a place to visit and in which to live.

An obvious problem is, however, that the potential sources of funding for ecotherapy services are currently unclear; this is an obvious obstacle for the development of the services. Almost inevitably, however, the potential for the funding of ecotherapy services via avenues such as social prescribing will increase over the coming years. Although not explored in any detail in this report, the potential for developing tourism and recreational activities based on ecotherapy could also emerge in the coming years, building on the 'tourism offer' of the county.

We have also found that managing and delivering an ecotherapy service can be challenging and is certainly unlikely, at least in the short term, to be a commercial venture which is capable of generating a surplus that could fund a small charity such as Mind Aberystwyth, which this study was hoping to identify. In the longer term, the concept of social prescribing is likely to gain momentum and grow as a potential income stream. It is, however, unclear at the current time.

The focus, therefore, is probably upon working to develop a sector in Ceredigion which is ready to 'hit the ground running' when those markets/income streams (along with the potential 'ecotherapy tourism' market) start to emerge more fully.

A common issue in rural areas is that enterprises are small and lack capacity and/or scale and we would suggest that this is true of the (potential) ecotherapy sector in Ceredigion. One option in such a situation is to bring together the enterprises/organisations in question in order to create the capacity (or critical mass) that they do not have in isolation. There are examples of such ventures in Wales which could be used as a model for beginning the development of the ecotherapy sector in Ceredigion. A project through which to do so is proposed in this report.

Turning our attention to funding for specific projects as opposed to 'the sector', cross-subsidisation is a common model within the social enterprise sector and there is the potential to use such an approach to fund ecotherapy services in Ceredigion, should an appropriate income-generating model be developed. One such model (a soft-play facility in Aberystwyth) has been briefly explored for this report. Such models should not be discounted, although the focus of this study has been upon the development of projects that deliver ecotherapy activities.

Two project ideas are set out that have emerged during the course of this study. The 'hub-and-spoke' project would seek to support the development of an emerging ecotherapy sector in Ceredigion by bringing together relevant businesses and organisations from across Ceredigion. The objective would be to build a network of providers within the county and then to coordinate and market the availability of those services. In the longer term, the project could evolve into a cooperative business model which could buy and sell services and products on behalf of all the member businesses and organisations.

The second project would involve the development of a horticultural venture that provides therapeutic activities through the utilisation of currently disused glasshouses on an Aberystwyth University farm. Produce could be sold locally in order to generate some income, although the project is very unlikely to become self-sustaining, at least in the short term.

These are two very different projects that will develop the provision of ecotherapy in Ceredigion if implemented. Both are, in our view, feasible as standalone projects or could potentially also be combined with the resources that would be created by the hub-and-spoke project being utilised in order to implement and then deliver the glasshouse project.

Recommendations

- a) The steering group set up for this study should consider its findings and decide whether it is appropriate to further develop the project ideas that have been proposed.
- b) If the project ideas do progress to the next stage, the steering group should be developed into a group which guides further development of the ideas into applications for support.

Appendix 1: Case studies

This appendix includes a series of case studies for projects and businesses that were reviewed during the course of the study, when a wide range of ideas that could potentially be developed in Ceredigion were being explored. We start with a handful of more detailed case studies before a wide range of shorter case studies are set out.

Stramash Outdoor Nursery, Scotland

Stramash currently operates three outdoor campuses across Scotland, all of which form the Stramash Centre of Excellence in Outdoor Learning. Campuses are currently based in Elgin, Fort William, and Oban. Being a social enterprise means that Stramash invests its resources back into the communities and individuals that it serves, so as to make a lasting positive impact.

Oban site

The Oban site, which spans five acres, costs approximately £3,000 per annum to lease. Accessing the site requires entry via a residential area through which parents are not allowed to drive; therefore, they drop their children off at a local village hall, who are then taken by staff to the woods through the use of a minibus which the outdoor nursery had to purchase.

Fort William site

Fort William spans 15 acres, comprising a large building and a good-sized car park. Fort William was gifted to Stramash some years ago, and is also surrounded by additional land which they lease for £100 per annum. The team leader at Stramash claims that Fort William is *“a dream situation because it has a big car park and is easy for parents to get to. The site was originally a farm, so a lot of the land is cleared of trees and we have some young woodland.”*

Elgin site

Elgin spans 40 acres of mature woodland and also has a house. Stramash received some grant funding from Highland Industrial Enterprises, who invest in social businesses. However, it still had to raise £90,000 and took out an additional loan of £210,000 towards the purchase of the site.

Financial profile

Stramash offers both funded and non-funded childcare places. With regard to the funded places, the team leader explained that the majority of councils would not allow funded places until a service had been running for at least 12 months, and that it was actually refused when it first requested funded places. However, the council agreed because the idea of an outdoor nursery was so innovative, alongside the fact that it had someone on its board who was involved in Argyle and Bute Early Years within the council. This resulted in it receiving funded childcare places for the Fort William site almost as soon as it opened.

The annual running costs, including staff, insurance, etc., vary between the three sites. In addition to the abovementioned costs, it has ‘umbrella insurance’ that covers all three sites, as well as insurance (through ‘Allow’) for outdoor activities which covers holiday programme activities. The team leader was unaware of the costs but suspected that they would be higher than those of an indoor nursery.

All sites employ staff at the national living wage and this is one of their biggest costs.

Stramash continues to apply for many grants, which gives them finances with which to pay for [junior-range] tools such as digging spades, garden tools, etc., *“which is expensive but it needs to last”*.

In Scotland, there is a Childcare Partnership, of which Stramash is part, which has funded £30,000 in the last three years:

“The reality is that you are guaranteed to run at a loss during the first couple of years, no matter what. You need to be prepared for that.”

Summary:

The team leader at Stramash felt that one of the most important elements to a successful outdoor childcare setting was finding the right land:

“The most important thing to consider is access and having a car park where possible. The ideal site would be mature woodland, places that give a special feeling. It is important to create the right environment for the children.”

Moreover, it was noted that funded places were critical to the success, as was finding the right staff — those who understand the outdoor ethos as much as the early-years element. Whilst we were not able to view the company’s accounts, it was suggested that (even with funded places) the first couple of years would likely run at a loss. Furthermore, the very successful model that Stramash implements appears to still be reliant on grant funding.

Hill Holt Health, Lincolnshire – Norton Disney Site

Hill Holt Wood was purchased in 1995 and in 1997 the Hill Holt Wood management committee was established as a link between the owners of the land and the surrounding community. In 2002 the volunteer board of directors took control and it became a social enterprise with a charitable status.

When nearby ancient woodland became available in 2002, Hill Holt purchased the land for a nominal fee of around £150. This land became what is currently known as the Norton Disney site.

Norton Disney, which is approximately a five-minute drive from Hill Holt Wood, spans approximately 43 acres and has no electricity or running water. This site is used to run a health and well-being programme, i.e. Woodland Wellness, which is its main source of income.

Norton Disney was set up through a cash injection of approximately £25,000 from Mind, as part of ecotherapy research conducted around five years ago.

The site was overrun with rhododendrons and had poor drainage; therefore, the money was used to clear the land of invasive species and clear a space in which to build log cabins, etc. Furthermore, the money was used to employ two staff members dedicated to running the health programme from this site.

The Woodland Wellness programme is a ‘therapeutic intervention’ in which participants attend and work in the woodlands, undertaking woodland management, conservation, and craft activities. The various skills developed are believed to build physical and mental resilience and fitness through physical activities in a natural outdoor space.

Participants are referred to the programme in a variety of ways and the vast majority are funded. When the programme started, referrals were mainly through health and social care, e.g. social workers, supported living schemes, mental health teams, etc. More recently, however, they have started to obtain referrals from occupational therapy — people who have suffered head injuries — and accept self-referrals, although the programme coordinator states that this model will change again as social prescription is starting to be implemented slowly.

Financial profile

The majority of referrals to Norton Disney are funded and they receive, on average, £40.00 per day per participant. At the time of writing, Norton Disney had 17 people in their health and well-being programme, 16 of whom were men (note: unconscious bias from referrers) and three were self-referred. Approximately 50% were adults with learning disabilities who attended as part of their independent-living package; the remaining 50% suffered from mental health issues.

To cover wages, the site needs 22 participants (£880.00) per week, paying for two staff members whom it needs in order to run the programme. As mentioned previously, it is currently operating with 17; therefore, it requires partial subsidy through the Hill Holt Heath site.

The abovementioned £880.00 covers staff costs only, thus not covering any other running costs, e.g. insurance. The coordinator was unable to provide costings, but believed that they were covered by the Hill Holt Heath site. Moreover, Norton Disney has received various funding such as £10k from the Brodhead Institute (which is a local community fund for buying tools and equipment) and £1,000 from the local district council (which they used to help set up an enterprise that sells coppice furniture that they build, bowls, spoons, etc.). These are then sold at markets and the money is reinvested into the programme.

The Norton Disney site has been running for eight years and was, at the time of writing, running at an annual shortfall of £6,000, although it is hoping to be self-sustaining from 2018.

Summary:

The Norton Disney programme coordinator believes that there is potential for Mind Aberystwyth to set up a similar programme in West Wales; however, she believes that an accessible site is critical. Moreover, she believes that there is great potential to get participants out and into the community, which is something of which she would like to do more at Norton Disney:

".....local hospital or similar that has courtyard gardens. Participants can work on these, which is therapy for the participants and also for patients and is still conservation of green spaces. Is there any council land that could be worked on? If I had been here five years ago I would have done more of this community-type work."

Supporting a model similar to the health and well-being programme at Norton Disney would require the acquisition of land and set-up costs. Furthermore, the coordinator states that administration of the participants is intense:

"Every organisation we work with has so much paperwork requirements. Probation service has taken four months to go through due diligence process and we still have no participants from them."

She would also recommend that enough money be allocated for marketing and publicity, as well as allocating one staff member to programme management, publicity and marketing and another person to all of the administrative and due diligence requirements.

Forest of Avon Trust

Forest of Avon was a programme of 12 community forests in England which ran from 1992 to 2009 and ended essentially due to public-sector funding cuts. The current executive director, along with others, was determined to keep the principles of the community forest going. With approximately £3,000 in the bank and a few promises of funding, it set up the Forest of Avon Trust charity.

When it first started, it did not own any land, but has since leased a site from the Woodland Trust. Whilst it leases this woodland, it is not necessarily used for its Forest School activities. It still tends to work with partners and use their sites to run its activities.

The activities include what the executive director describes as the physical side, including working with landowners, planting trees, and woodland management. But the executive director went on to describe the social side, which is an important element for the charity and is concerned with the *“engagement of people with woodlands and green space. We do Forest School training. That’s something we’ve developed over time, but the other thing that’s important to us is demonstrating the value of woodlands to people’s health and well-being.”*

One of the first projects that the charity ran was with adults with learning disabilities, which it continues to run. However, it has since diversified to people with mental health needs who live in the community. It has worked with people who suffer from depression and those suffering from dementia.

In terms of referrals, it does receive GP referrals. However, the executive director questioned whether GP practices would refer people to the projects that it runs if it were not offering funded places.

Whilst it has had some success with mental health trust organisations in terms of them seeing the value in ecotherapy activities, whether they would refer people or include these kinds of activities within their budget remains questionable.

Financial profile

The main source of income is the training arm of the charity. It delivers nationally recognised, accredited Ascentis Forest School Level 1 (Introduction to Forest School Principles) and Ascentis Forest School Level 3 (Forest School Leader) training. Moreover, it delivers accredited ITC outdoor first-aid training and runs bespoke Inset Days. Other than for the training, it does not charge people for any of its other projects. It has been securing money from third parties, which has enabled it to offer a free service for people who are interested in ecotherapy activities, although it does find securing the subsidy to be a challenge.

The executive director went on to state that if it tried to charge for these types of activities it would struggle:

“...rather than middle-class people foraging and whatever, I think if we charged for these types of activities that are much more needed, I think we’d struggle. Everyone thinks if only GPs would prescribe it, but it’s quantifying it. People can say, ‘Well, everyone knows the benefits’, and there are lots of benefits that are quantified now, but I still think there’s a case to prove, and with budgets under pressure it’s a bit of a nice thing to do rather than a core activity.”

The charity’s principal funding streams comprise fundraised donations, consultancy income, and Forest School training. The training that it offers is important to the charity and whilst it does not specifically relate to the activities, the two are very much hand in hand because the training provides people with the opportunity to engage with groups and get them out and into the countryside. Moreover, the charity runs specialist activities, using techniques to get those certain groups out and into the countryside themselves.

Staff costs are the biggest outgoing. By the nature of the groups with whom it works, it tries to have one staff member plus a trained volunteer for a group of 10 to 12, depending on the needs of the group:

“The big cost is staff really, because it clearly isn’t the same as taking a group of able-bodied or otherwise fit and able people into the woods — it needs closer supervision.”

Summary:

Having good partnership arrangements with people appears to be important. One of the charity’s biggest challenges lies in finding sites on which to deliver activities, as well as persuading people that it can run activities on the site for a limited cost.

With the mental health project, it ran sessions at the local GP surgery. This was important, not only for meeting people who suffered from depression but also for giving these people the confidence that the activity being offered was one with which they could be involved. The other important element is that of having the right staff working on the project:

“...being there at the surgery and encouraging people to come to the activity, a great deal of empathy is needed, so staff are key and the people we work with have developed these skills over a number of years.”

The executive director believes that testing any new project in numerous satellite places around the county is the best way to start, making modest steps whilst building a reputation for delivering these kinds of activities.

In terms of access to the projects run by Forest of Avon Trust, it is important to note that it is based in a fairly urban area of Bristol; where possible, it runs activities close to a bus stop and where the majority of people live. Undoubtedly, this would not necessarily be the case if a similar satellite model were considered for Mind Aberystwyth.

St Werburghs City Farm

Established almost 40 years ago, St Werburghs City Farm in Bristol is based across four sites in the city. These include the main farm site, community gardens, and a nursery. Across the sites, St Werburghs City Farm runs a wide range of projects, including a stay-and-play group, a child and youth project, and therapeutic activities in horticulture and animal care for adults with mental health concerns and learning difficulties.

Through the farm and gardens, the city farm grows a wide range of seasonal fruit and vegetables which, in turn, are used both in the onsite cafe and for jams and chutneys sold in the farm's shop. With its own polytunnel, the city farm also has a propagation place from which the public can purchase seedlings both at the nursery and online. Moreover, the city farm has a large number of regular volunteers across all sites and, as it is well known and very well established, has received a large number of applications for volunteers.

When asked about the difficulties posed by running the farm in terms of produce and the projects that it runs, St Werburghs City Farm director Jess Clynewood suggested that challenges faced are very specific to a particular site and project. For the farm, the projects are successful because its focus is upon the people whom the projects serve, focusing on enabling project participants to gain skills and good experience, with produce acting as a supplementary benefit.

Whilst the link between gardening and well-being has become quite established, for Jess the challenge lies in funding, especially providing the continuity of a longer-term project when receiving funding for only two to three years at a time. For the farm, although it is challenging to have to spend time and resources on sourcing and applying for funding, this pressure is eased by the fact that all projects delivered by the city farm has a service-user-led design, meaning that the people involved in projects are involved in its direction, which has ultimately led to greater engagement with the farm overall and the continuity of regular volunteers.

Mini case studies

Hill Holt Wood

Provides mental health services	√
A commercial operation (i.e. income-generating)	√

Outline of the operation

Hill Holt Wood is a social enterprise that operates out of Hill Holt Wood in Lincolnshire. In 1997 a management committee was established in order to establish links between the owners of the woods and the local community. Then, in 2002, a volunteer board of directors took control of the woods and founded the social enterprise. The purpose of Hill Holt Wood lies in 'a way of working with the local community to create a better environment, provide employment and reach out to those in need'.⁷⁹ Some of the services that it provides include: forestry and countryside management education and the provision of green space for those suffering from mental health issues.

The enterprise's success has stemmed from its ability to form effective partnerships with local communities and organisations. What is more, it has worked alongside the NHS foundation trust, which has resulted in additional funding for the project. The project has also engaged with local schools through its school referral scheme, which aims to provide additional curricular support for pupils who are experiencing behavioural challenges, allowing them to choose from a selection of qualification pathways. Besides these services, Hill Holt Wood provides event and corporate-hire opportunities which serve to provide an alternative funding stream.

Key points

- Social enterprise based in Lincoln
- Founded in 2002
- Aim: to establish links between the wood's owners and the local community
- Has benefitted from establishing partnerships with local communities and organisations
- Has received funding from the NHS foundation trust
- Operates a school referral scheme to help pupils experiencing behavioural challenges to achieve qualifications
- Additional funding from event and corporate-hire facilities

For more information: <http://www.hillholtwood.co.uk/>

⁷⁹ <http://www.hillholtwood.co.uk/about/hill-holt-wood/>

Actif Woods Wales

Provides mental health services	√
A commercial operation (i.e. income-generating)	√

Outline of the operation

Actif Woods Wales is a joint project between Coed Lleol (Small Woods Wales) and Natural Resources Wales that has been running since 2010. Its purpose is to support woodland health and well-being activity groups across Wales. These groups aim to allow participants to discover new skills and passions, find confidence, exercise, make friends and help protect the environment. Some of the activities in the Actif Woods Wales programme include: woodland walks, conservation, and woodland management.

The initial success of the project meant that funding was secured in 2013 from both Big Lottery and Natural Resources Wales as well as a number of other local funders, which allowed it to expand its reach to five locations across Wales, as well as ensuring that the project could run until March 2016. However, this was later extended in 2014, with Natural Resources Wales ensuring that the project would run until 2018. Moreover, plans were set in place to expand to a total of 10 locations before its end. The project continues to run today, supporting 10 different locations all over Wales.

Since its inception the project has also gained new national partners in the form of organisations such as Tir Coed, the Woodland Trust, and Public Health Wales. Furthermore, it has developed relationships with smaller organisations that form the local partners helping to operate each of its locations, such as Coed Cymru (Neath Port Talbot), Coleg Menai (Anglesey), and the Severn Wye Energy Agency (Swansea).

Key points

- Joint project between Coed Lleol and Natural Resources Wales
- Founded in 2010
- Aim: to support woodland health and well-being groups across Wales
- Operates in 10 locations across Wales
- Wants to allow participants to discover new skills and passions, find confidence, exercise, make friends and help protect the environment
- Activities include woodland walks, conservation activities, and woodland management
- Has secured funding from both the Big Lottery Fund and Natural Resources Wales, as well as from local funders
- Has established partners on a national scale, as well as smaller, local partners

For more information: <http://www.coedlleol.org.uk/actif-woods-wales/actif-woods-wales-project-history/>

Sage Sheffield

Provides mental health services	√
A commercial operation (i.e. income-generating)	√

Outline of the operation

Sage was established in 1999 as a small voluntary gardening group, arising due to a needs assessment commissioned by Pitsmoor Surgery which revealed that the area was experiencing high incidences of mental health problems yet a low uptake of the support services available. Its purpose is to provide focused and professional support in an environment that feels neither clinical nor threatening, an approach which they have termed 'therapeutic horticulture'.

In 2006, Sage became a registered charity and limited company and is now run by a board of eight trustees and a team of six permanent staff members. Its services include creative therapy sessions involving arts, crafts and singing, as well as cooking and eating sessions.

The organisation maintains a close relationship with Pitsmoor Surgery, whose needs assessment provided the catalyst for the original group's formation. Sage currently owns office space at the surgery and also receives patient referrals from Pitsmoor. Moreover, the organisation has utilised its website in order to secure support in terms of volunteers who are willing to help with the day-to-day running of the project, as well as allowing them to secure funding through online donations from the public.

Key points

- Charity based in Sheffield that specialises in 'therapeutic horticulture'
- Founded in 2006
- Aim: to provide focused and professional support in an environment that feels neither clinical nor threatening
- Therapy sessions include arts and crafts, gardening and singing
- Came about due to a needs assessment revealing high incidences of mental health problems but a low uptake of support in the area
- Maintains a relationship with Pitsmoor Surgery, which commissioned the needs assessment
- Utilises its website to gain volunteers as well as secure funding
- Funded by organisations such as the National Lottery, the Postcode Community Trust, and Magic Little Grants

For more information: <https://www.sagesheffield.org.uk>

Growing Well

Provides mental health services	√
A commercial operation (i.e. income-generating)	√

Outline of the operation

Growing Well is a farm-based mental health charity situated in Cumbria. Set up in 2004, its goal is to provide a safe and supportive working environment in which to nurture mental health recovery through engagement with farming activities such as the growing and cooking of organic vegetables. Growing Well's approach focuses on three objectives:

- To develop people's emotional resilience
- To develop people's life skills
- To support people in being healthier and more active.

The team running Growing Well consists of 19 members and is supported by a range of partners, including: the Cumbrian Community Foundation, the South Lakeland District Council, and the Co-op.

The organisation benefits greatly from the donations and support received from the range of organisations with which it is partnered; however, besides these, it receives support through financial donations from the public who donate through Growing Well's website. Additionally, the produce that is grown on the farm as part of the therapeutic process is sold via an online shop on the organisation's website, the proceeds of which help to support the project.

Key points

- Farm-based mental health charity in Cumbria
- Set up in 2006
- Aim: to nurture mental health recovery through engagement with farming activities
- Activities centred on the growing and cooking of organic vegetables
- Aims to develop emotional resilience, develop people's life skills and support people in being healthier and more active
- Partners include: the Cumbrian Community Foundation, the South Lakeland District Council, and the Co-op
- Additional funding gained from the sale of produce from the farm that is grown during therapeutic sessions via an online shop

For more information: <https://www.growingwell.co.uk/>

Amelia Trust Farm

Provides mental health services	√
A commercial operation (i.e. income-generating)	√

Outline of the operation

Founded in 1990, Amelia Trust Farm is based in the Vale of Glamorgan and provides a caring and nurturing environment for both adults and children with learning disabilities and neurodevelopmental disorders such as ADHD and autism. The services that the organisation offers include occupational therapy, vocational education, and work placements, the goal of which is to allow individuals to gain further training and skills in an environment that is designed to support them.

Amelia Trust Farm relies on donations and fundraising in order to continue its work; however, it has received grants from organisations such as the Fairwood Trust, Children in Need, and Tesco's Bags of Help scheme. The organisation also charges for certain services in order to remain financially viable, such as hostel and camping facilities, a conference and training venue, as well as a sports hall.

Key points

- Farm-based charity based in the Vale of Glamorgan
- Founded in 1990
- Aim: to provide a caring and nurturing environment for both adults and children with learning disabilities and neurodevelopmental disorders
- Services include occupational therapy, vocational training, and work placements
- Relies on donations from the public but has previously received grants from the likes of Children in Need, Tesco's Bags of Help scheme, and the Fairwood Trust
- Additional income generated from hotel and camping facilities, conference and training venues, and sports hall hire

For more information: <https://www.ameliatrust.org.uk/>

St. Nicks

Provides mental health services	√
A commercial operation (i.e. income-generating)	√

Outline of the operation

St. Nicks is a centre for natural and green living in York. It started in the 1990s with renovating a former landfill site and developing it into a local nature reserve. Its goal is to transform York into a city in which people value wildlife, the environment and one another equally, so as to sustain a rich and healthy life for its inhabitants.

Furthermore, the site offers ecotherapy services through activities such as Nordic walking, creative writing, an eco-centred book club, and gardening schemes, all of which are led by qualified and experienced tutors. St. Nicks also provides one-to-one mentoring support alongside its group activities.

Financially as well as through public donations, St. Nicks is supported by sponsors such as the Big Lottery Fund, the Brelms Trust, and the Garfield Weston Foundation. However, it also secures funding by incorporating a commercial aspect into its work by selling the produce that is made on the site, as well as various crafts that are made thereupon.

With potential dump sites becoming available in Ceredigion, the model that has been implemented by St. Nicks may be one that could be adapted for the establishment of ecotherapy services in Ceredigion.

Key points

- Centre for natural and green living in York
- Founded in the 1990s
- Aim: to transform York into a city in which people value wildlife, the environment and one another equally, so as to sustain a rich and wealthy life for its inhabitants
- Offers ecotherapy services including: Nordic walking, creative writing, an eco-centred book club, and gardening schemes
- Also offers one-to-one mentoring alongside group activities
- Funded by public donations and funding partners such as York Council and the National Lottery Community Fund
- Additional income generated from the sale of produce and crafts that are made on site as part of the various ecotherapy activities

For more information: <https://stnicks.org.uk/about-us/>

Down to Earth

Provides mental health services	√
A commercial operation (i.e. income-generating)	√

Outline of the operation

The Down to Earth project is a social enterprise founded in 2006 and based in Swansea, the goal of which is to bring about positive changes to people's lives through outdoor activity. Some of the services that it offers include adventure activities such as tree climbing and kayaking, eco-building, and residential visits. The team running the project consists of 17 people whose experience and skills range from accounts and finance to countryside management and support working.

As well as its support services, Down to Earth plans to offer some of its services to businesses and tourists, which should allow it to increase its income and sustainability. This model of offering available services for hire, as well as a form of ecotherapy, could help to increase the financial viability of future ecotherapy services in Ceredigion.

Key points

- Social enterprise based in Swansea
- Founded in 2006
- Aim: to bring about positive changes to people's lives through outdoor activity
- Services that they offer include: residential trips, eco-building opportunities, and adventure activities such as tree climbing and kayaking
- Team consists of 17 people with roles ranging from accountants to activity coordinators and support workers
- Also plans to offer activities to businesses and tourists to increase profitability and ensure sustainability, as well as offering venue hire

For more information: <https://www.downtoearthproject.org.uk/>

Surf Snowdonia

Provides mental health services

A commercial operation (i.e. income-generating) ✓

Outline of the operation

Surf Snowdonia is an inland surf lagoon that was opened in August 2015 in the Conwy Valley. It offers lessons and courses for a range of different abilities and, unlike other natural surf schools, can guarantee conditions. The site not only is marketed to both experienced surfers and those seeking to learn, but also caters to groups, businesses as well as schools and clubs.

Key points

- Inland surfing lagoon in North Wales
- Opened in 2015
- Onsite hotel being developed
- Offers surfing lessons for all abilities
- Also caters to group functions for businesses, schools and clubs

For more information: <https://adventureparcsnowdonia.com/surf-snowdonia/>

Bounce Below

Provides mental health services

A commercial operation (i.e. income-generating)

√

Outline of the operation

Bounce Below is an indoor trampolining centre that is based in Blaenau Ffestiniog. The site on which the business operates is that of a series of slate caverns and was opened to the public in 2014. The business is part of the wider Zip World organisation, which owns several action adventure sites in North Wales, repurposing disused slate quarries and using them as part of its adventure tourism attractions. Furthermore, the business offers corporate packages including meeting spaces and experience days.

Key points

- Indoor trampolining centre based in Blaenau Ffestiniog
- Opened in 2014
- Site is a disused slate mine
- Part of the larger Zip World organisation
- Offers corporate packages including meeting spaces and experience days

For more information: <https://www.zipworld.co.uk/adventure/bounce-below>

Inner Changes

Provides mental health services ✓
A commercial operation (i.e. income-generating) ✓

Outline of the operation

Inner Changes aims to deliver high-quality outdoor nature-based personal development to individuals, organisations and corporate groups as part of its psychotherapy and counselling business in Manchester. The aim is to deliver this development through one-to-one sessions, workshops, retreats, and events, all of which are run by a registered psychotherapist.

Key points

- Operates out of Manchester
- Offers ecotherapy as part of its psychotherapy and counselling
- Services include one-to-one sessions, workshops, retreats, and events
- Run by a one-man team
- Focuses on private treatments

For more information: <http://www.ecotherapy.eu/>

Green Gym

Provides mental health services ✓
A commercial operation (i.e. income-generating) ✓

Outline of the operation

Green Gym is a project run by the Community Volunteering Charity, whose aim is to create healthier and happier communities for everyone by connecting people and green spaces to deliver lasting outcomes for both. Green Gym is a project that seeks to promote health, fitness and well-being through practical activities such as planting trees, sowing meadows and establishing wildlife ponds. There are currently more than 100 Green Gyms across Scotland, England and Northern Ireland; however, there are currently none in Wales. The Green Gym project is funded by corporate sponsorship, individual donations, as well as through its partnership with trusts such as the City Bridge Trust, the Tubney Charitable Trust, and the Calouste Gulbenkian Foundation.

Key points

- Operates in England, Scotland and Northern Ireland
- Run by the Community Volunteering Charity
- Aim: to promote health, fitness and well-being through practical activities
- Activities include planting trees, sowing meadows and establishing wildlife ponds
- Has established more than 100 locations
- Funded through corporate sponsorship, individual donations, and various trusts and foundations

For more information: <https://www.tcv.org.uk/greengym>

Rock UK's Summit Centre

Provides mental health services

A commercial operation (i.e. income-generating) ✓

Outline of the operation

The Summit Centre is situated just south of Merthyr Tydfil. It is a climbing and outdoor adventure centre that caters to individual climbers as well as schools, youth groups and church retreats. The centre is run by Rock UK, which is a Christian organisation that is passionate about developing young people, incorporating adventure into learning in the outdoors in order to transform lives. It has a bursary system in place in order to help children who would otherwise be unable to experience the centre and its activities. Besides its commercial services, it has also been funded through the European Regional Development Fund and the National Lottery Community Fund.

Key points

- The Summit Centre is located south of Merthyr Tydfil
- It is a climbing and outdoor adventure centre
- Aim: to incorporate adventure into learning in the outdoors to transform lives
- Bursary system in place to support potential users who may be unable to afford activities
- Receives funding from the European Regional Development Fund and the National Lottery Community Fund

For more information: <https://rockuk.org/centres/summit-centre/>

Llangorse Multi Activity Centre

Provides mental health services

A commercial operation (i.e. income-generating) ✓

Outline of the operation

Llangorse Multi Activity Centre is an indoor and outdoor activity centre based in Brecon Beacons National Park that has been running for over 55 years. It caters to individuals, families, schools, companies as well as the armed forces, and offers a range of activities (from horse riding to climbing walls and obstacle courses). Besides this, the centre offers team-building packages to interested companies, as well as conference facilities, sound systems and meeting rooms. The centre uses these activities to develop self-awareness and self-esteem amongst users whilst promoting technical skills and environmental awareness, and even offers to tailor programmes towards the development of these targets.

Key points

- Activity centre in Brecon
- Running for over 55 years
- Aim: to use activities to promote personal development
- Offers programmes to develop skills and environmental awareness
- Caters to various groups including schools, companies and the armed forces
- Also offers conference facilities, venue hire, and team-building packages

For more information: <https://www.activityuk.com/>

Adventure Wales

Provides mental health services

A commercial operation (i.e. income-generating) ✓

Outline of the operation

Adventure Wales is an outdoor pursuit and activity centre based in Porthcawl, which specialises in hosting adventure weekends for groups such as children's parties, corporate team building, and stag weekends. It offers accommodation as well as activities such as quad biking, paintballing, and zip lines. It has operated for 14 years and is said to receive an average of 11,000 visitors per annum. Moreover, it offers support for charity abseiling events, which it offers on a UK-wide scale, offering to help plan and execute such events at a fee, as well as conducting risk assessments and ensuring that the correct paperwork is filled in.

Key points

- Outdoor pursuit and activity centre in Porthcawl
- Operating for 14 years
- Offers activities such as quad biking, paintballing, and zip lines
- Caters to parties and corporate retreats
- Average of 11,000 visitors per annum
- Offers support for charity abseiling events

For more information: <https://www.adventureswales.co.uk/high-ropes-course/>

Black Mountain Activities

Provides mental health services

A commercial operation (i.e. income-generating) ✓

Outline of the operation

Established in 1992, Black Mountain Activities is an adventure centre located on the edge of Brecon Beacons National Park. It offers various activities such as archery, caving and canoeing, and caters to groups such as schools, businesses, and stag and hen parties. As well as offering full-day or half-day sessions, the company offers multi-day adventure breaks during which it utilises its onsite guest house.

It offers programmes to corporate groups that are centred on skills such as coaching, problem solving and decision making, and for groups of children it claims that the aims of its programmes are to promote social skills, raise confidence and self-esteem and improve environmental awareness.

Key points

- Activity centre based in Brecon
- Established in 1992
- Offers activities such as archery, caving and canoeing
- Caters to schools, businesses, and stag and hen parties
- Offers day sessions as well as residential breaks
- Offers programmes centred on skills and personal development

For more information: <https://www.blackmountain.co.uk/>

Fforest Weddings

Provides mental health services

A commercial operation (i.e. income-generating) ✓

Outline of the operation

Fforest began operating in 2007 and operates across three venues in West Wales. Its venues are designed to incorporate a 'celebration of the outdoors' into its ceremonies. Furthermore, it designs its ceremonies and buildings in a rural fashion and has repurposed farmhouses and other buildings in order to further incorporate the countryside environment into the services that it provides.

Key points

- Wedding venues situated across West Wales
- Began operating in 2007
- Focuses on celebrating the outdoors
- Incorporates rurality and country living into the services that it provides

For more information: <https://www.fforestweddings.co.uk/>

Welsh Green Weddings

Provides mental health services

A commercial operation (i.e. income-generating) ✓

Outline of the operation

Welsh Green Weddings operates out of an old dairy and the surrounding grassland and has been operating for over 10 years in Carmarthenshire. Besides this, it operates a sister company called the Ceridwen Centre, which uses the same site in order to operate functions such as yoga retreats, Christmas parties, and writing workshops. WGW aims to attract individuals interested in 'rural, less commercialised, more individual green events' with its outdoor weddings and converted farm buildings. As well as offering an onsite B&B, it provides various camping opportunities such as eco-pods, yurts, a 'glampervan' and a converted bus.

Key points

- Wedding venue in Carmarthenshire
- Operating for over 10 years
- Aim: to provide an alternative wedding venue
- Also offers spaces for functions such as retreats, parties and workshops
- Offers camping facilities as an alternative to B&Bs

For more information: <http://welshgreenweddings.co.uk/>

Elan Valley Lodge

Provides mental health services

A commercial operation (i.e. income-generating) ✓

Outline of the operation

Elan Valley Lodge is an old Victorian school building that is situated in the Elan Valley in Powys. The lodge offers a variety of services such as conference and training venues, leisure breaks, and outdoor education. Moreover, the site offers various day activities such as kayaking, high ropes, and archery sessions. Elan Valley Lodge has also formed partnerships with various training providers in order to offer businesses space in which to operate.

Key points

- Repurposed Victorian school building in Powys
- Conference and training venue
- Offers leisure breaks and outdoor education
- Runs activities such as kayaking, high ropes, and archery
- Partners with various training businesses to provide them with a space in which to carry out their work

For more information: <https://www.elanvalleylodge.co.uk/about-elan-valley-lodge/>

Sheepdrove Organic Farm and Eco Centre

Provides mental health services

A commercial operation (i.e. income-generating) ✓

Outline of the operation

Sheepdrove is a farm-based, hireable venue in Berkshire. It offers its land for weddings, conferences, burials and accommodation. It is an environmentally responsible site 'driven by a passion and concern for animal welfare, biodiversity and wildlife conservation'. The farm was originally purchased over 40 years ago for the purpose of establishing a fully organic, self-sufficient business; however, it later purchased more land and diversified its income through the additional services mentioned above.

Key points

- Farm-based venue for hire in Berkshire
- Work began over 40 years ago
- Offers land for conferences, weddings, burials and accommodation
- Driven by a passion for the community, the environment, and animal welfare
- Originally an organic, self-sufficient farm, but other features have been added over the years

For more information: <https://www.sheepdrove.com/>

Go Ape

Provides mental health services

A commercial operation (i.e. income-generating) ✓

Outline of the operation

Go Ape is a UK-wide forest adventure business that operates more than 34 different locations and has operated since 2002. Its aim is to encourage people to live life more adventurously and build their confidence. Its values also include being socially and environmentally responsible, as well as creating worthwhile and rewarding careers for its employees. Besides individuals, it caters to schools, team away days, and universities.

Key points

- Forest adventure business
- Running since 2002
- Aim: to encourage people to live life more adventurously and build self-confidence
- Values include promoting socially and environmentally responsible business practices
- Caters to schools, teams and universities

For more information: <https://goape.co.uk/inside-go-ape>

Glamping UK

Provides mental health services

A commercial operation (i.e. income-generating) ✓

Outline of the operation

Glamping UK is a camping holiday company that specialises in supplying luxurious camping experiences all over the UK, particularly Wales. These holidays include coastal retreats, mountain huts, and yurts near bodies of water. It also supplies glamping opportunities at UK festivals, stag and hen parties, and dog-friendly holidays.

Key points

- UK-based luxurious camping company
- Much availability in Wales
- Also supplies UK festivals, stag and hen parties, and dog-friendly holidays

For more information: <https://www.glamping-uk.co.uk/>

Wales & West Forest School

Provides mental health services

A commercial operation (i.e. income-generating) ✓

Outline of the operation

Wales & West Forest School aims to provide 'high quality, outdoor learning and play experiences for children and young people'. It uses outdoor education in order to enhance children's abilities to work in groups, gain greater social capabilities, concentrate and have confidence in their own capabilities, which it feels are essential to improving academic achievements. In addition to its educational services, it offers private parties that it operates out of woodland sites in Bristol and Cardiff, as well as holiday clubs that it runs during the summer. Furthermore, it provides training for other potential organisations seeking to develop their understanding of both Forest School and outdoor learning.

Key points

- Forest School organisation operating out of Wales and the west of England
- Aim: to provide high quality, outdoor learning and play experiences for children and young people
- Enhances skills amongst children that can improve academic achievements
- Runs private parties and holiday camps
- Offers training for individuals interested in outdoor learning

For more information: <http://www.walesandwestforestschool.co.uk/>

Forest of Avon Trust

Provides mental health services ✓
A commercial operation (i.e. income-generating) ✓

Outline of the operation

The Forest of Avon Trust is 'a charity passionate about the benefits of trees & woodlands and committed to delivering these to people across Bristol & Avon'. The charity started in 2009 with a budget of £3,000 and has since gone on to successfully deliver projects and activities worth £1.2 million. It accepts support in the form of both individual and business donations, its dedicate-a-tree donation scheme, and legacy donations. Moreover, it advertises Forest School leader training, encouraging individuals to train to be outdoor educators. Its Woodland Wellbeing scheme is aimed at people with mental health issues, learning difficulties, behavioural needs, and dementia, as well as their carers and supporters. The sessions involved in this scheme are tailored to the specific needs and aspirations of those involved in order to ensure that their specific support needs are met.

Key points

- Charity based in Bristol and Avon
- Started in 2009
- Initial budget of £3,000
- Has delivered projects worth £1.2 million
- Accepts donations from individuals, businesses, and through various schemes
- Explanation of support: <https://youtu.be/l4qagkv8miQ>
- Offers Forest School training
- Runs a 'Woodland Wellbeing scheme' to support the well-being of different people in need

For more information: <https://forestofavontrust.org/>

Transition Kentish Town's The Listening Space

Provides mental health services ✓
A commercial operation (i.e. income-generating)

Outline of the operation

Transition Kentish Town is a project based in North London which seeks to reimagine its local community based on the following principles: the environment, sustainability, community, food waste, energy, and growing. One of its projects is 'The Listening Space', which began in 2017 and is a community garden based in the central courtyard of a local doctors' surgery. The space is designed to provide a relaxed and friendly environment for anyone who would like to experience it. The idea is that the space acts as an outdoor village hall in which members of the community can congregate and hold events in outdoors. By working on the garden, it aims to bring people together and establish friendships as they work on the communal project.

Key points

- Gardening project in North London
- Started in 2017
- Housed in the central courtyard of a doctors' surgery
- Aim: to provide a relaxed and friendly environment for whoever wants to experience it
- Space acts as an outdoor village hall in which social interaction and events can take place
- Wants to bring the community closer together through the use of the space

For more information: <http://www.transitionkentishtown.org.uk/>

Grounded Ecotherapy

Provides mental health services ✓
A commercial operation (i.e. income-generating)

Outline of the operation

Grounded Ecotherapy was founded in 2005 in order to show the positive link between horticulture and better mental health and well-being. The project is part of Providence Row Housing Association, which is based in London and provides housing and support services for those with lived experience of drug or alcohol addiction or homelessness. It not only receives referrals from health professionals, local authorities, and organisations, but also receives self-referrals.

Its aim is 'to give to those who need it support, new skills and to improve their physical and mental wellbeing and reduce the isolation that people so often experience when living with substance misuse and mental health issues or homelessness'. The services that it provides include grounds maintenance, building garden and allotment areas, and improving local environments.

Key points

- Urban ecotherapy project in London
- Founded in 2005
- Aim: to improve mental health and well-being through horticulture
- Part of Providence Row Housing Association
- Aimed at people with experience of homelessness or substance misuse issues
- Projects include: grounds maintenance, building garden and allotment areas, and improving local environments

For more information: <http://groundedproject.org/>

TYF

Provides mental health services

A commercial operation (i.e. income-generating) ✓

Outline of the operation

Launched in 1986, TYF's mission is 'to help people fall so deeply in love with nature that it changes the way that they live'. It is an organisation that wants to achieve its aims through three forms of intervention: climbing, enjoyment, and encouraging customers to become 'independent adventurers' and continue to remain active throughout their lifetime. It supplies a range of educational programmes, some of which are gauged towards primary-school children and aim to help them to develop learning skills that can be transferred back into the classroom. What is more, it offers educational services for corporations that aim to promote sustainable business development.

TYF also operates a store that sells ethical, fair-trade and organic products in an attempt to reduce the strain on the planet, through which it has become the first certified B corporation in Wales. A B corporation is a new type of company that uses the power of business to solve social and environmental issues; it is essentially to businesses what Fair Trade Certification is to food producers. This certification is achieved by meeting rigorous standards of social and environmental performance, accountability and transparency.

Key points

- Adventure and education business
- Launched in 1986
- Aim: 'to help people fall so deeply in love with nature that it changes the way that they live'
- Specialises in providing adventure opportunities, education, and ethical retail
- First certified B corporation in Wales

For more information: <https://www.tyf.com/>

Long Wood Community Woodland

Provides mental health services ✓
A commercial operation (i.e. income-generating) ✓

Outline of the operation

Long Wood Community Woodland is a social enterprise based in West Wales. Since 2003 the woodland has been managed for timber sales as well as a recreational facility. It is run on a not-for-profit basis in order to ensure that the woodland can undergo community-focused development.

Some of the services that Long Wood offers include guided walks, craft courses, bird watching, and health walks. Besides these, the organisation seeks advice from the community with regard to what new ideas and activities they want to see implemented on top of what they have already implemented.

Key points

- Social enterprise based in West Wales
- Started in 2003
- Community recreation facility, as well as a timber business
- Services include: guided walks, craft courses, bird watching, and health walks

For more information: <http://www.longwood-lampeter.org.uk/en/>

Appendix 2: Existing activities in Ceredigion

This appendix includes brief information on a range of organisations and locations in Ceredigion that provide, or could provide, ecotherapy-related activities.

Organisation	Website	Activities
AberAdventures	http://www.aberadventures.com/other-stuff/how-to-find-us.html	Surfing, kayaking and paddleboarding
Aberystwyth Allotments	http://www.aberystwyth.gov.uk/en/environment/breathe-aberystwyth/allotments	Allotment sites can be hired
Adventure Beyond	https://adventurebeyond.co.uk/index.html	Coasteering, white water rafting/kayaking/tubing, canoeing, climbing, gorge walking, raft building, bushcraft, sea kayaking, surfing, hill walking, adventure racing, stand-up paddleboarding, and sunrise and sunset tours
Bwlch Nant yr Arian	https://naturalresources.wales/bwlchnantyrarian?lang=en	Several trails for walking, running, orienteering, mountain biking, horse riding, and daily feeding of red kites
Cardigan Bay Marine Wildlife Centre	https://www.welshwildlife.org/visitor-centres/cardigan-bay-marine-wildlife-centre/	Dolphin watching, boat trips, and beach cleaning
Cardigan Bay Watersports	http://www.cardiganbaywatersports.org.uk/	Sailing, windsurfing, kayaking, waterskiing, equipment hire, and courses incl. seamanship theory
Cardigan Island Coastal Farm Park	-	Feeding and viewing animals, outdoor adventure playground, sandpit, visitor centre, cafe, gift shop, indoor play area, seal watching, and nature study

Organisation	Website	Activities
CAT	http://www.cat.org.uk	Education and visitor centre demonstrating practical solutions for sustainability; covers all aspects of green living: environmental building, eco-sanitation, woodland management, renewable energy, energy efficiency, and organic growing
Clwb Cerdded Tregaron	http://www.ramblingclubs.com/ramblingclubs.php/Ceredigion/24/2/	Walking
Clynfyw Care Farm CIC	https://www.clynfyw.co.uk/	Family-run farm with woodlands, vegetable growing, and livestock, providing services for people with learning disabilities and other vulnerable groups
Coed Lleol/Active Woods Cymru	https://www.coedlleol.org.uk/	Walking, woodland skill courses, mindfulness courses, and social forestry courses
DASH Ceredigion	http://dashceredigion.org.uk/en/dashabout-activity-days/	DASHAbout Activity Days are for 12–25-year-olds, which are run over the Easter and summer school holidays; young people can choose where they would like to go and what they would like to do; popular choices in the past have included Oakwood, Excel Bowls, swimming, horse riding, and cinema trips
Denmark Farm	https://www.denmarkfarm.org.uk/	Survival school, nature trails, Wild in the Woods programme for children, parent and toddler group in the woods, young rangers' after-school club, eco-campsite, glamping, dormitories, bunkhouse, meeting rooms, and volunteer training: grow your own food
Dilys Pugh – eco-spirit, art & well-being	http://dylispugh.co.uk/artandtherapywithdylis/WELCOME.html	Could run workshops for MIND Aberystwyth

Organisation	Website	Activities
Fantasy Farm – Llanrhystud	https://fantasyfarmpark.co.uk/	Go-karts, indoor play area, nature trail, rodeo, boats, animals, and onsite restaurant
Fforest – Pizza Tipi and Cardigan Quayside	https://www.coldatnight.co.uk/cardigan-quayside	Self-catering apartments, pizza restaurant, event venue, Tafarn Smwglin, Fforest shop, canoeing, climbing, surfing, coasteering, sea kayaking, white water rafting, archery, mountain biking, bushcraft, corporate events, and weddings
Llain Activity Centre	https://www.llain.com/	Camping, cafe, and activities including kayaking, canoeing, sky tower, archery, bushcraft, raft building, climbing, high ropes, etc.
Llandysul and Pont Tyweli Walkers are Welcome	http://www.llandysul-ponttyweli.co.uk/index.php/en/walkers-are-welcome.html	Walking
Llandysul Paddlers Outdoor Education Centre	http://www.llandysul-paddlers.org.uk/centre/health_and_fun.htm	Accommodation; can run most outdoor activities, including camping, cycling, kayaking, canoeing, rock climbing, coasteering, etc.; offers a wide range of approved training and assessment courses in canoeing, kayaking, rafting, and first aid
Llangrannog Urdd Centre	https://www.urdd.cymru/en/residential-centres/llangrannog/	Go-karting, skiing, tobogganing, archery, horse trekking, quad biking, climbing, walking, swimming pool, trampolining, adventure course, ropes challenge, and ‘sustainability activities’

Organisation	Website	Activities
Long Wood Community Woodland	http://longwood-lampeter.org.uk/en/	Guided walks, Greenwood Crafts & Courses, Forest School, monthly health walks, green burial site, low-impact eco-camping, outdoor performances, hosting visiting groups & conference venue, and bird watching
Magic of Life Butterfly House	http://magicoflife.org/Index.html	Butterfly house and exotic garden
RAY Ceredigion Beach School	http://fis.ceredigion.gov.uk/wp-content/uploads/2014/03/Beach-School-Aberaeron-signage-A-frame.pdf	Children make shelters and identify local flora and fauna; rock pooling and beach-themed arts and crafts
Reconnect in Nature CIC	http://reconnectinnature.org.uk	Walking, camping, arts and crafts, mental health first aid training, and video and photography training
Small World Theatre	http://smallworld.org.uk/	Yoga, painting, dance, lantern making, mountain biking, and theatre performance
Strata Florida Trust – Archaeology Field School	http://www.stratafloridatrust.org/join-the-dig	Participants include former servicemen; has the capacity to provide activity-based therapy as well as skills
The Ramblers – Aberystwyth Group	http://www.ramblers.org.uk/aberystwyth	Walking
The Ramblers – Cardigan & District	http://www.cardiganramblers.org.uk	Walking
The Ramblers – Lampeter	http://www.ramblers.org.uk/go-walking/group-finder/areas/ceredigion/groups/lampeter.aspx	Walking
The Wildlife Trust of South and West Wales – North Ceredigion Local Group	https://www.welshwildlife.org/local-group/north-ceredigion-local-group/	Botanical Society, woodland identification, bird watching, dolphin watching, and picnics
Tir Coed	http://tircoed.org.uk/	Training courses, activity days, community open days, etc.; Tir Coed is experienced in working with some of the hardest to reach in our society and has developed a comprehensive engagement

Organisation	Website	Activities
		model that supports people as they develop, from first-step engagement through to employment
Tonic Surf	Facebook: https://www.facebook.com/tonicsurftherapy/	Surfing
Vale of Rheidol	https://www.rheidolrailway.co.uk/	Train rides, events, weddings, walking, and online shop; uses 'Gift Aid' to develop training for young people and increase apprenticeships
Various gardens in Ceredigion	http://www.discoverceredigion.co.uk/SiteCollectionDocuments/Gerddi2011S.pdf	
Ynyslas National Nature Reserve	https://naturalresources.wales/days-out/places-to-visit/mid-wales/dyfi-ynyslas-national-nature-reserve-and-visitor-centre-near-aberystwyth/?lang=en	Visitor Centre and small shop open from Easter to September (guided walks and events in the summer); educational groups are welcome; series of walks available all year round
Yoga classes	http://www.localyogaclasses.co.uk/search/Ceredigion	Various yoga classes throughout Ceredigion
Yoga i Bawb	http://www.yogaibawb.org.uk/community.php	Yoga

Appendix 3: Business plan outline for a soft-play centre in Aberystwyth

Introduction

The following outlines the concept and ideas surrounding the development of an indoor play centre in the Aberystwyth area.

Background – case study business

The business upon which this case study draws (hereinafter referred to as ‘the business’ or ‘the centre’) was established around the year 2000 and is a tremendously successful facility within a town which has otherwise struggled to develop (despite countless attempts to reinvigorate it over the last 30–40 years or so). The business has stood out as a timeless facility for the young and old alike.

The key ‘ingredients’ of the facility’s success can be summarised as follows:

- A diligent, meticulous and focused owner/developer — the owner headed the team that developed the concept, undertook extensive research and sourced the correct supplier in order to establish the venue. Thereafter, the focus has been upon securing the right staff to run the complex;
- A focus on quality, durability and innovation from the outset — whilst there are numerous would-be suppliers of play facilities in the market, the business benefitted significantly from initially commissioning a company to undertake the design and fitting-out of the centre;
- Bangor University — the centre benefits hugely from the proximity of Bangor University and, indeed, the other FE/HE colleges around the area (e.g. Glynllifon, Coleg Llandrillo, etc.). This market keeps the venue busy during the winter months;
- An understanding of the local marketplace — the owners have always ensured that, despite the requirement to attract the visitor market during the summer season, the venue has a local ambience, especially amongst the staff, which has appealed;
- Competitive pricing.

The centre has a portfolio of facilities that will preoccupy the majority of young people for 2–3 hours or more, plus the cafe on site. It is therefore a ‘package’ for young people (and parents/adults), particularly where inclement weather provides limited options in terms of all-weather entertainment and the ability to ‘let off steam’ within the area.

Once a structure is established for a ‘fun centre’ of this kind it is very difficult and costly to change it. As noted previously, the extensive research and market testing which were undertaken by the owners before they were clear as to what was required and how this could be shoehorned into an existing building located in the town were extremely important. Given that the facility continues to operate successfully some 20 years since the opening, the owners have made the correct choices and decisions.

Perhaps a critical aspect of the development was that of commissioning a specialist company to both design and fit out the building with the correct equipment. The company has an international reputation for developing durable and innovative play areas for the young and old, which has been reflected in terms of the success and durability of the centre. Initial enquiries with the company in question with regard to the possibility of developing a similar centre were both positive and encouraging. In terms of the proposals, therefore, the following was intimated by the company:

“Dependent on your space, we would advise on three slides, which we did not have the room at the XXXXX Centre, a dark maze, outside equipment if we can, an interactive under-fives area, along with the normal play equipment that you already have. Your original costs came to £76,000, but with the extra slide and the sensory under-fives area (plus the painted character walls, etc.), you would be looking at a capital cost of between £97,000 and £127,000, dependent on equipment. Yearly maintenance is around £9,000 per year, as you know, which includes full safety check, replacement of worn protective materials, full service and safety certification.”

It would seem that the company would change very little with respect to the original concept other than to add a few key features. This perhaps is not surprising, given the success of the centre. In addition to this, the venue requires a cafe fit-out, kitchen and sundries, which together are estimated to be at a further cost of £120,000, with a total fit-out cost approaching £250,000.

It is estimated that the centre attracts 75,000–100,000 people to the venue annually, which is a very significant number indeed. A facility located in Aberystwyth would need to work very hard in order to achieve this sort of throughput.

Comparator attractions

For comparison purposes, the table below highlights the ‘competition’ with regard to key local attractions in Gwynedd and Ceredigion:

Attraction	2014 visits	2015 visits	% change
Aberystwyth Arts Centre	N/A	588,861	N/A
Anglesey Sea Zoo	63,709	75,183	18%
Bondnat Garden	193,415	226,998	17%
Caernarfon Castle	175,216	195,352	11%
Conwy Castle	184,758	204,172	11%
Criccieth Castle	43,528	45,715	5%
Electric Mountain	125,000	132,000	6%
Greenwood Forest Park	146,301	142,119	-3%
Llanerchaeron	38,010	43,054	13%
Portmeirion	203,301	195,695	-4%
Snowdon Mountain Railway	131,144	132,252	1%
Welsh Mountain Zoo	153,612	162,116	6%
Bwlch Nant Yr Arian	94,898	106,426	12%
Tal-y-Llyn Railway	43,625	43,612	0%

Evidently, there are some dominant attractions at which 200k-plus visitors are expected. Otherwise, some key, stalwart venues, such as Greenwood (which is arguably the centre’s biggest competitor), Anglesey Sea Zoo, and Electric Mountain, have more modest visitor numbers — the latter two are not weather-affected either. Therefore, achieving 75,000–100,000 consistently over the 17 years is a considerable achievement.

For the Aberystwyth location, setting aside the performance of Aberystwyth Arts Centre, the Llanerchaeron and Bwlch y Nant numbers are more indicative of the second-tier attractions. The role of the university would appear to be critical towards achieving similar targets to those of the case study centre. For planning purposes, we have forecasts of 80%, 90% and 100% of the current performance of the case study centre for the first three years, and believe that these are attainable (albeit still a ‘stretch’ for the facility). Note here that the current outturns at the centre are much reduced since it first opened. Therefore, these are equally much reduced targets.

Market

In terms of the local market, there is very little to compare with the centre in Ceredigion. There was, at the time of this review, a facility in Aberaeron ('Ar y Bel') currently under offer of sale; upon inspection, however, it has a number of 'inhibitors', reducing its ability to draw larger volumes and profitability.⁸⁰ Otherwise there appears to be a dearth of exciting weather-proof facilities for young people in this part of Ceredigion. The Urdd in Llangrannog is arguably the only other facility, but which is mainly a residential offering for young people. In this case, one could confidently assert that such a development would be a major complementary addition to the portfolio of facilities at a county level — an important consideration for which a grant application may be sought.

Planning assumptions

The business plan outline is based on the current cost and sales ratios for the centre, which are summarised as follows:

- Sales are based on entry charges and food/drink sales⁸¹
- Wage costs (net of the director) constitute 24% of turnover
- Food/drink costs are set at 35% of the food/drink turnover
- Overheads such as utilities, rates, etc. are all set at the current operating costs for the centre
- Figures constitute the net of VAT
- A repayment mortgage is included in the financial analysis — 25 years at a commercial rate (i.e. 5%) for the fit-out costs of £250k; capital fit-out costs are therefore set at the upper end of the estimate (for depreciation purposes)
- Site and premises costs are undefined/unknown; therefore, these preclude the development of a balance sheet and the potential financing cost of this⁸²
- Financial analysis is therefore limited to a P&L assessment (which also provides a good proxy for cash flow, wherein the difference is presumed to be the positive uplift in cash of the depreciation rate applied, which in this case is 5% of the fit-out costs per annum)
- There are no creditor/debtor days, in that payments will constitute mainly cash upon entry (or in advance), whilst it is expected that food/drink costs will be covered within 30 days
- With good marketing the business should not require an overdraft (or only a de minimis facility in the first year)
- FTE job numbers start at seven people and increase by the third year to 10.

⁸⁰ These are market opinions and are made without prejudice. The facility in Aberaeron is a profitable venture but which lies slightly outside of the central catchment area for the proposals herein.

⁸¹ These are aggregate estimates based on 2017 management accounts.

⁸² It is very likely that such a development would attract grant support which might cover this cost or indeed the fit-out cost. Unless a grant were available, the premises costs could add possibly a further £17k to the annual operational cost, with the capital cost being, say, £250k — the venture would still be viable.

The results are shown below:

	Year 1	Year 2	Year 3
Turnover	£390,368	£439,164	£535,051
EITDA ⁸³	£126,758	£160,342	£229,714
Net profit (before tax)	£96,714	£130,298	£199,670
Cumulative surplus	£96,714	£227,011	£426,681

A profit rate of c. 37% on annual sales turnover at the steady-state third year is a significant return on investment before tax. Noting the assumptions, the cash flow position should be positive throughout. A more detailed financial assessment is presented at the end of this appendix.

Risk and sensitivity

As part of the planning procedure it is advisable to outline a risk register of all aspects that present a risk to the scheme over the first three years, and to scale those risks in terms of the threat that they present to the viability of the plan. This is summarised below:

Risk areas	High	Medium	Low
Grant offer (and repayment)	●		
Volumes		●	
'Unproven' market		●	
Governance and management		●	

A fully articulated plan will be required in order to support the scheme. Much may well depend on a grant offer from Visit Wales (e.g. MSBF). There is a very different perspective on project support, which now leans towards loans and repayment. A maximum grant rate has been established at £100k, beyond which a repayment schedule may be required up to a minimum of 30% of the grant offer. Grant offers are made on a case-by-case basis, with the discretion not to impose repayments as well. Regardless, where a project was established which was dependent on a grant, the possibility of repayment must be factored into the forecast.

The volumes expected in order to support the scheme are demanding (despite being based on those for a mature centre in respect of the case study). Failure to achieve these would require potential price uplifts, which could make the scheme unviable. It follows that this is largely an unproven market at this level and reflective of a potential risk in the project. Strong marketing will be critical to the success (or indeed otherwise), as will be the choices of location and facilities.

⁸³ Earnings before interest, taxes, depreciation, and amortisation

Finally, a major consideration for the scheme will be the management and governance of the project. It is extremely important that an experienced operator lead/operate the project, especially with regard to the hiring of staff, etc. in order to support activities. The owners of the case study centre would attest to the fact that 'if you get this wrong, it will fail'. Despite the presence and importance of top-quality facilities, without expert engagement with the general public and active management of staff the project could very quickly become financially unstable.

Conclusion

A business plan outline indicates that a well-structured fun-centre facility is capable of generating considerable income where it broadly replicates the structure of the case study centre. A development would constitute an enhanced version of the original, albeit with an arguably more limited market, which would expect to achieve slightly in excess of the current financial outturn of its mature sibling facility.⁸⁴

⁸⁴ During the first 12 years of operation the case study had an average turnover of £750k per annum. The much reduced role of the owner has coincided with the more recent reduced turnover level (albeit still very profitable).

Appendix 4: Glasshouse site visit record

Date of visit: 7th August 2019

GENERAL

The site and associated buildings were generally in a poor state of repair. With access being limited due to overgrown vegetation, the potting building would appear not to have been occupied for some considerable time.

There are three greenhouse areas, only one of which is currently in use. The other two were considered to be unsafe to enter due to the large amounts of broken glass in the roof area.

ELECTRICAL SERVICES

Main switchgear

The main switchgear for the building is located within a room adjacent to the entrance corridor. The supply comprises a single incoming supply cable into a main three-phase incomer cut-out and busbar chamber with sub-mains supplies to serve distribution boards around the building and greenhouses. All equipment will need to be replaced due to its age and condition.

It was not possible at the time of visitation to see inside of the DBs in the greenhouse; therefore, it can only be assumed that these will also require replacements/upgrades, as per the remainder of the distribution system.

Test certificates were not available at the time of visitation.

Small power & ancillaries

The installation comprises 13amp small power outlets and combines metal clad and white PVC insulated cover plates. Due to the environment in which the sockets have been situated, the condition of them has deteriorated over the years; therefore, all sockets within the potting building will need replacements.

Sockets in the greenhouses are installed on bespoke rigs and, therefore, will require a specialist to inspect their condition.

The greenhouses also have high-level sockets within the growing areas. These sockets were too high to inspect and, therefore, the condition is unknown, but we would suspect that (due to the environment) these will require replacing, too.

The junction box near the greenhouse irrigation pump is not earthed to the structure and cables emerging from the junction box are coiled up and tangled on the floor, thus causing the condition of the cables to be suspect. Moreover, with that particular area being quite wet and humid, this increases the chance of a fault or an electric shock to a member of staff or the public.

Lighting

There are a wide range of lighting solutions throughout the buildings; however, some offices have inappropriate lighting for the use of display screens. Lighting within the potting building requires a complete strip-out and reinstallation due to rust and the corrosion of fittings.

Switching is generally manual and consideration should be given to introducing daylighting and presence detection sensors linked to the lighting for energy-saving purposes.

All fittings should be replaced by energy-efficient LED fittings.

External bulkhead luminaires fixed to the wall at a high level require replacements, with an external LED floodlight near the entrance appearing to be newly installed in the last five years.

Greenhouse walkway lighting appears to be in working condition and has no water ingress.

Specialist lighting within the growing areas has not been considered as part of this survey.

Fire alarm

No fire detection or alarm system is installed on site. A possible system is to be installed in order to suit use of the building.

Intruder alarm

No intruder detection or alarm system is installed on site. A possible system is to be installed in order to suit use of the building.

MECHANICAL SERVICES

Heating

Two floor-mounted, oil-fired, conventionally flued Seagold 150kW boilers serve the heating for both the potting building and the greenhouse areas. The boilers would appear to be manufactured in 1995. Associated pipework, etc. within the plant room are currently not in use and it is considered to be beyond its life expectancy.

The existing cold feed and expansion tank located in a roof-mounted enclosure were not accessible; however, due to the age and condition of the heating system, this is also considered to be beyond its life expectancy.

The existing controls located within the boiler room are showing signs of severe surface corrosion and we would suggest that these require complete replacements.

A steel flow and return single-pipe distribution system serves a combination of steel panel radiators and heating coils throughout the various areas, which are severely corroded and currently not in use. A complete system replacement is required.

The existing oil tank and pipework are currently disconnected from the boilers and overgrown with vegetation. From the areas of the tank which were visible we could not see any signs of damage to the tank; however, it would require a complete overhaul prior to being set to work in the future. Due to the anticipated cost of this, a new internally banded plastic tank may be a more cost-effective option.

Hot and cold water

There would appear to be no cold water supply currently serving the potting building; however, there were signs that a system had once been installed but later removed.

There is no hot water provision within the areas.

Mains cold water is provided to the greenhouse irrigation tanks located externally. It was not possible to inspect this connection during the visit and there was evidence that the irrigation system was in use.

Ventilation

All areas of the potting building were naturally ventilated.

The greenhouse area is provided with an automatic window-opening system. In one of the greenhouse areas this appeared to be operational in part; however, some of the linkages were disconnected. We would suggest that the two other greenhouses be completely overhauled prior to operation.

Gas

There is no gas service on site.

Appendix 5: Glasshouse project: business plan details

Operation and produce

Due to the small area available, any cropping will have to be high-value and intensive. Glasshouses may give a return 20 times higher than that of outdoor land, especially if heated. The environment is controlled; therefore, temperatures are higher just from solar gain and wind protection from the glass. This will enable a 10–12-month window for some crops and will also affect the throughput. This compares with a five-month season in the Aberystwyth area outdoors.

Bedding plants could have 2.5 crops through in spring and one crop in autumn, plus a small crop of summer pot plants for sale as impulse buys. Moreover, there is scope for some layered cropping. Typically, the glasshouse floor is used for pack bedding, and hanging baskets are grown up in the roof area. This maximises the use of resources. With modern plug crops of bedding and pot plants, a large, robust plant can be bought in and, with rapid growth, can be for sale in 2–3 weeks. These plug plants are also used to populate hanging baskets and these can be bespoke — for pubs, caravan sites, and other similar markets — or as a standard run.

The bedding plant window for sales is from around mid-April to mid-June, and it is envisaged that herb and vegetable plants will also be offered, as their production is identical to that of bedding ornamentals in that plug plants are available for all of the lines. Tomato plants are a popular choice, for example, as are mixed packs of herbs. These crops fit with the ‘grow your own’ and ‘five-a-day’ campaigns.

Another area, possibly run alongside the above, is that of growing mixed salad leaves in module trays and selling them unwashed in bags to the public. The growing regimes are very similar and will give the enterprise some direction in terms of what is likely to be popular. Salad bags are likely to be popular with consumers, since the freshness of local produce is more noticeable in comparison to other vegetables.

A realistic view has to be taken with respect to the marketing of this produce. There are large supermarket options in Aberystwyth and these offer bedding plants, herb pots, and salad bags very cheaply for customers already in the store. However, the idea of supporting a recognised charity by beautifying the user’s gardens has some strength. Furthermore, it is likely to attract keen gardeners and the allotment movement. Marketing can be undertaken via social media, promoting the work and the value that this community-based initiative has in the local area.

It will be important to convey to the markets the good that can be done merely by supporting this small enterprise. This is the entry into the marketplace and is equal, if not superior, to the production side. It requires regular updates and tweets of the project in order to highlight successes and failures, no matter how small. Once these groups are established they grow and become powerful and will give the production team a great deal of feedback.

Besides all of the plusses in supplying the local area, there are a number of other benefits involved with the tasks and the nursery with regard to the husbandry of the plants. There are many opportunities for training and horticultural works on all levels, from simple tasks (e.g. putting plugs in pots) to sophisticated pest and disease management with respect to predators and other biological controls, through to labour management and motivation and skills and rewards. It is not easy to put a price on these areas, but they can result in confidence and pride in helping to develop a thriving, little business. What is more, it is envisaged that the same people involved in production also become involved in the marketing side.

Training can be an additional source of revenue. An experienced horticulturalist can charge up to £100 for a group training session. Alternatively, accredited courses can be offered if the site is registered as an approved centre for City & Guilds or Royal Horticultural Society courses.

Set-up costs

Staff will be needed in order to supervise and grow the plants. Such personnel can be difficult to find, but some advertising, possibly via social media, may yield someone. Ideally, a mature person who has retrained in horticulture would be found and taken on part-time to start with.

In order to keep fixed costs low, it is hoped that much voluntary work will be organised for one-off, large jobs such as the initial tidying-up and recommissioning of the site. The nursery can provide some seasonal part-time work and will also be a good training platform. Again, any voluntary work on the production and marketing sides will help to get the business off the ground.

It is recommended that a volunteer supervisor be hired in addition to the position of head grower. Managing volunteers will require the full attention of one person and a different skillset from that required of a head grower. This position could be filled by a dedicated volunteer.

Basic requirements such as mess facilities and toilets are needed at the outset, but these can be hired in. Normally, a portacabin unit will do for a rest area and office, and mobile toilets, of the type found on building sites, are available locally in the majority of areas. Alternatively, in remote locations a compost toilet facility can be built by skilled professionals. These facilities will require little water (for hand washing) and only sanitary waste will require collection by a licensed contractor.

As noted previously, considerable work is required in order to make the site ready for use. The outdoor area will have to be cleaned up and levelled and some servicing work will need to be undertaken on the glasshouses. Inside of the glasshouses would have to be weeded and tidied up and some type of permeable ground cover will be required. Ideally, this will sit on compacted stone so as to give a stable, level surface with drainage. Plants can be grown thereupon, either on the floor or by making use of benches.

Normally, small potted plants are grown in shuttles, i.e. reusable plastic trays fitting the individual pot sizes, and these dramatically reduce handling. As the nursery expands, it will be possible to obtain automatic tray fillers, but this would be a future investment if funding could be found.

A central potting area, or a system in which plants are potted and put down in situ, has to be devised. There needs to be a storage area for bags of compost and covered storage for pots and trays. These are ideally situated so as to facilitate unloading by a forklift, as the supply is mostly in pallets. There will be a need for an occasional vehicle with which to transport the plants to markets, which we anticipate could be hired in as required.

A float of capital would have to be in place in order to buy in plants and sundries. Horticulture is a generous business and it is worth canvassing suppliers for the end of lines and so on. Bigger nurseries tend to use robotic transplanters and these have to have precise trays of even plants. On the downside, clients in the Aberystwyth area report that it is both expensive and slow to get essential supplies to the area. It may be possible to coordinate deliveries with local nurseries or develop a drop-off point at which pallets of supplies can be left. It is likely that the facilities for this may already exist as part of the university, wherein there is access to load-all machines and tractor trailers.

As a small-scale nursery, it is not anticipated that an investment will be necessary in any machinery at the set-up stage. This could change in the event that the nursery is scaled up at some point in the future; however, that is not anticipated, given the focus on creating 'therapy' opportunities rather than on developing a commercial enterprise.

Financial output (gross margin)

Glasshouse output

Figures are presented below as gross margins, which constitute the gross output minus variable costs, where the variable costs are those directly allocated to the enterprise. To gain some idea of profits, fixed costs such as tractors, office time, financial costs, etc. must be subtracted.

Table A5.1: Pot and pack density per metre in pot sizes and potential value

Pot size	100% utilised	Less 20% for access, spacing and losses	Nursery capacity 360m ²	Est. gross margin per pot sold	Total gross margin if all of the available area is used
7cm	196	157	56,520	£0.20	£11,304
9cm	120	96	34,560	£0.30	£10,368
10.5cm	90	72	25,920	£0.40	£10,368
6-pack	24	19	6,840	£0.55	£3,762
1 litre	60	48	17,280	£0.50	£8,640

Nurseries of this type normally achieve three crops per annum, i.e. two in spring and one in autumn. On this site there is also 1,000m² of outdoor land; therefore, some of the hardier crops can be grown outdoors. The figures show that six-pack bedding has the lowest potential. This is due to the pack crop becoming a commodity and is heavily discounted in many outlets. Price is more variable in the pots, meaning that they present a better option. The gross margin figure is based on a wholesale value — a retail value will more or less double the total value in column 6.

Excluding pack bedding, the gross values are similar; therefore, it is likely that a mix of plants will be offered in the ranges, and some specimen types could sit in 10.5cm or 1l pots, e.g. geraniums and non-stop begonias.

The ornamental crops, if two crops were taken in spring and one in autumn, could bring in around £30,000 and any fixed costs would be deducted from this, including any rents and salaries. Realistically, this would not be viable as a purely money-making venture and if more of a production area were available, it is doubtful as to whether the local markets would cope with the increased volume.

Alternatively, for cropping salad leaves, in a mixed pack, sold unwashed via a shop in Aberystwyth and possibly the university kitchens near the nursery:

Salad leaf gross margin per m²

Yield 1kg/m²

Price £4.90 per kg

Growing and harvesting cost £3.78

Gross margin £1.12

Enterprise gross margin for 360m² is £403 per crop.

Salad leaves do not appear to be viable, even if four crops per season were produced. Certified organic salad leaf packs can demand a higher price (up to £15.50/kg as per the farm gate price). The nursery could charge a similar retail price for locally produced, uncertified but low-chemical-input salad. This could produce a gross margin of £4,219.20 per crop.

Recommended guide for bedding plants

Assuming that the glasshouse space is allocated to bedding plants and vegetable/herb crops at a ratio of 75:25, the recommended breakdown of products is detailed in Tables 2 to 4. The total percentage of space allocation amounts to more than 100% but there should be room over the three crops taken, e.g. the primroses and half of the pansies and violas are autumn crops.

Table A5.2: Bedding plant guide

Bedding plant	Space allocation (%)	Comments
Antirrhinum	5	
Begonia semperflorens	25	
Non-stop begonias	10	Hanging baskets, 1l and patio pots
Cosmos and dahlia	5	Hanging baskets, 1l and patio pots
Geranium	10	All sizes
Impatiens	0	Downy mildew is a risk; new variety Beacon, by PanAmerican Seed, is resistant
Lobelia	10	Trailing and compact
Marigolds	15	African and French
Pansies and violas	15	Early spring and September
Petunia surfinia	15	Patio and basket
Primroses	5	Autumn crop
Salvia	5	
Sweet peas	5	Best grown from seed

Table A5.3: Potted vegetable guide

Bedding plant	Space allocation (%)	Comments
Tomatoes	25	10.5cm pots, up to 6 varieties
Peppers	5	10.5cm pots
Chillies	5	10.5cm pots
Aubergines	5	10.5cm pots
Brassica Calabrese	2	7cm pots
Broccolis	2	7cm pots
Cabbages	2	7cm pots
Cauliflowers	2	7cm pots
Brussels sprouts	2	7cm pots
Lettuces	4	4 varieties x 4 sowings
Courgettes	4	
Cucumbers	4	
Squash/pumpkins	2	
Sweetcorn	2	
Leeks	4	

Table A5.4: Potted herb guide

Bedding plant	Space allocation (%)	Comments
Basil	4	2 types
Chives	1	
Coriander	4	Best grown from seed x 5 sowings
Dill	1	Best grown from seed x 5 sowings
Fennel	2	
Parsley	2	2 types
Sage	2	
Rosemary	2	
Oregano	1	
Marjoram	1	
Mint	2	
Thyme	3	

Outdoor output

In the outdoor space of 1,000m², vegetables can be grown. **The feasibility of running a vegetable bag/box scheme has been investigated.** The benefit of farm bags is that they provide a guaranteed income to growers when they are able to produce food but the market may not be favourable. In community-supported agriculture (CSA) systems, customers commit to paying a year in advance for their weekly vegetable bags. This commitment provides the farmer with capital in advance for the purchase of seeds and equipment. However, the farmer is also committed to providing the vegetable bags each week. Flexibility is built into the vegetable bag system, allowing vegetable bag contents to be determined according to availability throughout the year. Some CSA systems reduce the cost of their vegetable boxes if customers commit to volunteering to help produce the food on a regular basis, such as two hours per month. Other vegetable box schemes adopt a pay-as-you-go approach in which customers are not tied into a year of purchasing. This option is more attractive to customers but increases risk for the grower.

To ensure a year-round supply it is important to consider successional plantings and choice variety in relation to the harvest period. Open pollinated varieties are often better for vegetable box schemes, as the plants will be ready for harvest at different times, helping to provide succession week after week. Hybrid varieties are better for wholesale selling, since they are likely to become ready all at once. Crop walking will be required in order to accurately forecast the availability of harvestable vegetables on a weekly basis. Diversity is essential for a box scheme offering, with six different items being the standard minimum. Therefore, it is necessary to grow a large range of crops so as to provide this variety consistently throughout different seasons.

Customers are likely to expect to receive a weekly portion of vegetables without the need to supplement from the supermarket, making it necessary to provide staples such as carrots, potatoes and onions, which are not economical to grow on a small scale. These vegetables could be bought in from a local farm or donated in kind in order to increase the vegetable bag offering and reduce the space required. Meanwhile, other vegetables or products could also be bought in so as to increase the variety of items.

Table A5.5 shows a selection of popular vegetable box products, their seasonal availability, their expected yield, and the area of land required in order to provide a portion for 15 bags over the expected availability. The maximum number of customers that could be provided with a vegetable bag each week from a 1,000m² plot of land is 15, with every item being provided in-house. Realistically, fewer bags will be produced, since land will be required for paths and access. If raised beds were used the productive area would be significantly reduced. It is recommended to increase productivity with multiple cropping; for example, when spring onions have been harvested they can be replaced by purple sprouting broccoli. Suitable crop rotations must be planned so as to avoid a build-up of diseases.

Table A5.5: Popular vegetable box products, their seasonal availability and expected number of weeks available throughout the year

Potential seasonality				Crop	Weeks available	High yield (kg/m ²)	Average portion for 1 bag (kg)	Land required for 15 bags (m ²)
S	S	A	W					
				Rhubarb	8	2.8	0.35	15.00
				Asparagus	5	3.9	0.2	3.85
				Broad beans	16	2.1	0.5	57.14
				Radish	16	6.7	0.35	12.54
				Lettuce	16	3.3	0.16	11.64
				Beetroot	36	8.3	0.35	22.77
				Spring onion	12	3.9	0.18	8.31
				Potato	36	30.8	0.65	30.00
				Spinach (perpetual)	24	2.2	0.2	32.73
				Chard	24	2.5	0.2	28.80
				Celery	16	13.9	0.35	6.04
				Garlic	24	2.1	0.08	13.71
				Florence fennel	20	3	0.3	30.00
				Beans (other varieties)	16	9.2	0.5	16.00
				Broccoli	12	1.5	0.33	13.04
				Kohlrabi	16	3.5	0.3	39.60
				Courgette	20	12	0.45	81.82
				Sweetcorn	6	0.7	0.36	51.43
				Kale	24	3	0.25	46.83
				Carrot	32	15	0.5	20.57

				Cauliflower	24	2.2	0.5	11.25
				Onion	24	2.1	0.3	46.29
				Cabbage	32	8.2	0.8	153.60
				Squash/pumpkin	32	2.5	0.8	10.13
				Brussels sprout	20	4.9	0.4	24.49
				Leek	24	3.13	0.6	69.01
Potential seasonality				Crop	Weeks available	High yield (kg/m ²)	Average portion for 1 bag (kg)	Land required for 15 bags (m ²)
S	S	A	W					
				Purple sprouting broccoli	24	2.5	0.25	36.00
				Parsnip	20	5	0.5	30.00
				Swede	20	5.6	0.7	37.50
				Turnip	20	13.3	0.5	11.28
				Celeriac	16	3.2	0.4	30.00
Outdoor total land required								1,001.36

Estimated high yield and the area of land required to provide a portion for 15 bags over the expected availability. The columns 'Potential seasonality' and 'Weeks available' account for the storage of potatoes, onions, root vegetables, garlic, and squash/pumpkins. If suitable storage is unavailable the availability period and seasonality will be greatly reduced.

The least productive time of year is between March and May, which is known as the 'hungry gap'. Sales of bedding plants will complement this time financially. CSA systems tend to cease providing vegetable boxes at this time of year, whereas other vegetable box schemes buy in produce from a wholesaler in order to continue to provide vegetable boxes and retain customers. Customer retention is best when vegetables can be provided for the entire year.

Vegetable boxes vary significantly in price. CSA systems are often organic, with an average price of £1.50/item. The majority of shares cost £10–15 per box. Conversely, supermarkets such as Morrisons are offering an eight-item non-organic vegetable box for £5 and a seven-item organic vegetable box for £8. A seven-item vegetable box in support of the charity MIND could be sold for £10. Assuming that vegetable boxes are sold from June to February (38 weeks), £380 can be generated per customer for one year's vegetable boxes. Therefore, 15 customers could generate £5,700.

Labour cost can constitute £0.90 to pack one box/bag, assuming employment under the National Minimum Wage from April 2019, i.e. £8.21. Labour cost is dependent on the efficiency of the packing system and the experience of the staff/volunteers. Time required in order to pack vegetable bags can clash with the time required for producing vegetables — additional staff/volunteers may be required. It is commonplace to allow customers a number of substitutions that can be made in order to replace vegetables that they do not like. The number of substitutions is often limited so as to minimise the packing burden and liability for mistakes. In some situations in which customers can be overseen or trusted, vegetables can be harvested and displayed for the customers to pack their own vegetable bag, according to a pre-established formula, and make their own substitutions from a communal 'swap box'. Furthermore, this option allows customers to choose or bring their own packaging, thus reducing the packaging waste produced.

Distribution is another factor of success, since customers prefer delivery services such as those provided by Abel & Cole, Riverford, and Hello Fresh. However, door-to-door delivery is costly with regard to time, fuel, and access to a suitable vehicle, costing around £0.82 to deliver one box. Therefore, it is best for customers to agree to collect their vegetable bag from a central hub in a convenient location with adequate accessibility and parking. The Mind Aberystwyth cafe in Aberystwyth could potentially provide a location. There will need to be adequate space in which to store the vegetable bags prior to collection or prior to customer packing. It is recommended that the vegetables be stored in a cool place, away from direct sunlight.

It is not recommended to start a vegetable bag scheme at this stage, given the complications involved in managing a box scheme, the variety of vegetables required in order to provide the service, and the unknown experience of the labour available. Box Master is purpose-built software available for helping to manage a box scheme by planning contents, packing, calculating harvest requirements, and monitoring sales. However, this will require IT-skilled staff, as well as incurring a cost of 2% of revenue generated through the system.

Instead, it is recommended to focus on a selection of high-value crops (from Table 5) that can be sold through a local retail outlet (e.g. the Mind Aberystwyth cafe or local markets such as the Aberystwyth Farmers' Market). High-value crops, for which freshness is important, are likely to appeal to the local market, such as kale, spinach, chard, broad beans, lettuce, beetroot, and purple sprouting broccoli. Moreover, crops that are easy to grow (such as radish, spring onion, and squash) are a good choice. Choosing unusual varieties can add value to the products and attract customers who want to buy items that they cannot obtain in the supermarket. Conversely, some customers are put off by food that they do not recognise.

It may be more feasible to establish a box/bag scheme in the future, once a reputation for high-quality produce is recognised by customers and the annual output of vegetables is recorded. Table A5.6 shows the expected gross margin for some recommended crops per 1,000m². Strawberries have the highest gross margin and are a popular product to be bought locally. They may be likely to draw customers into the MIND shop or stall. Care should be taken when handling and transporting strawberries, as they can spoil easily.

Table A5.6: Expected gross margin for some recommended crops per 1,000m²

Crop	Gross margin per 1,000m ²
Asparagus	£2,027
Cauliflower	£834
Fresh-cut herbs	£7,760
Kale	£3,068
Leek	£4,675
Rhubarb	£6,820
Strawberry	£8,451
Pumpkin	£1,536

Marketing of the produce

Marketing is likely to be a potentially difficult challenge for this enterprise. Existing supply chains for the sale of ornamentals are in place and discount supermarkets have a very cheap offer. Moreover, there are “sheds” such as B&Q and Homebase, plus some small, independent garden centres and retail nurseries. There is an online trade, too, often for plugs and small plants offered by the majority of the seed.

The USP (unique selling point) of this enterprise is the support that the sales will give to the charity that we anticipate will be running the enterprise and there is a tradition of charity sales of ornamental plants. This outlet is much easier to achieve with the use of social media, upon which the public are kept informed of progress and a list of followers is soon compiled. This then gives free access to the customer base so that pop-up events can be organised.

The Mind Aberystwyth cafe has two potential functions: selling some of the items and making the public aware/gathering contact details for marketing purposes. Ornamental plants are quite difficult to carry; therefore, the main sales are likely to be from pop-up events, wherein a local sports field or similar facility with easy access to cars and parking allows customers to fill their cars. The timing of these events should be that of mid-April to mid-June and either weekends or evenings as the days get longer. Towards the end of the season, unsold plants can be placed in large “patio planters” and sold on impulse; these can go out well. These can work with any local car boot sales, besides the pop-up events.

This type of marketing can be slow to get off the ground until the public grasp what it is about. It is vital that the plants be of good quality so that word-of-mouth and customer satisfaction are generated. It is difficult to predict the outputs of these markets, but we would expect it to take a couple of years to become a ‘go-to’ event for keen gardeners.

As herbs and vegetable plants are part of the offer, it will be worth contacting allotment associations and any local gardening clubs. These are the keen end of the market and will travel; therefore, extend the catchment to the towns and villages to the north and south of Aberystwyth. It is worth considering attending any car boot sales.

There is, of course, always the potential in this type of enterprise that the demand generated could be greater than the produce that the nursery can supply. It is therefore advisable (as a plan B) to have a contingency plan in place in respect of buying in wholesale plants and selling these on. Typically, wholesale prices are half of retail prices; therefore, there is an opportunity there.

The nursery itself is not an ideal site for a retail nursery and dribs and drabs of customers can be a distraction; therefore, it is suggested that no sales be carried out there.

Sales and marketing are as important as, if not more important than, production, so there are some good lessons to be learned by the staff at the nursery, whom it is hoped will become involved with sales — this builds useful confidence.

There is also the sundries market for selling composts, fertilisers, and other supporting products. What is more, there are local wholesalers, such as Watson & Pratts or the Aberystwyth Farmers' Market, that may utilise the space.⁸⁵ This could be something to develop or explore further, but the focus must be upon the plants in the early stages.

The marketing mix is another area and some guidance thereupon is given here. This is quite a complex subject but is simplified by customers buying what they like on the day. A few customers (possibly 20%) go out with a set idea, especially regarding vegetables, of what they want.

Vegetable and herb plants would constitute around 25% of the sales with some 9cm and 10.5cm pots and more specimen plants. As the gross margins are broadly similar across the range, other than with six packs, a good mix of plants of various sizes is also suggested.

⁸⁵ <https://www.watsonandpratts.co.uk/producers/>

Labour requirements (staff and volunteers/participants)

A typical small nursery operation can easily be managed by a staff with the equivalent of five full-time employees, including an overall leader. In general, however, the smaller the nursery, the greater the amount of labour needed, due to a lack of mechanisation and economies of scale. Where volunteer/participant labour is used, more people will be required. Volunteers cannot be expected to make the same commitments as those of paid employees.

Glasshouse requirements (indoor)

Table A5.7 shows the labour requirements for the glasshouse operation. Figures have been estimated within a low-tech scenario, without commercial machinery.

Table A5.7: Estimation of labour hours required for the busy period (e.g. Mar–June)

Pot size	Number of pots/m ²	Nursery space allocation %	Nursery space allocation m ²	Nursery capacity (number of pots)	Labour hours required*
7cm	157	20	72	11,304	418.25
9cm	96	25	90	8,640	319.68
10.5cm	72	40	144	10,368	383.62
6-pack	19				
1 litre	48	15	54	2,592	116.64
				Total	1,238.19

**Labour hours required account for activities: compost mixing, potting, watering, and labelling, where 0.037 hours is required for a small pot (<1 litre) and 0.045 hours is required for a 1l pot.*

The table shows that 1,238 hours is required for a four-month period, which constitutes the equivalent of 33.5 weeks of full-time work (37 hours per week). Two full-time employees will be required to carry out 33.5 weeks of work during a four-month period.

If this work is carried out by volunteers (**or participants**), they cannot be expected to work full-time. If they work part-time at 16 hours per week, five volunteers will be required to carry out the work. Volunteers, working an equal number of hours to those of paid employees, cannot be expected to be as productive, requiring regular breaks, especially when inexperienced and carrying out manual tasks.

It is recommended that one experienced full-time grower be employed, accounting for 592 hours of the work. Therefore, two-and-a-half volunteers (contributing a total of 40 hours per week) will be required, additionally, to carry out the work. Furthermore, additional time will be required in order to carry out pest, weed and disease management of the crops.

Outdoor labour

Additional labour will be required for managing the outdoor vegetables. An estimated 0.208 weeks of volunteer (16 hours) labour is required per m², using allotment-style techniques and equipment (low-tech). Therefore, for 1,000m², 208 weeks of volunteer/participant labour is required for the year, which is the equivalent of four-and-a-third volunteers.

Total labour requirements

It is anticipated that clearing-up of the site will need at least 10 person days (80 hours) before the site is ready to start production. This could be carried out by volunteers with one supervisor.

Marketing at the pop-up events and any farmers' market stalls may require additional volunteers (at least three per event). Other duties requiring labour include the delivery of goods to pop-up events and the MIND centre.

It is also recommended that an additional person be responsible for marketing and administration and that a further additional person be required for volunteer supervision. Some of these responsibilities are, however, infrequent and could be covered by existing volunteers if timetables permit.

Detailed financial forecasts

Key assumptions underpinning the financial forecasts are as follows⁸⁶:

INCOME

The business planning report (above) has proposed a wide mix of production processes that could be deployed as part of this enterprise. No single 'optimum' solution for the site has been proposed in order to maintain options and not be too prescriptive. However, in terms of the detailed financial forecasting, the aim has been to provide the most financially advantageous outcome for the client on the understanding that variance towards lower-yielding crop combinations will incur deterioration in the financial outturns predicted herein.

Accordingly, in terms of the best yield, 7cm pots and strawberries would appear to provide the best financial outturns for the site in terms of gross margins. It is important to note that the product 'gross margin' figures quoted above exclude overheads (e.g. utility costs, NICS, etc.). Two approaches have therefore been adopted in order to ascertain a more complete financial picture of costs and income and the likely financial returns/losses that will ensue from these. One approach has been an attempt to 'plug the holes' in the costs and assume that this then negates any inflated 'gross margin' estimates, which forms part of the forecast. The second approach has been to try to create a full financial model of costs and revenues by grossing up the gross margin to represent the effective turnover and then introducing the full costs associated with production. This has also required estimating all operating costs. Both approaches have merit but they are not the 'best' models due to the working estimates provided by ADAS.

Accordingly, these two income streams would expect to yield the following gross margins:

7cm pots — It is assumed that the 360m² glasshouses would be fully occupied throughout the year with work relating to the offerings from small plants/plugs. It is understood that these may well compete with much more cost-effective suppliers locally. However, it is hoped that the community would galvanise in order to support the facility — there are good examples elsewhere in Wales in which this has happened. Total (maximum) expected gross margins from this source are estimated to be £11,304 (source ADAS).

Strawberries — The 1,000m² outdoor area which is available for production in the summer/autumn period would provide the basis for producing the income stream from strawberries. Total (maximum) expected gross margins from this source are estimated to be £8,451 (source ADAS).

⁸⁶ It should be noted that not all of these assumptions apply to both models being used to estimate the financial forecasts.

Volunteering — Whilst not direct income, a major assumption supporting the potential outturns for the facility is the substantial role of volunteering, which is specifically highlighted in the ADAS report as being a major component of keeping costs down (capital and fixed) and boosting income. This facility will not operate without substantial support from volunteers, thus rendering these forecasts almost meaningless without this core input to production and operations.

Grant sponsorship — None is assumed beyond the capital grant, although this might change over time; given, however, that it could be a non-recurring component of income, it has not been included within the forecasts. However, as the outturns suggest, this will be a necessary part of a successful project (at least financially).

EXPENDITURE

Staff costs (i.e. gross salaries including employer’s NIC), assuming two FTEs for the site operations (0.5 of the administration will be to cover for the full-time manager).⁸⁷ Average hourly wages for non-management roles are likely to be at the hourly minimum wage. Management rates are around £10 per hour. The table below indicates the basic gross salaries for the staff (before tax, NIC and pension contributions):

	Number	Rate	Hours	Total weekly	Total monthly	Annual gross salary	NIC costs	Total cost
Management /grower	1	10	37.5	£375.00	£1,612.50	£19,500.00	13.80%	£21,000.34
Marketing/ assistant	1	8.21	37.5	£307.88	£1,323.86	£16,009.50	13.80%	£17,028.15
Total cost of staff								£38,028.48

It is assumed that stoppages are all deductible from the gross salaries; therefore, this is the basic cost to MA. These cost estimates will differ where, for example, those employed as apprentices and who are below the age of 25 will have an employer NIC of 0% and a minimum wage of £7.70. However, for the purposes here, it would be reasonable to assume that the total wage cost for the proposed venture as a whole would be around £38k per annum.

Site insurance — A notional insurance premium of £500 per annum is included for public liability on the site for the first year.

Contents insurance — Given the assumption that volunteering or ‘clients’ will be the major contributor to production (i.e. no machines, etc.), this is assumed to constitute nil costs here.

⁸⁷ Potential additional costs of this will be picked up through contingency provision.

Energy, heat & light — Based on the preliminary assessment that MA will want to use the site 365 days per annum and maintain a minimum temperature within the glasshouses that allows some production work to take place, then (roughly) it will take 3.59kw/h (or 12,266BTU) of energy to keep 360m² of glasshouses (which have been bubble-wrapped) lined at a minimum temperature of 5°C. The average annual temperature in Aberystwyth is 9.6°C; the winter months of December, January and February, however, have an average low of 2–3°C; assuming that this is during the night, we have based the energy cost upon 4kw/h for 12 hours over 160 days and 2kw for 12 hours over 200 days. This covers potentially colder-shoulder periods and longer gestation over the winter months.

Energy prices fluctuate considerably and vary by area. The main UK supplier prices are shown below:

EDF Energy: 16.202p

Scottish Power: 15.533p

British Gas: 14.700p

Npower: 14.574p

Assuming 15p per kWh, the cost should be around £1.9k per annum or £156 per month.

ICT — This should be part of the initial capital set-up costs, but there will potentially be EPOS system costs for tills (but these can be as cheap as £40 per month). Digital marketing costs (which, in part, is what this is) can range from anywhere between £1k and £20k per month to deliver. Assuming that MA will cover some of the overhead costs of this, it is possible to set up a webpage for around £600, with maintenance thereafter of £200 per annum. Broadband is around £50 per month (£600 per annum). Therefore, an annual cost of £1k has been assumed for the forecast, given the very indeterminate nature of what may actually feature within the facility.

Site rent — The university owns the site and should realise the benefits of capital investment through improvement to what has become a largely derelict site. At this juncture, therefore, it is assumed that there is no rent charge for the site, but this requires confirmation from the university.

Office/administration — It is expected that this facility will ‘piggyback’ on the current MA office and administration; therefore, no costs are assumed (e.g. wage/salary processing, etc., but see Professional fees below).

Water — It is estimated that the cost of water is £4,382 per annum based on the assertion that 0.4ha of greenhouses requires 100m³ of water on average per day, which means that 360m² will need around 9,000 litres per day. Over 365 days, this amounts to 3,285m³. At ‘trough rates’ of £1.33 per m³, this amounts to nearly £4.4k. This may be an overestimate, but it is based on the notional baseline glasshouse demand for water and is a legitimate estimate in the circumstances.

Business rates (BRs) — Assuming here that the university will be charged for the site as a whole, no specific BRs for the MA are assumed for the P&L. This will in any case be subject to negotiation with Aber Council (AC). Furthermore, it is likely that MA would expect to secure a charitable status for this particular aspect; therefore, a 100% dispensation would potentially apply. However, this could be partial where the AC contests that there is commercial trading taking place (which, clearly, there is). There should be no VAT liability for income, and costs are VAT-inclusive where applicable. (As a charity there are VAT exemptions as well if appropriate.)

Repair & maintenance — This is provided by the ADAS cost sheet.

Professional fees — It is expected that this facility will ‘piggyback’ on the current MA office and administration; therefore, no costs are assumed (e.g. wage/salary processing, etc.). However, for completeness, a notional £1k cost per annum has been included in the forecasts.

Marketing — This is a very important aspect which should materially contribute to the success (or otherwise) of this project. MA will have its own budget with which to market and this will allow the facility to ‘piggyback’ on its own ‘product’. However, this will be a year-round ‘business’ and there will be a need to generate marketing and publicity material — either for the purpose of direct marketing or as a ‘piggyback’ with MA marketing. Moreover, there will be a need to include the university in the marketing strategy. In this case a notional budget will be necessary. The usual rule-of-thumb marketing budget is set at 5% of revenues; however, this has been set at only £1k per annum, given the MA’s existing role.

Cost of goods purchased — This is assumed to be 10% of turnover; whilst there is clearly scope for this to be higher, ADAS indicates that there should be sufficient goodwill in the marketplace to allow for this lower rate. Regardless, the gross margin estimates provided would suggest that this was likely to be a more realistic cost rate.

Contingency — This is set at c. 6% of turnover.

Inflation — This is included at 2% per annum over the forecasted period.

Depreciation — This component has not been included in the forecast given; this will have an impact on the university accounts.

Trading results

The following summarises the trading results for the facility, taking into account the aforementioned assumptions. These results are in respect of current prices, but inflation has been included against relevant costs (including salaries) in the forecast; growth in income is also forecasted up to a notional steady state in year 3.⁸⁸

⁸⁸ This should not preclude further growth in income through a combination of higher throughput and price effects.

Based on these assumptions, the key results are detailed in the tables below (the full results are included at the end of this appendix):

Trading results (£) – Option 1 (gross-up model)	Yr 1	Yr 2	Yr 3
Opening balance	0	-11273	-19712
Gross trading profit	6126	10990	15838
Net profit (before tax and interest)	-11273	-8440	-4472
Closing balance	-11273	-19712	-24185

Option 1 (£)	Income	Cost of sales	Gross profit	Costs plus o/h	Net profit
Yr 1	45154	39028	6126	56427	-11273
Yr 2	50799	39809	10990	59238	-8440
Yr 3	56443	40605	15838	60915	-4472

Trading results (£) – Option 2 (cost input model)	Yr 1	Yr 2	Yr 3
Opening balance	0	1163	3035
Gross trading profit	12285	14241	16196
Net profit (before tax and interest)	1163	1872	3731
Closing balance	1163	3035	6766

Option 2 (£)	Income	Cost of sales	Gross profit	Costs plus o/h	Net profit
Yr 1	15804	3519	12285	14641	1163
Yr 2	17780	3539	14241	15907	1872
Yr 3	19755	3559	16196	16024	3731

The facility should expect to trade at the steady-state year 3, with balances ranging between a -£4,500 loss and a £3,750 gain. Given that the forecasts have been produced to present not only a P&L but also a reasonable approximation of cash flow, some cost entries fall outside of the forecasted period.⁸⁹ **Noting that this is a revenue-maximising model, in all likelihood the facility should expect to generate a loss, possibly in excess of between -£5k and -£10k per annum.** This has implications regarding financing the facility in the longer term.

⁸⁹ This would slightly worsen these outturns for a full f/y.

Sensitivity and risk assessment

A sensitivity test is somewhat redundant for this project, given that there is already an ‘acceptance’ that this is not expected to be a commercial proposition. With all of that being said, contributions as highlighted will be necessarily substantial and where these become excessive, it may go beyond a point of being sustainable for MA and its partners. As noted below (see Risk assessment), there may be a ‘red line’ beyond which MA would not be willing to finance (or run) the project in the long term. Taking into account income, it is thought that the assumed revenue-maximising approach is already the ceiling for the forecasts, therefore being unlikely to increase; rather, it may well be lower. Therefore, from a sensitivity test perspective, this poses a high risk in terms of inducing a much higher deficit.

That being said, a fairly sizeable variation in sales will not make a huge difference to eventual losses because income plays a reduced role in the (non)sustainability of the project. Under the cost input model a 20% reduction in all sales will be broken even by year 3. At the same time, there is significant ‘fixity’ in the cost base of the project. Where there is variability this is also linked to income generation (e.g. costs of purchases are directly linked to turnover — a reduction in production lowers the costs of purchases); therefore, unless the assumptions regarding costs are thought to be unreasonable, then there is negligible variance expected here, too. From a sensitivity standpoint, unless there is a shock increase in, for example, insurance premiums or ICT, then there is little in the way in which costs should vary beyond what has been assumed.

However, there are key entries within the forecasts — especially business rates and site rental — which could induce a major cost within the project in going forward. This, in particular, requires early clarification in order to further substantiate the financial outturns from these option models.

A ‘traffic light’ risk assessment is summarised below:

Risk	Details	Mitigation	Residual risk
1	MA decides that it cannot or is unwilling to meet the (long-term) financial requirements of the project.	MA to establish a critical red line for income generation and, thus, notional MA funding requirement for the project. Maintaining a regular dialogue with public-sector (and private-sector) partners, supplemented by regular briefings on the progress of the project and realisation of planning assumptions. Early board/(sub)committee involvement/intervention where appropriate.	Amber (possibly red under Option 2 model).

2	Volume of sales is considerably less than anticipated.	Early engagement with partners to build relationships/joint marketing strategies for sales. Ensure that the product is customer-oriented. Early board/(sub)committee involvement/intervention where appropriate. MA to establish a critical red line for sales/income generation and, thus, funding requirements.	Green (possibly amber for Option 2 model).
3	Dispute with regard to the governance of the facility (e.g. Aber University).	Ensure that the project is managed clearly (i.e. clear board/committee structure, down to the executive PM) with a definitive delivery programme with agreed outputs/milestones. Secure clear, legally binding agreements with Aber University and others (where appropriate). Ensure appropriate key partner involvement over the lifetime of the project.	Green.
Risk	Details	Mitigation	Residual risk
4	Failure to secure the appropriate grant for the renovation.	Commission further grant-funding applications; where necessary, moratorium on the project until core funding is secured.	Green.
5	Failure to achieve zero business rates.	MA/university to clarify governance structure as soon as possible. Early engagement with the council to deliberate on the potential charitable dispensation, etc.	Amber.
6	Land rent issues and leasing period.	MA/university to clarify governance structure as soon as possible.	Green.

Key	High risk	Medium risk	Low risk
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Gross up Model	Yr1											
	Jan	Feb	March	April	May	June	July	August	Sept	Oct	Nov	Dec
7cm pots	2153	2153	2153	2153	2153	2153	2153	2153	2153	2153	2153	2153
Strawb							6439	6439	6439		0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0
Total Income	2153	2153	2153	2153	2153	2153	8592	8592	8592	2153	2153	2153
	Jan	Feb	March	April	May	June	July	August	Sept	Oct	Nov	Dec
Staff costs	3169	3169	3169	3169	3169	3169	3169	3169	3169	3169	3169	3169
Insurance	0	500	0	0	0	0	0	0	0	0	0	0
Heat & Light	156	156	156	156	156	156	156	156	156	156	156	156
Cost of purchase	376	376	376	376	376	376	376	376	376	376	376	376
ITC	0	0	0	370	0	0	370	0	0	370	0	0
Refurb / maint	193	193	193	193	193	193	193	193	193	193	193	193
Water	365	365	365	365	365	365	365	365	365	365	365	365
Rates	0	0	0	0	0	0	0	0	0	0	0	0
Site Rent	0	0	0	0	0	0	0	0	0	0	0	0
Prof fees	0	0	0	0	0	0	0	0	0	0	0	0
Marketing	83	83	83	83	83	83	83	83	83	83	83	83
Contingency	226	226	226	226	226	226	226	226	226	226	226	226
Total Costs	4568	5068	4568	4938	4568	4568	4938	4568	4568	4938	4568	4568
Monthly Balance (i	-2415	-2915	-2415	-2785	-2415	-2415	3654	4024	4024	-2785	-2415	-2415
Cumulative Balance	-2415	-5330	-7745	-10530	-12945	-15360	-11706	-7682	-3658	-6443	-8858	-11273

Gross up Model	Yr2											
	Jan	Feb	March	April	May	June	July	August	Sept	Oct	Nov	Dec
7cm pots	2422	2422	2422	2422	2422	2422	2422	2422	2422	2422	2422	2422
Strawb							7244	7244	7244		0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0
Total Income	2422	2422	2422	2422	2422	2422	9666	9666	9666	2422	2422	2422
	Jan	Feb	March	April	May	June	July	August	Sept	Oct	Nov	Dec
Staff costs	3232	3232	3232	3232	3232	3232	3232	3232	3232	3232	3232	3232
Insurance	0	510	0	0	0	0	0	0	0	0	0	0
Heat & Light	159	159	159	159	159	159	159	159	159	159	159	159
Cost of purchase	423	423	423	423	423	423	423	423	423	423	423	423
ITC	370	0	0	377	0	0	377	0	0	377	0	0
Refurb / maint	159	159	159	159	159	159	159	159	159	159	159	159
Water	372	372	372	372	372	372	372	372	372	372	372	372
Rates	0	0	0	0	0	0	0	0	0	0	0	0
Site Rent	0	0	0	0	0	0	0	0	0	0	0	0
Prof fees	1000	0	0	0	0	0	0	0	0	0	0	0
Marketing	85	85	85	85	85	85	85	85	85	85	85	85
Contingency	254	254	254	254	254	254	254	254	254	254	254	254
Total Costs	6055	5195	4685	5063	4685	4685	5063	4685	4685	5063	4685	4685
Monthly Balance	-3633	-2773	-2263	-2641	-2263	-2263	4603	4981	4981	-2641	-2263	-2263
Cumulative Bala	-14906	-17679	-19943	-22583	-24846	-27110	-22506	-17526	-12545	-15186	-17449	-19712

Gross up Mod Yr3													
	Jan	Feb	March	April	May	June	July	August	Sept	Oct	Nov	Dec	
7cm pots	2691	2691	2691	2691	2691	2691	2691	2691	2691	2691	2691	2691	2691
Strawb							8049	8049	8049				
Other	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Income	2691	2691	2691	2691	2691	2691	2691	10740	10740	10740	2691	2691	2691
	Jan	Feb	March	April	May	June	July	August	Sept	Oct	Nov	Dec	
Staff costs	3297	3297	3297	3297	3297	3297	3297	3297	3297	3297	3297	3297	3297
Insurance	0	520	0	0	0	0	0	0	0	0	0	0	0
Heat & Light	162	162	162	162	162	162	162	162	162	162	162	162	162
Cost of purcha	470	470	470	470	470	470	470	470	470	470	470	470	470
ITC	377	0	0	385	0	0	385	0	0	385	0	0	0
Refurb / maint	142	142	142	142	142	142	142	142	142	142	142	142	142
Water	380	380	380	380	380	380	380	380	380	380	380	380	380
Rates	0	0	0	0	0	0	0	0	0	0	0	0	0
Site Rent	0	0	0	0	0	0	0	0	0	0	0	0	0
Prof fees	1020	0	0	0	0	0	0	0	0	0	0	0	0
Marketing	87	87	87	87	87	87	87	87	87	87	87	87	87
Contingency	282	282	282	282	282	282	282	282	282	282	282	282	282
Total Costs	6218	5340	4820	5205	4820	4820	5205	4820	4820	5205	4820	4820	4820
Monthly Balan	-3526	-2649	-2129	-2514	-2129	-2129	5535	5920	5920	-2514	-2129	-2129	-2129
Cumulative Ba	-23239	-25888	-28016	-30530	-32659	-34788	-29253	-23333	-17413	-19927	-22056	-24185	

Cost Input Model	Yr1											
	Jan	Feb	March	April	May	June	July	August	Sept	Oct	Nov	Dec
7cm pots	754	754	754	754	754	754	754	754	754	754	754	754
Strawb							2254	2254	2254		0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0
Total Income	754	754	754	754	754	754	3007	3007	3007	754	754	754
	Jan	Feb	March	April	May	June	July	August	Sept	Oct	Nov	Dec
NICS only	210	210	210	210	210	210	210	210	210	210	210	210
Insurance	0	500	0	0	0	0	0	0	0	0	0	0
Heat & Light	156	156	156	156	156	156	156	156	156	156	156	156
ITC	0	0	0	370	0	0	370	0	0	370	0	0
Costs of purchase	0	0	0	0	0	0	0	0	0	0	0	0
R&M (refurb)	193	193	193	193	193	193	193	193	193	193	193	193
Water	365	365	365	365	365	365	365	365	365	365	365	365
Rates	0	0	0	0	0	0	0	0	0	0	0	0
Site rent	0	0	0	0	0	0	0	0	0	0	0	0
Prof fees	0	0	0	0	0	0	0	0	0	0	0	0
Marketing	83	83	83	83	83	83	83	83	83	83	83	83
Contingency	79	79	79	79	79	79	79	79	79	79	79	79
Total Costs	1086	1586	1086	1456	1086	1086	1456	1086	1086	1456	1086	1086
Monthly Balance (-332	-832	-332	-702	-332	-332	1551	1921	1921	-702	-332	-332
Cumulative Balan	-332	-1165	-1497	-2199	-2532	-2864	-1313	609	2530	1827	1495	1163

Cost Input Model	Yr2											
	Jan	Feb	March	April	May	June	July	August	Sept	Oct	Nov	Dec
7cm pots	848	848	848	848	848	848	848	848	848	848	848	848
Strawb							2535	2535	2535		0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0
Total Income	848	848	848	848	848	848	3383	3383	3383	848	848	848
	Jan	Feb	March	April	May	June	July	August	Sept	Oct	Nov	Dec
NICS only	210	210	210	210	210	210	210	210	210	210	210	210
Insurance	0	510	0	0	0	0	0	0	0	0	0	0
Heat & Light	159	159	159	159	159	159	159	159	159	159	159	159
ITC	370	0	0	377	0	0	377	0	0	377	0	0
Costs of purchases	0	0	0	0	0	0	0	0	0	0	0	0
R&M (refurb)	159	159	159	159	159	159	159	159	159	159	159	159
Water	372	372	372	372	372	372	372	372	372	372	372	372
Rates	0	0	0	0	0	0	0	0	0	0	0	0
Site rent	0	0	0	0	0	0	0	0	0	0	0	0
Prof fees	1000	0	0	0	0	0	0	0	0	0	0	0
Marketing	85	85	85	85	85	85	85	85	85	85	85	85
Contingency	89	89	89	89	89	89	89	89	89	89	89	89
Total Costs	2445	1585	1075	1452	1075	1075	1452	1075	1075	1452	1075	1075
Monthly Balance (i	-1597	-737	-227	-604	-227	-227	1931	2309	2309	-604	-227	-227
Cumulative Balanc	-434	-1171	-1398	-2002	-2228	-2455	-524	1784	4093	3489	3262	3035

Cost Input Model	Yr3											
	Jan	Feb	March	April	May	June	July	August	Sept	Oct	Nov	Dec
7cm pots	942	942	942	942	942	942	942	942	942	942	942	942
Strawb							2817	2817	2817			
Other	0	0	0	0	0	0	0	0	0	0	0	0
Total Income	942	942	942	942	942	942	3759	3759	3759	942	942	942
	Jan	Feb	March	April	May	June	July	August	Sept	Oct	Nov	Dec
NICS only	210	210	210	210	210	210	210	210	210	210	210	210
Insurance	0	520	0	0	0	0	0	0	0	0	0	0
Heat & Light	162	162	162	162	162	162	162	162	162	162	162	162
ITC	377	0	0	385	0	0	385	0	0	385	0	0
Costs of purchase:	0	0	0	0	0	0	0	0	0	0	0	0
R&M (refurb)	142	142	142	142	142	142	142	142	142	142	142	142
Water	380	380	380	380	380	380	380	380	380	380	380	380
Rates	0	0	0	0	0	0	0	0	0	0	0	0
Site rent	0	0	0	0	0	0	0	0	0	0	0	0
Prof fees	1020	0	0	0	0	0	0	0	0	0	0	0
Marketing	87	87	87	87	87	87	87	87	87	87	87	87
Contingency	99	99	99	99	99	99	99	99	99	99	99	99
Total Costs	2477	1599	1079	1464	1079	1079	1464	1079	1079	1464	1079	1079
Monthly Balance (-1535	-657	-137	-522	-137	-137	2295	2680	2680	-522	-137	-137
Cumulative Balan	1501	843	706	184	46	-91	2204	4884	7563	7041	6904	6766

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