

**THE BIOSPHERE & EDUCATION: AN EMERGING AGENDA ROGER CROFTS
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PARTNERSHIP BOARD 26/09/12**

Do we have a vision for education in the Biosphere?

Dr Alasdair Allan, Minister for Learning, Science and Scotland's Languages January 2012 in report on *Outdoor learning with national parks* "As many schools, organisations and individuals as possible are supported and enabled to provide regular, progressive outdoor learning"

Very system orientated and takes responsibility away from individuals and does not relate to the issues on the ground. Achieving sustainability is all about transcending divides in and between organisations and about changing mind sets and cultures throughout society. Sustaining our natural environmental assets as a renewable source for all life and sustaining the vibrancy of and ensuring equality in communities are the two essential elements. Viable businesses and economically sound policies are an essential means of achieving this. James Lovelock and his *Gaia* approach is a guiding light.

In our own back yard in the Galloway and Southern Ayrshire Biosphere we have degradation of land due to over grazing, non-native tree monocultures and renewable energy farms impinging on the landscape and the ravages of open cast coal mining. And the human communities have some of the highest levels of deprivation in Scotland and are looking for new more positive futures. And there are many opportunities. For example here at Lochside outside New Cumnock with conversion of open cast coal mining into a new environment for business and pleasure with emerging habitat benefits and the transformation of the Dumfries House estate.

We must do better and the UNESCO designation gives us an opportunity through widespread participation and action to achieve this under the umbrella of our Partnership Charter.

So my vision is **All residents in and visitors to the Biosphere have a moral right and a personal responsibility to visit, appreciate and enjoy the surrounding countryside. They need the enabling mechanisms and the enablers – the educators – to help achieve this vision.**

The framework

What UNESCO status means, Partnership's approach & Developing the education agenda

UNESCO requirements

Three fold purpose: definitely Conservation & Sustainable Development and also **Learning and Research** – to support research, monitoring, education and information exchange related to local, national and global issues of conservation and development through effective participation of local communities and different sectors of society. Taking into account:

- UNESCO's mandate in education, science and culture,
- MAB approach integration of natural & social sciences
- Cultural sensitivity, participation and benefits for local communities

- Scientific research to resolve natural resource use problems: dialogue, conflict resolution, awareness raising
- Training of specialists.

We can do this by walking everyone step by step through the 3 zones of the biosphere from the community zone to the buffer and into the core. It is a journey where the adventure increases as does the reward: it's a real living experience.

Partnership's approach

A world class place for growth, to live, for sustainability, for nature, for learning the latter by Creating an environment which people understand, value, take pride in and ownership of, and which others can learn from and share

Improved local, regional and international learning	Biosphere is a pilot area for a regional ecosystem Approach pilot for the Scottish Land Use Plan
	Biosphere topics in local school curricula & Curriculum for excellence
Promoting cooperation and networking	Increased participation in forums & networks at regional, UK and international level using UNESCO connections
Raising awareness and understanding	People feel good about their local area
Enhanced opportunities for research	Increased numbers of researchers, dissertations , research citations & pilot projects focussed on the area
Monitoring progress	Baseline for environmental, social and economic parameters established for future monitoring.
	Development of ecosystem health indicators as an underpinning to better management

Moving from the undesirable conflict cycle nature versus people versus culture versus economy to the desirable of integrated vision, strategy & action *Informed by* Scientific data collection & analysis, local knowledge & traditions, and invention & experiment.

What does this mean for the education agenda?

1. Improving the knowledge base

Core zone: what makes nature & natural processes tick and what gets in the way?

Transition zone: is it providing the buffer to the core & opportunities for environmentally sustainable development?

Development zone: what opportunities are there for community economic & social development within the biosphere context?

2. Connecting to primary & secondary curricula *Curriculum for Excellence through Outdoor Learning, 2010*

From the classroom to the school grounds to the local outdoors to the further away outdoors, So that outdoors is a classroom, a learning experience and an experience to change attitudes and provide greater appreciation. Encourage twinning between urban and rural schools to share experiences of the outdoors

3. Learning by doing

Experiments in peat and moorland restoration, bringing back lost species, remodelling the forest, naturalising the water courses, bringing nature into and around settlements, achieving community engagement & capacity building, & monitoring of change & attitudes to change.

4. Learning lessons from past *What did we get right & what could we have done better*

Effects of tree planting on landscape, species & water courses? Effects of grazing intensity? Effects of renewable energy schemes? Effects of coal mining?

Key points on biosphere and education

- ✓ Transcends knowledge boundaries & demands holistic view
- ✓ Provides opportunities for innovative learning across generations and sectors
- ✓ Provides open air laboratory for research and experiment
- ✓ Provides demonstration area for new ideas and integrated approaches
- ✓ Provides outdoor experience for younger generations
- ✓ This means in practice a change in mindset from *Moving from* sectors, single issues, conflict & hyperbole TO Cross sectoral, Multi-faceted, Resolution & Factual basis

Education is essential for this to be achieved and learning professionals are an essential lubricant in the process.