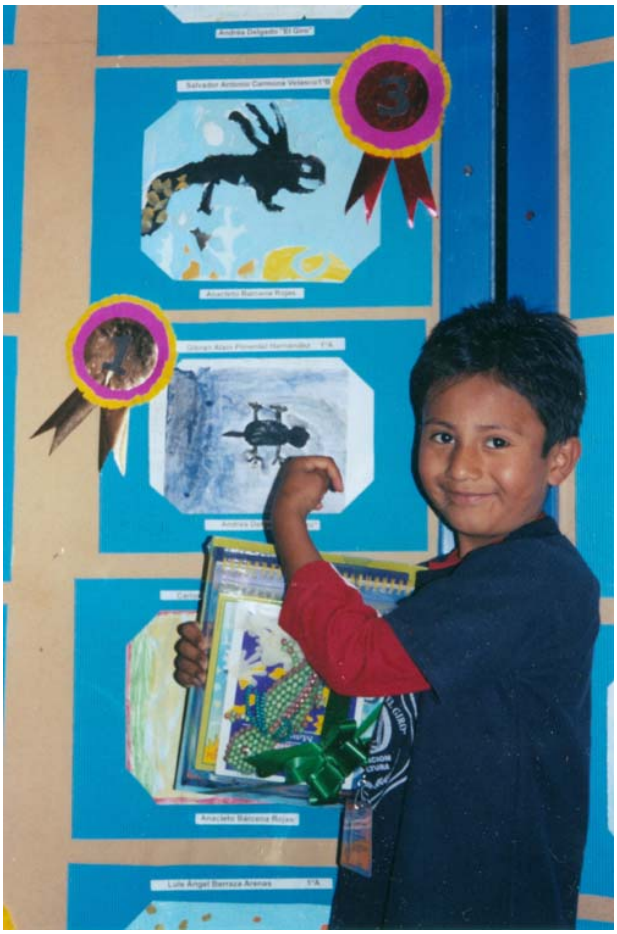

Aztecs and Axolotls: Integrating Conservation and Tourism in Xochimilco, Mexico (11-018)

Communication, Education and Public Awareness Thematic Review

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CONTENTS

ACRONYMS

CBD	Convention on Biological Diversity
CEPA	Communication Education and Public Awareness
COP	Conference of Parties
DEFRA	Department for the Environment, Food and Rural Affairs
DI	Darwin Initiative
ECTF	Edinburgh Centre for Tropical Forests
IUCN	World Conservation Union
NGO	Non-Government Organisation
POW	Programme of Work

ACKNOWLEDGEMENTS

This Review could not have been possible without the voluntary contributions of a large number of past and current project leaders and their colleagues. Thanks are particularly due to those who provided extensive information on which case studies and analysis were based. The Review has also been subject to a peer review by Gail Bromley and Julia Willison, and additional feedback was received from Rod Dutton. This has been very important and helpful in finalising the Review.

EXECUTIVE SUMMARY

This Thematic Review analyses and documents the contribution of the Darwin Initiative to the CBD's Programme of Work on Communication, Education and Public Awareness (CEPA). In the process, it looks at the diverse and sometimes innovative approaches taken by Darwin Initiative projects and identifies lessons and recommendations for best practice.

Section 1 reviews CEPA within the CBD and current best practices. CEPA is referred to specifically in Article 13 of the CBD and is a cross-cutting theme. In recognition of the role and value of CEPA in addressing the social and behavioural changes required for successful biodiversity conservation, the CBD initiated in 2002 a Global Initiative on CEPA and a subsequent Programme of Work. A review of 'current 'best practice' shows that this shift reflects a trend (across the environment and conservation arena) to define and use CEPA as a tool to change attitudes and behaviours and to promote real and lasting change on the ground. CEPA is defined not as sets of material products, but as an open process instrument.

Section 2 reviews the Darwin Initiative programme and project database. Darwin Initiative projects are expected to plan and report on CEPA activities, though the standard measures for it are somewhat out of date and many projects under-plan and under-report on CEPA. The majority of projects do include CEPA activities (84%), though in most cases relatively little effort is spent achieving this. Only 8% of projects devote more than 40% of effort on CEPA activities. A wide range of CEPA activities are used by Darwin Initiative projects. The importance and range of CEPA activities in Darwin Initiative projects have increased over time, reflecting wider trends.

Section 3 reviews the contribution of Darwin Initiative projects to the CBD's Programme of Work on CEPA. It concludes a significant contribution made through a breadth of activities and some innovation – and where projects have seriously tackled CEPA, they have seen powerful contributions to project success. Networks have been a significant success area within the Darwin Initiative. Knowledge and expertise is well-shared as a basis to the Darwin Initiative. A wide range of capacity-building for CEPA has been achieved.

Section 4 observes some key conclusions and suggestions for best practice on CEPA for Darwin Initiative projects. Key best practice points are:

1. Identify appropriate audiences and objectives
2. Promote community involvement – trusting, two-way, positive, communications
3. Develop effective partnerships to broaden impact
4. Use appropriate Media
5. Develop appropriate team structures
6. Use appropriate language and style
7. Ensure awareness facilities are sustainable
8. CEPA as a long-term process
9. Mainstream conservation into education
10. Plan, monitor and evaluate for change in attitudes and behaviour

Section 5 proposes some recommendations for Darwin Initiative projects and programme. Key issues arising are:

- For projects –the principles of best practice highlighted in this review should be applied
- For Darwin programme management – revisions to application and evaluation processes are required to building current best practices on CEPA, and capacity building to support project leaders is needed.
- For Darwin contributions to the CBD – improvements in information access and availability are proposed.

SUMMARY OF MAIN RECOMMENDATIONS

RECOMMENDATIONS	
For Darwin Initiative Projects	
1.	**Communicate project outcomes as a minimum** At a minimum, all projects should effectively communicate their outputs, but this review has emphasised the use of two-way communications processes to improve the performance and impact of projects. At the outset, all projects should be required to provide CEPA plans, including details of objectives, intended outcomes, and partners, and what changes in awareness, attitudes or behaviours they re seeking to bring about.
2.	**Apply CEPA best practice** The review has enabled the development of a set of best practice principles and guidelines for effective CEPA activities, and has highlighted the key documents and relevant operational materials, such as the IUCN CEPA toolkit (www.cepatoolkit.org), that are available. These should be followed by all projects in order to ensure improved impacts, sustainability and legacy.
For the Darwin Initiative to support projects	
3.	**Build CEPA into project proposals and planning** CEPA is essential to the effectiveness of conservation projects, and should be built into projects from the start. The Darwin Initiative should require projects to provide clear and detailed CEPA plans in their proposals. Project leaders should be expected to be able to identify which stakeholder groups they want to interact and communicate with (partners/audiences). Projects should also provide evidence of the competence and experience within the project team to carry out CEPA work. Where a high level of confidence in CEPA is not present, the teams should be encouraged to use specialists in education or communication.
4.	**Support capacity development for CEPA in DI projects** Project leaders need to be given greater support in leading CEPA elements of their work. The Review and the IUCN's comprehensive CEPA toolkit should form the basis of capacity building. The Darwin Initiative should consider: • Adapting the IUCN toolkit to make it even more relevant and useful for Darwin Initiative projects; and • Providing project staff with training opportunities in the use of the highlighted approaches. There is an extensive range of experience and examples of good practice from past Darwin Initiative projects and a number of education specialists who could be called upon to run such training and to develop appropriate materials. Links to the CBD's Global Initiative on CEPA should also be made.
5.	**Support flexibility, responsiveness and innovation** The Darwin Initiative should adopt a flexible approach when processing applications, setting targets and assessing outputs from projects. In truly iterative process projects, the CEPA outcomes will be different to those originally formatted but these changes are likely to lead to a more robust, sustainable and worthwhile result. This level of flexibility and adoption of process approach will enable projects to have a more positive impact.

RECOMMENDATIONS	
6.	**Improve monitoring and evaluation of CEPA outcomes** The standard measures used to assess CEPA activity remain as they were at the start of the Darwin Initiative and are seriously out-of-date and in urgent need to revision. Darwin needs to revise these using this document and the other materials referenced in the report so that they better reflect the range of best practice CEPA activities that projects use. The targets and outcomes set at the beginning of a project can only be assessed if the baseline level of awareness and understanding is established at the start of a project. The Darwin Initiative needs to establish guidelines on conducting awareness surveys at the start of all projects and facilitate this by providing a clear methodology and training as necessary.
7.	**Support urban action for broader impact** Recognising that 50% of the world's population now live in cities, the Darwin Initiative needs to actively solicit and support a wider range of projects, including those that have an urban rather than a rural focus. The Darwin Initiative must take a positive lead in this area by supporting more projects that provide citizens with an opportunity to understand or get involved in conservation, as the most effective route to bringing about widespread changes in attitudes and behaviour.
8.	**Support the mainstreaming of biodiversity conservation into other sectors** An integrated approach to biodiversity conservation, linking with other sectors (such as education, health and climate change) is likely to have greater long-term impact and sustainability. This should be promoted by the Darwin Initiative. In selecting projects, joined-up thinking should be rewarded and prioritised over projects that operate in isolation from other social, economic or environmental issues.
For the Darwin Initiative to better inform the CBD on CEPA	
9.	**Improve availability, access and use of materials and information from Darwin projects** The Darwin programme needs to consider how it can: • Collate and make available the wealth of education and awareness materials developed by DI projects to the wider conservation and sustainable development community. • Make as much information available as possible on the upgraded Darwin Initiative website and make links to CBD, IUCN and other conservation information portals and courses. • Seek ways to make material from scientific papers published by the Darwin Initiative more widely available to conservation practitioners and more likely to influence any behavioural change on the ground.

1. INTRODUCTION

1.1 About this review

The Darwin Initiative and Thematic Reviews

The Darwin Initiative began in 1992. It is funded and managed by the UK's Department for Environment Food and Rural Affairs (DEFRA). The Darwin Initiative aims to assist developing countries that are "rich in biodiversity but limited in financial resources" to meet their objectives under the CBD. Since 1992 the Darwin Initiative has committed over £35 million in funding to more than 450 projects in 100 countries around the world. Darwin Initiative projects are partnerships between UK and host country institutions. The objectives of Darwin Initiative projects are given in Box 1.

Box 1 Objectives of the Darwin Initiative

- To **assist countries rich in biodiversity but poor in resources** with the conservation of biological diversity and implementation of the Biodiversity Convention.
- To draw on **British expertise** in the field of biodiversity.
- Projects funded under the Initiative will be **collaborative**, involving either local institutions or communities in the host country.
- Projects will have a real **impact** on the ability of the host country to meet its obligations under the Biodiversity Convention.
- Projects will be of high **quality** and **scientific (or other appropriate professional) excellence**.
- Whenever possible, Darwin funding will be used as a **catalyst** to lever additional funding for project work, which would not otherwise be forthcoming.
- The outputs and outcomes from projects should be **additional** to that from work being funded through other mainstream environmental or research programmes.
- Projects funded under the Initiative will demonstrate good **value for money**.

http://www.darwin.gov.uk/about/objectives.html

A substantial number of projects have included activities relating to conservation education and awareness-raising.

The Edinburgh Centre for Tropical Forests (ECTF) supports Darwin Initiative through the implementation of the Monitoring and Evaluation of the programme. ECTF is responsible for monitoring closed and ongoing Darwin Initiative projects and for supporting dissemination of progress, best practice, impacts and lessons learnt from Darwin Projects and the Programme as a whole. In order to identify impacts and lasting legacy of the Darwin Initiatives, ECTF carries out thematic reviews of the portfolio of Darwin Initiative projects.

The contribution and impact of Darwin Initiative projects to "*Communication, Education and Public Awareness*", as it has now become referred to, was selected for one of the reviews for the year 2006-07 because it is a theme of interest to the Darwin Initiative networks of partners as well as a theme emphasised within the CBD. The review builds on the discussions in the Darwin Initiative Workshop on the theme held in February 2006.

The key objective of this thematic review is to analyse and document the contribution of the Darwin Initiative towards the Convention of Biological Diversity's (CBD) Programme of Work on Communication, Education and Public Awareness (CEPA). It also looks at examples of the diverse and sometimes innovative approaches taken by Darwin projects to the subject in order to identify best practices and lessons learnt and to formulate recommendations on how the Darwin Initiative can further support the Programme of Work (POW). Specific objectives are outlined in the terms of reference for this review (summarised in Annex 1). The outcomes will inform conservation practitioners, Darwin Initiative Advisory Committee and DEFRA as well as wider Darwin Initiative partners and the CBD.

1.2 Methodology

The following methods were employed in this review:

- A review of CEPA developments in the CBD
- Review of closed project reporting against the CBD and the DI standard measures, on the DI project data base
- Consultation, and questionnaire with projects indicating that they carried out public awareness activities
- Literature review and consultation with institutions with strengths in public awareness
- Review of a DI workshop on the subject in 2006

***CBD evolution**:* The evolution of education and public awareness activities within the Convention was examined. Information derived from the Darwin Initiative was analysed and presented against the outcomes of COP6 (rather than the more recent COP8). This reflected the more logical nature of the Programme of Work (versus the priority activities in COP8) in relation to activities of Darwin Initiative projects.

***Review of the Darwin Initiative database**:* Analysis of the database allowed assessment of the contribution of CEPA amongst closed projects as reported in final project reports. As well as sampling projects that reported on Article 13, other projects were randomly selected and analysed to assess the extent that they had carried out CEPA activities. Not all 450 projects were covered in the analysis.

***Consultation with projects**:* The Darwin Initiative database was used to cluster projects that have had direct and indirect contributions to CEPA. Of the total 450 projects, 125 use the term "education" or "awareness raising" in their project objectives. These 125 were contacted, and 45 of these projects provided information to the review team. Information was generated through project reports and their reviews, a questionnaire sent to UK and host country project leaders (Annex 2) and interviews (some by telephone and some in-person). A set of detailed case studies from this consultation are provided in Annex 3. The information from the cluster of 45 projects and the detailed case studies forms the main basis of the review (sections 3, 4 and 5).

Note: It is unavoidable that this review could not refer to every project that has made a contribution to CEPA activities, nor was it possible to record the most significant achievements of every project. The choice of case studies used in this review does not infer any judgement on the quality and value of those projects compared to others.

***Literature review and consultations**:* Members of the review team also reviewed recent literature and met with CEPA practitioners to scope definitions of CEPA activities, current trends and best practices. This ensured that the review of Darwin Initiative project activities was set in a wider context of current best practice. The people and literature consulted are noted in Section 6.

***DI workshop 2006**:* The review drew upon the outputs of the DI workshop on Public Awareness in February 2006 (see Box 4 and http://www.darwin.gov.uk/events/).

1.3 The Convention on Biological Diversity and Communication, Education & Public Awareness

The CBD recognises that, as it is human activity that is placing strain on the Earth's natural functions, there is an absolute need to integrate human needs into efforts to stem biodiversity loss. This integration requires a link between people and conservation, and therefore the role of communication, education and public awareness is critical

Source: IUCN; The role and value of Communication, Education and Public Awareness (CEPA)

1.3.1 The Convention on Biological Diversity

The Convention on Biological Diversity (CBD) was signed by 150 world leaders at the 1992 Earth Summit in Rio de Janeiro, and is part of a world strategy for sustainable development. It sets out practical commitments for maintaining the Earth's ecological underpinnings as economic development progresses. The three main goals of the convention are:

- Conservation of biological diversity
- Sustainable use of its components; and
- Fair and equitable sharing of the benefits from the use of genetic resources

The CBD comprises 42 articles, governed by the Conference of the Parties and is advised by the Subsidiary Body on Scientific Technical and Technological Advice (SBSTTA).

1.3.2 Article 13: Education and Public Awareness

Within the CBD, education and public awareness is referred to specifically in Article 13, which states:

'The contracting parties shall

(a) *promote and encourage the understanding of the importance of and the measures required for the conservation of biological diversity as well as its propagation through media and the inclusion of these topics in educational programmes, and*

(b) *Co-operate, as appropriate, with other states and international organisations in developing educational and public awareness programmes with respect to conservation and sustainable use of biological diversity.'* CBD (2003).

Education and Public Awareness was first discussed in 1998 at the 4th Convention of the Parties (COP4), when it was agreed it should be incorporated into all sectoral and thematic items under the Programme of Work (POW) of the Convention. Education and public awareness is now one of the CBD's key cross-cutting issues. (www.biodiv.org/programmes/outreach/awareness/default.asp). Consideration of education and public awareness has evolved within the CBD - Table 1 sets out some of the key achievements.

Table 1 Communication, Education and Public Awareness in the Convention on Biological Diversity

Year	CBD and substantive decisions	COP	Decision numbers
1992	Convention on Biological Diversity signed	-	
1998	Decided 'Public education and awareness' to be integrated into all sectoral and thematic areas under POW	4	V/10 part B
2000	Requests formation of a CBD/UNESCO consultative group	5	V/17, para.5
2002	Adopts the Global Initiative and POW on CEPA	6	VI/19
2004	Agrees to review status and progress of GI on CEPA	7	VII/10
2006	Adopts the short-list of priority activities and implementation plan on CEPA	8	VIII/6

1.3.3 Public awareness and education and social change

At the 4th Conference of Parties in 1998 it was recognised not only that education and awareness is essential for the successful implementation of the convention but that biodiversity conservation also includes social issues and that CEPA is most effective when it occurs in a meaningful social context.

> *"Recognizing that communication education and public awareness are essential elements for the successful and effective implementation of the convention." Decision VI/19*

> *"Recognizing that the conservation and sustainable use of biological diversity includes social issues which require cultural understanding and sensitivity, and that efforts to promote the goals of Article 13 entail recognition of the diverse needs of people and their differing perceptions, knowledge, attitudes, interests, values an understanding in respect of the goal of the Convention, and that public education and awareness on biological diversity is most effective when it occurs in a social context that is meaningful to a specific audience," Decision IV/10*

Decisions from COP 6 in 2002 strongly state that biodiversity conservation calls for social change.

> *"Biodiversity conservation, sustainable use and equitable use call for social change" Decision VI/19.*

It is at this point that "**communication"** is articulated as a separate strategy to "**education and public awareness"**. The former relates to an immediate need of all conservation programmes to engage with key stakeholders, while the latter is a longer term investment towards social change that will support biodiversity.

> *"Education and public awareness are long-term investments towards this [social] change. At the same time biodiversity issues need to be communicated effectively to ensure the participation of major stakeholders from different sectors. A distinction must therefore be established between communication strategies, and education and public awareness on the other. For this reason the expression communication, education and public awareness is used to refer to both disciplines". Decision VI/19*

1.3.4 Programme of Work on Communication, Education and Public Awareness

At the COP 6 (2002) the **Global Initiative on Communication, Education and Public Awareness** was adopted and articulated as a programme of work (POW), which lays out a concrete set of programme elements with objectives and proposed actions.

The programme elements are as follows and the full Global Initiative text is in Annex 4.

- Programme element 1*: 'Towards a global communication, education and public awareness network'* Stimulating and coordinating networks composed of new information technologies and traditional communication mechanisms.
- Programme element 2: *'Exchange of knowledge and expertise'*. Exchanging knowledge and expertise among professionals, enhancing development, and innovation on CEPA.
- Programme element 3: *'Capacity building for communication, education and public awareness'*. Developing capacity of the Parties to market biodiversity in other sectors and mainstream biodiversity into the work of other sectors.

1.3.5 Short-list of priority activities leading to the 2010 target

At the most recent Conference of Parties in 2006 (COP 8) there was a further articulation of the Global Initiative on Communication, Education and Public Awareness in Decision VIII/6. In this Decision the impending approach of the 2010 Target is noted. The Target states; *"to achieve by 2010 a significant reduction of the current rate of biodiversity loss at global, regional and national levels as a contribution to poverty alleviation and to the benefit of all life on earth"*. It was set by world leaders at the World Summit of Sustainable Development (2002). The level of collective global effort needed to achieve the target it is underscored.

> *"Noting the findings of the Millennium Ecosystem Assessment and its conclusion that "to attain the 2010 biodiversity target of a substantial reduction in the rate of loss of biological diversity, **will require an unprecedented effort**". VIII/6*

A number of provisions to support this are put in place, namely;

- The declaration of 2010 as the "International Year of Biodiversity",
- A short-list of priority activities, *"formulated to provide a coherent framework to guide implementation of the programme of work of CEPA in the short term and particularly in the upcoming biennium*." (Decision VIII/6, Annex II)
- An implementation plan (Decision VIII/6, Annex III) on CEPA.

  "The purpose of the short-list of priority activities is to provide support for the rapid and immediate implementation of pilot project efforts in support of programme of work on CEPA" Decision VIII/6

This short-list of activities and the implementation plan are less clear than the original POW articulated at COP 6 in 2002. A prescriptive 'global plan' approach has been taken in the short-list which reorganises in a different format the original POW, and the implementation plan is complex 'convention speak'. Having in COP 6 usefully and clearly drawn the distinction between the more immediate **communication** needs of conservation programmes and the longer term **education and public awareness** efforts towards social change, the Implementations Plan from COP8 then groups **communication and public awareness** together and treats **education** separately. Whilst the text emphasizes, in reference to the CEPA internet portal, that ***"the language in the portal should be simple and accessible",*** the annex itself is written in a complicated and sometimes contradictory style.

1.4 Current best practice for CEPA

This section is based on a review of relevant websites, document and discussions with professionals in the field of environmental and conservation communications. See section 6 for the list of full references and institutions/people consulted.

Terminology

Most documents define the acronym CEPA as Communication, Education and Public Awareness but sometimes as Communication, Education, Participation and Awareness. In this review we have confined ourselves to the former. Participation is critical part of most conservation programmes, and requires good communications, education and public awareness to be effective, but is a different discipline requiring different approaches.

Re-defining CEPA

The last twenty years has seen a significant shift away from **product-based** 'awareness-raising' to more comprehensive communications **processes** supporting conservation activities. This reflects the growing awareness of the need to integrate people's needs into conservation. The reality for most local communities interacting with conservation programmes is that they have endured the main costs of conservation but seen few of the benefits. Equitable sharing of costs and benefits of biodiversity conservation is a key CBD aim and hence a Darwin Initiative objective.

A full understanding of the costs and benefits of community involvement in conservation depends on good communications. Viewing communications and education as a dynamic, two-way process allowing for understanding of stakeholder situations and allowing listening and exchange of ideas is critical to working towards achieving equity.

A recent IUCN report on Communication, Education and Public Awareness (2004) describes CEPA as follows:

> *'CEPA is not characterised by communication materials such as brochures, posters and videos. Neither is CEPA characterised by conventional schooling. CEPA* ***is about thinking about the most effective intervention to cause change in a system****, managing relations with people and organisations, network management, and dealing with people in a customer orientated way… CEPA involves multilevel stakeholders in joint exploration of the issues and strategic planning sessions and in these processes learning takes place'.*
>
> *(NB underlined emphasis ours.)*

The CBD's Global Initiative work programme reflects this shift and aims towards creating an enabling environment for encouraging and supporting CEPA. It recognises that communication plays a central role in the interaction with people by those involved in biodiversity conservation at various levels. It is accepted that learning (and change in action) happens only when people are listened to, are able to discuss alternatives and choices and develop their own process of appraisal, prioritization and decision making about resource management.

> *'For a change in action, it is often not the individual who has to change, but the system in which people operate. This means that organisations, the policies, procedures and ways of working by the administration and staff need also to change for biodiversity conservation to happen'*
>
> Source: Wendy Goldstein Head of Environmental Education and Communication at IUCN (Goldstein, 2005)

CEPA as a tool for social change

As noted earlier, the CBD (COP6 Decision VI/19) recognises that biodiversity conservation requires social change. The CBD and IUCN, amongst others, agree on this and IUCN notes that CEPA should be viewed as: '*a social instrument for the management of change in conservation and sustainable development process'.* It regards it as a valuable tool to be used by conservation bodies to facilitate stakeholder involvement and buy-in the project aims and methods. Effective CEPA is also seen as a means of agenda setting, introducing new policies, creating support and building trust locally, nationally and at an international level. Strategically, CEPA involving multilevel stakeholders in joint exploration of the issues is now regarded as an essential and integral part of the planning process.

Towards a definition of 'best practice' CEPA

In 2005, Wendy Goldstein, the then Head of Communication and Education at IUCN defined CEPA best practice to include the following:

- *Communication should be viewed as an instrument to achieve objectives*
- *There should be more emphasis on social change than individual change*
- *Language and approach taken should be appropriate*
- *Communication should be reactive and proactive*
- *There should be humility and open mindedness within projects.*

Source: Goldstein, 2005

Several documents produced recently have provided further helpful guidance and checklists for those involved in CEPA. One is '*The Rules of the Game - Principles of Climate Change Communication*' (Futerra Sustainability Communications, 2005) and another is '*Painting the Town Green*' (Green-Engage, 2006). Both documents have sets of checklists (Annex 5) and make the assumption that communication is about raising awareness to bring about change.

'Painting the Town Green' was commissioned by seven UK environmental NGOs including WWF UK, Friends of the Earth and the Green Alliance. It is based on responses to a series of questions from 60 key thinkers including politicians, environmentalists and people in the communications and advertising industry. The lessons drawn from this study are particularly relevant to the current review, especially in pointing the way forward in terms of planning effective communication and education initiatives in support of biodiversity conservation. 'Painting the Town Green' reinforces the idea of facilitating change by promoting, encouraging and supporting positive step-wise changes in attitudes and behaviour. It points out the dangers of being confrontational or over critical, and importance of good role models and alternative lifestyle choices that are more appealing than people's existing unsustainable patterns of behaviour.

Box 2 Key Lessons from Painting the Town Green

There is lots of good thinking available of how to engage people in the "environment", but little finds it way to the people whose behaviour needs to change. Some recommendations for really engaging people include:

- Ensure that people understand the relevance and impacts of (biodiversity conservation) in their own lives – not just that it's a home for nice animals and plants – and look for benefits for individuals.
- Aim for a two-way process dialogue and learning.
- Move away from information provision to methods that touch emotions, stimulate resonance, inspire and create desire.
- Focus on positivity and optimism, and offer a way through.
- Develop 'brands', just like a favourite brand in a supermarket.
- Focus campaigns and calls for behaviour change on what works for the people targeted – recognise different values and motivations.
- Wrap up 'environment' with other visionary causes (i.e. mainstream into health, wealth, social justice etc).
- Aim to create 'bandwagon environmentalism' with a sense of joining in, or missing out if you don't.
- Court influential role models and put forward leaders that people can look up to.
- Use social scientists who understand why people do and don't act.
- Use religious leaders and campaigners.

Summarised from: Green-Engage, 2006

Although it is written primarily for people working in CEPA initiatives in the developed world there is much in the report that would inform and inspire those working on Darwin Initiative projects. It is helpful in particular in promoting the need for skills to understand and empathise with an audience as well as successfully identifying local champions who will take a message into the community.

The IUCN have produced a CEPA toolkit (www.cepatoolkit.org) specifically for people engaged in producing national biodiversity strategies and action plans. It is useful and recommended as a comprehensive (300+pages) resource, providing case studies (from both developed and developing countries) and a large amount of practical advice. It uses a model that puts emphasis on community and stakeholder involvement, and gives step-by-step guidelines, with examples, on how to develop a strategic CEPA plan. Developed through inputs from a wide range of professional communicators, the toolkit can be used in a variety of ways, at different levels and for working with diverse partners/audiences. It has a web-based format, meaning that sections can be updated easily – the site welcomes further contributions based on experiences of practitioners. Useful inclusions are a glossary of terms used in CEPA, literature lists for education for sustainable development and biodiversity, and a wide-ranging directory of resources and links.

2. Education and awareness in Darwin Initiative projects

This sections uses data extracted from the database of all Darwin projects, past and present.

2.1 What is expected of projects?

The Darwin Initiative places a high emphasis on **'public education and awareness',** using the terminology of article 13. It is one of the four priority areas that projects are invited to focus on – the others being research, training, and capacity building. In addition it is '*It is anticipated that all projects will include elements of awareness raising, and that particular attention will be given to disseminating project outputs.*' (Box 3). The projects are, therefore, expected as a minimum, to play their role in communicating the project achievements, but invited to make more substantial contributions.

Box 3 Guidance to DI applicants regarding environmental education and awareness

Applications are invited for funding to support projects in **one or more** of the following priority areas; **research, training, institutional capacity building and environmental education or awareness**. *It is anticipated that all projects will include elements of awareness raising, and that particular attention will be given to disseminating project outputs*. Applicants need not include all other areas if they are not appropriate:

Environmental education or awareness. Setting up programmes to increase awareness of biodiversity, including of biodiversity as a resource its economic, social and cultural value, and its importance in provision of ecosystem services to increase engagement with biodiversity issues; and to engender action to address biodiversity loss. Projects may focus on one or more sectors of society including the public (e.g. public including local communities or particular groups within communities), business, and decision makers at all levels. Types of projects may include (but would by no means be limited to) those focusing on:

- biodiversity education in schools and further education- partnerships may be with ministries for education, local educational establishments and may include public/private partnerships for delivering environmental education;
- awareness raising at community level, engendering community action and support for biodiversity conservation; empowering communities in identifying biodiversity of importance to them, and encouraging community led programmes for sustainable management of biodiversity;
- targeting supply chains (e.g. fisheries, fur, medicinal plants, fuel and other goods provided by biodiversity) to address un-sustainable exploitation- raising awareness amongst producers and consumers of the importance of, and tools and methodologies for sustainable use;
- highlighting the values of biodiversity to decision makers at all levels - 'making the case' for the integration of biodiversity in decision making across sectors; or promoting tools and methodologies for mainstreaming biodiversity concerns e.g. the Ecosystem Approach. Such projects would work towards mainstreaming of biodiversity considerations in decision making across sectors (e.g. agriculture, forestry, fisheries) and in development and poverty eradication programmes. Projects may also raise awareness amongst the private sector and work to reduce impacts of business on biodiversity and ecosystem services;
- dissemination of research findings on biodiversity to improve biodiversity management and decision making at all levels.

(Emphasis in italics ours. Extracted and modified from: http://www.darwin.gov.uk/downloads/round15/guidance_revised.doc)

2.2 How have projects planned CEPA activities?

Table 2 Planned CEPA activities

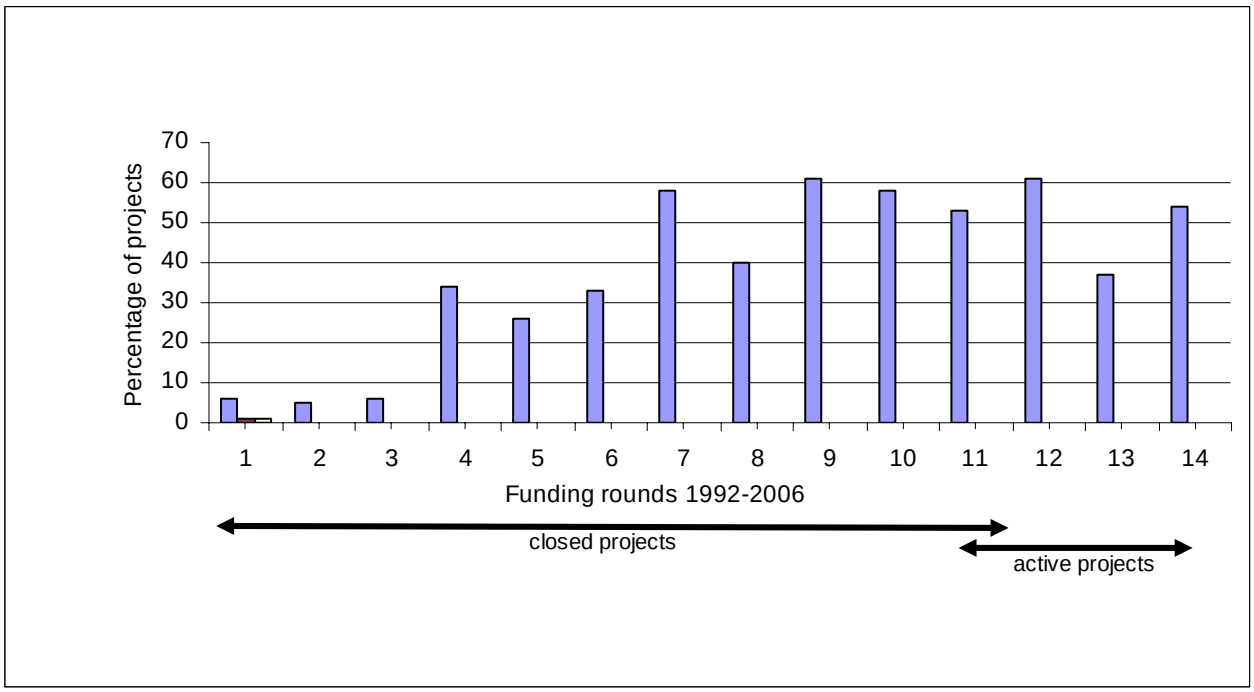
Year	Project Round	Projects planning CEPA (%)
1993	1	6
1994	2	5
1995	3	6
1996	4	34
1997	5	26
1998	6	33
1999	7	58
2000	8	40
2001	9	61
2002	10	58
2003	11	53
2004	12	61
2005	13	37
2006	14	54

Changes with time. Changes over time (Fig 1 and Table 2) show that the while the number of projects planning CEPA efforts was low in the first three funding rounds (1993/4 – 1995/6) there was a rapid increase, to over 30%, during the following three rounds and since round 7 (1999/00) it has averaged at over 53% of projects planning some kind awareness activity.

2.3 What kinds of CEPA activities have projects carried out?

A breadth of CEPA activities have been carried out by Darwin projects. In February 2006 a Darwin Initiative awareness-raising workshop was held and this highlighted the interest in and use of awareness-raising in projects (see Box 4). Analysis of the 45 responding projects examined in more detail generated a list of CEPA activities (Table 3 and Fig 2).

Figure 1 Projects with 'education' or 'awareness' in project activities per funding round



Box 4 Recommendations from the Darwin Initiative Workshop on Public Awareness February 2006

The Darwin Initiative team and projects should be at the forefront of changing ideas – for which awareness-raising is important.

'Awareness raising' should consider what needs to change in order to make conservation activities successful. The linkages are complex, but typically it is about empowering local people and influencing policy, in order to change behaviour on the ground.

Environmental and social issues are interconnected so a holistic view that recognises the trade-offs must be taken. This requires awareness amongst all stakeholders of the interconnected issues.

Approaches to awareness raising should: take into account local people's dignity and culture; be flexible and allow for adaptive management; not be patronising; manage partners' expectations; budget for multi-disciplinary approach; make scientific knowledge useful and influential; recognise the long-term nature of change.

Projects should make the most of partnership opportunities at local and international levels, including: making the most of the experience within the Darwin network; working with livelihood agencies.

Darwin projects should aim to enhance the status and ability of local partners to influence policy.

A set of best practice guidelines on awareness-raising should be developed, including a checklist on issues to consider when designing and implementing projects.

Information and experience from Darwin Projects should be more readily accessible, and better targeted to inform the CBD.

Useful tools and approaches highlighted included:

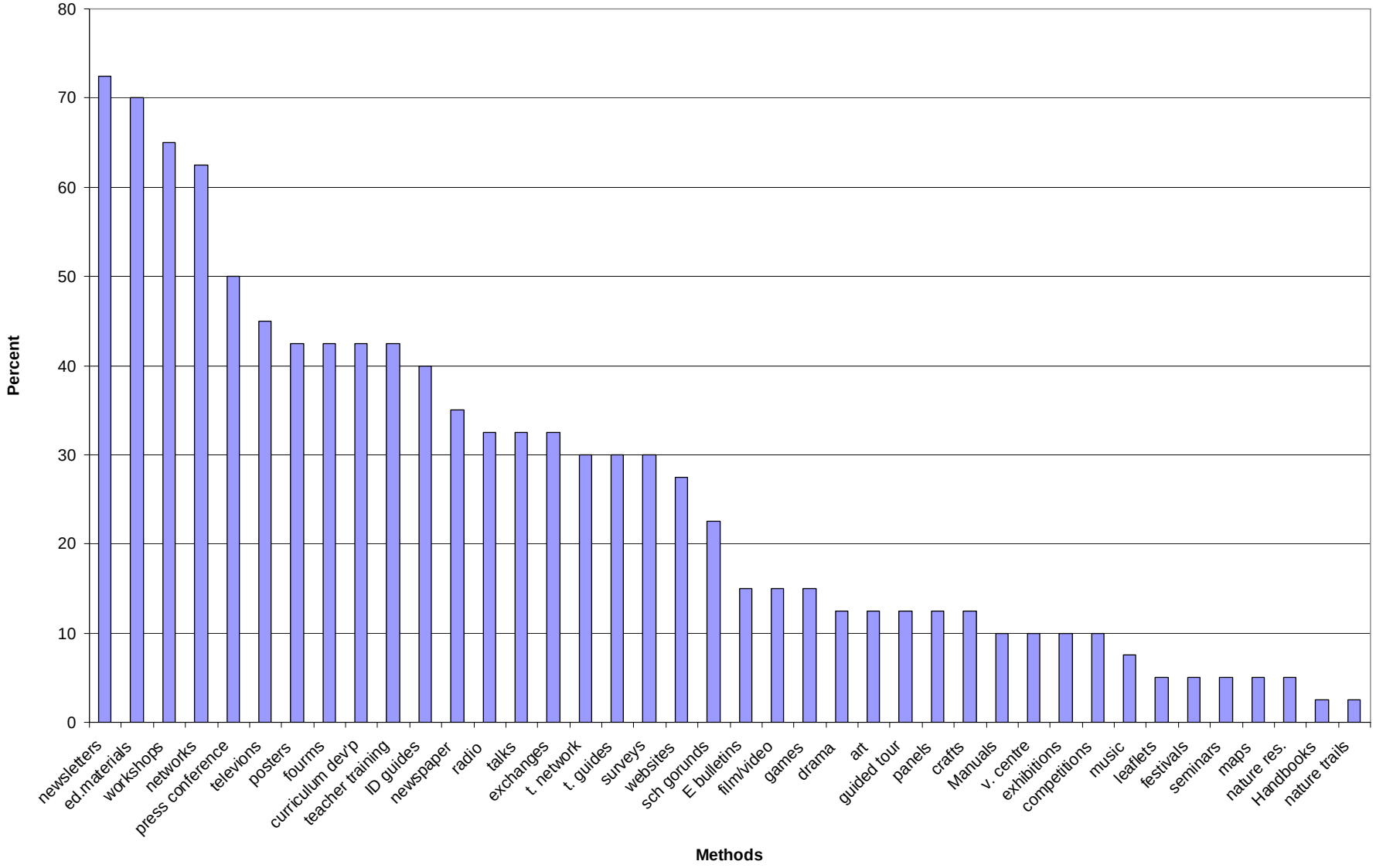
- Use partnership opportunities;
- Ensure local ownership and empower local partners;
- Support local champions that can push issues within local communities or policy arena;
- Teaching by action, e.g. Education programmes where children create their own biodiversity reserves in designated school areas;
- Raise controversial issues (with care) as these can generate a lot of useful attention;
- Test any tools and the quality of information before using widely;
- Avoid jargon and technical language – the simpler the product, the more audiences it will reach.

Table 3 List and distribution of CEPA activities carried out by case study projects

Media	Activity	% of projects using technique (N=45)
Publications	Newsletters*	64
	Posters	37
	Identification guides*	35
	Manuals.	31
	handbooks	2
	Leaflets	4
Electronic communications	Websites	24
	E-bulletins	13
	Discussion fora	37
Popular/mass media	Radio*	29
	Television*	40

Media	Activity	% of projects using technique (N=45)
	Newspapers*	31
	Magazine articles	55
	Film/video road shows	13
	Press conferences	44
Public events	Drama	11
	Festivals/shows	4
	Competitions	9
	Song, music and dance	6
	Art	11
	Environmental games	13
Learning events	Talks	29
	Workshops	58
	Seminars	0
	Exchange/study visits	29
	Local/regional learning networks*	56
	Social Surveys	27
	Traditional crafts	11
Interpretation	Visitor centres	9
	Panels & Displays	11
	Guided tours	11
	Nature Trails (guided and unguided)	2
	Maps	4
	Exhibitions	8
	Community nature reserves	4
School/formal education	Education study materials	62
	Curriculum development	37
	School grounds work	20
	Teacher networks	27
	Teachers training	37
	Teachers guides	27
* dissemination activities included in the DI standard output measures		

Figure 2 Percentage of projects using awareness methods



2.4 How have projects reported?

Projects report against the CBD articles that they address and against the set of DI Standard Measures.

2.4.1 Reporting against CBD articles

Sixty percent of closed projects reported activity against article 13 (Fig 3). When project effort (as reported in the projects final reports) is plotted against article 13 (Fig. 4), it is shown that 40% of projects reported no effort, and only 8% of project put more that 40% of effort into CEPA activities.

When the standard measures reported for closed projects were examined for those projects reporting no contribution to article 13, it was found that 72% of these had actually carried out some dissemination activities. It would seem, therefore, that these projects under-reported their contributions to article 13. This then revises the total projects reporting doing CEPA activities to 84%, but with two thirds (67%) devoting a relative small amount of project effort (between 1 and 10%). Of course, this reflects a rather broad interpretation of 'CEPA', to include any form of publication or meeting (vs the currently accepted principles of best practice relating to CEPA as a process towards changing behaviour), but nevertheless it implies a useful starting point.

Figure 3 Percentage of projects reporting activities against CBD articles

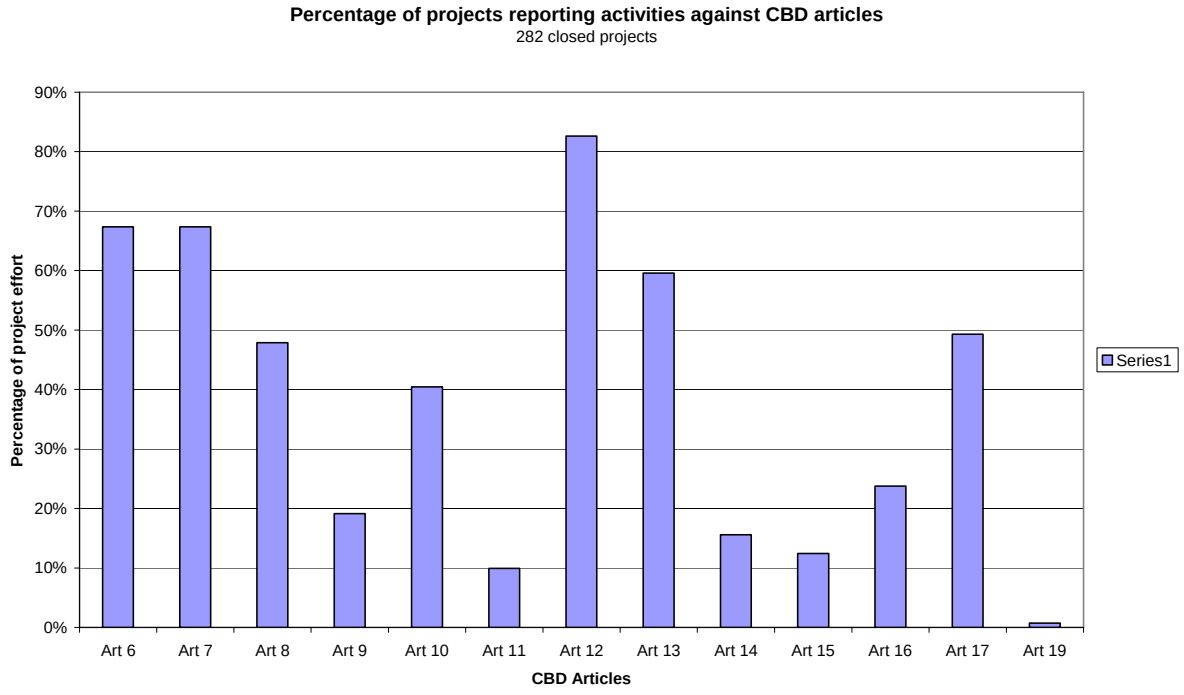
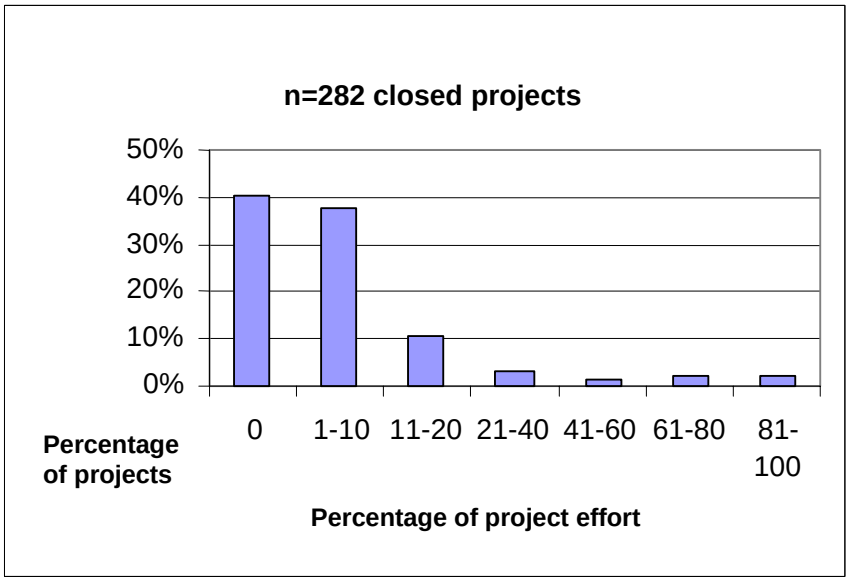


Figure 4 Projects reporting effort into Article 13



The pattern then emerges that most projects (84%) do some CEPA activities and that very few (8%) devote more than 40% of project effort. This pattern would seem to match with the essential **'communication'** that all projects need to routinely do to be effective, and the more specialist **'education and public awareness'** which is the core activity of few specialist organisations. This is not the whole story, as some traditional science based organisations have found that when these have seriously tackled CEPA activities they have made very powerful contributions to project success (see case studies).

The analysis of all closed project reporting indicates that projects have carried out more dissemination activities than they planned, which leads to the conclusion that much of these activities are under-planned for as well as under-reported. Some 16% of projects apparently do no dissemination despite it being a minimum DI requirement. This suggests that many Darwin Project leaders do not place value on CEPA activities or fully understand their critical role in improving the impacts of conservation work.

2.4.2 Standard output measures

At the outset the Darwin Initiative established a set of standard output measures. Despite being called 'output' measures some of these actually better measure the activities level rather than the output level of the project hierarchy of goals. Approximately half of the measures record dissemination activities. Table 4 presents the data reported by closed projects on their dissemination activities. This shows that on average UK project leaders spend 3 months per year in host countries – if they value CEPA and have appropriate skills and host country partners, this could be sufficient in-country presence to allow for the inputs that education and public awareness needs, but suggests that a reliance on host-country partners might be important.

Table 4 Projects reporting against Standard Measures

Media used	Total	% of Projects	Av/project
Weeks spent by UK staff in host country	9562	79	42 (14/yr)
Species guides produced	352	34	4
Papers published in peer reviewed journals	665	49	5
Papers accepted by peer reviewed journals	405	36	4
Papers published elsewhere	155	15	4
Papers accepted elsewhere	52	3	7
National press articles in host country	799	55	5
Local press articles in host country	674	31	8
National press articles in UK	438	44	3
Local press reports in UK	287	24	4
Number of Newsletters	292	31	3
Circulation of newsletter in host country	109,330	26	1498
Circulation of newsletter in UK	82,857	17	1691
Number of dissemination networks established	213	33	2
Number of dissemination networks enhanced	121	19	2
National TV reports in host country	249	33	3
National TV reports in UK	35	7	2
Local TV reports in host country	122	11	4
Local TV reports in UK	16	4	1
National radio reports in host country	340	29	4
National radio reports in UK	77	12	2
Local radio reports in host country	412	18	8
Local radio reports in UK	40	9	2

This list shows that projects have been producing substantial amounts of dissemination materials. Some of this reflects the UK institutions research strengths, with 49% publishing peer reviewed articles and 36% having such articles accepted for publication, and a total of 1,100 peer reviewed articles being published or accepted over the life of the Initiative. This represents a considerable amount of quality information place in the public, albeit primarily academic, domain. Table 5 summarises the project's use of mass media at national and local levels in both host countries and the UK, and shows that national media is being used more than local media.

Table 5 Projects using mass media for dissemination (%)

	Host County		UK	
	National	Local	National	Local
Newspapers	55	31	44	24
Radio	29	18	12	7
Television	33	11	12	9

2.4.3 An evolution towards CEPA best practice for sustainability of DI projects

In the early days of Darwin, the approach to CEPA was generally limited to a small suite of then standard set materials and methods, including mass media, brochures, posters and videos. With the development of the communications sector and increased emphasis on social issues and community participation at all stages of a project, the range of types of media has expanded greatly. This change can be clearly seen from the limited number of types of media/events that projects are required to report against under the standard output measures, compared with current media/events used (Table 3). These measures have been very useful to generate information in this report, but are now too narrowly focused to reflect the current best practices which Darwin Initiative should be promoting. The change also reflects some shift in attitudes amongst conservation practitioners towards a more holistic approach to CEPA.

3. DARWIN INITIATIVE PROJECTS CONTRIBUTION TO PROGRAMME OF WORK

In this section we discuss the contribution of Darwin Initiative projects to the programme of work elements of the CBD's Global Initiative on Communication, Education and Public Awareness. The COP6 (2002) articulation rather than the COP 8 (2006) more detailed version, was selected, as it is more logical in relation to activities of Darwin Initiative projects. The presentation is not a complete fit as the Global Initiative on CEPA is presented on global terms and DI projects operate on more local scales. The presentation here (Table 6 and case studies) does, however, indicate how collectively DI projects have made a contribution to the global effort. This section reflects, through the Darwin Initiative, the UK Government's support to activities that pre and post date the request articulated in Decision VI/19 to other governments:

> *"a. To support the national, regional and international activities prioritised by the Global Initiative on communication, education and public awareness;*
>
> *b. To develop adequate capacity to deliver initiatives on communication, education and public awareness, taking into account special needs of developing countries, in particular, the least developed countries and small island developing states."*

Table 6 Darwin Initiative Response to Actions of the Programme Of Work On CEPA

	Level of action in DI Projects	DI Project achievements and programme potential	Key Examples of DI project
* = DI project potential in this area ** = some DI project involvement *** = principal activity of DI projects			
Programme Element 1: Towards a global communication, education and public awareness network			
Proposed Action 1. Using Internet-based and traditional information resources, this global network will:			
(a) make visible the expertise in biodiversity communication and education	***	Projects have enhanced communication and knowledge exchange both nationally and regionally	Peru 15-016
(b) Stimulate moderated electronic discussions on areas of interest to CEPA professionals	*	Future DI project potential in this area	
(c) Link the portal to other networks and websites on Communication	**	Good links within the DI website to other networks. Many DI projects have links to the UK partner web sites	Peru 15-016 India 14-041 Ecuador 14-040 Mongolia 12-029
(d) Provide access to relevant projects and publications	*		
(e) Link with established learning institutions and centres of excellence to ensure quality of products	***	Strong links formed between UK learning institutes and host countries	Slovakia 9-007 Panama 12-021 Kenya 12-003 Kazakhstan 12-028 Bulgaria 14-021

	Level of action in DI Projects	DI Project achievements and programme potential	Key Examples of DI project
(f) Stimulate and provide means for people to find those working on similar projects	**	DI web site provides a link to other DI projects and DI partner websites	
(g) Create access to standards of best practices	*	This is an area DI can develop (taken from this review)	
(h) Ensure the global network is serviced and demand orientated	*	DI could feed into this	
(i) Promote communication and public awareness at the community level	***	Greater access and involvement at the community level to communication, public education and awareness programmes and resources	Mexico 11-018 Zimbabwe 11-009 PNG 13-012 Peru 15-016
2. Identify potential partners and stakeholders			
Create a registry of education and communications experts, organizations and networks (governmental; non Governmental; indigenous; religious; sectoral – business and Industry (agriculture, fisheries, forests); tourism; media		This review of DI projects provides a range of individuals and institutions with an enhanced understanding of the needs, methods and mechanisms of stakeholder participation	Cambodia 14-046 Panama 12-021 Malaysia 13-009 Ecuador 14-040 Montserrat 14-027 Kazakhstan 12-028
Programme Element 2: Exchange of Knowledge and Expertise			
Proposed Actions 1. Document and analyse national reports from the parties on CEPA to develop needs for communication, education and public awareness support	*	DI projects have many CEPA good practice examples. This is an area DI could develop further	
2. Identify links and provide searchable means to access biodiversity knowledge through the clearing-house mechanism	*	New DI programme activity will progress this over coming 18 months	
3. Research, collect and exchange CEPA projects and case studies through the world wide web, workshops, CD-ROMs and publications	**	A number of DI project have project information accessible through the world wide web.	Ecuador 14-040 S Africa 14-012 Malaysia 13-009 Kenya 12-003 Mexico 11-018
4. Sharing knowledge about tools and criteria for best practices	***	The majority of DI projects have a professional exchange between the UK DI partner & host country.	Most projects
5. Provide copyright free graphics and materials, subject to available funding, for adaptation	**	DI projects have produce good quality and easily reproduced materials. This has provided biodiversity communication and education solutions for practitioners and stakeholders.	South Africa 7-099 & 14-012 Kenya 12-003 Slovakia 9-007 Bhutan 12-024 Yemen 14-002

	Level of action in DI Projects	DI Project achievements and programme potential	Key Examples of DI project
6. Develop the global network in programme element 1 to facilitate actions in programme elements	*		
Programme Element 3: Capacity building for communication, education and public awareness			
Proposed Actions 1. Create and deliver training programmes including: courses, help desks, coaching, manuals, checklists, exchange on application of methods of work with stakeholders	***	There is a range of training programmes created and delivered through projects	India 4-069 Mongolia 12-029 India 10-002 Gabon 12-002 Seychelles 10-006 International 3-046
2. Establish a system for professional exchanges	***	The majority of projects have established exchange programmes between UK partners and the host country	Most projects
3. Promote twinning programmes	***	Twinning between UK and host country institution is the basis of DI programme	Most projects
4. Establish a distance- learning programme on CEPA	*	There is no action in this area at present but material from DI projects could be used to inform learning programmes	
5. Improve synergies between communication, education and public awareness	*	Potential for communication awareness raising to support education	
6. Build capacity to evaluate and define principles for evaluation of good CEPA practice	**	This is addressed in the thematic review on CEPA	
7. Develop appropriate sets of tools for communication on biodiversity	**	A diverse range of communication tools have been developed through DI projects eg guide books, posters, exhibitions, education materials. Toolkit may be next stage	
8. Establish partnerships with journalists and broadcasters engaged in communicating biodiversity related issues through the mass media	***	Successful and effective partnerships with journalists & broadcaster engaged in communicating biodiversity related issues	Kazakhstan, Russia, India, Turkey 15-032 India 14-041
9. Build capacity for fund-raising	**	By raising awareness of conservation issues DI projects have enabled host countries to establish financially sustainable environmental education programmes	Vietnam 14-038 Zimbabwe 11-009

3.1 Programme of Work Element 1

Towards a global communication, education and public awareness network

Operational Objectives

1. To establish and manage a global communication, education and public awareness network composed of new information technologies and traditional communication mechanisms;

2. To stimulate the creation of national, sub-regional and regional communication, education and public awareness networks;

3. To create synergy between existing networks relevant to communication, education and public awareness.

3.1.1 The creation and management of global, national and regional conservation education networks

A lesson from reviews of Darwin Initiative projects is how important the networks that each project develops are. A number of Darwin Initiative projects have successfully set up networks among key players in conservation education within a country. Especially note worthy in this respect were the national networks in support of bird conservation and education in India (project 14-021) and China (14-044).

To be successful in establishing networks in countries of this scale the projects have:

- been effective partnerships of national and regional NGOs, building upon the appropriate strengths and capabilities
- facilitated a sharing of knowledge and expertise among a broad range of players
- not just brought together practical conservation or monitoring projects, but brought together players from different levels, to get participants across the board actively involved in both practical work and awareness raising and advocacy.

The legacy of the Darwin Initiative has been active and viable networks, with a widespread and broad support, providing a considerable political lobby for the conservation of birds nationally and internationally. The collective institutional networks and partnerships established over 450 projects and 100 countries, many of which last well beyond the life of the project, are significant. Although only a small proportion of networks have been focused on education and public awareness, the contribution of networks to the overall communication objective - through vastly increased communication amongst organisations within and between countries - is significant and valuable. Recently there have been a number of collective Darwin regional or national meetings where project staff have shared experiences, and over the next 18 months the Darwin Initiative is aiming to upgrade its website to make a significantly more information available to the global community.

3.1.2 Creating education networks

Impressive networks have also been established between teachers and schools. This has enabled them to share ideas and enthusiasm for specific project activities, for example the establishment and management of school ground nature reserves.

Case Study 1 Creating and maintaining a schools environment network, Kyrgyzstan

A number of Darwin Initiative projects have acted as a catalyst in forming regional or national networks bringing together and sharing good practice between organisations and specialists working in biodiversity communications and education. One legacy of the Darwin Initiative project in Kyrgyzstan was a thriving network of 25 schools across the country involved their school grounds for biodiversity.

The UK Field Studies Council FSC in partnership with BIOM in Kyrgyzstan adopted an 'on the ground' approach, working in a practical way at the local school level to raise awareness about biodiversity. 'Micro biosphere reserves' were created in or near schools, throughout the country, to be used for environmental education. Teacher training workshops and a substantial practical handbook helped to equip teachers with the knowledge and skills required to create this small nature areas. Students were involved in the whole process from creating the preliminary designs to using the micro-reserves for field studies and other lessons. Attractive but inexpensive resource materials were created in support of the project for which there was a high demand.

An objective evaluation on the influence in raising awareness and understanding showed that students and teachers' appreciation and knowledge of biodiversity increased as a result of the project. Contact between the schools involved in the project and the dissemination of results and ideas has continued beyond the life of the Darwin Initiative funding

School Green Land Community Biodiversity Awareness of Kyrgyzstan (11-024)

3.1.3 Creating synergy between existing networks

In addition to linking together organisations with a common goal in conservation and education, many Darwin Initiative projects have been very effective at the local level in forming successful cross-cutting alliances between organisations, local government, communities and individuals representing a very broad range of interests (Vietnam project 14-038, Montserrat project 14-027, Perlas Archipelago project 12-021). In these cases the Darwin Initiative has acted as a catalyst, bringing different people together, facilitating dialogue and a participatory planning process that has led to practical action plans (for example, for the management of a protected area or tackle a specific conservation issue, like poaching).

In other projects the strategy has been to forge links between the project and an already established communications channel, such as a festival or event (Peru project 15-016, Mexico project 11-018 **Case Study** 2, Papua New Guinea project 13-012). This approach has been particular successful in helping to raise the profile of the project, with a relatively modest investment, by contributing to a popular event (Kazakhstan project 15-032) and to align the project with existing culture, traditions or social contexts. Consequently some projects that have recorded putting relatively modest effort in actions relating to Article 13 (see table) have in some cases achieved significant impact on the local or regional scale, through linking with their partners, stakeholders or ongoing events. In these cases a critical success factor has been linking the aims of the project to livelihoods, showing how there is a strong synergy between the needs of the project and the community in terms of conserving natural resources, including forests, fish stocks and populations of game animals (Montserrat project 14-027, Zimbabwe project 11-009, Vietnam projects 6-014, Malaysia project 13-009).

3.1.4 New networking opportunities

All Darwin projects are in countries or regions with high biodiversity, and most are focused in or around areas with a locally high concentration of biodiversity, typically national parks, nature reserves, or other designated conservation areas. Projects that focus on less scientifically important locations, such as the school grounds project in Kyrgyzstan (Project 12-024), are less common, and projects centred in major towns and cities, like the Mexico City project (Case

study 2), are rarer still. As we have now reached the point where more than half the world's population are classed as urban, urban people now have the greater influence in terms of decision making on environmental issues at a national level. It is therefore essential to ensure that they well informed concerning biodiversity and the threats from factors such as population expansion and climate change. International organisations like UNESCO and IUCN are keen to emphasise the importance of reaching the large audiences within cities. Darwin projects can play an important role in communicating the links between rural and urban areas, and by encouraging and supporting the dissemination of information and the creation of networks that help to create awareness of ecological issues amongst the urban population.

Case Study 2 Adopting a popular approach to awareness raising, Mexico

In some cases the need to reach a wide audience has encouraged DI project staff to think outside the familiar academic or scientific 'box' and seek opportunities to engage with many popular media, such as arts and crafts, drama, and participation in popular events and festivals.

The Durrell Institute of Conservation and Ecology and Universidad Autónoma Metropolitana - Xochimilco wanted to draw attention to conservation issues affecting a World Heritage/ RAMSAR wetland system near Mexico City, and in particular the axolotl (*Ambystoma mexicanum*), a salamander whose remaining habitat is under threat. A base-line survey established some basic level of conservation awareness was present following a previous, high profile campaign by community leaders and organizations that pressurized the Mexican government into addressing the issue of falling water levels. The project built on this awareness through a diverse programme of activities that included training pleasure-boatmen as guides for local tourists, and involving schools, the local heritage museum, and local and international radio, TV and magazine journalists. The project also had a presence at some of the many local fiestas, including the annual flower festival at which a float bearing a large purple axolotl won 2nd prize!

The project was successful both in generating scientific interest in the axolotl and Xochimilco, in raising public awareness, and precipitating other initiatives. Indicators of success include the IUCN 'upgrading' of the species to 'critically endangered' and the adoption of the axolotl as a symbol for different heritage organizations. Another was a motion passed in the Mexican senate to protect the axolotl and its habitat. The project organizers felt that a critical success factor was having one simple and easily remembered message.

'Allow yourself to think beyond your cultural baggage. Have an easy to remember and core message to convey – and do so with enthusiasm and belief. Think about involving CEPA at every opportunity, whether it is when engaging with government, bureaucrats, other academics or whoever – even the person you a buying a beer from!' Ian McBride, DICE

Aztecs and Axolotls: Integrating Conservation and Tourism in Xochimilco Mexico (11-018)

3.2 Programme of Work Element 2

Exchange of knowledge and expertise

Operational Objectives

1. To enhance exchange of knowledge and expertise among professionals, enhancing development and innovation on communication, education and public awareness;

2. To meet knowledge needs of Parties and other stakeholders for Article 13

3.2.1 Enhance knowledge and expertise among professionals

The sharing of knowledge and expertise in conservation of biological diversity, especially between UK institutions and partners in host countries, is at the core of the Darwin Initiative programme. In the more narrow sense of sharing knowledge and expertise in communication,

education and public awareness there are numerous excellent examples of this taking place both between UK and host country, and through the inter-regional networks, within host countries (see above). A frequently taken approach within Darwin Initiative projects in many countries has been running workshops or seminars in which professional educators, communication specialists and project staff have been invited to share skills and expertise (India project 10-002, Slovakia project 9-007). Whilst in many countries participation is the norm, in some countries (e.g. Bhutan project 12- 024, Cambodia project 14-046) the idea of participatory workshops has been seen as novel and able to bring in significant players and consequently able to attract the attention of the popular media, appearing on regional or national TV or radio.

By producing relevant information projects have, in some cases, been able to support stakeholders make cases for biodiversity. A good example is Case Study 3.

Case Study 3 Empowering local communities, Ecuador

Undoubtedly one of the greatest challenges facing both conservation interests and local communities is the power, both political and economic, of large corporations with ambitious development plans. The apolitical nature of the Darwin Initiative means that projects rarely get caught up in this type of conflict. However, the PRIMENET project in Ecuador provides an example of how the knowledge generated by a Darwin Initiative project directly empowered communities and local government to successfully oppose a major threat to nature conservation.

The PRIMENET project in NW Ecuador is a collaboration between the Biology and Environmental Science department of the University of Sussex, Ecuador Terra Incognita and the Los Cedros Reserve. It involved local people in the collection of data on the critically endangered brown-headed spider monkey, in which the population currently stands at only 50 breeding pairs. Communities in the area surrounding the reserve were invited to workshops where the local level of knowledge was ascertained and information fed into the project. Some individuals went on further to train as 'parabiologists' to collect information and report conservation threats. The Project also empowered communities by giving them a voice and - through direct links with NGOs, scientists and local and national government - has actively been seeking and promoting alternatives to logging and mining such as developing eco-tourism. When a trans-national mining company, Ascendent Copper Corporation, purchased a mining concession in the biodiversity hotspot within the study zone opposition from the local community and government was fierce, partly attributable to PRIMENET being in a position to provide evidence on impacts of mining activity on the spider monkey. In addition, knowledge about the links between the community, local NGOs and international organisations, ensured that risks to human rights in this isolated area were publicised to a national and international audience. In December 2006, citing rising tension in the region and the risk to species such as the spider monkey, the Ecuadorian Government rejected the mining company's Environmental Impact Assessment.

"As the PI of the PRIMENET project I wish to extend my utmost respect for the community members and local government representatives that had endured real hardship in standing up for a sustainable future" Dr Mika Peck

Building a sustainable network for Primates in Ecuador- PRIMENET (14-040)

3.2.2 Meeting the knowledge needs of parties and stakeholders

There is now a considerable body of material, in dozens of different formats (newsletters, leaflets, booklets, scientific papers and articles, tapes of radio interviews, videos, photographs, etc) generated by Darwin Initiative projects that together represent a very significant resource for the dissemination of information about conservation of biodiversity. A wide selection of this material was available to the team involved in carrying out this review but an even greater wealth of resource material must exist in the hands of project leaders and others. Consideration needs to be given to the collection, archiving and dissemination of exemplary material by the

Darwin Initiative programme, for use among project leaders, host country partners and others in the field. This is important, as the normal mechanism for disseminating scientific knowledge, through scientific papers in recognised journals, does not apply to the same extent in the area of conservation education. A library of a selective but comprehensive range of exemplary material, catalogued by subject, country, language, audience and media, would be of value, especially to project leaders new to this area or those involved in developing best practice guidelines. Making selected materials available to others on a copyright free basis to others involved in conservation biology would provide a significant resource that would address a specific action within Programme Element 1 of the Global Initiative.

The internet is clearly another important means of disseminating exemplary materials and best practice among conservation education practitioners. The Darwin Initiative has opportunities both through its own website and database and through the CEPA portal of the CBD, to promote and share resources and ideas with a wide audience. Currently the Darwin Initiative has initiated a project to make the information generated by the Initiative widely available through the internet. Ideally through this project attention should be given to the need to digitise key resource materials, including examples of teaching materials, handbooks, interpretation materials and other resources and including these in an accessible format (PDF, MP3, DVD, etc) within a searchable database for others to refer to. Courses in conservation education, like the one run by Jordan Hill College, Strathclyde University (3-046), will find this material particularly useful, as will organisations like Royal Botanic Gardens Kew and Botanic Garden Conservation International who run short courses for conservation education practitioners from overseas. The enhanced DI websites should be linked up with both the CBD and also with the IUCN information portal and World Conservation Learning Network which aims to link academic institutions with practical conservation actions.

As mentioned, the Darwin Initiative hosted a workshop on public awareness in London in February 2006. The discussion and conclusions of this workshop have been incorporated into this Thematic Review (see earlier Box 4 Darwin Workshop: London; 2006). Consideration should be given to further workshops, involving personnel from a range of Darwin Initiative projects, to progress ideas and recommendations presented in this review and, specifically, to address the Priority Actions as identified in the Programme of Work in the Draft Implementation Plan for the Global Initiative on CEPA, as agreed by COP 8 in February 2007.

Case Study 4 Citizen science - biodiversity monitoring projects for schools, South Africa.

Several Darwin Initiative projects have worked with schools or universities to create science projects that monitor biological diversity and consequently make a direct contribution to knowledge for the CBD. One of these in South Africa has been gathering valuable information about biodiversity, using ants as an indicator.

The Iimbovane outreach project between the Biodiversity and Macroecology Group, University of Sheffield and Centre of Excellence for Invasion Biology (CIB), University of Stellenbosch has engaged young people in real science. Supported by teacher training and good quality teaching materials this project has enabled schools to collect baseline patterns of ant biodiversity for the Western Cape Province that are fed directly into a biodiversity monitoring programme. By direct, practical involvement in inventory, monitoring and conservation work these students have a far greater awareness and appreciation of the value of biodiversity.

'Good planning was a key factor in the success of this project. All the stakeholders were involved at the start of the project from government officials to grassroots groups (children). This has had a positive impact on the sustainability of the project' (project leader)

Iimbovane Outreach Exploring South African biodiversity and change (14-012)

3.3 Programme of Work Element 3

Capacity-building for communication, education and public awareness

Operational Objectives

1. Develop capacity of the Parties to market biodiversity to other sectors, and mainstream biodiversity into the work of other sectors;

2. Develop professional capacity of educators and communicators;

3. Enhance stakeholder participation and community development through communication, education and public awareness.

3.3.1 Developing capacity through materials and infrastructure

The capacity of host country partners to market biodiversity conservation to others, including the education, tourism and business sectors, is frequently hampered by a lack of interpretation materials or infrastructure to enable messages to be presented effectively. In a small number of Darwin Initiative projects the creation of a visitor or interpretation centre has provided the local or regional areas with an important focus for providing current information and hosting events relating to the project's aims (eg Bulgaria project 14-021). The creation of new buildings from scratch is rare due to the relatively short term and modest budget of most Darwin Initiative programmes but there have been examples of project teams using their ingenuity to adapt or restore other buildings or upgrade existing interpretation facilities (Mexico project 11-018; Case Study 5 Zimbabwe: project 11-009).

Case Study 5 Bush Camps and Snare Wire Art, Zimbabwe

Gaining popular support for the conservation of biodiversity is difficult when conservation is perceived as threatening livelihoods. A Darwin Initiative project in Zimbabwe provided alternative means of earning a living for hunters in order to reduce persecution of wild dog populations. They also developed bush camps which have hosted many of the regions primary school children with powerful effects.

Habitat fragmentation, persecution (especially snaring - responsible for 80% of mortality), traffic accidents and disease contracted from domestic dogs has reduced the African painted hunting dog population in Zimbabwe to 3000. The conservation effort of the Tusk Trust, Siren Conservation Education and the Painted Hunting Dog Research Programme of Oxford University, has concentrated on, in response to local requests, education, awareness raising and participatory rural development. A core activity has been development of a 'bush camp' education centre in which all P6 students attend a one week course. Pupils receive deliberate 'wow' experiences that are unavailable locally, such as using computers, game drives, and direct experience of nature through games and exploration, song and drama. The programme has proved so popular that pupils are sent off and received back to their schools by the whole student complement singing a song developed by students about the camp. Pupils have raised awareness amongst their communities and have even been involved in controlling poaching.

In addition to the education efforts the project has worked with local artists to set up a social enterprise involving the production of arts and crafts for sale – including sculptures made from wire from illegal snares. The development of a sustainable craft-based industry has left a legacy of over 70 jobs and a regular source of income for the project and the community.

The combination of considerable education effort and providing the means for livelihood activities has gained considerable support. The community support for the project has meant that it has been able to continue functioning during Zimbabwe's difficulties.

Painted Hunting Dog Conservation through Education and Development (11-009)

Darwin Initiative projects have produced a very wide variety of other materials and resources for interpreting biodiversity conservation to an equally wide diversity of audiences. This ranges

from print and publications (leaflets, booklets, manuals, identification guides, posters, etc); and interpretation panels or exhibits, to electronic media (eg video, DVD, web-based media). Inevitably the quality of this material is varied but in the majority of examples we looked at it, could be described as appropriate to the situation and audience. Biodiversity provides the designers of interpretative material with a vast range of very attractive images that generally speaking have an impact that is much greater than any amount of text ("*a picture is worth a thousand words"*) especially in poorly literate or pre-literate societies. The use of colourful, attractive or emotive images has been a feature of the exemplary material produced by (Ecuador (Galapagos) project 9-010, Panama: project 12-021 and Kenya: project 12-003). A further important issue is to produce material in the language or languages of the host country (Bhutan: project 12-024; Panama: project 12-021)

3.3.2 Developing capacity through curriculum development

The most powerful way of introducing biodiversity conservation into mainstream education within a host country is to get it included into the school curriculum. However, in most countries environmental education would not be recognised as a subject in its own right and it is necessary to look for opportunities to introduce concepts and ideas relating to conservation biology into other areas of the curriculum. Where this approach has been successful (eg Yemen: project 14-002, **Case study 6**) it has involved working with the Ministry of Education at an appropriate level. We found several examples (Slovakia: project 9-007; South Africa: project 14-012; Vietnam: project 6-014) where the provision of regionally relevant material on biodiversity, provided by Darwin Initiative projects, was welcomed by curriculum developers. To ensure that educational material is appropriate and relevant it is essential that it is 'field tested' in schools first. The good relationships that some Darwin Initiative projects have developed locally with schools and communities (eg India: project 10-002; Kyrgyzstan: project 11-024; South Africa: project 7-099) has allowed project staff to work with local teachers to develop and trial teaching programmes and materials before offering these for inclusion in to the mainstream education system.

Case Study 6 Influencing Education Policy, Yemen

The majority of Darwin Initiative CEPA projects are effective in a very active way at the level of the community or project area. A number have also worked at regional or national level and have been successful in influencing policy at the government level. Providing input into the national school curriculum is a particularly valuable means of getting a conservation message into mainstream thinking.

The Darwin Initiative project led by Durham University Geography Department in the Socotra Archipelago, Yemen Republic, with Yemen's Socotra Conservation and Development Programme and EPA EE, is working directly with the Ministry of Education in Sana'a to establish biodiversity and environmental education initiatives in the schools curriculum and to test the new materials they have been creating with teachers and children in schools on the islands. At the same time, they have been promoting complementary activities outside the classroom via games and fieldwork in school-based environment clubs and via learning-by-growing in partnership with a local nursery. This three-tier approach is being particularly effective. Environmental education, as such, does not appear on the schools curriculum but they have successfully adopted a cross-curricula approach finding opportunities to include an environmental message within a variety of subject areas (maths, science, Arabic language and geography) – for example, using a story in a language class about a conserving a rare plant.

National Curriculum and new materials development:

Environmental educational programme promoting biodiversity in Socotra, Yemen (14-002)

3.3.3 Developing capacity through teacher training

A number of Darwin Initiative projects have had a direct influence on the teaching of environmental education in schools and colleges through informal or formal training of teachers. In some cases (e.g. Bhutan: project 12-024) this has involved teachers or trainee teachers visiting the project site and meeting a range of project personnel. The exchange has

been informal and has principally been aimed at informing teachers of matters relating to biodiversity and conservation rather than providing them with specific tools. In other projects teacher training workshops have been designed specifically to introduce new materials, concepts or skills that had previously not been part of the teacher training or continuous professional development programme (Kyrgyzstan: project 11-024).

The Field Studies Council (Caribbean and Central America: project 7-01; Caspian: project 14-052; Slovakia: project 9-007) and Botanic Gardens Conservation International (India: project 4-069) have brought teachers from host countries to the UK for training in environmental education. By visiting UK establishments that are leaders in this field and meeting environmental education specialists, participants have been exposed to ideas and methodology that they would be unfamiliar with in their home country. Suitably inspired they have returned to their home countries enthusiastic about the potential for education that contributes directly to conservation and sustainability. The relatively small numbers of teachers involved in training outside their own country have subsequently acted as ambassadors for environmental education and helped to develop and train other teachers based on their experience. There is also the evidence that at least some of them also experienced frustration on their return to work with resources, colleagues and a curriculum that were less receptive to the introduction of new ideas from outside.

3.3.4 Enhancing stakeholder participation and community development

The Darwin Initiative programme includes many excellent examples of achieving community support and significant stakeholder participation in biodiversity conservation projects through CEPA (eg Malaysia: project 13-009; Kazakhstan: project 12-028, Cambodia 14-046, Montserrat: project 14-027, Zimbabwe project 11-009, **Case study 5**). Its outstanding success and contribution to the Programme of Work in this area is partly due to the local or regional focus of the majority of projects and the close partnership working with local NGOs, community organisations, opinion formers and leaders. The emphasis, at least latterly, on empowering local communities to take a responsibility for managing natural resources is seen as a key factor in ensuring long term sustainability of a project or the continuation of good practice beyond the lifetime of the project (Cambodia project 14-046 **Case study 7**).

The reasons for the Darwin Initiative success in this area are many but in carrying out this review we have been able to identify some features that have been common to many successful community participation approaches. These include:

- Involvement of stakeholders at the initial planning stages of a project
- Tapping into existing local structures, meetings, communication channels and events
- Taking a pragmatic and flexible approach, adjusting goals as needed to accommodate community wishes
- Treating members of the community as equal partners and recognising and respecting specialist local knowledge
- Keeping local stakeholders updated of the latest developments and project changes
- Creating a structure through which dialogue between stakeholders can continue beyond the timeframe of the project.

Inevitably there have also been examples where Darwin Initiative projects have not been fully effective in getting the participation of local stakeholders that they hoped for. Politics operate at all levels in society and can be difficult for people from outside a community to grasp quickly and easily. Alignment with local leaders and opinion formers has proved to be a successful approach in many instances but it is also a strategy that has occasionally fallen foul of local political changes.

Case Study 7 3D models for protected area planning and two way dialogue, Cambodia

Effective CEPA involves a two-way dialogue between the project staff and the community. With this goes the recognition that members of the community will have a valuable contribution to make both in terms of knowledge and understanding of the local situation

The use of community mapping has become more frequent in protected area planning. A Darwin Initiative project in the Srepok Wilderness Area, WWF Indochina Cambodia, took a further innovative step by constructing a three-dimensional (3D) model of the protected area during a workshop to raise awareness of the protected area among the community and develop the idea of eco-tourism as a sustainable activity compatible with conservation and local livelihoods.

Villagers constructed a large (9 sq m) 3D model of the area using recycled materials. Superimposed on this were the traditional commune boundaries and features such as houses, health centre, schools and spirit forests, The traditional commune boundaries revealed a remarkable familiarity with the terrain inside the protected forest, which surprised the Government protected area and conservation staff, with every pond, stream, spring, mountain and hill in the area - even the location and numbers of resin tress - accurately depicted. This indicated the depth of knowledge and prior use of and claim to the parkland.

The participants then started to identify the different management zones, using coloured pins to mark their interests. This information, new to park management, was then compared with the zones proposed by the forestry administration.

Many community participants felt that this was the first time that community voices had been heard and tangibly they could communicate a range of issues to officials and promote understanding. The hope is to continue to strengthen community ownership over these zones that ultimately will lead to an even stronger sense of responsibility. The communities signified their commitment to helping the project in its education campaign, and agreed that communities and government share the same objectives in identifying areas that need to be conserved, especially as local people depend on the same habitats and watersheds for their livelihood.

Sustainable Tourism in the Srepok Wilderness Area Cambodia (14-046)

4. CONCLUSIONS AND LESSONS FOR BEST PRACTICE

4.1 Conclusions

The evidence presented shows that a significant proportion (84%) of the 450 Darwin Initiative projects have included activities designed to raise public awareness or support education in relation to biodiversity conservation. Most DI projects do at least basic "communication" activities (not exactly best practice CEPA, but a starting point), whilst some do more specialist "education and public awareness" as a core activity. In between the two, the trend is that many projects are increasingly taking CEPA seriously as a way to support their biodiversity conservation activities. This review also recognises that Project leaders have often under-planned or under-reported effort expended on CEPA and Article 13. There is also a multiplier effect that arises from training teachers, community leaders and others in education and communication techniques – this raises the impact of the activity.

Therefore, it can be concluded that the Darwin Initiative is making a substantial and far-reaching contribution to the implementation of Article 13 of the Convention on Biological Diversity and has a tremendous amount (actually and potentially) to contribute to the Global Initiative on CEPA. However, there is significant room for improvement – relatively few projects are taking all the opportunities they could for better engagement through CEPA. Getting improved CEPA processes at the heart of more projects is critical to improving the impact of the Darwin Initiative's conservation activities.

The specific contributions made to the CBD's global effort on CEPA are described in Section 3. Networks are shown to be particularly important to projects, and many have been effective at setting up sustainable networks (especially at national level) amongst conservation players. These networks have facilitated excellent sharing of knowledge and expertise, providing excellent legacy for Darwin.

The increasing use of CEPA by Darwin Projects has reflected the recognition of social issues in biodiversity conservation and of the role of CEPA in effecting social change. The minority of projects that have seriously tackled CEPA activities have made a very powerful contribution to project success. This shift has occurred without a push from the Darwin Initiative (the standard measures are not as up to date as practice) and reflects a general positive shift amongst the conservation professionals operating with the Darwin Initiative.

Darwin Initiative projects have used an increasing and impressive diversity of methods in CEPA. Examples of best practice have been found in each of the areas of activity of the Programme of Work for the CBD's Global Initiative on CEPA. In some cases the need to reach a wide audience has forced Project staff to think outside the academic or scientific "box" they are familiar with and to seek opportunities to engage with the popular media, including using arts, drama, or local festivals. This reflects a remarkable level of ingenuity by both UK and host country professionals. Consequently, the Darwin Initiative can valuably inform the Global Initiative.

Bearing in mind the definition of CEPA given in the introduction as 'a mechanism for bringing about social change in support of the conservation of biodiversity', it has been possible to assess the variety of approaches in relation to their achievements in successfully changing perceptions, attitudes or behaviours. These are presented in the following section as a set of "best practice" approaches for Darwin Initiative projects. It is hoped that these will in future be built into project planning and, with the support of the Darwin initiative, will become accepted normal practice within projects in future.

Overall conclusions:

Most DI projects are doing some level of CEPA activities, and DI therefore offers excellent contributions to CBD's Article 13 and Global Initiative on CEPA.

Professionals working in DI projects are often field leaders and demonstrate excellence and ingenuity in working towards conservation.

There are examples of excellent practice to learn from and improve performance. However, exemplary cases are not the norm and there is still significant room for improvement.

4.2 Best Practice

The following highlights the most successful approaches to CEPA based on the experience of the Darwin Initiative projects presented above and the wider current best practice noted in the introduction. These can be regarded as an indication of best practice in communications, education and public awareness for Darwin Initiative projects. Box 5 lays down the underlying principles to making CEPA really work.

Box 5 A summary of principles of best practice for Communications, Education and Public Awareness for Darwin Initiative Projects

- Recognise that biodiversity conservation requires social and organisational change;
- Consider how CEPA activities can change attitudes and behaviours;
- Recognise CEPA as a long-term *process* to support that change gradually, not just a set of information *products;*
- View CEPA as a dynamic, two-way process that allows understanding of peoples' needs, exchange of ideas, and participation in conservation;
- Use CEPA to offer positive and appealing encouragement and alternatives, not just negative messages but real benefits of doing things differently;
- Recognise the difference between immediate communication needs and longer term education and public awareness efforts;
- Understand your audience – involve them with humility and open-mindedness;
- Use appropriate language and approach;
- Engage with social scientists and anthropologists to understand the dynamics of social changes;
- Partner with experts in education and public awareness;
- Don't be afraid of innovative approaches like: using advertising and marketing techniques; engaging with social or faith leaders; promoting role-models; using the arts, including drama, dance, song and role-play;
- Consider how biodiversity conservation can be mainstreamed into other sectors such as health and education;
- Look for opportunities to share experience with projects which work towards related goals (e.g. desertification);
- Take time to reflect and evaluate your CEPA activities throughout the project, noting and acting on changes emerging.

1. Identify appropriate interaction partners and objectives

All CEPA activities are required to identify from the outset not only the partners (audiences) they aim to engage with but also the perceptions, attitudes or types of behaviour that are likely to need to be influenced. These partners must be recognised as equals in the CEPA process. An understanding of what change is required, and by whom, is required in order to plan effective CEPA interventions, though this may change through the process.

The audiences (or '*interaction partners*') to be included will be specific to each project but are likely to include community leaders, volunteers, school children and teachers, community

workers, NGOs, local businesses, trade organisations and the local, national and, in some cases, international media. It is important to think as broadly as possibly at this point and consider issues such as:

- what other sectors influence conservation?
- are there any influential individuals in the process of changing attitudes who should be targeted?
- does policy need to change to support change in practice?

Carrying out a survey or running focus groups or participatory appraisals at the beginning of the project helps to determine who are the stakeholders, assess their attitudes and level of understanding, what issues and priorities they have, and what knowledge and experience they bring. It will also provide a baseline against which targets for CEPA activities can be set (for examples of good audience consultation see Cambodia project 14-046, Ecuador project 14-040 and Peru project 15- 016). Pre-project activities are especially important in identifying who the project will work with to develop a shared meaning and purpose. At this stage, good CEPA should aim to ensure that the stakeholders become agents of their own biodiversity conservation initiatives.

2. Promote community involvement – trusting, two-way, positive, communications

Where community groups are identified as key stakeholders, it is important to communicate effectively with community members to gain support for and involvement in the project. Projects in which the community are involved, listened to and where respect and trust is established from the outset are more likely to succeed. The inclusion of local knowledge of, for example, fish stocks or game animals can be especially important, as can information on local customs and traditions relating to wildlife.

This is easier to achieve where the community can easily see the relevance to their lives and are approached as equals, with valuable knowledge or ideas that can contribute to the project. The importance of offering positive and appealing encouragement and alternatives, positive benefits rather than negative consequences from conservation is key. Linking conservation goals to livelihoods is a critical success factor. To offer this requires thorough understanding of the community, its needs and its social and cultural context.

The importance that CEPA activities are viewed as a two-way process of exchange and participation cannot be emphasised enough. Local people should be treated with humility and open-mindedness at all times – they typically hold their own solutions to resource problems.

The Darwin Initiative provides good examples of the community contributing directly to conservation objectives, including providing information on the habits or distribution of local wildlife, helping to monitor plant or animal populations, volunteering to help construct gardens or clear alien plants and improving the biodiversity value of local habitats. There is no doubt that a ‘hands-on’ approach can help to reinforce conservation awareness at community level and lead to community leadership in conservation activities. Examples of projects with effective community involvement include Mexico project 11-018, Tristan de Cunha project 12-010, Malaysia project 13-009 and Montserrat project 14-027 (**case study 8**), Zimbabwe project 11-009.

Case Study 8 Carrying out a conservation awareness baseline survey

In order to determine whether a particular CEPA initiative has had the desired impact it is necessary to carry out some form of evaluation of issue awareness at the beginning and end of a project. In practice this has rarely been done but there are a few notable examples such as the Perlas Archipelago: project 12-021 and Kyrgyzstan project: 11-024).

Another example of good front-end research is demonstrated well by the Darwin Initiative project in Montserrat. Following the devastation of their small island by a volcanic eruption that reduced it to half its original size, the people of Montserrat were keen to engage in an education and public awareness strategy. A project aimed at conserving the biodiversity of the Centre Hills began by gathering socioeconomic data through discussions with local farmers and others within the community. A range of CEPA activities helped to bring together different interest groups around a common point and build trust. Formal interviews were followed by informal discussion during which people offered their views and perceptions about the value of the Centre Hills and how they support the island ecosystem. The project also generated good press coverage on radio and in the newspaper and supported an education campaign "the essence of the hills" which was extended to the schools and general public.

Enabling the people of Montserrat to conserve the Centre Hills (14-027

3. Develop effective partnerships to broaden impact

Opportunities for developing new partnerships frequently present themselves during project implementation. These can be partnerships with broader stakeholders or supporters, or with organisations with complementary skillsets (e.g. communications or media). By remaining opportunistic and open-minded, new relationships can be established and projects are able to reach a wider audience and achieve more impact than initially planned. Partnerships offer different perspectives about the issues or problems being addressed. These perspectives can be debated, options can be evaluated and actions implemented, leading to further learning and improvement.

Examples include partnering with television or radio programmers, and involvement in events or campaigns. Riding on the back of something that is already popular has helped some projects achieve a higher profile than expected (for examples of successful or unanticipated partnership working see Mexico project 11-018, Papua New Guinea project 13-012 or Peru project 15-016). Forming relationships with organisations representing interest groups such as tribal people, hunters and fishermen can generate useful allies for a project, and is now an expected best practice.

Networks are excellent opportunities for sharing expertise and knowledge. To make best use of networks, they should cross-cut through different interest groups and different levels (practice-policy). Linking into existing networks or communication channels is a critical way to ensure that CEPA activities sit in the appropriate social and cultural context, and broadens impact.

4. Use appropriate Media

The media used is a tool to achieve specific objectives in specific situations, and Projects should be strategic about their approach to these tools. The key issue is to avoid a focus on the product alone, and rather consider the intended purpose and audience, and always evaluate the impact of the product, in terms of the broader process of CEPA.

Media that is 'tried and tested' and is familiar to most projects leaders (including leaflets, newsletters, teachers pack and posters) remains appropriate in many circumstances. However, in many of the areas in which Darwin Initiative projects operate there is an increasingly sophisticated audience, including in some places international tourists. Also, in many places there are traditional "edu-tainment" opportunities to link into – song, dance and drama is an important part of communication and learning in many local cultures.

In such cases, projects should consider the use of more innovative approaches and types of media, including the use of arts and drama, marketing approaches, film, animation, interpretative displays or exhibits. These can be extremely effective in engaging with the target audience. For examples of Darwin Initiative projects using new or unusual media see Slovakia project 9-007, Kenya project 12-003 or Bhutan project 12-024.

5. Develop appropriate team structures

Teams involved in biodiversity conservation tend to be composed of those whose primary training is in the natural sciences. However, the principles of CEPA require much broader skillsets. Collaboration with social scientists, anthropologists, communication and education specialists is recommended to strengthen CEPA activities, for example:

- Social scientists can help ensure CEPA activities are planned to fit the local context and may help to identify locally targeted CEPA opportunities
- Using both artists and designers can lead to the production of more attractive, professional, locally appropriate educational and interpretative materials.
- Use specialists in novel media, including drama, puppetry and animation, to engage with the target audience.
- If supporting production of crafts or branded items, involve local artisans, craftspeople and entrepreneurs - this can have an important role in raising both awareness and income.

For examples of linking with art or entrepreneurial activity within Darwin Initiative projects see Zimbabwe project 11-009, Mexico project 11- 18 and Vietnam project 3-197.

6. Use appropriate language and style

The approach to CEPA has to be appropriate and relevant to the intended audience and the interpretative principles 'provoke, relate, reveal' apply in almost every case. The use of local language in all materials is essential. Use of traditional designs and motifs or references to local culture or religion will help people relate to it, and encourage a sense of identity and ownership. Simple slogans and taglines can also be effective. Field-testing CEPA material can really help to make it more appropriate and relevant, especially for educational material.

Many lessons in effective communication can be drawn from looking at the popular media, including commercial advertising. The frequently use of dramatic or compelling images in combination with clear and concise language and simple messages, often in a condensed story form. This well-tried formula can be equally effective in presenting a conservation message.

For examples of projects which have employed slogans and focus messages or incorporated traditional designs see Papua New Guinea project 13-012 and Bhutan 12-024 (**case study 9**).

Case Study 9 Respecting local traditions and culture

The UK teams involved in Darwin Initiative projects are guests in the host country for a relatively short period and it is important that they honour and respect local customs and traditions. Several projects, including this one in Bhutan and the Saiga antelope project in Kalmykia, have made links with the indigenous Buddhist beliefs and inherent respect for nature.

A partnership between the Royal Botanic Gardens Edinburgh and Serbithang explored the potential for using the Bhutan Garden's unique facilities to introduce both local people and tourists to the wealth of the country's indigenous flora and the importance of conservation. The project included producing the first interpretation and education master plan and creating a range of interpretative material, including information panels, maps and leaflets. Consultation over what was appropriate resulted in a hybrid that used Western high-quality materials and production along with local Bhutanese designs. As well as incorporating motifs based on traditional Himalayan art styles the content also covered aspects of the traditional culture, including food, traditional medicine and architecture, as well as botanical information. This recognition of traditional culture was seen as being very important in Bhutan where nature conservation is intimately connected in people's minds with the dominant Buddhist religion.

Institutional capacity building and training, Royal Botanic Garden Serbithang, Bhutan (12-024)

7. Ensure awareness facilities are sustainable

Some Darwin Initiative projects have led to the creation of facilities (such as a visitor centre, on-site interpretation, buildings, interpretative displays or exhibitions, and school or community gardens) with the intention of providing a legacy that will last beyond the time-span of the project. The risk if these are poorly designed, however, is that they can waste resources and effort. In one worse case example, a fishermen's education centre had only attracted one fisherman visitor in its first year of operation.

If such facilities are to operate effectively after the project closes they must consider long term viability through good planning for:

- a significant level of institutional involvement and commitment (government or community),
- a high level of maintenance and
- a commitment to post-project funding.

Examples of projects that have successfully created permanent facilities see Bulgaria project 14–021 (**case study 10**), Zimbabwe project 11-009 and Kyrgyzstan project 11-024.

Case Study 10 Challenging negative stereotypes

In many parts of the world the conservation of top carnivores is hampered by the very negative perception within the popular psyche of dangerous predators of livestock and even humans. This is nowhere more apparent than in Bulgaria where wolves still carry a bounty that is the equivalent to two weeks wages – a big incentive to the huntsman.

The Education 4 Conservation and Balkani Wildlife Society project is aimed at raising awareness of large carnivore conservation and dispelling some of the myths and misconceptions that surround the wolf in Bulgaria. Through visiting schools and a touring photographic exhibition they have successfully reached a very wide audience in the Kraiste and Pirin Mountains. The exhibition has attracted a great deal of interest, especially from hunters who often exaggerate the size of a wolf claiming they are 80kg when in fact they are less than 45kg. A new centre opening this year will also present accurate information about large carnivores in a non-threatening, non-adversarial way that encourages dialogue. One hunter visiting the photographic exhibition was heard to remark "We hate wolves". Then after studying the photographs for a few minutes and with dawning realisation, he commented "But they are so beautiful!".

" It is difficult to change attitudes and perceptions that are culturally and socially embedded, and the process is a long one, which is why it is important to focus on the next generation as much as the groups that are a threat to the conservation of large carnivores" Denise Taylor, Education 4 Conservation

Large Carnivore Education Centre in the Pirin Mountains (14-021)

8. CEPA as a long-term process

Successful CEPA requires a long-term commitment - it is about a long-term ***process*** of social and behavioural change, not just ad-hoc sets of ***products***. Projects that invest time and resources in CEPA capacity are likely to have increased impact and greatest continuity. For example, developing good relationships with newspaper editors or journalist will pay greater dividends than a one-off press conference, and a teacher in-service training workshop is often more value than giving a presentation to the whole school. Projects that are located in strong host country institutions are likely therefore to have greater impact. For examples of projects that have continued beyond the duration of Darwin Initiative funding see Zimbabwe project 11-009, Kalmykia project 12-028 and India project 4-069.

Darwin Initiative projects are by their nature short-term and the time that UK personnel can spend in country is limited.

9. Mainstream conservation into education

In many parts of the world teachers are recruited from a wide area and may find themselves training or teaching in an area where they are unfamiliar with the local biodiversity. They also have enormous potential to influence a high number of people. Key activities for Darwin projects to consider include:

- Including conservation issues in teacher training programmes – this can introduce teachers to biodiversity and consideration of the issues surrounding conservation.
- Providing teachers with materials to use in schools - Darwin projects doing this have generally found these to be well received.
- Introducing teachers and environmental education specialists to new teaching and learning methods, including the use of games and practical activities like tree planting – this can have a lasting impact in helping students engage with biodiversity conservation in a direct way

For examples of effective teacher in-service training or development see: India project 10-002, South Africa projects 7-099 and 14-012.

This principle can also be applied to mainstreaming conservation into other sectors such as health, agriculture, media.

10. Plan, monitor and evaluate for change in attitudes and behaviour

Like other activities, the application of CEPA can be managed and improved through good planning and M&E. Goals, indicators and targets need careful thought at the project design stage. Baseline studies, ongoing monitoring and periodic evaluation will help ensure the project is on track.

While it is relatively easy to measure some activities, for example formal education programmes (e.g. number of students/teachers involved, number of classes run, new sections of the curriculum written, etc) it is harder to assess the ***outcomes or impact*** these activities have. Beyond simple quantitative monitoring, it is best practice to use participatory rural appraisal or market research techniques to determine knowledge, perceptions and behaviours before and after project implementation. Projects should ideally use these tools to determine how successful they have been in bringing about change.

Examples of Darwin Initiative projects that have successfully looked at changes in attitudes or behaviour are relatively scarce, but see India project 10-002, Kyrgyzstan project 12-024. Further examples of good practice guidelines on evaluation and monitoring of CEPA are provided in the IUCN CEPA Toolkit (www.cepatoolkit.org).

5. RECOMMENDATIONS

Darwin Initiative projects have demonstrated some excellent practice and innovations in CEPA, but exemplary cases are not the norm and there is still significant room for improvement. Some recommendations emerging from this review are suggested at project and programme levels.

5.1 Recommendations for Darwin Initiative Projects

Recommendation 1 – Communicate project outcomes as a minimum

Projects operating without communications are restricting the impact of their activities significantly and should not be eligible for Darwin Initiative support. All projects should be required to provide CEPA plans, including details of objectives, intended outcomes, and partners, and what changes in awareness, attitudes or behaviours they are seeking to bring about.

At a minimum all projects need to effectively communicate the outputs of their work to all relevant stakeholders (not exclusively with their scientific peers). Most currently do, but apparently a few do not. This report has emphasised that communication is a two way process and demonstrated that a wide variety of media are available for effective communication. Project leaders need to consider the competence for CEPA among their team and consider the use of specialist advice or assistance to better plan, communicate and report on CEPA activities (see Recommendation 4).

Recommendation 2 – Apply CEPA best practice

This review has enabled the development of a set of best practice principles and guidelines for effective CEPA activities. There is also a wide range of other material available for consultation. This report highlights the key documents and relevant operational materials, such as the IUCN CEPA toolkit (www.cepatoolkit.org), that are available on the subject. Project leaders stand to benefit from this collective experience and it is essential that in future the best practice guidelines are followed by all of those involved, at all levels, within a project. Doing this will contribute to much improved impacts, sustainability and legacy of projects. This review has demonstrated that CEPA activities are a CBD commitment and clearly improve project performance.

5.2 Recommendations for the Darwin Initiative to support projects

Recommendation 3 – Build CEPA into project proposals and planning

The CBD and others are explicit that CEPA is a cross-cutting theme, essential to maximise the effectiveness of conservation projects, and that it should be built into the structure of all policies and programmes. The Darwin Initiative has followed this lead, by emphasising awareness and education as on of the four priority areas, However, this report presents evidence that in some instances CEPA activities have been either under-planned or under-reported in the past. In the future, proposals with insufficient planning, inadequate outcomes or no monitoring system in respect of CEPA should not be considered for Darwin Initiative support.

Specifically, the Darwin Initiative needs to request more detail at the planning stage to ensure that project leaders have clear CEPA targets in their proposal. Distinction may be made between the 'C' communications that all projects should be engaged in and the 'EPA' education and public awareness, which may require specific project focus and expertise. In all cases, Project leaders should be expected to be able identify which stakeholder groups they want to interact and communicate with (partners/audiences) and have considered a method of determining current levels of awareness. Similarly, projects should consider means to evaluate changes in public awareness or meeting of education targets. Projects should also provide evidence of the competence and experience within the project team to carry out CEPA work. Where a high level of confidence in CEPA is not present the teams should be encouraged to take on specialists in education or communication to strengthen these areas.

Recommendation 4 – Support capacity development for CEPA in DI projects

The authors of this thematic review agree with the recommendations from the Darwin Initiative Workshop on CEPA in 2006, that project leaders need to be given greater support in leading CEPA elements of their work. Many Darwin Project leaders still do not place value on CEPA activities or fully understand their critical role in improving the impacts of conservation work. This Review and the IUCN's comprehensive toolkit for those involved in national biodiversity strategy and planning initiatives should form the basis of capacity building to this end. The Darwin Initiative should consider providing project staff with training opportunities in the use of the highlighted approaches. Further consideration should also be given to adapting the IUCN toolkit to make it even more relevant and useful for the practical implication of CEPA activities in Darwin Initiative projects. This will enable them to build CEPA effectively into the foundations of their project planning and help them assess whether they need to bring in specialists.

This thematic review has shown that there is already an extensive range of experience and examples of good practice within this area from past Darwin Initiative projects and a number of education specialists who could be called upon to run such training and to develop appropriate materials. There is also a considerable amount of other material of good quality, in addition to the IUCN toolkit, including the examples and experts being drawn together under the CBD Global Initiative on CEPA that could be mobilised to support the further development of a training programme and toolkit.

Recommendation 5 – Support flexibility, responsiveness and innovation

In assessing the success of projects it is essential that the Darwin Initiative recognises and accepts that when working with communities, the outcomes are not always predictable and that a genuinely participatory approach may lead to outcomes that were unexpected or even at odds with the original plans. In particular, projects in which there is a substantial CEPA component, or where CEPA is the primary focus, require a 'process project' approach in which in which change is seen as not just inevitable but highly positive.

The recommendation calls for the Darwin Initiative to adopt a flexible approach when processing applications, setting targets and assessing outputs from community-based projects. The Darwin Initiative should be supporting and rewarding local initiative and innovation, and welcoming the emergence of 'bottom-up' approaches where these can help achieve a harmony between human and conservation interests. In truly iterative process projects the CEPA outcomes will be different to those originally formatted but these changes are likely to lead to a more robust, sustainable and worthwhile result. Documenting these changes is vital as they will contribute some of the most important lessons that will inform the development of training and best practice guidelines (see recommendation 2 above). This level of flexibility and adoption of a process approach will enable projects to have a more positive impact.

Recommendation 6 – Improve monitoring and evaluation of CEPA outcomes

Whilst flexibility is important, to prevent an ad hoc approach to CEPA, some 'hard' targets and outcomes must be set at the beginning of a project. However, these can only be assessed if the baseline level of awareness and understanding is established at the start of a project.

The Darwin Initiative needs to establish guidelines on conducting awareness surveys at the start of all projects and facilitate this by providing a clear methodology and training as necessary (Recommendation 4). The adoption of a common approach to CEPA evaluation would not only help determine the impact of a project but it would also facilitate a comparison in the level of awareness between communities in different parts of the world and help identify priority areas.

The standard measures used to assess CEPA activity remain as they were at the start of the Darwin Initiative and are seriously out-of-date and in urgent need of revision. Darwin needs to revise these using this document and the other materials referenced in the report so that they better reflect the range of best practice CEPA activities that projects use. In particular the standard measures need to take into account the flexible approach discussed above and reflect the wide variety of new and innovative media that is available and is currently being employed by some Project Leaders.

This approach has the potential of generating a considerable amount of very valuable data on biodiversity conservation awareness that is of immense importance to initiative such as the GI on CEPA. However, the Darwin Initiative needs to be sure that they have the resources to collate, analyse and disseminate all of this information between relevant parties.

Recommendation 7 –Support urban action for broader impact

Some Darwin Initiative projects have tackled audiences far beyond the immediate area of conservation activity because they have recognised the range of influences on biodiversity. There are also examples cited in this review of Darwin Initiative projects that have carried out excellent CEPA initiatives in urban areas (eg Mexico City, Istanbul) distant from primary nature conservation areas like national parks. However these projects remain in the minority and recognising that 50% of the world's population now live in cities, the Darwin Initiative needs to actively solicit and support a wider range of projects including those that have an urban rather than a rural focus. Getting urban citizens actively involved in conservation issues, including appreciating the effect their lifestyle has on biodiversity conservation is one of the greatest challenges of the 21st century.

The Darwin Initiative must take a positive lead in this area by supporting more projects that provide citizens with a direct opportunity, through volunteering or other means, to get involved in practical conservation as the most effective route to bringing about widespread changes in attitudes and behaviour.

Recommendation 8 – Support the mainstreaming of biodiversity conservation into other sectors

For most people in the world, conservation of biodiversity is not their first priority. The Darwin Initiative should take a lead among conservation organisations in promoting a holistic approach in which biodiversity conservation is closely integrated with other areas of sustainable development, including supporting sustainable livelihoods, promoting health and well-being and slowing down climate change. This report has highlighted a number of exemplary Darwin Initiative projects that can be shown to link in with other priority global environmental initiatives, in addition to the CBD. This integrated approach to environmental management is likely to have greater long-term impact and sustainability and should be promoted by Defra. In selecting projects, joined-up thinking should be rewarded and prioritised over projects that operate in isolation from other social, economic or environmental issues.

5.3 Recommendations for the Darwin Initiative to better inform the CBD on CEPA

The analysis presented on how Darwin Initiative projects contribute to the CBD's programme of Work on CEPA highlights some areas with potential for greater contribution. Table 6 notes that there are opportunities for DI to better:

- Stimulate and provide means for people to find those working on similar projects;

- Create access to standards of best practice;
- Document and analyse national reports on CEPA to develop needs for CEPA support;
- Use DI information to contribute to distance learning and courses.

Recommendation 9 Improve availability, access, and use of materials and information from Darwin Projects

The Darwin Programme needs to consider how it can:

- Collate and make available the wealth of education and awareness materials developed by DI projects (past and present) to the wider conservation and sustainable development community.
- Make as much information available as possible on the upgraded Darwin Initiative website and make links to CBD, IUCN and other conservation information portals and courses.
- Seek ways to make material from scientific papers published by the Darwin Initiative more widely available to conservation practitioners. Academic papers are a focus for UK institutions, but rarely influence any behavioural change on the ground.

If the DI could better collate, share and apply good examples of CEPA activity, this would deliver significantly to the CBD Global Initiative, especially against Programme Element 1.

6. REFERENCES AND PEOPLE INTERVIEWED

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People who contributed information to the thematic review on Communication, Education and Public Awareness (CEPA)

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ANNEXES

1. ToR for this Review
2. Questionnaire to Project Leaders
3. Case studies and referenced projects
4. CBD's Programme of Work for the Global Initiative on CEPA
5. Principles of climate change communication – from "The Rules of the Game"
6. List of the 45 project respondents

All annexes are attached as separate documents.

Annex 1 ToR for this review – objectives

Objectives

The objective of this thematic review is to analyse and document the contribution of the Darwin Initiative towards the CBD's Programme of Work, identify best practices and lessons learned, and to formulate recommendations on how the DI can best support the objectives and work programme within the context of DI's own objectives.

Research objectives

In support of the main objective, the thematic review shall:

- Introduce current best practices in CEPA in a broad context.
- Evaluate DI's projects contributions toward CEPA at national, regional and global levels
- Assess how DI's projects have supported improved and effective information/knowledge-sharing systems (formal and informal)and institutional capacity to do CEPA
- Assess how DI's projects have generated and managed information/knowledge needed for effective CEPA
- Evaluate mechanisms used in DI projects for CEPA (formal and informal).
- Assess the compatibility of DI projects' CEPA activities with relevant social, cultural and institutional contexts, by reference to outcomes.
- Assess as far as possible how CEPA activities in DI projects have influenced change in policy and practice at all levels.
- Draw out conclusions on best practice and impact for DI, and make recommendations to the DI on how best to maximise DI's contribution to Article 13/Global Initiative on CEPA.

Outputs

A concise report documenting the analysis, conclusions and recommendation, and which maximises on the use of case studies.

A dissemination note (4 to 6 pages) in attractive format drawing out main elements of thematic review report, for circulation to the next COP, GI-CEPA networks and practitioners.

Tasks

- Use DI's project database to cluster projects having direct and indirect contributions to CEPA. Criteria for selection shall include linkages to the CEPA Programme of Work.
- Mobilise the Thematic Review Team to provide guidance and contributions to the Lead Author/Consultant towards the setting up of the methodology, support analysis, conclusion and recommendation formulation, and the overall production of a concise report.
- Define and agree scope of the review with Defra (currently anticipated to include general public awareness and environmental education, but not training or policy advocacy)
- Establish criteria for analysis for review of selected DI projects.

- Preparation of questionnaire / correspondence to DI project leaders and host country institutions to supplement information found in DI project reports and documentation.
- Co-ordinate Review work with other DI M&E activities (ie ECPs, MTRs, etc)
- Consider potential follow-up interactions with Project Leaders based in the UK and local consultants in country with host country institutions.
- Analysis of DI's contribution against criteria by clustering relevant projects. Maximise use of Case Studies
- Conduct internal team work sessions to facilitate analysis and identification of conclusions and recommendations.

Annex 2 Questionnaire to Project Leaders

DARWIN INITIATIVE THEMATIC REVIEW ON COMMUNICATION, EDUCATION & PUBLIC AWARENESS

PROJECT LEADER QUESTIONNAIRE

Please note: not all questions will be applicable to all projects. Feel free to answer as many or as few questions as you feel able. The questionnaire is designed to provide complimentary information to that in the project reports and outputs. **All information you provide will be used for the purposes of the report** and will not affect your Darwin project or future projects (positively or negatively). All information provided will be fully acknowledged.

1. Project details

Project leader ---------- UK Institution ----------

Project code ---------- Date ----------

Project title ----------

Project start date ---------- Project finish date ----------

Partner Institution(s) ----------

2. Before the project what was the national/local situation in terms of public awareness and understanding of

(i) Biodiversity in general_____

(ii) The project's key themes_____

3. Has the DI project lead to better Public Awareness of the biodiversity issues, or to more or better environmental education being done? Yes No

If yes, please give details

4. Has the 'awareness-raising' changed any behaviour or practice on the ground, relating to biodiversity management? Yes No

If yes, how and what has it changed?

5. Has there been more support for awareness campaigns or environmental education (e.g. from Government or NGOs) as a result of the DI project? Yes No

If yes, what kind of support was given?

6. Has the local/national/regional capacity for awareness Campaigns improved as a result of the DI project? Yes No

If yes, how has it improved?

6.1 Can you give any evidence of this change? Yes No

If yes, please give details:

7. Did anyone in the project have any experience specifically in communications/education issues? Yes No

If yes, please give details

8. Which activities in support of 'Communication, Education and Public Awareness' were done as part of the DI project?

Please give details:

8.1 Which ones were most effective and why?

8.2 Which ones did not work well and why?

9. How was the knowledge for 'Communication, Education and Public Awareness' generated and managed?

10. Are you aware of the CBD's Global Initiative on 'Communication, Education and Public Awareness' **Yes** **No**

If yes, did the DI project link up with it? **Yes** **No**

If yes, how did it do this?

11. Was there enough support (time and money) to 'Communication, Education and Public Awareness' aspects of the project? **Yes** **No**

12. How was the relevance to the social, cultural and institutional context ensured?

13. Has the DI project improved conservation outcomes in the country? **Yes** **No**

If yes, how did it do this?

Annex 3. Case studies and referenced projects

Case Study Project	Background	CEPA Activities	Lessons learnt
Habitat Restoration and Sustainable Use of Southern Peruvian Dry Forest (15-016) (current project)	The Royal Botanic Garden Kew in partnership with ten Peruvian Partners is working towards habitat restoration and sustainable use of the Southern Peruvian Dry Forest.	● Presentation to schools on native habitats ● Drama activities including a Punch and Judy style theatre show with specially commissioned songs to convey the conservation message of the Huarango tree ● Tree planting in school grounds ● Participation in the Huarango Festival with a variety of activities including music, educational events and promoting Huarango tree products	Being innovation in using non traditional methods to deliver educational messages Combining a number of CEPA activities to reach the whole community.
Conserving a flagship Steppe Species; the critically endangered sociable lapwing in *Kazakhstan* (15 – 032) (current project)	The Royal Society for the Protection of Birds (RSPB) in partnership with the Kazakhstan Government conservation department.	● A high profile launch at the British Embassy in June 2006 timed to coincide with the official celebrations for the birthday of Queen Elizabeth in the Kazakhstan capital ● A press conference and networking opportunity with a presentation from the Kazak partner	Organising a an event on the back of another high-profile celebration, the Queen's birthday, helped to capture the media interest
Environmental Educational programme promoting biodiversity in Socotra, Yemen (14-002) (current project)	Durham University in partnership with the Ministry of Education in Yemen to develop environmental education in the formal school curriculum.	● Working at national government level to write curriculum materials for schools ● Working at a 'grassroots' level on the island of Socotra to develop and test ideas for educational programmes with teachers and students.	Environmental education does not appear in the curriculum so the adoption of a cross curriculum approach (e.g. feeding environmental material into geography, science, maths and Arabic) has been effective.

Limbovane Outreach Project: Exploring South African Biodiversity and change (14-012) (current project)	The Biodiversity and Macroecology Group University of Sheffield and Centre of Excellence for Invasion Biology (CIB), University of Stellenbosch developed a biodiversity inventory and monitoring scheme using ants as the indicator.	● Creating a monitoring system using ant populations suitable for use with school students ● Teacher training programme ● Production of good quality teaching materials ● Close liaison with the Education Department in South Africa	The unique value of this project was involving young people in 'real' science that yielded useful information on animal populations
Large Carnivore Education Centre in the Pirin Mountains (14-021) (current project)	The UK partner Education for Conservation has been working with the Balkani Wildlife Society (BWS) to raise awareness of large carnivore conservation in Bulgaria - one of the few remaining countries where wolves have a bounty on them (equivalent to two weeks wages) providing a big economic incentive to the huntsman. Hunting is a strong tradition in Bulgaria and wolves have suffered from a negative image in Bulgaria fuelled by the media. Livestock depredation, competition for game species and culturally-based attitudes and perceptions perpetuate the myths and misconceptions about the wolf.	● Equip and build a large Carnivore Education Centre, due to open in April 2007 ● A travelling photo exhibition which has been taken to various towns in the region ● A successful regional schools programme on wolves and other large carnivores, involving over 9,000 schoolchildren ● Use local professional artists to illustrate school workbooks ● Teacher training	The exhibition and schools work have successfully challenged misconceptions and negative images by presenting the facts about wolf biology in an accurate and objective way The approach was non-threatening, non-adversarial which encouraged open dialogue

Horticulture and Education for conservation in Nezahat Gokyigit Botanik Bahceisi Turkey. Project 14-026	The Royal Botanic Garden Edinburgh in partnership with the Nezahat Gokyigit Botanik Bahceisi Turkey to develop horticulture and education programmes as part of the development of the Botanic Garden.	● Horticultural Training Programmes ● Schools Education projects (science and Art) ● Teacher Training workshops ● Exchange programme	The project has adopted a flexibility in the approaches taken to deliver education and biodiversity awareness-raising programmes. The Botanical garden in turkey is in the process of being created.
Enabling the people of Montserrat to conserve the Centre Hills (14-027) (current project))	The project was a partnership between RSPB (UK) and the Ministry of Agriculture, Lands, Housing and Environment (MALHE) Montserrat. The purpose is to enable the people of Montserrat to take targeted action to conserve the Centre Hills for present and future generations.	● Farmers surveys to collect views, perceptions and practices ● Tourism exit survey including ideas on conservation and ecotourism ● Public consultations and a general public survey about the Centre Hills ● A Centre Hills logo competition. ● Press releases, publications, newsletters and a schools education pack ● Centre Hills website to visually represent the activities that the project and its partners are involved in	Making visible the activities of awareness-raising through a wide range of media and involving the whole community was vital Recognising the importance of forming local management committee to assist in the future direction of the Centre Hills as a national park.
Conservation of Puna' Andean Cats across National Borders. (14-028)	The UK Wildlife Conservation Research Unit (WildCRU) in partnership with the Andean Cat Alliance, Mammal Behavioural	● Creation and support of networks aimed at Andean cat conservation	By engaging with an existing body that had a specific focus on the Andean cat, the project was able to progress more quickly and with fewer problems.

Current project	Ecology Group aim to achieve biodiversity conservation by promoting collaboration across national boundaries and using the Andean cat as a flagship species	● Local community education and participation workshops	
Ha Long Bay Environmental Programme (14-038) (current project))	Fauna and Flora International in partnership with the Ha Long Bay Management Department (HLBND) are working towards establishing a financially sustainable environmental educational programme focusing on the Ha long Bay as a living classroom.	● Educational programme to raise awareness of ● BayEco-boat and tourist programme ● Independent Private Voluntary Organization (PVO) established to operate the environmental awareness programme	Has been successful in achieving long-term financial viability by Using fees from private schools used to subsidise visits by local state schools and run the programme Creating links between conservation, business and tourism interests
Building a sustainable network for Primates in Ecuador- PRIMENET (14-040) (current project)	This project in the Los Cedros Reserve, Ecuador, is a partnership between Sussex University Geography Department and *Ecuador Terra Incognito* in Ecuador. It involves local people in the collection of data on the highly endangered brown headed spider monkey to identify conservation hotspots. As fruit eaters and Spider monkeys are good indicators on the health of the ecosystem. But due to the destruction of the forest there are only 50 breeding pairs in the wild.	● Communities in the area surrounding the reserve were invited to workshops where the local level of knowledge was ascertained and this information fed into the project ● Individuals from Quichua, Awa and Chachi Indigenous groups as well as Afro-Ecuadorian and Mestro communities were trained as parabiologists and Ecuadorian specialists in law, zoology, botany and survey techniques contributed to the workshop programme.	Local community were able to provide direct experience on the abundance of primates and reports risks to habitat Communities were empowered through contact with NGOs, scientists and local and national government giving them a voice Alternatives to logging and mining have been promoted including developing eco-tourism. Communities involved in awareness-raising successfully opposed proposals by a trans-national mining company Ascendent Copper Corporation in the biodiversity hotspot within the study zone.

Strengthen the Indian Bird Conservation Network to Safeguard Key sites (14-041) (current project)	The Indian Bird Conservation Network (IBCN) was established as a partnership between a number of regional NGOs, RSPB (UK) and the Bombay Natural History Society to co-ordinate activities, such as conservation and bird monitoring, advocacy as well as CEPA, across the whole country.	● Exchanges and sharing good practice between project staff and associates in different regions ● Training workshops ● Coverage in local and national newspapers, radio and TV	Effectively using media to reach a large group of people the project fostered strong networks which will sustain the project.
Building a Bird Conservation and environmental network in China. (14-044) (current project.	The UK partners for this project are Birdlife International , in partnership with Hong Kong Bird watching Society. The purpose of this project is to raise awareness of the importance of China's birds and environment amongst civil societies across China (and thereby increasing awareness of these issues)	● Production of websites and newsletters ● Developing networks with bird watching groups in China ● Preparing national language publications on globally important species	Being sensitive to and responding suitably to the views of members of the local bird watching groups in China. Such a change is recognised by the project staff as being enormously important to the success of the project.
Sustainable Tourism in the Srepok Wilderness Area Cambodia (14-046) (current project)	a Darwin Initiative project in the Srepok Wilderness Area of Cambodia, WWF Indochina Cambodia country programme used an innovative 3D modelling workshop to raise awareness of the protected area among the community and develop the idea that eco-tourism is a sustainable activity compatible with	● A series of workshops with around 50 local community representatives to gather information on traditional commune boundaries ● Villagers constructed a large (9 sq m) 3D model of the area using recycled materials superimposed with commune boundaries, houses, health centres, schools and spirit forests. ● Proposed management zones were then identified and overlain above the forestry administration proposed zones.	Participants offered a remarkable familiarity with the terrain identifying every pond, stream, spring, mountain and hill in the area - even the location and numbers of individual resin trees Participation led to a strong sense of shared responsibility over management of these zones Working together on an active task like resource mapping is particularly useful, like a team-building exercise

	conservation and local livelihoods.		The methodology is being replicated now in three other community clusters within SWA using smaller (3 sq m) models The communities are now committed to the project in its education campaign, and agreed they share the same objectives with the government in identifying areas that need to be conserved as they depend on the same habitats and watersheds for their livelihood.
Caspian Biodiversity Education (Iran, Azerbaijan, Russian Federation, Kazakstan, Turkmentistan). Project 14-052 (current project)	The UK partners are the Field Studies Council and; Caspian Environmental Programme(CEP) Caspian Institution for Environmental Services (SCIENSE) Azerbaijan Society for Protection Of Animals The Regional Environmental Centre For Central Asia (CAREC) – Kazakhstan Khazar State Nature Reserve –Turkmnenistan. The purpose of the project is to protect the biodiversity of the Caspian Sea through enhanced biodiversity education and actions in schools and communities	● Training hand book and course ● 100 teachers from each of the 5 countries trained ● A set of posters produced in 5 languages and 125o sets distributed with teachers guide and an education programme ● Networking groups created ● Biodiversity monitoring system developed with a multi species key produced. ● Project promoted by the media.	This is a complex project with partnerships in 5 countries. There has been different challenges to overcome in each country. There is an urgent need to conserve the biological diversity in this region and education is clearly a very important tool in enabling this process.
Ethnobiology of proposed traditional uses of zones of the Crocker Range Park (13-009) (current project)	The Global Diversity Foundation in partnership with the Malaysian Government is working to establish Community Use Zones inside the Crocker Range Park where the local community can conduct subsistence activities and participate in the collaborative management. This move to integrate local community livelihoods with biodiversity conservation in the Crocker Range	● The indigenous Dusun community were consulted on localised patterns of resource use and helped to map the locations of key resource pools ● A core team of eight community members have been trained in quantitative and qualitative ethnobiological methods to collect information about resources and landscapes important for daily subsistence ● Data is recorded on community livelihood sources, settlement histories, harvesting of valuable non timber forest	Data collected by the project has formed the for negotiation between Sabah Parks and the local community on the Community Use Zone Community members and park personnel carry joint responsibility for monitoring of subsistence activities The intimate knowledge of the area held by the local community is respected and valued The use of this resource catchment tool is regarded as

	is regarded as a turning point in protected area management policy in Sabah.	products (e.g. rattan), hunting range and home gardens in a GIS database.	pivotal tool in enhancing the long-term joint management of the Community Use Zone - the first of its kind in Sabah.
Integrated River Basin Management (IRBM) in the Speik River (13-012) (current project)	A project, run by the WWF South Pacific Program in the Spiek River region of Papua New Guinea exploited the drama of crocodile hunting	● Young men from the community who were crocodile hunters gave talks and took part in focus groups that showed how the river is vital to their way of life ● The Bauabaua Theatre Group developed a drama based on crocodile hunting and traditional male initiation ceremonies that went on tour	The project fostered local champions The use of drama, traditional songs and storytelling were rated more successful in raising awareness than more conventional approaches - talks and workshops It helped engender respect in the traditional culture of the region
Capacity Building for monitoring and managing bush-meat trade in Gabon. (12-002)	This was a project led by the University of Stirling and the Department of Wildlife and Hunting, Univeristy Science Technique de Masuku, Gabon and the Centre Internaional de Recherches Medicales de Franceville, Gabon. The aim to help the Government of Gabon to manage bush-meat in order to preserve wildlife populations and wild meat resources for rural people in Gabon.	● Teaching pack and curriculum course ● Public awareness campaign, with support of 3 Gabonese 'celebrities' who agreed to endorse the campaign. ● Training for wildlife staff in Gabon, some to MSc level	UK staff each spent 7-11 months of 2005-2006 in country, allowing them to establish good working relationships with their Gabonese partners It was difficult to achieve political support for changes to the bush-meat trade as the project coincided with Government elections in Gabon.
Flamingo Conservation and Ramsar site	This project was led by the University of Leicester and Lake	● The production of short video films involving the school children (part of the broader education programme).	This element was something which developed over the course of the project and the ultimate success depended

management at lake Borgia Kenya (12-003)	Bogoria National Nature Reserve at the Flamingo Conservation and Ramsar Site in Kenya has been innovative in raising the awareness of the conservation challenges in the area, with coverage at national and international level.	● Interactive educational website	on project staff being adaptable
Darwin Field Station for Biodiversity Research Training, the Gambia. (12-009)	The UK partner for this project was the University of Warwick working in partnership with the Makasutu Wildlife Trust, The Gambia. The aim of the project was to build capacity for personnel in the Gambia to access and monitor its biodiversity	The Centre was built and equipped and the project delivered: ● Training courses ● Creation of a digital photographic base and interpretive resources for the Centre ● Field guides	The use of local teachers, artist, crafts people and others from the community to support the project
Empowering the people of Tristan de Cunha to implement the CBD (12-010)	A project with the RSPB (UK) and Tristan Island Government, University Cape Town and Birdlife South Africa to increase people's control, ownership and involvement implementing the CBD of Tristan da Cunha	● Training and workshops ● Development of a Biodiversity Action Plan (project key output)	Responded to local demand to extend the scope of the project beyond birds to include fish, invertebrates and mammals Recognised it would have been valuable to appoint a socio-economist at the start of the project to gauge social organisation, people's roles or livelihoods
Conservation management zoning implementation and facilitation in Perlas Archipelago (12-021)	A partnership project between Heriot Watt University (UK) and the Smithsonian Institute working with the local commnities to carry out surveys to assess marine biodiversity of the Islands	● Conducted socio-economic surveys with the island communities to establish base line data for the project. ● Comprehensive website providing up-to-date information on the project (includes film coverage of the project and photographs)	Establishing with local inhabitants the level of understanding on biodiversity issues prior to the project Working closely with the communities facilitating the inclusion of local leaders into the decision making process The importance of having a lead science project member who was form Panama and had in depth knowledge of the Islands

Institutional capacity building and training, Royal Botanic Garden Serbithang, Bhutan (12-024)	The Royal Botanic Gardens Edinburgh in partnership with the Royal Botanical Garden Serbithang explored the potential for using the Bhutan Garden's unique facilities to introduce both local people, including education groups from schools and colleges, as well as tourists, to the indigenous flora and the importance of conservation.	● Produced the RBGS first interpretation and education plan ● Designed and built interpretative material, including information panels, maps and leaflets, incorporating local designs and styles and including traditional culture as well as botanical information ● Produced teacher's workshops and study materials	The incorporation of traditional cultural designs into the interpretation material was appreciated because in Bhutan nature conservation is intimately connected in people's minds with the dominant Buddhist religion.
Building constituencies for site based conservation in Myanmar. *(*12-025)	Birdlife International in partnership with the Biodiversity and Nature Conservation Association (BANCA), a Birdlife affiliate worked together to strengthen the institutional capacity for the conservation of bird biodiversity in Myanmar and increase local community awareness of biodiversity.	● Awareness raising workshops for local school teachers, town elders, and community based conservation groups ● Environmental education materials produced ● Teachers workshops	Communities, town elders, community based conservation groups and school teachers were empowered through contact with NGOs, scientists and local and national government giving them a voice
Using Saiga Antelope Conservation to improve rural livelihoods, Kazakhstan (12-028)	The UK partner Imperial College London worked in partnership with The Institute of Ecology and Evolution, Russia and Institute of Zoology, Kazakhstan to assist the governments of Kalmykia and	● Socio-economic surveys were conducted among communities in Kalmykia in the local language ● Protocols were set up for biological monitoring of saiga antelope populations	Successful awareness raising involved coping with a complex institutional environment, bridging difficulties and finding coping strategies Because Buddhism emphasises care for the natural world the project was able to forge strong links with the

	Kazakhstan to set up Management Authorities for saiga conservation	● Kazakh students were trained in survey methods ● Unexpectedly schools and religious groups mobilised support of the project and the environmental message ● An awareness raising programme to highlight the urgent need for saiga conservation included international congresses, films, TV, local radio, school visits and ranger talks.	Buddhist theological college and temples resulting in powerful constituency for influencing policy A new temple in the centre of the capital, Elista, was opened by the Dalai Lama and a statue in the main entrance square has a saiga as the symbol of nature. A critical success factor was the respect shown towards the local community's dignity and culture In terms of conservation there has been an increase in the saiga population; herds are less flighty and an effective law enforcement programme is in place Local communities have been provided with economic alternatives to hunting.
The Steppe Forward Programme: training conservationists for Mongolia's future. (12-029)	The Royal Zoological Society London (ZSL) in partnership with the University of Ulanbator delivered a programme of ecology field courses for students from the University of Ulan Bator. The focus of the field courses were on the unique biodiversity of Mongolia and the risks to it.	● Over the period of the project nine field courses each of three weeks duration was delivered. Training was provided in a wide range of biodiversity survey techniques ● Conservation club at the University of Ulan Bator	Making many good alliances and friends in Mongolia contributed to the success of the project. The project provided a unique opportunity for young people to have 'hands-on' practical field experience in a country were educational resources are limited
Supporting the development of nature conservation education in Bulgaria. (12-032)	The University of Warwick (UK), Borrowed Nature and the National Museum of Natural History in Bulgaria worked with teachers, educators and 'tomorrows' teachers on developing a skill based resource for teaching about biodiversity	● Workshops for student teachers ● Teacher training workshops ● Teaching handbook ● Network for teachers, educators and new teachers	The project introduced current best practice in delivering and developing conservation education programmes. It was pioneering in its innovation.

Painted Hunting Dog Conservation through Education and Development (11-009)	This DI project between the Tusk Trust, Siren Conservation Education and the Painted Hunting Dog Research has concentrated on education, awareness raising and participatory rural development in an effort to conserve the highly endangered African painted hunting dogs. The remaining 3000 hunting dogs in Zimbabwe are in decline because of habitat fragmentation, persecution (including snaring responsible for 80% of mortality), traffic accidents and disease contracted form domestic dogs.	● Equipping a community conservation education centre with interpretation materials ● Constructing a children's Bush Camp ● Commissioning local artists to produce interpretation materials, including several large format murals ● A children's storybook published in several dialects ● A permaculture demonstration garden ● Development of arts and crafts production, including wire sculptures using illegal wire snares	The use of local teachers, artist, crafts people and others from the community to support the project staff. Support given to the development of sustainable craft-based livelihoods providing a long-term legacy of over 70 jobs.
Aztecs and Axoloths: Integrating Conservation and Tourism in Xochimilco Mexico (11-018)	The Durrell Institute of Conservation and Ecology (DICE) and Universidad Autonoma Metropolitana and Xochimilco (UAM) wanted to draw attention to conservation issues affecting a World Heritage/RAMSCAR wetland system near Mexico City and in particular the axolotl, a newt species whose habitat is under threat.	●A qualitative and quantitative base-line survey to establish the level of awareness concerning the wildlife of Xochimilco and the axolotl ●Training workshops and support for tourism guides ●Magnetic interpretation panels for tour boat roofs ●Appearances on radio and TV ●Website, popular and academic articles, newsletters, conference posters ●T shirts and gift cards raising awareness and funds ●School projects and art competition and calendar ●Wall mural and souvenir guide for local museum	Inclusion of a range of stakeholders from Government bureaucrats, academics and the local people from the start of the project An easily remembered, simple core message to convey An opportunistic strategy involving a variety of approaches and dividing the project into a number of smaller projects that were easier to get sponsored.

		●Involvement in local events (including gaining 2nd prize in the flower festival!)	
School Green Land Community Biodiversity Awareness of Kyrgyzstan (11-024)	The UK Field Studies Council (FSC) in partnership with BIOM in Kyrgyzstan helped to establish small, community nature reserves in school grounds to raise awareness and understanding of biodiversity issues among school students.	● Creation of 25 'micro biosphere reserves' in or near schools, throughout the country, for environmental education ● Teacher training workshops ● Writing substantial practical handbook to equip teachers with the knowledge and skills required to create this small nature areas	Selection of schools in a national competition gave a wide geographical coverage Students and teachers' appreciation and knowledge of biodiversity were tested at the start of the project and this was followed up with a similar assessment at the end The multiplier-effect led to large numbers of people becoming involved Students were involved in the whole process from creating the preliminary designs to using the micro-reserves for field studies and other lessons Attractive but inexpensive resource materials were created for which there was a high demand
People and Plants – training Darwin Mentors in India (10-002)	The Botanic Garden Conservation International (BGCI) and Kodaikanal Botanic Garden (KGB) collaborated on a joint project to raise awareness of native plants and forests through promoting practical environmental education methods with teachers and students in the Palani Hills, Tamal Nadu, India.	● Monitored changes in behaviour in the community towards the natural environment ● In-service teacher training programmes	The teachers have been given the skills to adapt and upgrade the education products and programmes thus ensuring the sustainability of the programme. The project was sensitive to the local culture adjusting the timings of teacher training workshops times when it became apparent that as key carers for families, female teachers could not attend workshops if they were held outside school hours.

Propagation, nursery and establishment protocols for Seychelles endemic plants. *(* 10-006*)*	The UK partners for this project were the UK's Eden project in partnership with the Botanic Gardens, Seychelles. The aim was to produce protocols for effective propagation and nursery culture for recovery programmes for 90% of the Seychelles endemic flora and to build skills and capacity to manage these programmes.	● Education and awareness raising programme ● Profits from the sale of a new ornamental hybrid, using the endemic endangered Seychelles *Impatiens gordonii*, which was developed in the UK are being channelled towards a fund managed by the Botanical Garden to assist in the conservation of their rare and endangered plants ● Education materials are promoted through Eden's tropical Islands area. ● Website	Effective education and awareness programmes have contributed to raising finance to support plant conservation in the Seychelles. Incorporating the biodiversity of the Seychelles into Eden's tropical island area has raised the profile of the project at international level.
Bai Tu Long Bay Biodiversity Awareness Project *(*10-022)	The project was implemented by the Society for Environmental Exploration (Frontier Vietnam), The Institute of Ecology and Biological Resources (IERB) and Bai Tu Long National Park Authority. The project was focused on raising Biodiversity awareness in Bai Tu Long National Park.	● Creation of a Biodiversity Centre and bi-lingual interpretation panels/newsletters ● Conducted biodiversity surveys in the National Park ● Training Vietnamese post graduates on biodiversity identification and monitoring techniques. ● School outreach component	The impressive biodiversity Centre was built on a small island 40 minutes boat ride from the town were the National Park office is. There was a lack of interest and inaccessible. A lesson learnt for future visitor centre is to consult with the local community prior to construction to gauge the public interests and opinions.
Schools and Community	The Field studies Council working	● Trained educators and scientists in Slovakia	Responding to a perceived need for raising awareness

monitoring and protecting biodiversity in Slovakia (9-007)	in partnership with the Slovakian Agency Ziva Priroda (SAZP) to create a schools network to monitor biodiversity at a local level	● Produced high quality education materials ● Produced a series of ecosystem identification keys ● Created a schools network to monitor biodiversity involving over 7500 school students	of biodiversity in Slovakia through previous work with ecologists and environmentalists Invested time in supporting the strengthening of environmental education networks within Slovakia Beyond the project extending the work into Hungary
Developing a Biodiversity Action plan for Bermuda. (9-009)	Fauna and Flora International worked with the Bermuda community to develop a biodiversity strategy and action plan for the island.	● Trained Bermudian Postgraduates ● Workshops and training on invasive species ● Launched renovated Natural History Museum with biodiversity displays ● Raised awareness of biodiversity through the development of educational resources for the community	The communities were committed to the project in its e and agreed they share the same objectives with the government in identifying areas to include in the biodiversity strategy and action plan for the island.
Terrestrial Invertebrate Biodiversity in Galapagos: Training and Collection Rehabilitation. (9-010)	The Charles Darwin Research Station (CDRS), the UK partner working with the Galapagos National Park Service (CNPS) provided training in sampling and identification of the invertebrate groups to provide baseline date and support a self sustaining monitoring programme.	● Creation of museum collections ● Interpretation materials ● Biodiversity awareness-raising workshops	The interpretation material produce were based on a simple idea and were very effective. The production of will provide an excellent tool for staff to use in future teaching and training.
Give Nature a Hand – biodiversity training and capacity building in Bulgaria.	Community Environmental Educational Developments worked to define and protect sites of biodiversity importance through	● Education materials ● Workshops in practical conservation and community skills	'Hands-on' practical conservation and community skills was a fresh and innovative approach to teaching biodiversity education in Bulgaria

(9-011)	community environmental educational developments		
Conservation of the Paguyaman forest in North Sulawesi, Indonesia. (9-012)	Imperial College London (UK) worked in partnership with the Indonesian Institute of Sciences and the Wildlife Conservation Unit (Oxford University) to contribute to the Indonesian biodiversity action plan by implementing a management programme for Paguyaman Forest Reserve.	● Constructed a field station ● Consultation workshops with local people and public awareness education campaign. ● Courses in wildlife biology and biodiversity conservation. Courses in wildlife guiding ● Conservation concerts and schools' programme ● The creation of children's story book 'The Special Place in the Forest' was distributed to local schools. ● TV documentaries	TV documentaries at national and international level as well as radio advert helped to raise the awareness of the Paguyaman global importance on biodiversity. The babirusa, is a rare, enigmatic tusked pig found only in Sulawesi and nowhere else in the world. Through work with local officials the project has been active in stopping the illegal trade in babirusa meat
Ecological Training in Bulgaria. (7-069)	The University of Warwick (UK), Borrowed Nature and the National Museum of Natural History in Bulgaria worked with teachers, educators and 'tomorrows' teachers on developing a skill based resource for teaching about biodiversity	● Workshops for student teachers ● Teacher training workshops ● Teaching handbook ● Network for teachers, educators and new teachers	The project introduced new innovative skills to empower educators to deliver a wide range of environmental education programmes.
Training in Polish Botanic Gardens. (7-083)	The Botanic Gardens Conservation International (UK) and the University Botanic Garden Warsaw developed the capacity for botanical educators to empower all sectors of society to adapt more sustainable	● Environmental education training workshops ● Establishment of a Polish Botanic Garden environmental education network	The project provided training and resources were there was an identified need. The establishment pf a network contributed to the continuation of environmental education programmes beyond the time of the project.

	lifestyles		
Education and Training materials for South African Botanic Gardens (7-099)	Sir Harold Hillar Gardens (UK) and Kirstenbosch Botanical Gardens worked in partnership to develop education materials for teachers	● Wide distribution of practical, non-technical Teachers Packs to Townships in the Cape Region reaching the communities were there was a need for education resources ● Developed school grounds for conservation ● Education exchanges with the UK	Impact was higher because the project took place at a time of change in the education policy of South Africa Education packs were highly valued in local townships poor in teaching resources A key success was the involvement of parents in the education programmes
Coral reef biodiversity in the Caribbean- schools project and resources. (7-014)	The UK partners for this project are The Fields Studies Council working with the Marine Conservation Society, Commonwealth Institute and the Caribbean Conservation Association. The purpose was to increase the understanding and awareness of the importance of the biodiversity of coral reefs.	● Comprehensive environmental education materials ● Identification charts and posters ● Teacher training ● Teacher exchange visits	The project introduced active learning and first hand investigations into many schools. Working over a large geographical area it was important to appoint a local project staff member in the Caribbean to co-ordinate the project
Conserving Vietnam's Biodiversity through improved water quality assessment and monitoring (6-014)	The Field Studies Council worked in partnership with the Biology Department of Hanoi University of Science to develop water quality assessment using biological indicators	● The project introduced 'low tec' bio-assessment methods for water quality assessment using macro invertebrates as indicators of water quality (compared to the conventional 'high tech' physiochemical methods used by the National Environment Agency).	The new approach matched the need of the project being of high quality, practically useful and user friendly. The bio-assessment of water quality has been incorporated into curriculum at university level and has had a high profile with decision makers.
Darwin Course in Botanic Garden Education. (4-069)	The UK partners for this project are the Botanic Garden Conservation International (BGCI) and	● Teacher training workshops ● Creation of environmental education resources	The project introduced new innovative ways of delivering environmental education.
Darwin Scholars at the University of Strathclyde.	The UK partner was the World Wild Life Fund for Nature (WWF)	● Training teacher trainers, teachers, curriculum developers,	This was one of the first environmental education courses in the UK and the project was effective in

(3-046)	working with Jordan Hill College, Strathclyde University, UK to provide financial support for eight Darwin Fellows on the certificate course in Environmental Education at Jordan Hill College.	and conservation educators in the approaches to incorporating environmental education into education systems in their own countries	empowering educators to develop environmental education initiatives in their home countries
Sea Horse Ecology Study (3-197)	A collaborative project between the Institute of Oceanography, Vietnam and McGill University, Canada sought to ensure the long term persistence of seahorse populations while respecting the needs of the human communities that depend on them by ensuring the trade is sustainable. Seahorses are exploited around the world for Chinese Traditional Medicines, aquariums and curios. Demand, especially from China, has increased in recent years and Vietnam is a major supplier.	● An effective communication network was established between fisheries, local government, communities and schools to determine community needs ●The initiative received good media coverage throughout Asia, including the Japanese television network.	Seahorse aquaculture has been established and to help support the community in the long term. Cooperation at a local level has helped to market environmental education/tourism products as an alternative to over-exploitation Since the project there has been a sustained population of seahorses in Vietnam

Annex 4

PROGRAMME OF WORK FOR THE GLOBAL INITIATIVE ON COMMUNICATION, EDUCATION AND PUBLIC AWARENESS (CEPA)

It is recognized that:

a. The concept of biodiversity poses particular communication and education challenges due to its comprehensiveness, complexity and ill-defined nature;

b. Key actors in the implementation of the Convention on Biological Diversity need effective technical instruments to engage major stakeholders and to convey the appropriate messages to mainstream biodiversity;

c. Despite repeated stated support for education and public awareness, education and communication instruments fail to be effectively utilized in the processes of the Convention. Education and communication instruments lack appropriate funding and are inadequately advised by relevant professional expertise;

d. Education and communication, as social instruments, work best when part of an instrument mix designed to formulate, implement and manage the national biodiversity strategy and action plans;

e. Biodiversity conservation, sustainable use and equitable sharing call for social change. Education and public awareness are long-term investments towards this change. At the same time, biodiversity issues need to be communicated effectively to ensure the participation of major stakeholders from different sectors. A distinction must therefore be established between communication strategies, on the one hand, and education / and public awareness on the other. For this reason, the expression communication, education and public awareness is used to refer to both disciplines;

f. The three programme elements contained below represent two strategic priorities: (i) institutional arrangements; and (ii) programmatic priority areas.

PROGRAMME ELEMENT 1

Towards a global communication, education and public awareness network

Operational objectives

1. To establish and manage a global communication, education and public awareness network composed of new information technologies and traditional communication mechanisms;

2. To stimulate the creation of national, subregional and regional communication, education and public awareness networks;

3. To create synergy between existing networks relevant to communication, education and public awareness.

Proposed actions

1. Develop an electronic portal and an alternative information dissemination mechanism towards the establishment of a global network on communication, education and public awareness, building on, where possible, existing initiatives. / The portal will be composed of new communication tools and resources including Internet-based technologies, CD-ROMs, DVDs, etc. The alternative information dissemination mechanism will use traditional media such as brochures and pamphlets and other communication modes such as theatre, music and dance. Using Internet-based and traditional information resources, this global network will:

    a. Make visible the expertise in biodiversity communication and education including communication, education and public awareness training databases;

    b. Stimulate moderated electronic discussions on issues of interest to communication, education and public awareness professionals;

    c. Link the portal to other networks and websites on communication and education, for example, those of the Convention on Wetlands (Ramsar, Iran, 1971), the United Nations Framework Convention on Climate Change, etc.;

    d. Provide access to relevant projects and publications;

    e. Link with established learning institutions and centres of excellence to ensure the quality of products and materials;

    f. Stimulate and provide means for people to find those working on similar projects, problems or issues;

g. Create access to standards of best practices;

h. Ensure that the global network is service- and demand oriented;

i. Promote communication and public awareness at the community level.

2. Identify potential partners and stakeholders:

   - Create a registry of education and communications experts, organizations and networks (governmental; non-governmental; indigenous; religious; sectoral - business and industry, agriculture, fisheries, forests, tourism; media).

Beneficiaries

Parties, coordinators of national biodiversity strategies and action plans, educators, communicators, non-governmental organizations and governmental implementing agencies.

Expected results 1. The communication, education and public awareness global network for networking is operational and linked to the clearing-house mechanism; 2. Lists of networks and contact addresses, available on the Internet and on CD-ROMs; 3. Enhanced communication and knowledge exchange nationally and regionally;

Lead organization

Secretariat of the Convention, in cooperation with IUCN-the World Conservation Union.

Partners

Parties, UNESCO, UNEP, the IUCN Commission for Education and Communication, the International Union of Biological Sciences (IUBS), the Convention on Wetlands (Ramsar, Iran, 1971).

Time frame

Three years.

Budget

Phase 1: $250,000 first year; $100,000 each subsequent year;

Phase 2: Establish phase 2 budget as part of the review process by the Conference of the Parties at its seventh meeting.

PROGRAMME ELEMENT 2

Exchange of knowledge and expertise

Operational objectives

1. To enhance exchange of knowledge and expertise among professionals, enhancing development and innovation on communication, education and public awareness;

2. To meet knowledge needs of Parties and other stakeholders for Article 13.

Proposed actions

1. Document and analyse national reports from the Parties on communication, education and public awareness to develop needs for communication, education and public awareness support;

2. Identify links and provide searchable means to access biodiversity knowledge through the clearing-house mechanism;

3. Research, collect and exchange communication, education and public awareness projects and case-studies through the world Wide Web, workshops, CD-ROMs, and publications;

4. Sharing knowledge about tools and criteria for best practices;

5. Provide copyright free graphics and materials, subject to available funding, for adaptation;

6. Develop the global network in programme element 1 to facilitate actions in programme element 2.

Beneficiaries

Parties, coordinators of national biodiversity strategies and action plans, governmental implementing agencies, educators, communicators, non-governmental organizations.

Expected results

1. Biodiversity communication and education solutions for practitioners and parties and stakeholders;

2. Professional exchange of expertise made more accessible.

Lead organization

Secretariat of the Convention on Biological Diversity, in cooperation with UNESCO and IUCN.

Partners

Parties, UNEP, IUBS.

Time frame

Three years.

Budget

$400,000 per annum ($1.2 million total).

PROGRAMME ELEMENT 3

Capacity-building for communication, education and public awareness

Operational objectives

1. Develop capacity of the Parties to market biodiversity to other sectors, and mainstream biodiversity into the work of other sectors;
2. Develop professional capacity of educators and communicators;
3. Enhance stakeholder participation and community development though communication, education and public awareness.

Proposed actions

1. Create and deliver training programmes including: courses help desks, coaching, manuals, check lists, exchange on application of methods to work with stakeholders;
2. Establish system for professional exchanges;
3. Promote twinning programmes;
4. Establish a distance-learning programme on communication, education and public awareness;
5. Improve synergies between communication, education and public awareness research and practice;

6. Build capacity to evaluate and define principles for the evaluation of good communication, education and public awareness practice;
7. Develop appropriate sets of tools for communicators on biodiversity;
8. Establish partnerships with journalists and broadcasters engaged in communicating biodiversity related issues through the mass media;
9. Build capacity for fund-raising.

Beneficiaries

Parties, coordinators of national biodiversity strategies and action plans, educators, communicators, non-governmental organizations, governmental implementing agencies.

Expected results

1. A range of individuals and institutions with an enhanced understanding of the needs, methods and mechanisms of stakeholder participation;
2. A range of individuals and institutions with capacity to plan and manage biodiversity communication and education;
3. Communicators pack - set of tools (among others);
4. Online training course in communication (among others);
5. Greater access at the community level to communication and public education and awareness programmes, courses and resources.

Lead organization

Secretariat of the Convention on Biological Diversity, with the cooperation of UNEP, UNESCO, UNDP, the United Nations Institute for Training and Research (UNITAR), IUCN and WWF.

Partners

Parties.

Time frame

Three years.

Budget

$300,000 per annum ($900,000 total).

Annex 5. Current best practice trends and principles

From "The rules of the game – principles of climate change communication"

Blowing away the myths

- Don't rely on concern about children's future
- Don't rely on concern about human survival instincts
- Don't create fear without the possibility of meaningful action – create AGENCY
- Don't attack or criticise home or family
- Don't rely on a "love of nature"
- Forget those who say that the planet is not in a mess
- Forget that there is a "rational man"
- Information alone can not work.
- Saving money is not that great a motivator

A new way of thinking

- Sustainable development must be in the "front of mind" for people before persuasion works
- Use peripheral messages as well as central ones (Kate Winslett at a bus stop!)
- Link sustainable development to positive desires and aspirations
- Use those who influence others and social learning
- Confronting people with the difference between their attitude and actions is ore likely to result in changes of attitudes not new actions

Linking policy and Communications

- Everyone must use clear and consistent explanation of sustainable development
- Government policy and communications on sustainable development must be consistent

Audience principles

- Create the agency – the possibility for effective action
- Make sustainable development a "home" not an "away" issue
- Raise the status of action to help sustainable development
- Target specific groups

Style Principles

- Create a trusted, credible and recognised voice on sustainable development
- Use emotions and visuals

Effective Management

- The context affects everything
- The communication must be sustained over time
- Make partnerships in the delivery of the message

From "Painting the Town Green".

- Present the environment as important not just for the environment's sake – but for peoples sake
- Move away from exhortation and "I know best" to create a real dialogue
- Move away from a modus operandi of information provision and rational argument to methods aimed at touching emotions, stimulating resonance, inspiring and creating desire.
- Aim to dispel the green image of negativity and doom and instead focus on positivity, optimism and a bright green future.
- Agree with a vision of the future and make sure that it isn't hopelessly unobtainable.
- Look for tangible close to home benefits from environmental actions for individuals.
- Create Agency – the ability for people to understand the problems and do something about them in their own way.
- Create a sense of every little counts and do away with the "I can't do everything so I wont do anything" attitude.
- Aim to develop brands – packages of environmentally friendly behaviours
- Focus on campaigns and calls for behaviour change on what works for the people to be targeted.
- Stop pretending that the environment is the only thing that should matter to people. Wrap the environment up with other families of visionary causes.
- Work towards providing "green living on a plate" as easy as booking a holiday.
- Aim to create a "bandwagon environmentalism" with a sense of joining in – or missing out if you don't.
- Court influential role models
- Make more effort to get into popular culture and probe opportunities for soft messaging
- Wide your green movement to embrace people who understand people behave as they do – and not just the traditional "campaigners".
- Build bridges with faiths
- Spend more time to achieve change by working within and with established realistic political processes rather than outside and against.

Futerra - www.futerra.org
Green Engage – www.green-engage.co.uk

Annex 6 List of the 45 Project respondents

Project	Title	Countries
15-016	Habitat Restoration and Sustainable Use of Southern Peruvian Dry Forest	Peru
15-032	Conserving a Flagship Steppe Species the Critically endangered Sociable Lapwing	Kazakhstan, Russia, India, Turkey
14-002	Environmental Education programme promoting biodiversity in Socotra, Yemen	Yemen
14-012	Iimbovane Outreach programme. Exploring South African biodiversity and change	South Africa
14-021	Large Carnivore Education Centre in the Pirin Montains	Bulgaria
14-026	Horticulture and Education for conservation in Nezahat Gokyigit Botanik Bahceisi	Turkey
14-027	Enabling the people of Montserrat to conserve the Centre Hills	Montserrat
14-028	Conservation of Puna's Andean Cats across National Borders	Argentina, Chile & Bolivia
14-038	Ha Long Bay Environmental Awareness Program	Vietnam
14-040	Developing a sustainable network for primates in Ecuador (PRIMENET)	Ecuador
14-041	Strengthening the Indian Bird Conservation Network to safeguard key sites	India
14-044	Building a Bird Conservation and environmental network in China	China
14-046	Sustainable Tourism in the Srepok Wilderness area in Cambodia	Cambodia
14-052	Caspian Biodiversity Education (Iran, Azerbaijan, Russian Federation, Kazakhstan, Turkmenistan)	Caspian States
13-009	Ethnobiology of proposed traditional uses of zones of Crocker Range Park	Malaysia (Sabah)
13-012	Integrated River Basin Management (IRBM) in the Sepik River	Papua New Guinea
12-002	Capacity building for monitoring and managing the bush-meat trade in Gabon	Gabon
12-003	Flamingo Conservation and Ramsar site management at lake Borgia Kenya	Kenya
12-009	Darwin Field Station for Biodiversity Research Training, the Gambia	Gambia
12-010	Empowering the people of Tristan de Cunha to implement the CBD	Triatan de Chuna
12-021	Marine Biodiversity Assessment and Development in Las Perlas archipelago, Panama	Panama
12-024	Institutional capacity building and training, Royal Botanic Garden Serbithang, Bhutan	Bhutan
12-025	Building constituencies for site based conservation in Myanmar	China
12-028	Using Saiga Antelope conservation to improve rural livelihoods	Kazakhstan
12-029	The Steppe Forward Programme: training conservationists for Mongolia's future	Mongolia
12-032	Supporting the development of nature conservation education in Bulgaria	Bulgaria
11-009	Painted Hunting Dog conservation through education and development	Zimbabwe
11-018	Aztecs and Axolotls: Integrating conservation and tourism at Xochimilco Mexico	Mexico

Project	Title	Countries
11-024	School Green Land Community Biodiversity Awareness of Kyrgyzstan	Kyrgyzstan
10-002	People and Plants – training Darwin Mentors in India	India
10-006	Propagation, nursery and establishment protocols for Seychelles endemic plants	Seychelles
10-022	Bay Long Awareness project	Vietnam
9-007	Schools and Communities monitoring and protecting Biodiversity in Slovakia	Slovakia
9-009	Development of a Biodiversity Action plan for Bermuda	
9-010	Terrestrial Invertebrate Biodiversity in Galapagos: Training and Collection Rehabilitation	Ecuador
9-011	Give a hand to nature – biodiversity training and capacity building in Bulgaria	Bulgaria
9-012	Conservation of the Paguyaman forest in North Sulawesi, Indonesia	Indonesia
7-069	Ecological Education in Bulgaria	Bulgaria
7-083	Training in Polish Botanic Gardens	Poland
7-009	Education and Training materials for South Africa Botanic Gardens	South Africa
7-104	Coral reef biodiversity in the Caribbean- schools project and resources	Caribbean
6-014	Conserving Vietnam's Biodiversity Through Improved Water Quality assessment and monitoring	Vietnam
4-069	Darwin course in Botanic Garden Education	India
3-046	Darwin Scholars at the University of Strathclyde	UK
3-197	Seahorse Ecology	Vietnam