The Darwin Initiative:
Towards achieving the CBD on islands

Defining "islands"

Islands display a remarkable diversity in terms of their geological, biophysical and socio-political characteristics. There is no single set of biological, physical or environmental characteristics that defines a typical island. This is one of the findings of a thematic review carried out by ECTF for Defra's Darwin Initiative.

Islands are microcosms, containing an amplification of most of the diverse biological characteristics seen globally, on a small-scale. In terms of biodiversity, it is no coincidence that islands have provided some of most important concepts that scientists and conservationists use today on a daily basis. It is from the scientific study of islands that the world has learnt about both evolution and extinction.

In the human dimension of islands, there is greater similarity. Islands are characterised by:

Photo credit: P. van Gardingen

Palau – a small Pacific Island.

Photo credit: P. van Gardingen

Local people have great potential to contribute to conservation rather than degradation of islands (Solomon Islands).

- Communities that have significant economic, social and cultural links to biodiversity.
- Distinctive cultural identity, social structures and political systems, often linked to low population and isolation. With low populations, the total financial resource available to support conservation is also very restricted.
- Social structures in island systems, including those for land tenure and customary rights for resource use, that mean communities have the potential to be able to promote sustainable use of biological resources. The current reality, however, is often that human societies effectively place great pressure on island environments.
- Vulnerability to extreme events, environmental and social change, particularly for those which are small or have unique or isolated ecosystems and large numbers of endemic species.

<<<<	Characteristic	>>>>
Isolated - Some UK Overseas Territories in the South Atlantic	Physical isolation from continental land masses	Continental remnants - Sri Lanka
Small - May be less than 1 km^2	Size	Large - Greenland has a total area of 2,166,086 km^2
Rich, "hotspots" - Large numbers of endemic species	Biodiversity	Poor, "coldspots" - Low biodiversity
Near Pristine - Galápagos Islands	Human impact	Highly degraded - High population growth on smallislands like the Seychelles

DARWIN INITIATIVE

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Islands and the CBD

Island biodiversity is one of the Convention on Biological Diversity's (CBD) thematic Programmes of Work, one of seven linked to a major biome. It was highlighted at the 8th Conference of the Parties (COP) held in Brazil, 2006. The Islands Programme of Work has a set of 7 Focal Areas, 11 Goals and 22 Targets.

Focal area	Goals
1. Protect the components of biodiversity	1. Promote the conservation of the biological diversity of island ecosystems, habitats and biomes. 2. Promote the conservation of island species biodiversity. 3. Promote the conservation of island genetic diversity.
2. Promote sustainable use	4. Promote sustainable use and consumption.
3. Address threats to biodiversity	5. Reduce pressures from habitat loss, land-use change and degradation, and sustainable water use (on islands). 6. Control threats to island biological diversity from invasive alien species. 7. Address challenges to island biodiversity from climate change and pollution.
4. Maintain goods and services from biodiversity to support human well-being	8. Maintain capacity of island ecosystems to deliver goods and services and support livelihoods.
5. Protect traditional knowledge and practices	9. Maintain socio-cultural diversity of indigenous and local communities on islands.
6. Ensure the fair and equitable sharing of benefits arising out of the use of genetic resources	10. Ensure the fair and equitable sharing of benefits arising out of island genetic resources
7. Ensure provision of adequate resources	11. Improved financial, human, scientific, technical and technological capacities of the Parties to implement the CBD.

Islands and the Darwin Initiative

Projects on islands are very significant to the Darwin Initiative. A total of 105 projects on islands (23% of the portfolio) have been funded over its 13 years. The geographical and technical spread has been broad and most priority areas of the CBD have been covered.

Analysis of Darwin Initiative experience of islands has generated the following observations about islands and conservation.

Limited capacity: Typically islands are limited in their financial and human resource capacities, and conservation is typically a low economic priority in relation to essential services. This means that a DI grant can really help catalyse action, through expert inputs. This relates well to the Darwin Initiative's main aim of helping implementation of the CBD in countries with limited resources.

Closed systems: Islands are often important as they are relatively closed systems, compared to continental ones. With fewer linkages to other ecosystems, endemism is a typical feature of islands, as is vulnerability to extinctions. Island ecological systems present an amplified range of conservation challenges. This means that islands can be good to study not only for their own sake but also as smaller, simplified and controllable models of reality elsewhere.

Photo credit: P. van Gardingen

The Long-legged Warbler is an important endemic in Fiji.

Vulnerability: A significant current human impact on island biodiversity is actually reducing isolation, and increasing vulnerability, by promotion of exposure to exotic organisms. Niches within ecosystems on islands are not always filled, so the impact of exotic species can be dramatic. This demonstrates the importance of taking special care of island biodiversity.

Sharing learning: Isolated islands lack the opportunities to share knowledge and best practice that countries on continents already have. Due to some of the similar challenges faced by islands, there is a need to transfer learning about conservation between islands. Practical top-tips about what works and why are being generated and will be invaluable to practitioners in other places.

The Darwin Initiative and CBD's Programme of Work

Darwin Initiative projects have in particular contributed to Goals 11, 2, 4, 1 and 8.

Goal 11 – Parties have improved financial, human, scientific, technical and technological capacity to implement the Convention

The overall aim of the Darwin Initiative is to support the empowerment of local stakeholders to implement the CBD and all projects have contributed to this Goal. The most significant contribution of DI projects has been towards Target 11.3 (Capacity of islands to implement the programme of work). DI projects have made very significant contributions to generating knowledge and skills development to support the conservation of biodiversity on islands. These activities reflect

Photo credit: Glyn Young

Hernán Vargas – scanning the tag of a flightless cormorant, March 2006.

Darwin has helped Hernán to move from conservation fieldwork to leadership. Through a Darwin project (12-018 Climate change and conservation of Galápagos endemic bird species) he has become the first Galápaganian ever to gain a PhD and now leads regional bird conservation efforts.

a response to the important capacity constraint typical on islands.

Island projects have worked to overcome this constraint through training and capacity building activities (Art. 12 of the CBD) and other activities designed to generate and share knowledge and skills in support of the CBD. Particularly effective approaches in the context of islands have included regional or multi country networking.

"This course was fundamental in developing the innovative community-based conservation approaches to develop Marine Protected Areas in our project in the Solomons"

Local manager, Project 14-020, talking about the Pacific Island Community Conservation Course (PICCC, 8-009 and 15-037) that brings people together from several countries.

Goal 2 - Promote the conservation of island species diversity

Nearly 70% of projects on islands are addressing this goal. Projects range from those working on biodiversity action plans, through to ground-breaking and successful species-level conservation efforts. An innovative approach is project 12-017 in Galápagos, Ecuador. The project has established the ability of researchers and managers of the Galápagos National Park to determine and monitor the disease threats to endemic fauna from new pathogens and vectors. The project has successfully established a laboratory on Galápagos, and has influenced changes in legislation regarding protocols for monitoring invasive insect arrivals by aeroplane. A linked DI project on Galapagos (7-078) worked with community para-taxonomists to provide early warning system for invasive invertebrates.

Photo credit: R. Wild

The new pathology laboratory established on Galápagos to monitor disease threats – involving high school students to broaden understanding of the issues.

Photo credit: R. Wild

A notice board in the Galápagos National Park highlights the disease threats to endemic fauna from new pathogens and vectors.

Goal 4 - Promote sustainable use and consumption

A growing proportion of DI projects on islands are supporting measures to promote sustainable use and consumption. Two highly innovation projects are taking place on islands in the Indonesian archipelago. On Bali, project 14-057 is working in conjunction with the Marine Aquarium Council to empower communities to build local enterprises to enhance the status of coral reefs through sustainable management and development of certified products. In Java, project 14-031 is working on a certification scheme in relation to the domestic trade in birds.

Goal 1 - Promote the conservation of the biological diversity of island ecosystems, habitats and biomes

Numerous Darwin projects work towards securing conservation areas. Projects 9-012 and 13-028 in Sulawesi, Indonesia have contributed to the establishment and management of the Nantu National Park, the home of the endemic Babirusa pig. In the Galápagos islands, project 6-174 helped to revise the Galápagos Marine Management Plan and generated baseline data that helped secure World Heritage Site status for Galápagos.

Photo credit: P.D. Hardcastle

The Babirusa pig is a key endemic species whose habitat has conserved by Darwin Initiative projects on Sulawesi, Indonesia

Goal 8 - Maintain capacity of island ecosystems to deliver goods and services and support livelihoods

The majority of projects now recognise that it is important to deliver measurable benefits to local communities as part of their work. For a minority of projects, livelihoods or biodiversity goods and services are the main focus of their work. The pattern of shifting activities from focusing on technical issues through to focusing on livelihoods is seen in Fiji, where the Important Bird Area (IBA) process (project 11-022) led into a project more specifically designed to address the needs and livelihoods of local communities (project 15-019). The changing focus in sequential projects is good practice, covers a broader set of goals within the Island Programme of Work and is very important for achieving legacy in DI projects.

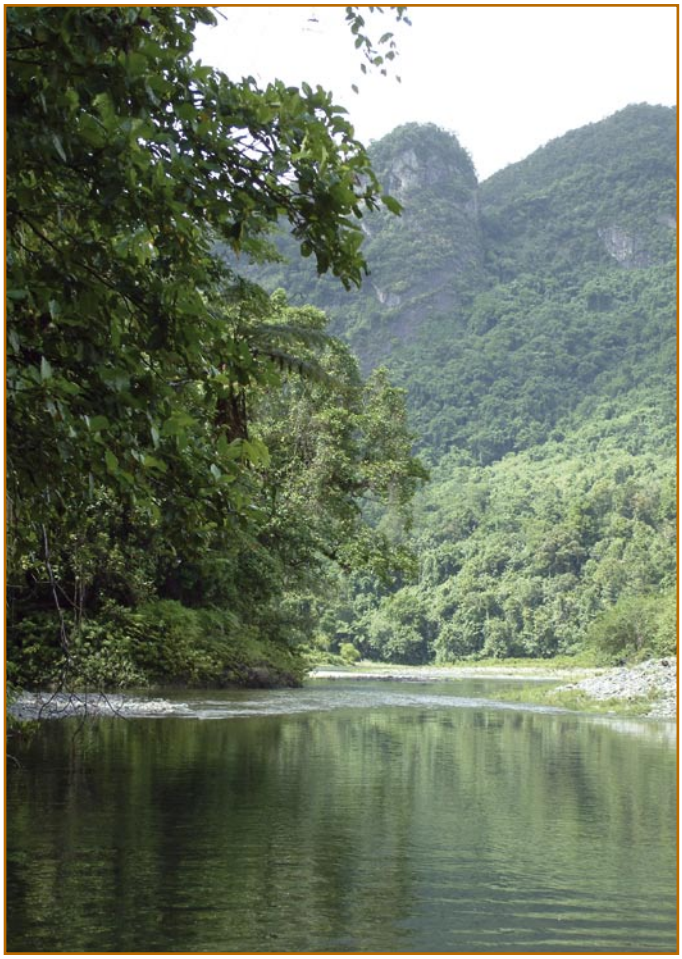

Photo credit: P. van Gardingen

Conserved bird habitats in Fiji.

Darwin projects – empowering stakeholders to conserve island biodiversity

Darwin Initiative projects on islands have made significant contributions that have assisted local stakeholders to meet their obligations under the CBD. The CBD's 2010 Targets, and those articulated through the Island Programme of Work, give an improved framework to consider how DI projects can empower local stakeholders to conserve biological diversity through implementation of the CBD. Activities linked to Goals 4 and 8 have been particularly important. This reflects a gradual change in the types of activities supported by the Darwin Initiative with recent awards giving greater emphasis on biodiversity conservation that meets the needs of local communities. This is especially important on islands where it is recognised that biodiversity plays a very important role in local livelihoods.

Challenges & opportunities for successful legacy

Resources: Whilst Darwin Initiative projects are starting to really empower stakeholders, there is a risk of empowering people simply to record the loss of their biodiversity. Many projects have supported Goal 11 in giving people skills and knowledge to do the research behind the conservation. Now projects are increasingly working to mobilise resources to do the conservation. Islands are so limited in human and financial resources that they need specific external support to put conservation knowledge into action. At present many islands (especially for example UK Overseas Territories) have difficulty accessing resources that are available to others. For example, applying for GEF grants is impossible without people, time, resources, or large institutions. Developing mechanisms for securing sustained support for action is critical.

Responsibility: For many islands, the issue of responsibility is a challenge. For example in the UK Overseas Territories it is not clear who (realistically) is responsible for conservation actions - local administrations have the mandate but no resources. Getting clearer roles and funding routes could make a significant difference.

Mainstreaming: Ensuring linkages into local realities – political, institutional, economic – has been shown to improve the sustainability of conservation actions. All Darwin projects should demonstrate how their work will be linked into mainstream institutions and processes.

New threats: Relatively few projects are addressing key issues being recognised as significant threats - specifically climate change and invasive species. The Initiative must seek to address this balance for improved impact, learning from existing examples of interesting projects.

Global models: Experience from Darwin has demonstrated that islands are extremely valuable as models and testing grounds for conservation practices in other regions. Their small size and isolation can be viewed as an opportunity - new approaches can be tried out on islands (proof of concept), new ideas can be developed, and then transferred to other places. This has been shown to be particularly useful in relation to ecosystem restoration, eradication of invasives, and species-level efforts. Therefore, getting support to biodiversity conservation on islands right is critical not just for those islands but for conservation practice everywhere.

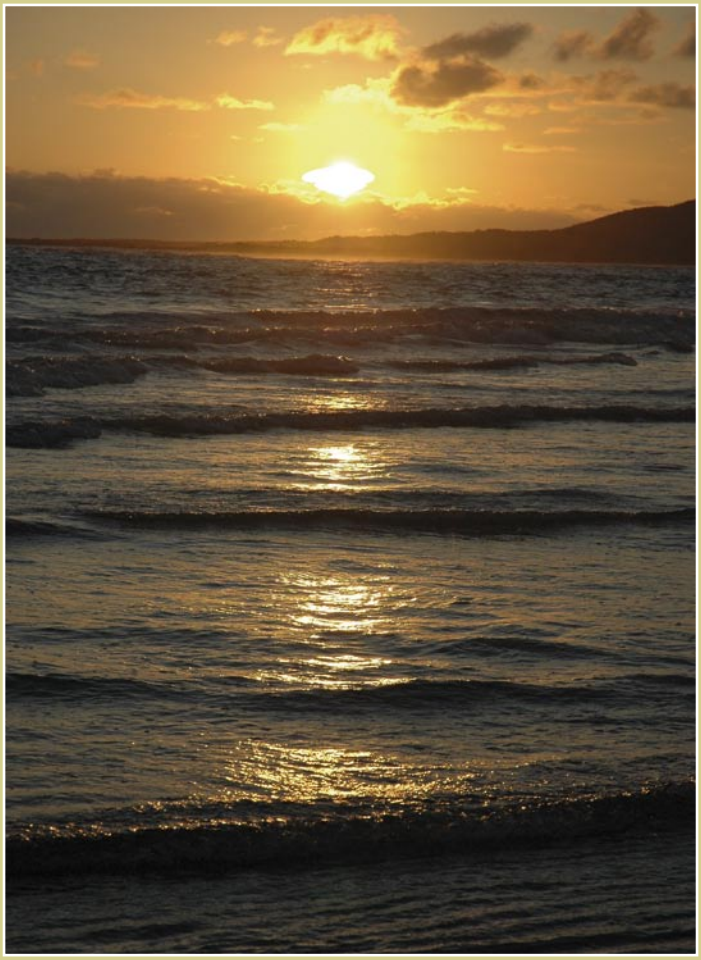

Photo credit: P. van Gardingen

Sunset on Bali

The Darwin Initiative aims to promote biodiversity conservation and sustainable use of resources around the world. It uses UK expertise working with local partners to help countries rich in biodiversity but poor in resources to fulfil their commitments under the CBD. The Initiative is funded and administered by the UK Government's Department for Environment, Food and Rural Affairs (Defra). Since 1992, the DI has committed over £45m to over 450 projects in over 100 countries.

This note was produced by the Edinburgh Centre for Tropical Forests (ECTF) www.ectf.co.uk

For information on the Darwin Initiative see www.darwin.gov.uk. For information on the CBD see www.biodiv.org.

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Printed in November 2007 on elemental chlorine-free paper containing a minimum of 75% de-inked post consumer waste and virgin fibre from sustainable forests.