

INSPIRING A POSITIVE FUTURE

2014 - 2017 REFLECTIONS

DEMONSTRATING OUR PASSION FOR LIVING IN A WAY THAT BENEFITS PEOPLE AND NATURE BIOSPHERE VISION

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Schools Working in Partnership II



Spring 2017 marks the end of another phase in the development of Galloway and Southern Ayrshire Biosphere.

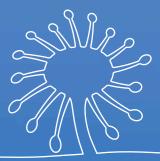
This report describes the considerable progress which has been made over the last three years by the team of officers who have delivered on the themes of conserving and enhancing the natural heritage, supporting sustainable development and promoting knowledge and public awareness of the natural environment in this special corner of Scotland.

The variety of projects delivered, the wide geographical spread, and the range of people networked with is striking. Indeed at first glance one might wonder what links these disparate elements. Star-gazing, advising farmers, surveying water voles, supporting craft makers in a tiny village, kids doing biological sampling at Loch Ricawr, an action plan for climate change, a food festival, environmental art – what do these things have in common? The common link is the Biosphere ethos – the recognition that behind all the jargon is the simple truth that healthy human societies depend on a healthy and resilient natural world.

The challenge here in South West Scotland is to help people to recognise the quality of the natural environment of their local area which has been internationally







acknowledged, the need to cherish this and where appropriate restore it, so that it can deliver economic and life-enhancing opportunities for this and future generations.

Every project in this report has been delivered through partnerships and working with others. The role of the Biosphere staff and board is not to deliver everything but to share and nurture the ethos, provide the overarching framework of collaborative working and, where necessary, to challenge inappropriate proposals – in short to live up to the accolade of Biosphere status.

Considerable progress has been made in the last three years and gratifyingly, even in difficult financial times, this has been recognised by public authorities and agencies. We are now entering a period of uncertainty, change and challenge for rural communities. We must ensure that we use the biosphere ethos to promote a long-term, sustainable perspective, confident that there are many people in South West Scotland who share our priorities.

Joan Mitchell

Biosphere Partnership Board

INTRODUCTION

The Galloway and Southern Ayrshire Biosphere Partnership was established as a Scottish Charitable Incorporated Organisation (SCIO) following the designation of the Biosphere by UNESCO in 2012. This prestigious award is recognition by UNESCO through the Man and the Biosphere (MAB) Programme that a sustainable way of living is not only possible but already happening in South West Scotland.

The aim of the Biosphere is to encourage cooperation and collaboration to develop sustainable and innovative solutions and projects to support the natural heritage and rural communities of South West Scotland.

The Biosphere status does not affect other existing designations but creates a forum for cooperation, discussion and innovation. Comprising of representation from the public, private, community and third sector, the Partnership aims to promote a more sustainable and balanced use of natural, cultural and social assets for the benefit of local communities and businesses.

The Partnership was instrumental in securing funding to employ a small team of dedicated officers over a three year period that have been the public face of the Biosphere speaking to communities, businesses and organisations across the region about how the Biosphere ethos can benefit all of us.

Recruited and managed through the Southern Uplands Partnership the three 0.8FTE (Full Time Equivalent) positions covered three primary areas of focus;

Communities and Learning Natural Heritage **Business and Development** During that period the team supported the creation of the foundations from which Biosphere will continue to grow including;

The Biosphere Charter, which now has around 70 business sign-ups in addition to one hundred and twenty community groups, schools and individuals who are Proud Supporters of the Biosphere.

Six short Sense of Place films have been produced, with one film promoting Social Enterprise and the Biosphere shown at the International Biosphere Conference in Lima in March 2016.

Three trail leaflets highlighting features of Biosphere interest along three river valley routes – the Doon, Cree and Ken - have been produced while Biosphere interpretation panels are now in place in several locations.

The Galloway and Southern Ayrshire Biosphere hosted a 3-day UK Biosphere networking conference in Dumfries in October 2016. This was the first event of its kind in the UK, was well-attended by representatives of all seven British Isles and Eire Biospheres, and proved a great success.

What follows is a more detailed appraisal of some of the key achievements from the last three years.

LAND USE AND BIODIVERSITY

One of the goals of a Biosphere is promoting and supporting sustainable land use and the conservation of species and habitats. By sharing good practice, disseminating results of research and monitoring, and providing guidance and support, the Biosphere helps support sustainable practices and land management across the area.





• Natural Heritage Management Plan

• Water Vole Survey Volunteer Action

• Land Manager Support and Engagement



NATURAL HERITAGE MANAGEMENT PLAN



What was the project about?

The Natural Heritage Report (2012) detailed the current known state of the natural environment within the Core and Buffer of the Biosphere. As part of the study, a prioritisation process involving expert stakeholder engagement was used to select the high priority habitats and species within the Biosphere. Nine Habitats and nine Species were identified.

The next step was to prepare a Natural Heritage Management Plan, to provide information on the status, conservation and requirements of these High Focus Habitats and Species, along with the causes of their decline and possible solutions to consider, along with guidance on their management and enhancement. The Plan was launched in March 2016 during a workshop with the same organisations and individuals who took part in the initial consultation. The workshop centred on identifying achievable targets for the natural environment within the Biosphere over the next ten years.

It is envisaged that land managers across the Biosphere will find this a useful reference when devising their own management plans, resolving any land issues and helping reduce any further decline in habitat quality and species numbers. A wide range of projects that have already been undertaken in recent years were highlighted in the Plan and these provide a source of reference and inspiration for those seeking ideas on how best to manage their land.



How did the project help achieve the goals of the Biosphere?

The Natural Heritage Management Plan achieves the following goals of the Biosphere:

Land Use and Biodiversity

The fundamental aim of the project was to highlight the significance of the important habitats and species within the Biosphere and provide guidance on their conservation and management. The Plan provides a comprehensive point of reference for land managers.

Research and Learning

The Plan, which includes many conservation projects that have been carried out within the Biosphere, is an important resource freely available for all, including students interested in learning about conservation within the Biosphere.

How did the project meet the charter principles of the Biosphere?

This project helps fulfil the Charter principles by:

- Helping to conserve the natural resources of the Biosphere by contributing to the protection, enhancement and restoration of vulnerable habitats and species.
- Supporting the economy to benefit people and nature by collaborating with land managers and other stakeholders to promote sustainable farming practices.
- Developing knowledge, understanding and research by providing detailed knowledge of the Biosphere High Focus Habitats and Species important to individuals, farming businesses and natural heritage organisations. The Plan lists all known relevant projects concerning the High Focus habitats and species, with contact details for interested parties to find out more.
- Raising awareness of the Galloway and Southern Ayrshire Biosphere though promotion of the Plan and further engagement with members of the environmental community using publications and social media.

What opportunities are there for the future?

It is envisaged that the Plan will continue to be used by land managers for the foreseeable future.

The Plan originated from studies within the Core and Buffer zones and it is recognised that as the Transition zone is where most people within the Biosphere live and work there is an opportunity to further engage with those people and investigate other habitats and species considered to be important within this more populated and generally lower lying area.

WATER VOLE SURVEY **VOLUNTEER ACTION**

What was the project about?

Water voles – these charismatic

waterside and wetland habitats but

numbers have plummeted due to loss

of habitat and predation by mink. The

aim of the project was to encourage

volunteers to join a programme of

surveying for water vole and gather

Biosphere area while inspiring people

information about wildlife in the

following goals of the Biosphere: creatures thrive in suitable undisturbed

Land Use and Biodiversity

Water vole are one of the Biosphere's High Focus species because their population and range is not fully understood but appears to have dramatically declined in the last 30 years. By undertaking distribution surveys the volunteers are helping to establish the current status of the water vole in the Biosphere area. The information gathered will help us better understand the threats they face and propose targeted actions to preserve a vulnerable species and associated wildlife, habitats and landscape.

to enjoy the countryside. Run in partnership with Dumfries and Galloway Environmental Resources Centre, a social media campaign was used to recruit volunteers. The project included training courses for participants to learn about the habits and distribution of water voles, including factors affecting their population decline, as well as how, where and when to survey safely.



Research and Learning

How did the project meet the charter principles of the Biosphere?

This project helps fulfil the Charter principles by:

- Helping to conserve the natural resources of the Biosphere by contributing to the protection, enhancement and restoration of water vole.
- the Biosphere.

What opportunities are there for the future?

The project has helped participants get more involved with the natural environment of the Biosphere by increasing their understanding and appreciation of water vole and its associated habitats through their experience of the training courses and surveys. It is hoped that the project has helped to transform an experience of merely walking through an area to engaging more intimately with it and in doing so converted more people to become future wildlife recorders. Volunteers are encouraged to continue to look out for signs of water voles whilst out walking and report any findings to Dumfries and Galloway Environmental Resource Centre.



▶ How did the project help achieve the goals of the Biosphere?

The collection of data (nearly 100 surveys) on water vole distribution fulfilled the

Participants were encouraged to take part in training workshops that combined an indoor theory session with outdoor practical experience to increase their knowledge of a vulnerable local species and gain new skills. The project also offered volunteers the chance to trial an app for smartphones developed by Edinburgh University for conducting surveys in Biospheres. It can be adapted to many different types of survey and in this case assessed to replace the traditional paper survey form. It also provides enhanced recording abilities by enabling downloading of maps prior to site visits, information recording on site and downloading of the surveys, along with photo records, straight to the internet. This helps speed up subsequent data analysis.

- Contributing to health and wellbeing of the community by encouraging volunteers to gain enjoyment of and pleasure from the natural environment and developing links between individuals and their environment to improve health and wellbeing.
- Developing participants' knowledge, understanding and research by providing detailed knowledge of the water vole life cycle, the habitats it is found in and its presence in

• Raising awareness of the Galloway and Southern Ayrshire Biosphere though contact with members of the community using publications and social media as well as partner organisations including Forestry Commission Scotland, Cree Valley Community Woodlands Trust and Dumfries and Galloway Environmental Resource Centre.

LAND MANAGER SUPPORT AND ENGAGEMENT



What was the project about?

A key role of the Natural Heritage Officers was to facilitate knowledge exchange and draw on the wealth of experience across the Biosphere to help establish new projects and engage the wider land management community.

The project established a Land Managers Group with the express intention of involving farmers who live and work in the Transition Zone of the Biosphere. This group has helped identify the ways the Biosphere could support sustainable land management and farming in the Biosphere and formulate new Biosphere projects to enable this. Discussions have ranged from post-Brexit funding for agri-environment initiatives, to ways of supporting a better connection between communities and their surrounding rural environment.

Another important role for the Natural Heritage Officers was to bring land managers together to discuss conservation projects and explore new approaches to habitat management and restoration. This has involved discussions on, for example, restoration and habitat management techniques and the concept of Ecosystem Services and how this translates to onthe-ground management. Discussions also identified that there was a need for advice on agri-environment funding and habitat management. This led the Natural Heritage Officers to design and run a series of workshops for farmers giving advice on the current application process, scheme design and the opportunities for the Biosphere's High Focus habitats and species.

Supporting new projects was also important with numerous peatland restoration projects being undertaken across the Biosphere, including work at Cairnsmore of Fleet National Nature Reserve and a number of farms in the Biosphere.

How did the project help achieve the goals of the Biosphere?

This Land Manager Support and Engagement project helped achieve the following goals of the Biosphere:

Land Use and Biodiversity

This project has promoted preservation of wildlife, habitats and environment by facilitating discussions on land use and future opportunities for conserving and enhancing the natural heritage of the Biosphere.

Research and Learning

By sharing practical expertise and experiences, land managers within the Biosphere will be better placed to implement the Natural Heritage Management Plan and support the High Focus habitats and species.

Adapting to Climate Change

The project has also helped discuss land management practices in the context of wider global issues, in particular climate change and carbon seguestration and storage, and national issues such as the future of agri-environment funding and land management.

How did the project meet the charter principles of the Biosphere?

This project helps fulfil the Charter principles by:

- Helping to conserve the natural resources of the Biosphere by supporting conservation projects.
- Supporting the economy to benefit people and nature by working with farmers and other land managers to recognise opportunities for conservation and habitat enhancement which may have multiple benefits for their business as well as the wider community.
- Developing knowledge, understanding and research by facilitating the sharing of experiences of habitat enhancement projects across the Biosphere, relating work back to current scientific understanding and concepts such as the Ecosystem Services Approach.
- Raising awareness of the Biosphere by offering support to land managers for their own projects and bringing groups together to help shape the future role of the Biosphere in conserving and enhancing natural heritage.

What opportunities are there for the future?

This project has demonstrated the appetite for discussing, sharing and developing new opportunities for land managers within the Biosphere. As the Biosphere is a partnership comprising many environmental organisations it is uniquely placed to host wide ranging discussions on land management in the future. More immediately this project has identified the need to demonstrate, with real world examples and practical advice, the Ecosystem Services Approach and the wider public benefits of land management practices in the Biosphere. Projects are now being developed with this in mind.





One of the goals of a Biosphere is to be a test bed for new ideas and to promote learning that encourages a better understanding of nature and global issues. Galloway and Southern Ayrshire Biosphere promotes learning for sustainability both outside and in the classroom by making resources available which can be used by schools, colleges and universities as well as informal learning.

- Biosphere Sense of Place
- Environmental Arts Events



RESEARCH AND LEARNING

• Schools Working in Partnership

BIOSPHERE SENSE OF PLACE

What was the project about?

Galloway and Southern Ayrshire Biosphere developed the Sense of Place Toolkit to promote a better understanding of the special qualities of the Biosphere. The Toolkit is based on information collected through discussion with local people to discover what is special about the Biosphere area. The Sense of Place approach has been disseminated to a wide audience through the Toolkit publication and website pages. The publication is organised into six Biosphere qualities; Wildlife and Natural Beauty, Heritage and Culture, Inspiration, Tranquillity, Recreation and Enjoyment, and Local Produce. It has a focus on practical outcomes that can be adapted to individual needs and is not designed to be read from cover to cover but can be 'dipped into' whenever inspiration is required.

Sense of Place is all about how places make us feel and has a role in influencing the value placed on products and services offered by local businesses. The Sense of Place approach also involves people making connections, sharing knowledge and enthusiasm to celebrate the Biosphere. Facilitated learning events were organised for local business supporters of the Galloway and Southern Ayrshire Biosphere Charter. Businesses were invited along to evenings dedicated to discovering what makes the Biosphere special, conversations about the best places to experience the area and where to go to be inspired. To develop a resource to show how the Sense of Place can benefit businesses, groups and organisations two short films were made of the events. Six short films were also made to publicise the Biosphere qualities by presenting businesses and organisations that support the sustainable principles of the Biosphere.



How did the project help achieve the goals of the Biosphere?

The Sense of Place approach achieved the following goals of the Biosphere:

Sustainable Development

Sense of Place is a resource that can be used by local businesses, organisations and communities. It is particularly relevant to tourism businesses who wish to use the gualities of the Biosphere in their marketing.

Research and Learning

The toolkit presents a collection of examples and resources which are freely available for all, including students interested in exploring how an international accolade can be used in the development of an area. The Sense of Place events provided occasions for people to share experiences and explore opportunities for collaboration in the future.

How did the project meet the charter principles of the Biosphere?

This project helps fulfil the Charter principles by:

- Supporting the economy by providing a resource that can be used by businesses to add value to their products and services and help them develop new products by identifying local qualities that can be used to distinguish them from those provided elsewhere.
- Promoting local products and services by showing exemplars in the Sense of Place Toolkit and on Biosphere themed short films.
- Inspiring people to discover more about the Biosphere and share their increased knowledge and understanding by working together to make the area a better place to live in and visit.
- Raising awareness of the Galloway and Southern Ayrshire Biosphere by promoting the qualities of the area, strengthening the identity of the area and illustrating how it can be used in marketing. Films have been used to promote the gualities and build a 'brand' for the Biosphere.

What opportunities are there for the future?

Sense of Place will continue to be a freely available resource for all to use when promoting the special Biosphere qualities of their business or community.



SCHOOLS WORKING IN PARTNERSHIP

What was the project about?

Partnership working is an important element in school curriculum planning and contributes to the delivery of the experiences and outcomes. There are many examples of schools who have created strong partnerships with businesses and organisations that support the sustainable principles of the Biosphere:

East Ayrshire Coalfield Environment Initiative ran a primary school education programme based on wildlife found in peatbog habitats. The Star Species education programme included introductory sessions where children in Primary 4,5 and 6 of five schools met wildlife experts who introduced the 'star species' and then visited nature reserves to find out what a peatbog is really like and discover what unusual plants and creatures live there.

Nith Fisheries Trust ran an education programme with 15 youth groups, primary and secondary schools, called Fishing for the Future. A series of indoor sessions and outdoor visits used the lifecycle of Atlantic salmon to demonstrate the connectivity between our freshwater and marine environments. The Fishing for the Future project involved a variety of events including 'salmon in the classroom' fish tanks, taster angling experiences and visits to the seashore with a ranger to integrate activities with the curriculum.

Three schools, Douglas Ewart High School, Doon Academy and Girvan Academy worked in partnership to make separate journeys and meet up in the heart of the Biosphere at Loch Ricawr. National 4 students undertook joint confidence building activities before working together on biological sampling using OPAL (Open Air Laboratory) resources. Some of the participants used the visit to achieve a John Muir Award.

Carrick Academy walked and canoed across the Biosphere for the expedition activity of their Duke of Edinburgh Scotland Silver Award. The Biosphere team supported the group on their task of sampling the water of Loch Doon by providing OPAL resources.



Research and Learning

Schools worked in partnership with environmental organisations and other experts who contributed to the delivery of the four capacities of Curriculum for Excellence. Environmental organisations have the freedom to think imaginatively about how experiences and outcomes might be organised and planned for in creative ways to make the most of the Biosphere.

How did the project meet the charter principles of the Biosphere?

What opportunities are there for the future?

Galloway and Southern Ayrshire Biosphere will encourage schools to make use of existing partnerships or create new partnerships with organisations who support the ethos of the Biosphere.





How did the project help achieve the goals of the Biosphere?

The education programme achieved the following goal of the Biosphere:

This project helps fulfil the Charter principles by:

• Contributing to health and wellbeing of the community by enabling school children to gain enjoyment of, and pleasure from the natural environment and developing links between individuals and their surroundings.

• Developing children's knowledge and understanding by providing expert knowledge and understanding of the Biosphere.

• Raising awareness of the Galloway and Southern Ayrshire Biosphere through schools working in partnership with environmental organisations.



ENVIRONMENTAL ARTS EVENTS

What was the project about?

Environmental arts events can connect the landscape, art and people to create unique experiences that provoke thought and trigger sensory experiences grounded in a challenging environment. Two arts events set in wild open countryside have been supported by the Biosphere.

Sanctuary was a 24-hour site specific public art event that explored what happens when environment, art, technology, science and culture meet. Sanctuary created an experimental space for new work ranging from performance and light installations to sound works, video projections and radio transmissions. Artists and members of the public came together for 24 hours to form a temporary community within Galloway Dark Skies Park in the heart of the Biosphere.

Environmental Art Festival Scotland was a two-day festival celebrating the local countryside and exploring global issues through a series of imaginative art installations, talks, discussions and events. Environmental Art Festival Scotland relied on engagement with participants from a diverse range of communities and disciplines: environmentalists, cultural thinkers, poets and performers. The

festival benefited from the enthusiasm of a team of 5 young interns and a wider network of core volunteers to engage with young people who are interested in reconnecting with their environment



How did the project help achieve the goals of the Biosphere?

The environmental arts events achieved the following goals of the Biosphere:

Sustainable Development

The events successfully supported local businesses, encouraged tourism by showcasing the area and provided unique events for local communities and visitors to the area. The events demonstrated how the arts community could work together to deliver ambitious events in isolated locations.

Research and Learning

The events provided an opportunity for participants to collaborate with experts on climate change and future thinking. These events inspired conversations between people who want to share views, ideas and guestions that are relevant to the future of the Biosphere.

Adapting to Climate Change

The events involved the creation of temporary art installations exploring issues of crucial importance in a world of climate change and runaway consumerism. On a more practical level both of the arts events were run on an ethos of being light on the earth, minimising the carbon footprint and leaving without trace.

How did the project meet the charter principles of the Biosphere?

This project helps fulfil the Charter principles by:

- Supporting the economy by developing unique events for artists, a memorable quality experience for visitors and promotion for the area.
- · Promoting cultural heritage by hosting arts activities that explore our connections with the environment.
- Contributing to health and wellbeing of the community by encouraging people to visit and appreciate the countryside.
- Developing knowledge and understanding by providing an event where people were encouraged to collaborate and discuss environmental issues.
- Raising awareness of the Galloway and Southern Ayrshire Biosphere by holding quality events in remote landscapes within the Biosphere.

What opportunities are there for the future?

In 2016 Sanctuary went 'into the dark' and took a year off to incubate ideas. The event will be back in 2017 making greater connections between people, arts, science and environment. There is a strong desire to use art and the environment to make connections between Biospheres across the UK.

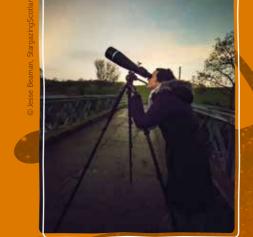






One of the goals of a Biosphere is to support sustainable development: fostering a viable economy, society and environment. That means we encourage the use of local produce, support social enterprises that reinvest profits for the benefit of the community and encourage businesses to minimise their impact on the natural environment.

- Biosphere Dark Sky Rangers





SUSTAINABLE DEVELOPMENT

• Biosphere Communities Glentrool

Ballantrae Festivals of Food and Drink

BIOSPHERE COMMUNITIES GLENTROOL



What was the project about?

The 'Biosphere Community' project was about engaging communities in the ethos of the Biosphere, in using the brand and in recognising best practice. The community was chosen based on how they currently support the Charter principles and its commitment to develop that further. 'Biosphere Community' signs were created to be positioned at the entrances to the community thus re-enforcing the Biosphere brand, the community's commitment to sustainable development and promoting the community as a destination within the Biosphere.

Glentrool is located just outside the core of the Biosphere. Reducing numbers of children in the village led to the closure of the primary school which encouraged the community to explore new ways to sustain their community in the future. The Glentrool and Bargrennan Community Trust undertook a feasibility study on new uses for the old school and supported its development as a community centre with a library. It is used by various local groups for exhibitions like 'All Our Yesterdays: Folk, Farming and Forestry'; events like D&G LEADER Day of the Region and activities such as fitness and art classes. A Craft Shop and Gallery was developed and managed by the Trust who are a registered charity supporting twenty-nine different artists and crafters, with all the work on display in the gallery being produced by people from the area. The gallery is run by volunteers from the Trust who operate as a social enterprise by ensuring all proceeds made by the gallery go to the Community Trust, which in turn benefits the communities of Glentrool and Bargrennan.

Glentrool and Bargrennan Community Trust were given support by the Biosphere to help achieve its sustainable development aims and to further re-enforce its identity as a 'Biosphere Community'. An example being 'Great Stories to Tell' business development workshops facilitated by the Biosphere and delivered at the centre for creative arts businesses. This was an opportunity for artists to connect with other businesses, help raise the profile of the work of the Trust and of Glentrool as a 'Biosphere Community'. A Biosphere Itinerary was produced for residents and visitors to the Loch Trool and the Cree Valley area which includes Glentrool as a 'Biosphere Community' on the route.

How did the project help achieve the goals of the Biosphere?

'Biosphere Community' at Glentrool achieved the following goals of the Biosphere:

Sustainable Development

The 'Biosphere Community' branding at Glentrool has helped create a Biosphere destination for a location actively supporting the sustainable development goals of the Biosphere. The branding and the on-going support from the Biosphere are helping it to become more sustainable in the future.

How did the project meet the charter principles of the Biosphere?

This project helped fulfil the Charter principles by:

- Supporting the economy by association with the Biosphere Brand and its sustainable principles, thus helping Glentrool and Bargrennan become more attractive to visitors.
- Promoting local products through the craft shop by showcasing businesses that are passionate about the quality and provenance of their fare.
- Raising awareness of the Galloway and Southern Ayrshire Biosphere through its 'Biosphere Community' sign linking the range of regional produce with the diversity of the landscape. Offering Biosphere printed material to promote the Biosphere as well as featuring in one of the Biosphere itineraries.

What opportunities are there for the future?

Glentrool and Bargrennan communities will continue to grow both through the work of the Trust and aligning themselves with the Biosphere and its Charter principles. There are further opportunities to develop 'Biosphere Communities' in Galloway and Southern Ayrshire with those communities committed to sustainable development.



BIOSPHERE DARK SKY RANGERS

What was the project about?

The Biosphere Dark Sky Rangers were developed as a partnership between the Galloway and Southern Ayrshire Biosphere and Forest Enterprise Scotland (FES). The Biosphere Dark Sky Rangers were developed in recognition that the twin assets of Dark Sky Park status and UNESCO Biosphere could offer a 24/7 attraction to people coming to experience Galloway Forest Park at the heart of the Biosphere. The purpose of a Dark Sky Park is to encourage a greater understanding of the night sky and raise awareness of the threat of light pollution, which complements the sustainability objectives of the Biosphere. By jointly promoting the two designations it was hoped that tourism to this remote area could be stimulated as well as influencing the behaviour of people and organisations responsible for light pollution. To help develop this service it was decided that locally based freelance guides who already had good communication skills should be trained as freelance Biosphere Dark Sky Rangers to provide the new service.

The Biosphere and FES developed an enrolment process and training scheme covering Dark Sky and Biosphere interpretation to attract potential guides from established small businesses. Equipment including tripod mounted binoculars and branded clothing was provided for the four successful candidates. The Biosphere Dark Sky Rangers run both independent activities open to members of the general public and also team up with local accommodation providers to offer weekend experiential packages.



the Biosphere:

Sustainable Development

the area.

Research and Learning

the visiting public.

How did the project meet the charter principles of the Biosphere?

- Helping to conserve the natural resources of the Biosphere by contributing to the protection and enhancement of dark skies.
- Developing the skills of established small businesses offering outdoor guiding activities to increase the range of services they can provide.
- Raising awareness of the Galloway and Southern Ayrshire Biosphere though small businesses and contacts with participants through workshops / media / branded clothing.

▶ What opportunities are there for the future?

There are opportunities to expand the Biosphere Dark Sky Ranger model further across the Biosphere area, and with continued connections between tourism operators build on the business potential of the natural assets in the Biosphere.



How did the project help achieve the goals of the Biosphere?

The Biosphere Dark Sky Ranger initiative achieved the following goals of

The initiative has encouraged freelance guides to recognise the Dark Sky and Biosphere as an asset that could be incorporated into their business and guiding offer. Guides have developed activities that include dark sky observing, storytelling, family and children's activities and photography workshops that are advertised direct to the public or can been provided as packages to tourism businesses in

Participants took part in training workshops that combined theory and practical experience to gain new skills and become proficient night sky guides. Eager to share their knowledge the guides have become a resource for passion-led learning that exudes enthusiasm about the Dark Sky Park and Biosphere to

This project helps fulfil the Charter principles by:

- Contributing to health and wellbeing of the community by encouraging visitors to gain enjoyment of, and pleasure from the night skies and developing links between individuals and their environment.
- Encouraging greater knowledge and understanding of the Dark Sky Park and the value of darkness to people and nature.

BALLANTRAE FESTIVALS OF FOOD & DRINK



What was the project about?

The Ballantrae Community Council Development Group saw the potential for organising a new event to expand the farmers market to celebrate 2015, the Year of Food and Drink by organising a pilot Food & Drink Festival. Recognising the value of the Biosphere ethos of cooperation, collaboration and supporting local produce, the event organisers partnered with the Biosphere using the Biosphere brand to promote the event. Despite the poor weather the first festival was an ambitious and highly successful event attracting a large audience. Building on the success of the first event a second festival was planned with the aim of enhancing the experience for all involved. Sited in marquees on the shore by Ballantrae harbour the festival attracted over 3,000 visitors who enjoyed local products from 50 businesses offering food and drink, including tastings and ready-to-eat and take away fare. The festival engaged with students from Ayrshire College and involved local primary school pupils who took part in class room sessions and provided artwork for the event.





How did the project help achieve the goals of the Biosphere?

The Ballantrae Festivals of Food & Drink achieved the following goals of the Biosphere:

Sustainable Development

The event successfully supported local food related businesses, encouraged tourism by showcasing the area and provided a unique event for locals, surrounding communities and visitors. The events demonstrated how community organisations and local businesses could work together to deliver a successful event in an isolated location.

Research and Learning

The festivals provided an opportunity to involve college students and local primary children. Classroom sessions were provided on a 'Think Global /Act Local' theme raising awareness of 'food miles' and climate change as well as the importance of healthy eating. The public at the event were made aware of the conservation goals of Biosphere by interactive activities.

How did the project meet the charter principles of the Biosphere?

This project helps fulfil the Charter principles by:

- · Supporting the economy by providing a positive and lucrative event for producers, a memorable quality experience for visitors and promotion for the regular Ballantrae Farmers' Markets.
- Promoting local products by showcasing businesses that are passionate about the quality and provenance of their fare.
- Contributing to health and wellbeing of the community by showing the quality and availability of food and drink sold by local producers. Local school children understand the issue of 'food miles' and the value of a healthy diet.
- Raising awareness of the Galloway and Southern Ayrshire Biosphere linking the range of regional produce with the diversity of the landscape, using printed media and social media to promote the Biosphere as well as providing space for Biosphere activities during the festival.

What opportunities are there for the future?

Ballantrae Festival of Food & Drink showcases exceptional Scottish local produce with particular emphasis on healthy eating and drinking and the project was a winner of the Ayrshire Chamber of Commerce Business Awards 2016 'Ayrshire Food and Drink Award'.

The stall holders reported that last year's festival was the most successful, well organised event that they have ever attended and a third festival is planned for June 2017.

The 2016 Lima Action Plan recognised the impact of climate change on people and saw that all Biospheres worldwide should take an active role in supporting mitigation and adaptation. In Galloway and Southern Ayrshire we have started cross section of partners.

• Climate Ready Biosphere



ADAPTING TO CLIMATE CHANGE

CLIMATE READY RIOSPHERE

What was the project about?

Partners of the Galloway and Southern Ayrshire Biosphere came together to identify the challenges and opportunities presented by a changing climate. A vision and action plan was developed outlining how the communities, the natural environment and economy of our Biosphere needed to adapt to ensure a positive future.

Severe weather impacts are not new to the Galloway and Southern Ayrshire Biosphere and the expected impacts of climate change will affect all aspects of life in the area. Officers felt that the recent severe weather experienced in the Biosphere highlighted the potential impacts locally and recognised that the Biosphere had the ability to act as a pilot area by identifying the possible effect of a changing climate, raising awareness, community engagement and stakeholder buy-in. This complimented the role of the Biosphere in pioneering more sustainable ways of living alongside a changing climate. Biosphere Officers contacted Adaptation Scotland to develop a project to raise awareness among Biosphere partners of the need to adapt to climate change and build capacity for joint planning and action.

A key characteristic of the Biosphere is to bring together people and organisations across a geographical area. Taking a partnership approach was crucial to achieving this, developing a shared vision and identifying possible actions. The Biosphere Partnership Board supported the project based on recent experiences of severe weather event impacts affecting the region, recognition that the impacts of climate are already affecting all areas of life in the Biosphere.



How did the project help achieve the goals of the Biosphere?

The Climate Ready Biosphere initiative achieved the following goals of the Biosphere:

Research and Learning

The visioning process consisted of a series of three workshops to take participants on a journey from recognising and understanding what climate change is, through to options for adaptation to counter threats and make the most of the opportunities. Through the workshops participants created a vision of a Climate Ready Biosphere and established an Action Plan to help achieve the vision.

Adapting to Climate Change

Partnership working is crucial to a climate ready future for the Biosphere. This project has set a strong foundation in place, providing a clear vision, and underpinning this with a defined action plan. Implementation of the Action Plan is dependent on all partners taking responsibility for different aspects and demonstrates that partners with diverse backgrounds and interests can work together to identify shared challenges and opportunities and make progress in taking action.

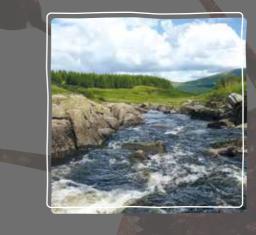
How did the project meet the charter principles of the Biosphere?

This project helps fulfil the Charter principles by:

- The Climate Ready Biosphere Action Plan helped conserve natural resources by recognising the role that sustainable land management and habitat restoration can play in addressing climate change issues.
- The action plan supports the economy by encouraging business in the region to recognise the impact of climate change through operating more sustainably and looking for new opportunities.
- Through resilience planning the health and wellbeing of people that live and work in the Biosphere is improved by working together to plan and mitigate against the impacts of climate change.
- Fundamental to the action plan is increasing knowledge and understanding of the impacts of climate change both regionally, nationally and internationally.
- The action plan is helping raise awareness of the Biosphere by acting as a catalyst to encourage others to develop Climate Ready Biosphere projects.

What opportunities are there for the future?

Climate Ready Biosphere brought together a diverse range of partners who all shared a common interest in the impacts of climate change. Through continuing to work together we hope to encourage business and communities in the Biosphere to continue to identify and develop new opportunities that will make the Biosphere a better place to live for future generations.







its full potential.

After much discussion a five year funding package has been agreed by the three local authority partners that the Biosphere operates within. With additional annual funding support from SNH and FES this will enable the Biosphere to maintain a core team of two 0.6 FTE (Full Time Equivalent) officers with some finance and admin support for the next five years. This is a huge step forward for the Biosphere showing real commitment from partners at a time when budgets are extremely tight.

The five year term will take the Biosphere up to the UNESCO 10 yearly periodic review, due in 2022, when we will be assessed on whether we have demonstrated sufficient progress as a UNESCO Biosphere to retain the status.

To aid this the next five years will be guided by our Galloway and Southern Ayrshire Biosphere Strategic Plan 2016 – 2022 (available to download from www.gsabiosphere.org.uk). The Strategy takes the international vision and aims of the Lima Action Plan, that all UNESCO Biospheres worldwide are working towards, and reflects them at a local level to benefit the people and environment of South West Scotland.

NEXT STEPS

Key to the success of the Galloway and Southern Ayrshire UNESCO Biosphere is continuity of action engaging with business, communities and partners across the region to ensure that the UNESCO Biosphere designation lives up to

WHAT IS A BIOSPHERE?

A Biosphere is a special designation awarded by the United Nations Educational, Scientific, and Cultural Organization (UNESCO) to areas renowned for their special environment which are valued by local people.

A Biosphere is a unique and particularly flexible area designation that is the centrepiece of UNESCO's Man and Biosphere Programme. It differs from other designations by being voluntary with no additional rules. Biosphere is an ethos which encourages cooperation and collaboration to show that a sustainable way of living is not only possible but already happening.

By visiting the Biosphere website and signing up to the Charter you will demonstrate that you are a proud supporter of the Biosphere and play your part in promoting and developing the sustainability of the area.

The six principles of the Biosphere Charter are:

- Help conserve the natural resources of the Biosphere
- Support the economy to benefit people and nature
- · Promote cultural heritage and local products
- · Contribute to health and wellbeing of the community
- Develop knowledge, understanding and research
- Raise awareness of the Galloway and Southern
 Ayrshire Biosphere





Galloway and Southern Ayrshire Biosphere member of the World Network of Biosphere Reserves



GALLOWAY AND SOUTHERN AYRSHIRE BIOSPHERE email: info@gsabiosphere.org.uk www.gsabiosphere.org.uk

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