

Case Study

Dyfi Biosphere and Integrated Rural Development Project, Wales, UK.

Name of locality:

Bro Dyfi: incorporating the Dyfi Biosphere Reserve and the Dyfi river catchment

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LEADER + in Wales

There are 7 LEADER+ groups in Wales.
Details of these groups can be found under
www.wda.co.uk/leaderplus

Glasu

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This case study provides brief details of the Dyfi Biosphere / Integrated Rural Development Project, the purposes of which are:

- to encourage the communities in Bro Dyfi to learn and understand more about the significance of their local environmental assets, in particular as represented by the Dyfi Biosphere Reserve and surrounding catchment, and
- to involve them more directly in planning the contribution these assets can make to sustaining the social and economic life of their communities.

Summary

This case study incorporates an area of significant natural and cultural interest and offers a microcosm of the complexities of implementing an integrated approach to conservation and rural development. While the Project that is the focus of the Case Study is effectively only at the planning stage, it builds upon experience of several decades of interest in conservation and sustainable development in the area. In doing so, it raises interesting questions about the linkages between conservation and development initiatives and how these can be strengthened in order to enable an holistic and fully integrated 'landscape-scale' approach.

The Project is one to renew and extend the Biosphere Reserve status of the Project area (Dyfi Valley, Wales, UK). While arguably implementing a specific concept by means of an equally specific toolkit, the Biosphere Reserve purposes and methodologies, as defined by UNESCO¹, are in theory applicable to any circumstances where the goal is for integration of conservation and development for a more sustainable future. In this particular case, the extended Biosphere Reserve will include within its boundaries important nature conservation (Natura 2000) sites as well as sizeable rural communities that are economically marginal and struggling to sustain themselves. The effectiveness of the Biosphere Reserve status relies wholly on reconciling - at the local and regional levels - the needs of conservation with those of development.

Geographical description

The Dyfi valley or 'Bro Dyfi' (**Map 1**) lies in Central Wales, extending some 47kms from the Aran Mountains (900 metres) in the east, to the mouth of the Dyfi estuary at Aberdyfi on the west coast. The area includes one of the most spectacularly beautiful estuaries in Wales, offering fine views of the mountains of Snowdonia National Park to the north and the uplands of Pumlumon and the Cambrian Mountains to the south. The Dyfi Valley straddles three county local authority administrative areas (Powys, Ceredigion and Gwynedd), the river itself marking the boundary between these three counties.

The ecological value of the Dyfi estuary, estuarine mire of Cors Fochno and associated wetlands and dune systems have been recognised at national level for many years. Thus a well-established network of designations under UK legislation has provided a strong the foundation for current EU regulations under Natura 2000. In addition, the estuarine complex gained international recognition in 1976, when it was designated a Biosphere Reserve under the UNESCO Man and the Biosphere (M&B) programme. It is the only Biosphere Reserve in Wales. It is also a Ramsar Site under the 1971 Ramsar Convention².

The Dyfi Biosphere Reserve currently covers 44.26 sq kms. However, in order to comply with new UNESCO criteria, the Bro Dyfi Partnership Project has been established to extend the Biosphere Reserve beyond the estuary to include the entire catchment of the Dyfi river, thus increasing its area to 743 sq. kms and incorporating towns, villages, forests, farmland and stretching into Snowdonia National Park. This extension thus fundamentally alters the the character, and the management needs and priorities of the designation. The Biosphere Reserve will also extend westwards into the Irish Sea in accordance with the new marine Special Area of Conservation (see below, page 4).

¹ "Biosphere Reserves [are] sites of excellence to explore and demonstrate approaches to conservation and sustainable development on a regional scale" (UNESCO 2002). See also **Annex A**.

² The Convention on Wetlands of International Importance especially as Waterfowl Habitat.

Map 1: The Dyfi Estuary and River Catchment

Dyfi Catchment



Produced by CCW on: 2 December 2005

Scale 1:250000

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Description of locality

Natural and cultural values:

The Dyfi Estuary itself has a unique landscape character. It has floristically rich sand dunes; mudflats; and extensive saltmarsh which has traditionally been used for grazing sheep, cattle and ponies. The area is of all-Wales importance for breeding waders and wintering wetland birds and includes an SPA for Greenland white-fronted goose for which the Dyfi is the only regular wintering location in Wales and England. The estuarine complex also includes an extensive raised mire (Cors Fochno), which is an SAC in its own right. It is the 'locus typicus' of estuarine raised mire, encompasses the largest extent of primary (intact) lowland raised mire in UK and approximately 8% of the 'active' (peat-forming) raised mire in the UK. It provides habitat for a range of rare and scarce plants and invertebrates.

Under UK legislation the Estuary is a National Nature Reserve (NNR) and Site of Special Scientific Interest (SSSI) and under the EU Natura 2000, is part of the Pen Llyn A'r Sarnau marine SAC. The raised mire (Cors Fochno), also part of the NNR and SSSI, has been designated separately as SAC. The estuary and Cors Fochno together also comprise a Ramsar Site and Biosphere Reserve. Within the estuarine complex and Dyfi SSSI the Royal Society for Protection of Birds (RSPB) have a significant reserve at Ynys-hir, incorporating both part of the estuarine marsh and adjoining hillsides and woodlands. A further area of upper estuarine marsh is a nature reserve managed by the Montgomery Wildlife Trust.

The Dyfi Estuary



Town of Aberdyfi at the mouth of the estuary



Semi-fixed sand dunes; looking up the estuary to the Dyfi Valley



Estuarine mire



Cors Fochno SAC

Photos: Mike Bailey

Close to the estuary, and within - or partly within the Dyfi catchment - are a range of SSSIs, including Cae Ty-Hen, Cwm Llyfnant, Coed Maes-Mawr, Coed Esgairneiriau a Cheunant Caecenau, Coed Cwm Cletwr, Gwaun Troed-Rhiw Seiri a Llyn Mynydd-Gorddu, Pencarreg-Gopa a Moel Hyrddod, and Pumlumon. In addition there are several further nature reserves owned by the wildlife trusts or local authorities in the wider area.



Photo: Mike Bailey

The Dyfi Valley

Upstream of the estuary, the river Dyfi flows through some of the most attractive scenery in Wales. The upper valley catchment is within the Snowdonia National Park, - Wales first and largest National Park³ The river dominates the character of the landscape throughout the catchment. It flows along a major line of weakness through Ordovician and Silurian strata which fringe the south and south eastern edge of Snowdonia, comprising primarily Cambrian and Pre-Cambrian rocks with igneous intrusions. During the Peistocene, Wales was an area of high relief and there was considerable snowfall; ice sheets radiated from northern Snowdonia and the effects of glaciation are to be seen everywhere. South of Cader Idris (northern fringe of the study area) the topography has a more rounded appearance. The upper Dyfi valley and Dysyni valleys have U-shaped cross sections, and other evidence of glaciation (drumlins, moraine dammed lakes, boulder clay soils and outwash gravels) are to be seen in the landscape.

Pastoralism (cattle in the valleys and sheep in the hills) is the primary agricultural practice in this region. Historically, hill sheep farming has been particularly important, perpetuating a landscape of improved pastureland and hedgerowed fields in the valleys and extensive rough grazing land with dry stone walls on the higher slopes. Pockets of native woodland survive in the valleys and on the lower hillsides. In the past most farms in the area also grew their own vegetables, producing a small surplus for the local market, though this practice has largely been abandoned.

Many farms are now receiving support to maintain their traditional farming practices through the Tir Gofal Agri-Environment Scheme of the Welsh Assembly Government (**Annex C**).



Photos: Mike Bailey

The Dyfi Catchment

³ National Parks in the UK are IUCN Category V Protected Landscapes. The designations are in place to aid the conservation of the natural beauty of these areas and their enjoyment by the public, but within a framework of viable communities. Snowdonia was designated a National Park in 1951.

However, with the economics of farming changing dramatically, some farmers are now looking at different forms of economic activity, particularly those which build on local agricultural traditions - especially sheep farming - but which ensure that the revenues can be more easily controlled by local communities. There is a growing interest in currently 'niche' markets which are likely to grow substantially, for example that of organic meat.

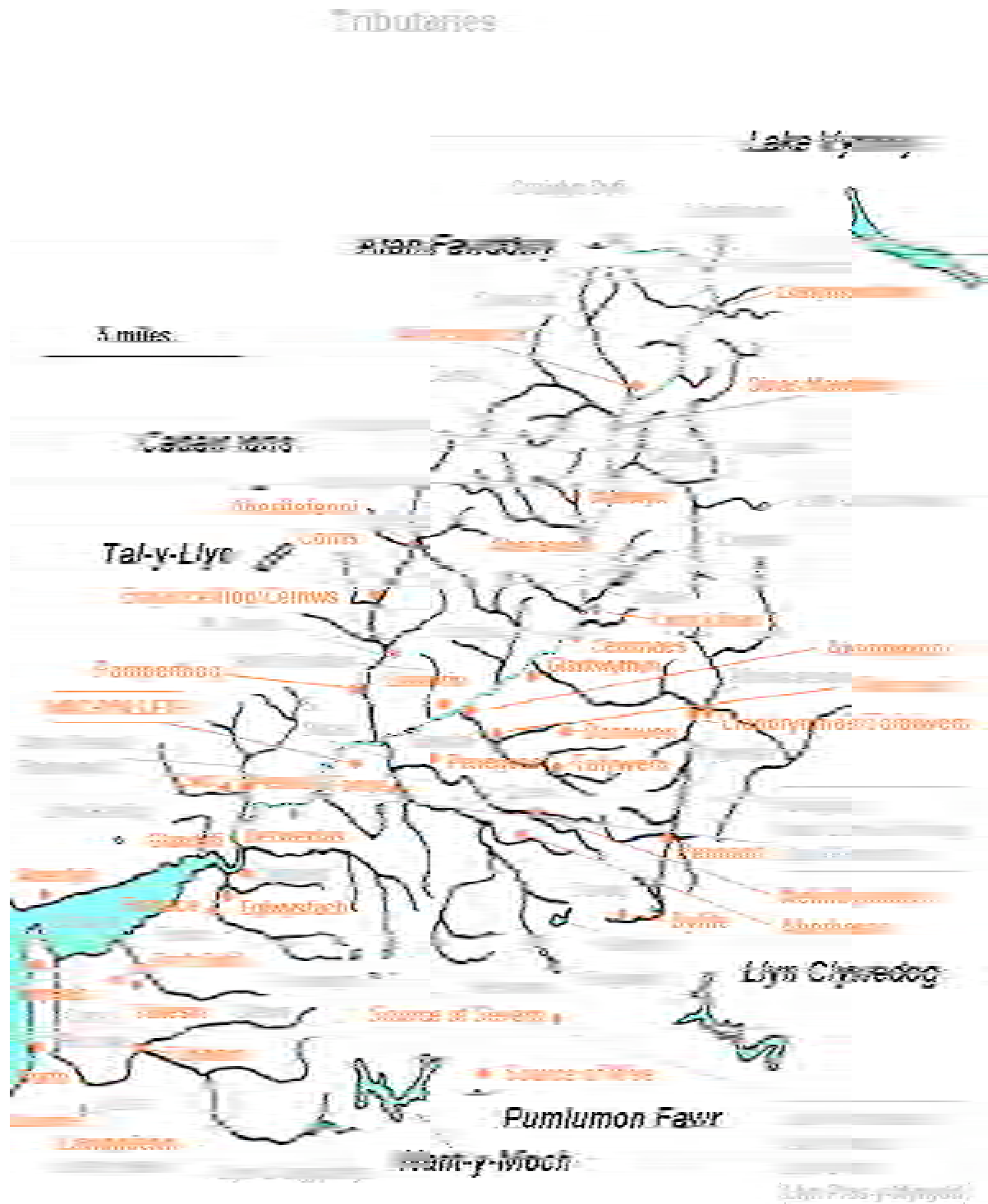
Large areas of the catchment, were acquired by the Forestry Commission in the 1930s and planted with conifer species alien to Wales. These areas are slowly being clear felled and replaced with broadleaved woodlands. These large tracts of woodland offer an important recreational opportunity for visitors who come here to enjoy the excellent walking, horse riding and mountain biking experiences the area has to offer.

Many villages and hamlets along the Dyfi river developed in the 19th century in association with slate quarrying, then a prosperous local industry. In the hills on the south side of the valley, lead mining was another important economic activity at that time. Remnants of these industries are still evident in the landscape. Other cottage industries of the 19th Century included a thriving felt hat-making industry.

While the quarries (and the narrow gauge railway that linked them) are now closed, the villages they supported are becoming popular destinations for tourists attracted by outdoor recreation and game fishing and the increasingly popular Centre for Alternative Technology, where people can learn about practical ways to adopt more sustainable life-styles. Machynlleth (population 2,000) is the main settlement in the study area. It is a market town and major (road and rail) crossing point of the Dyfi river. There has been a settlement here since the Iron Age, and 'Celtica' – a tourist attraction which celebrates the history and culture of Celtic peoples - is based in the town. Owain Glyndwr, who established an independent and united Wales for a short period in the 15th century chose Machynlleth as his capital and the location for his Parliament in 1404. The wide main street of Machynlleth (dominated by the clock tower) reflects its long established importance as a market town.

Map 2:

The Dyfi Valley: Towns and villages



Map: Richard Knight Williams

The Dyfi valley is one of the strongholds of the Welsh language. More than 60% of residents can speak Welsh, although the proportion is less further down the valley. Settlements like Aberdyfi and Borth on the coast, have high proportions of monoglot English speakers, many of them having come from outside Wales to retire or work in the area. The relatively recent development of Oriol Mon – a centre for the Arts in Machynlleth – has proved an important fillip to local culture in recent years.

Socio-Economic Characteristics

The Project area is set within a broader regional context in which, from an economic development perspective, rural Wales as a whole is perceived as one of the most marginal areas of western Europe. The Dyfi valley lies largely within EU Objective One areas (Ceredigion and Gwynedd) and to a smaller degree in an Objective Two area (Powys). The Powys part of the area is also recognised as a “Communities First” area under the Welsh Assembly Government’s programme to target the 100 most deprived areas of Wales, to reduce poverty and help to improve livelihood opportunities⁴. The Assembly thus sees the need for a long-term commitment to support work that addresses poverty, social exclusion and lack of access to services in this area. A LEADER+ initiative “Glasu” operates in the small part of the Project Area in the county of Powys (**Annex B**).

Within this regional context, the socio-economic characteristics of the area are inextricably linked to the natural and cultural values of the landscape – as evident from the above discussion. Livestock farming and to a lesser extent, forestry, slate quarrying / lead mining and sea-fishing have traditionally been the mainstays of the economy, although tourism - based heavily on landscape values - is now as important.

The Dyfi Estuary itself receives approximately 2 million visitors per year, providing primarily for family-based, seaside holidays but also for wildlife (especially ornithological) viewing and other outdoor pursuits. Higher up the catchment, activity holidays predominate (walking, mountain biking, horse-riding), and farm-based tourism provides an important diversification opportunity for local farming enterprises. The ancient market town of Machynlleth in particular also receives cultural tourists and the nearby Centre for Alternative Technology attracts over 65,000 tourists per year (see below).

As far back as the 1970s, Mid and West Wales attracted a large number of young people searching for alternative lifestyles. They occupied and renovated old farm dwellings or miners’ cottages which stood empty due to the decline of these industries. In the Project area in particular, these people have subsequently helped to generate a strong community interest in environmental issues and sustainable living. There is now a significant development in businesses supporting renewable energy technologies. The level of public interest in developing jobs directly linked to more sustainable management of the environment, is seen as one of the key opportunities for this area. Encouraging this interest and harnessing the energy of local people for sustainable development are primary objectives of the Bro Dyfi Project.

⁴ Communities First aims to get local people involved in improving their areas, to bring in funding and other support from a range of sources, to encourage new ways of dealing with problems, and to involve everyone in working together to make their communities better places in which to live and work.

Promoting sustainability: local initiatives

The Centre for Alternative Technology near Machynlleth is one of the enterprises originally spawned through this movement. Founded in 1973 on an old quarry site, the Centre aims to offer solutions to some of the most serious challenges facing our planet and the human race - including climate change, pollution and the waste of precious resources - and to demonstrate practical ways of addressing these problems. Leading by example, it also aims to show that living more sustainably is not only easy to attain but can provide a better quality of life. A small community live at the Centre, experimenting with different ways of living, and putting cooperative and environmental ideas into action and monitoring the environmental impact of everything they do. The key areas of activity include renewable energy, environmental building, energy efficiency, organic growing and alternative sewage systems. In addition to its on-site activities the Centre undertakes research and consultancy, particularly on behalf of developing countries. Over the last 33 years, CAT has grown to become Europe's leading eco-centre. It is staffed by 90 permanent staff and volunteers all year round, and a further 60 people during the summer months. It receives around 65,000 visitors every year.

CENTRE FOR ALTERNATIVE TECHNOLOGY

Mission Statement

CAT is concerned with the search for globally sustainable, whole and ecologically sound technologies and ways of life.

Within this search the role of CAT is to explore and demonstrate a wide range of alternatives, communicating to other people the options for them to achieve positive change in their own lives.

This communication involves:

- ***Inspiring*** - instilling the desire to change by practical example
- ***Informing*** - feeding the desire to change by providing the most appropriate information
- ***Enabling*** - providing effective and continuing support to put the change into practice.

CAT has a holistic approach to its work, integrating ideas and practice relating to land use, shelter, energy conservation and use, diet and health, waste management and recycling.

Through its resident community and work organisation, CAT is also committed to the implementation of co-operative principles and best achievable environmental practices.

Another important initiative for the Dyfi Valley is a multi-sectoral partnership initiative called the Dyfi Eco Valley Partnership - more often known as "Ecodyfi". Established in 1998, Ecodyfi is a locally-controlled "third sector" organisation (that is, neither public nor private sector). Its mission is to foster sustainable community regeneration in the Dyfi valley. The organisation seeks to deliver environmental, economic and social benefits simultaneously and to take a long-term and global perspective in meeting local needs.

Ecodyfi works by raising awareness of what is possible and how to do it, by networking, by stimulating action in others and by garnering resources to focus on specific projects.

Thus some projects are managed directly by Ecodyfi’s Board while others are managed by independent groups working under Ecodyfi’s co-ordinating “umbrella”. Importantly, Ecodyfi also sees itself as a test-bed for partnership working and for meeting local needs through involving local people in sustainable developments.

Dyfi Eco-Valley Partnership (Ecodyfi)

Vision Statement

...for the Dyfi valley to be a thriving, bilingual community, recognised for living sustainably.

Ecodyfi’s mission is to foster sustainable community regeneration in the Dyfi valley. To do this, it argues that local needs must be met within a long-term vision. This implies attention to global as well as local environmental quality and stability (e.g. climate change), to the robustness of the local economy (e.g. encouraging local purchasing) and to the capacity of local people to take responsibility for the future.

- *Activities should deliver simultaneous economic, environmental and community benefits wherever possible.*
- *They should not focus narrowly on one subject area but make connections.*

Aims

a) *To vigorously pursue the sustainable community regeneration and development of the Dyfi valley*
 b) *For the Dyfi Eco Valley to be presented as a successful template for the development of local sustainable economies elsewhere in the region, the UK and the World*

Themes for action

Individual projects have their own specific objectives. These help the organisation achieve its overall aims. This is facilitated by clustering the projects within themes. These themes can also be regarded as representing the ‘problems’ of the area, or as one way of grouping them.

AIM	Sustainable community regeneration			
THEME	A) Awareness-raising	B) Community development (especially youth)	C) Protect & enhance local resources	D) Infrastructure
Sub-themes	<ul style="list-style-type: none"> • Advice 	<ul style="list-style-type: none"> • Skills & training • Celebration 	<ul style="list-style-type: none"> • Add value 	<ul style="list-style-type: none"> • Transport • Communications • Affordable housing

Ecodyfi’s current Development Plan includes 29 specific projects addressing these themes. These are ordered into 12 Priority One projects, 12 Priority Two projects; and 5 Priority three projects. In addition to these, Ecodyfi is a key player in a Wales Tourist Board (WTB) initiative through which the Dyfi Valley has been established as a *Tourism Growth Area* to

stimulate tourism investment in the area. Having achieved this status, the local tourism industry, together with Ecodyfi, WTB, the Welsh Development Agency and the local authorities have developed an Action Plan detailing how sustainable tourism development should be achieved in the Dyfi Valley. Ecodyfi is taking the lead in delivering this programme at the local level.

Other specific projects of Ecodyfi include:

- Community renewable energy from small-scale water, wind, solar and wood fuel systems
- Farmscale horticultural production and marketing
- Waste reduction and recycling
- Integrated public transport provision for locals and visitors

This strong foundation of activities and entrepreneurship based on the notion of sustainability - as provided by organisations such as CAT and Ecodyfi - together with a supportive legislative and policy framework for conservation of natural and cultural resources in the Dyfi Valley mean that it is ideally placed for the establishment of an enlarged UNESCO Biosphere Reserve, that will further integrate the interests of development and conservation.

At the same time, the Welsh Assembly Government (WAG)'s Spatial Plan (2004) calls for *'sustainable development projects to be developed to promote best practice in delivering economic as well as environmental benefits'*. Accordingly, the statutory remit of the Countryside Council for Wales (CCW) - WAG's advisory body on the countryside - allows it to develop experimental projects to this end. The Dyfi Valley is thus one of 3 candidate project areas chosen by CCW to demonstrate the benefits of integrating rural development. The Biosphere Reserve mechanism provides a vehicle through which to achieve this.

CCW has recently (2005) set-up a multi-sectoral partnership - the Bro Dyfi Partnership - to take forward this initiative. Ecodyfi in particular, is a leading partner of the NGO sector and hosts a Project Officer for the initiative.

Description of the Bro Dyfi Partnership Project

According to CCW, the Dyfi Valley (Bro Dyfi) is a suitable candidate for integrated rural development because:

- of its outstanding environmental qualities and the Dyfi Biosphere with its acknowledged international status;
- it already has a LEADER+ group - Glasu – which who can help to promote the efficacy of this way of working, within the network of other LEADER + groups in Wales;
- it has a vibrant culture and an economy which is increasingly dependant on promoting sustainable living;
- it offers us the opportunity to promote integrated rural development, elsewhere in rural Wales, and
- communities that are very interested in taking forward this ambitious project.

The Bro Dyfi Partnership Project area coincides with the area shown on Map 1. It is rich in natural beauty and cultural heritage, has a strong farming and maritime tradition and a unique sense of identity amongst its people. As previously illustrated, this thriving bilingual community has a strong tradition of sustainable living championed by organisations such as

the Centre for Alternative Technology (CAT) and Ecodyfi. There are, however, a number of issues of concern for local people ranging from the uncertainty that exists within the farming and fishing community as both struggle to adapt to change; the problems facing lower lying communities in respect of climate change and sea-level rise; the question of how to capitalise on tourism (and the income this generates) in terms of protecting local services and producing the greatest benefit locally; the need to retain more young people within local communities; and concern over the dilution of the Welsh language and culture.

In instigating the Bro Dyfi Partnership, The Countryside Council for Wales therefore aims to work through the UNESCO Biosphere mechanism to help the people of Bro Dyfi to reconcile the conservation of the biodiversity and natural resources of the area, with economic and social development and the preservation of their cultural values. As an active partner in the Partnership, CCW is working with the stakeholders to make this area an exemplar of sustainable development both nationally and internationally.

The stakeholder engagement group (established initially to take forward the project) comprises Ecodyfi, Welsh Development Agency, Mid Wales Tourism Partnership/ Wales Tourist Board, Machynlleth Town Council, Farming Connect, Ceredigion County Council, Powys County Council, Gwynedd County Council, Snowdonia National Park Authority, Celtica and CCW.

It is important that further engagement takes place with the following stakeholders to ensure that marine interests of the project are represented: Penllyn a'r Sarnau SAC officer, Gwynedd Council, Cardigan Bay Fishermen's Association, North Western and North Wales Sea Fisheries Committee, Crown Estate, and others to include key fishermen.

A Partnership Project Officer has been appointed to co-ordinate the partnership, engage with the wider communities of Bro Dyfi, and to develop / manage the partnership projects within the strategic plan for the area. This position has been funded by the Welsh Assembly Government, through the Countryside Council for Wales.

Strategic aims and objectives

The Countryside Council for Wales' headline aim for the Project is:

to enable the Dyfi Biosphere to meet UNESCO's requirements and become a living exemplar of Integrated Rural Development. With the endorsement of UNESCO, led by the local community and driven by the presence of high biodiversity, the Biosphere Reserve would become a landscape and seascape -scale example of how Wales can create social cohesion and a thriving economy based on a high quality environment.

Its **objectives** in implementing the Project are:

Environmental objectives

A landscape and seascape that allows us to mitigate and adapt to climate change. This includes:

- Management to sustain the underlying resources of air, soil and water, thereby:
- working towards a healthy eco-system based on the quantity and quality of water flow that connects uplands and marine environments;

- at a landscape scale, more connectivity between habitat types through corridors based on more hedges, trees and woodlands in the valley.
- at a landscape and seascape scale, identifying potential lowland areas for managed realignment (retreat) of saltmarsh
- restoring degraded habitats, in particular bog, salt marsh, upland heath and woodlands.

To assess ecosystem health, the Project will select key indicator species whose return or increase in number would provide evidence of a healthy ecosystem. Two kinds of indicator species would be selected:

- large and/ or conspicuous species which would have resonance with the local community (e.g. Dormouse, Salmon , Bass etc)
- ecologically significant species which yield scientifically valid results (eg cockles).

Landscape indicators, that the local communities consider to epitomise the character of the project area, will be agreed for monitoring in order to track the success of the project in delivering landscapes that are fully integrated and sustainable.

Social and cultural objectives

Communities that :

- serve peoples' needs and are places where people want to live and work;
- that have a strong understanding and reflection of the cultural and historic character of the area and are committed to use and promote the use of the Welsh Language;
- understand, appreciate and care for conserving and enhancing what is special about their environment.
- are involved from the beginning in decision-making and feel empowered and committed to influencing the sustainable management of their environment.
- are working as partners in the implementation of the Biosphere Reserve Management Plan, and
- whose overall quality of life and the health will benefit from living and working in this area.

Economic objectives

- To help create a local economy that optimises the benefits arising from the sustainable management and care of its natural environment
- to work with partners, as part of the Biosphere Reserve Management Plan, to ensure that Bro Ddyfi is recognised as a world-class centre for sustainable production and consumption, through:
 - green technologies
 - business environmental management
 - local and sustainable purchasing of goods and services, including locally produced environmentally friendly food
- to ensure that Bro Dyfi moves toward a carbon neutral economy, with less reliance on fossil fuel, with more small-scale energy initiatives (e.g. solar, biomass, domestic turbines)
- to maximise opportunities for local people and visitors to enjoy and capitalise on the high quality natural environment sustainably, optimising the local benefits of this (eg

- developing a market for locally produced food, strengthening the local farming and fishing community and the local economy
- to retain more young people within the area.

Project Scope

In planning the delivery of this project, there are three main blocks of work that will require CCW to adopt different approaches. They are:

- outputs that CCW can deliver itself without partnership support and without prejudicing the Biosphere Reserve partnership process (e.g. habitat restoration on or around Cors Fochno, some species work). Some of this work can be started almost immediately, where it has less impact on local stakeholders.
- outputs that CCW can only deliver in partnership with others (e.g. taking forward the Biosphere enlargement process; more extensive habitat or species work with organisations such as the Royal Society for the Protection of Birds; and work related to climate change/sea level rise with the Environment Agency (Wales)
- outputs that can only be delivered largely or completely through others (e.g. creating a carbon neutral economy, improvements to education facilities in Bro Dyfi).

The scope of CCW's contribution to this project is therefore a combination of these three factors, working within the framework of the overall Biosphere project. The framework for activities within the Biosphere Reserve will be provided by the draft **Biosphere Reserve Management Plan** that will be developed collaboratively with local stakeholders, in conjunction with the application to UNESCO for the enlargement of the Reserve.

Project planning

The proposed work streams are set out below with an indication of by whom and when they can be taken forward, and the appropriate form of delivery. The works streams are set out under the following headings:

1. Confirming the Dyfi Biosphere
2. Auditing the current activity
3. Developing a shared vision
4. Delivering the vision
5. Monitoring and evaluation

1. Confirming the Dyfi Biosphere

Work stream	Who to take forward by when?	What needs doing?
a) Achieving the Accolade	Bro Dyfi Partnership with CCW supporting. Application forms to be completed for submission to	<ul style="list-style-type: none"> • CCW to begin to collate factual items for UNESCO application as of project initiation • Dyfi Biosphere partnership to recruit Project Officer by December 2005

	UNESCO by <i>February 2007</i> .	<ul style="list-style-type: none"> • Dyfi Biosphere partnership to establish a partnership website and keep continually updated – evolving from the EcoDyfi website as of summer 2005 • Project Officer to engage and inform local stakeholders as of recruitment (late 2005) • Project Officer to obtain an indication of informed local consent by September 2006 • CCW and Dyfi Biosphere Partnership to resolve outstanding issues and complete application forms for submission to UNESCO via WAG, UNESCO UK M&B Committee and UK Permanent Mission by February 2007 • Practical projects to commence as agreed in draft Biosphere Reserve Management Plan where these have already obtained resources. • MAB Biosphere Advisory Group and International Coordinating Committee to consider application and deliver decision by late 2007. • Dyfi Biosphere partnership to dissolve and re-form as Biosphere Management Committee upon receipt of UNESCO approval for extension of Biosphere area.
b) CCW's contribution to the Biosphere Management process	<p>This is likely to be the project team, plus other key individuals in CCW.</p> <p>There will be a project support team made available for this work.</p>	<ul style="list-style-type: none"> • Draft the Management Plan to go with application by Feb 2007 (see above) • Refine with stakeholders on an ongoing basis from 2006/07 onwards • Deliver outputs from the Management Plan, having built into CCW's Corporate Planning and Budgeting process

2. Auditing current activity

c) Where are we now?	Plan into 2006/07 work programme	<ul style="list-style-type: none"> • Need an audit of current activity to develop baseline data • Develop integrated database to pull together current activity • Consider use of <i>LANDMAP</i>⁵ as a key tool for the project
d) Strategic Planning	Plan into 2006/07 work programme	<ul style="list-style-type: none"> • Project will support delivery of WSP/SMP (shoreline management plans)/ PLAS SAC management plan in this area. This will be coordinated through WAG rep on the Bro Dyfi partnership.

⁵ LANDMAP is a unique system developed by CCW, allowing information about landscape to be gathered, organised and evaluated into a nationally consistent data set

		<ul style="list-style-type: none"> • Project will integrate with Community Strategies through the three Local Authorities. • Project must, through WDA, meet the agenda set out in the Mid Wales Economic Development Strategy
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3. Developing a shared vision

e) Developing a shared vision with the community	Biosphere partnership to determine timescale	<ul style="list-style-type: none"> • Manage the engagement process (see work stream a & b above). This covers all parts of the local community including local businesses and the farming /fishing community • Environmental education (schools, colleges and other education providers eg outdoor pursuits) • Contributing to the delivery of Biosphere Reserve communication plan
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4. Delivering the Vision

f) Working towards a healthy eco - system		<ul style="list-style-type: none"> • Habitat and Species network to select Indicator Species • Habitat restoration in statutory sites • Habitat restoration outside statutory sites • Research (what's possible; what's desirable) • Other issues emerging from baseline research • Revisiting our Grants Strategy to ensure match with objectives
g) Social Issues and enhancing peoples' quality of life		<ul style="list-style-type: none"> • Increasing the % of fluent Welsh speakers. • Health initiatives such as Green Gym, WWH, Accessible Green Spaces. • Use of alternative fuels for energy needs and transport (bus companies?) • Other issues emerging from baseline research and responding to community views. • Revisiting our Grants Strategy to ensure match with objectives
h) Quality Economies		<ul style="list-style-type: none"> • Green tourism/ recreation (including long distance walks, capitalising on Open Access, cycle tails) • Agri-foods and quality foods (branding)

		<ul style="list-style-type: none"> • Better retention of young people. • Other issues emerging from baseline research • Revisiting our Grants Strategy to ensure match with objectives
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5. Monitoring and evaluation

i) Monitoring	Build into the “understanding change“ work programme	<ul style="list-style-type: none"> • Quantify objectives as far as possible • Identify suitable indicators bearing in mind current data availability • Assess potential for networking Dyfi Biosphere with other networks • Assess and cost monitoring gaps. • Establish and run monitoring and associated data systems • Develop / implement reporting strategy and information flows.
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Conclusion

This Project offers an exciting opportunity for the Dyfi valley – one that will build on a strong foundation of the area’s natural and cultural resources; the available mechanisms for integrating conservation and development; and longstanding local interest in promoting sustainable lifestyles. The Project is set within a supportive political framework at both the national and EU levels and internationally through UNESCO. As an exemplar for integrated rural development, therefore, it has much to offer – both at this point in time and into the future as the Project delivers its objectives. It also has much to learn, however, and partners welcome the opportunity to liaise and debate with visitors from Central Europe who are trying to address the same issues. In regard to linking Natura 2000 and local development in particular (for example through LEADER+), there is an opportunity here to explore mechanisms through which this can be achieved much more effectively in the future than has been done in the past.

ANNEX A

THE PURPOSE OF BIOSPHERES

- 1 The Dyfi Biosphere is part of an international network of areas designated by the United Nations Educational, Scientific and Cultural Organization (UNESCO). Biosphere Reserves are areas of terrestrial and coastal/ marine ecosystems (or a combination thereof), which are internationally recognised within the framework of UNESCO's programme of Man and biosphere (MAB). They are vital centres of biodiversity where research and monitoring activities are conducted, with the participation of local communities, to protect and preserve healthy natural systems threatened by development. Reserves are nominated by national governments. The global system currently includes 324 reserves in 83 countries.
- 2 Each biosphere reserve is intended to fulfil three complimentary functions:
 - A conservation function, to preserve genetic resources, species, ecosystems and landscapes
 - A development function, to foster sustainable economic, human development
 - And a logistic support function, to support demonstration projects environmental education and training and research and monitoring related to local, national and global issues of conservation and sustainable development.
- 3 Physically, each biosphere should contain three elements:
 - One or more core areas, which are securely, protected sites for conserving biological diversity, monitoring minimally disturbed ecosystems and undertaking non destructive research and other low impact uses such as education:
 - A clearly identified buffer zone which usually surrounds or adjoins the core areas and is used for cooperative activities compatible with sound ecological practices, including environmental education, recreation, eco-tourism and applied and basic research
 - A flexible transition area, or area of cooperation, which may contain a variety of agricultural activities, settlements and other uses and in which local communities, management agencies, scientists, non-governmental organisations, cultural groups, economic interests and other stakeholders work together to manage and sustainably develop the areas resources.

ANNEX B

Glasu (LEADER +)

There are seven LEADER+ programmes in Wales. All LEADER+ programmes have the same principles in that they work through:

- Partnership with other organisations in their areas, for example on Glasu's Local Action Group there are representatives from the Farmers Union of Wales, Coed Cymru, Brecon Beacons National Park, Mid-Wales Energy Agency, Powys County Council, DEFRA, Chwarae Teg, Welsh Development Agency as well as people who are involved in agriculture on a day to day basis;
- Piloting new approaches to rural development;
- Supporting people who have ideas they would like to develop at the grassroots;
- Joint working with other organisations to develop projects, for example Glasu has worked with Brecknock Hill Cheviots and Farming Connect to look at alternative uses for wool and sheepskins.

Each LEADER+ group has a different theme; Glasu has chosen **adding value to local products**. Glasu also works with specific target groups:

1. Micro and small businesses
2. Farming families
3. Co-operative and community groups

Areas of work

Glasu has three main areas of work:

1. Energy and Waste

Adding value to waste produced in Powys and developing ways in which renewable energy can be used in a rural environment, such as wood pellets, transport fuels and waste management; [more]

2. New Harvest

Adding value to food products such as locally produced meat by developing new products, trialling new food crops from the area and looking at new ways of selling produce from Powys; [more]

3. Country Store

Adding value to non-food products, such as wool, wood and non-food crops. [more]

How Glasu works

Glasu supports people to test ideas. Rather than giving grants, Glasu pays for people's time, pays for the rent of land or premises that are used in product development or crop trials, research and use of laboratory facilities, market research and feasibility studies. The results of projects that Glasu has been involved in are published and made available to the general public and related organisations.

ANNEX C

Tir Gofal

Description

Tir Gofal is a whole farm agri-environment scheme which has been available throughout Wales since April 1999. The Scheme aims to encourage agricultural practices which will protect and enhance the landscapes of Wales, their cultural features and associated wildlife.

Why we need an agri-environment scheme for Wales?

Tir Gofal, a whole farm agri-environment scheme for Wales, encourages farmers throughout Wales to maintain and enhance the agricultural landscape and its wildlife and to provide new opportunities for people to visit the countryside. It replaces the previous schemes such as Environmentally Sensitive Areas and Tir Cymen, and takes forward the experience gained in a single whole farm scheme.

Since its launch it has proved enormously popular with farmers attracting just under 5500 applications in the first four application rounds. There are now over 1600 agreements across Wales covering some 160,000ha.

Scheme outline

Tir Gofal is a whole farm scheme, available throughout Wales to farmers or others who have responsibility for, and control over, farmed land – usually an owner/occupier or tenant. **Tir Gofal comprises four elements:**

Land management – mandatory compliance with the whole farm section and management of key habitats; optional restoration or creation of certain habitats or features;

Creating new permissive access – voluntary options available for new linear access routes, new-area based permissive access or to provide for access for educational purposes;

Capital works – payments will be made for additional work to protect and manage habitats and features and to support new access provision;

Training for farmers – including courses on managing specific habitats, such as wetlands and woodlands and practical skills, such as drystone walling and hedge laying.

The scheme offers ten year agreements with a five year break clause.

Tir Gofal operates under the Common Agricultural Policy agri-environment measures, jointly funded by the European Union and the UK Government. It

replaces ESAs, Tir Cymen, the Habitat, Moorland and Countryside Access Schemes. The Organic Farm Scheme may operate alongside Tir Gofal. Agreements under existing part-farm schemes, such as the Habitat or Moorland schemes, may be terminated at any time provided that they are replaced by a Tir Gofal agreement. ESA agreements may be terminated at, or at any time after, the break point in order to enter Tir Gofal. The Woodland Grant Scheme is linked to Tir Gofal, enabling its Project Officers to incorporate WGS proposals into the whole farm plan.