

The Eden Project

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INTRODUCTION

As a new botanical institution, Eden will offer innovative and contemporary responses to the prevailing agronomic, land use, and conservation challenges. These challenges are posed by humankind's impact on the natural world and result from the developing needs of our species. Within this framework, Eden's focus will be on the relationship between humans and plants, although recognising that proposed solutions will have wider implications.

The policy and activity of Eden will be directed by the principles enshrined in the Convention on Biological Diversity (the Rio Convention) and Agenda 21: in turn projects will be designed to support the stated priorities of the IUCN — the World Conservation Union.

At present the mission statement of the Eden Project is "To celebrate plants and promote and explore the balance between conservation and the rational use of plant resources, emphasising the historical and dynamic relationship between humanity and the land, through collaborative local, national, and international programmes of public display and education, applied research, and field projects."

From the outset, the founders of the project decided that the most effective ways to pursue its aims were through increasing public awareness and understanding, and by joining with others to work in the field.

VISITOR ATTRACTION

The site in Cornwall, within a worked-out clay pit of 14 ha at Bodelva, is being developed as a visitor destination; the primary purpose of which is to inform the general public and influence opinion, while ensuring that visitors have a thoroughly entertaining time. It will do this by establishing a novel series of plant displays set in a dramatic social landscape. To reflect the worldwide nature of human dependence on plants, two massive "biomes" are being constructed. One will have the climate of the humid tropics, the other that of the warm temperate or Mediterranean regions of the world.

The plant displays will not be based on traditional taxonomic collections but will reflect wild and man-made assemblages of plants based on geography, ecology, and ethnobotany. A considerable number will be designed to show the crops whose harvests fill the supermarket shelves. They will be designed to intrigue, excite, and inform the visiting public. Some will also provide a useful resource for scientific and extension work while others will show the development of the sustainable use of plant resources through well planned and managed agriculture, horticulture, and forestry.

SCIENCE

Eden's approach to its scientific mission will be collaborative and co-operative and will not subscribe to past prescription. Where feasible it will seek sustain-

able solutions. This will require a focus on specific problems while at the same time contributing to resolving broader implications which may result from any change effected.

Scientific activities at Eden will be developed from a variety of sources and these will create projects of widely differing complexity and objectives — making use of both basic science (pure and applied) and technology. Much of the extramural activity will inevitably be extension oriented and based on the application of existing science and technology in the resolution of applied and practical challenges in the field.

The practical derivations of scientific activity at Eden will arise from a range of sources (both internal and external). These will generate a series of responses appropriate to the order and scale of the issues identified.

The Living Collections, both in the conservatories and grounds at Eden and within the nursery at nearby Watering Lane, present the challenge of growing an unusually wide range of tropical, warm temperate, and hardy subjects to mature size. The resolution of these challenges will form the basis of “in house” research programmes and, through the publication of the research findings, be of service to others.

Any investigation on the cultivation of the collections will involve soil science; pathology, plant protection (including biological control); mycology and a recognition of the mycorrhizal associations required; together with the challenges created by the physiology of the plants in relation to their successful growth, nutrition, pollination, fertilisation, and fruit development. Eden will also pursue propagation and production studies and will be involved in genetic studies and plant breeding. The collections will also provide the basis for ongoing taxonomic investigations (which form the basis of all authenticated plant research) and will then provide opportunities for refining recording systems.

To achieve this it is intended that the senior curatorial staff of the Living Collections at Eden will have a significant scientific background and will be backed up by an integrated and dedicated specialist scientific staff.

RELATIONSHIPS WITH EXISTING ORGANISATIONS AND INITIATIVES

The role of the Institution will be in pursuing its mission in conjunction with other collaborating bodies (universities, botanic gardens, commercial organisations, etc.) in identifying or working within specific arrangements, in order to fulfil particular projects within the framework of Agenda 21.

Eden will maintain, within its basic funding strategy, a core team of specialists, scientific professionals who will identify and seek funding for particular projects and who will organise or participate within teams to resolve particular problems — but always within an aim to achieve fully ethical and holistic solutions. Holistic approaches to solutions involve not only the resolution of challenges posed by agronomic need and the associated conservation issues but deal with the social, economic, political, and religious imbalances which may be created. Traditionally merely targeting and resolving a challenge produces knock on and side effects which are frequently not addressed.

Inevitably adhering to the requirements of Agenda 21 focuses attention on all areas from local to international involvement.

Involvement locally can be initiated quickly and will provide an immediate area of collaborative activity in the field of conservation. Particular areas of interest include the well being of Atlantic Woodland (a reflection of the international concern at the decline of temperate rainforest), the programme for Lowland Heath conservation, the issues of Cornwall's rare and endangered wild flowers, and the loss of gene pool in cultivated plants — in terms of Cornwall's endemic taxa of fruit and flower bulbs. These issues also interface agronomically with the current position of the agricultural industry in Cornwall and the challenges presented by the present decline in farm incomes. The return to low input - low output systems, with a high value product and the potential for value-added processing becomes a possibility. Sustainable land management of this type will become critical in the maintenance of the traditional forms of farm landscape which are an important part of Cornwall's attraction to tourists.

Nationally it will be possible not only to contribute to the development of these ideas in a wider context but also to act as the local agent for initiatives, such as the proposed *Flora Celtica*, the development of wider marketing strategies for the local agricultural industry and for cooperation with agricultural or industrial partners to identify immediate and practical projects.

Internationally, Eden will look to provide collaborative and cooperative involvement in projects concerned with sustainable land use and will endeavour to provide holistic solutions. Typically the resolution of a problem will require additional assessments of related impacts and an understanding of how these might be managed.

Eden will have basic laboratory facilities for field investigations. It will not, however, seek to establish expensive, specialist equipment or employ an extensive, permanent scientific staff but it will seek expertise and specialist facility by contractual, collaborative, or co-operative arrangements with partners having the relevant status.

Eden will also provide the opportunity for scientists to visit and study within its facilities, both at Bodelva and at Watering Lane, whether on specific projects or as part of a wider collaborative position.

Because of its commitment to all these facets and the inevitable interactions with the educational programmes and interpretation, the labour force at Eden will be based on a School of Horticulture consisting of student gardeners who will have a strong science base to all their activities.